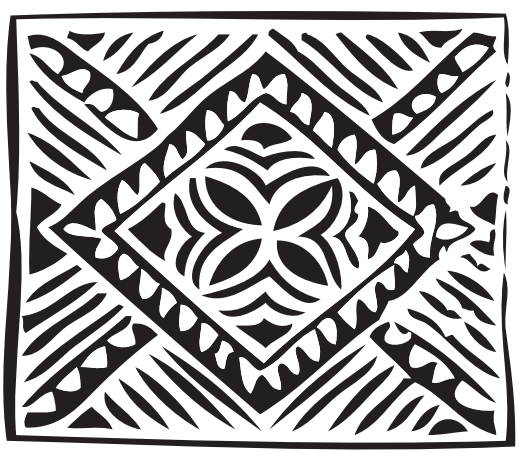
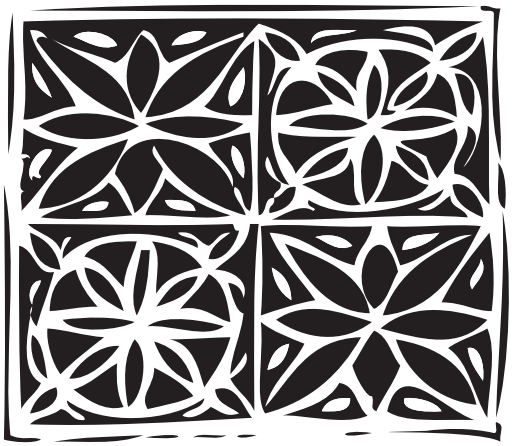
Samoa





Demographic and Health Survey

2009

Samoa
Demographic and Health Survey
2009

Ministry of Health
Apia, Samoa

Samoa Bureau of Statistics
Apia, Samoa

ICF Macro
Calverton, Maryland, USA

June 2010

This report summarizes the findings of the 2009 Samoa Demographic and Health Survey (SDHS) carried out by the Ministry of Health in collaboration with the Samoa Bureau of Statistics. ICF Macro provided technical assistance for the survey through a contract with the Ministry of Health. Funding for the SDHS was received from the government of Samoa, the International Development Association (IDA), the Australian Agency for International Development (AusAID) and the New Zealand Agency for International Development (NZAID).

Additional information about the survey may be obtained from the Ministry of Health, Private Bag, Apia, Samoa (Telephone: 685-68102; Fax: 685-23483, email: CEO@health.gov.ws).

Additional information about the DHS program may be obtained from ICF Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, U.S.A. (Telephone: 1.301.572.0200; Fax: 1.301.572.0999; e-mail: reports@measuredhs.com).

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FOREWORD

The 2009 Samoa Demographic and Health Survey (SDHS) is a national survey covering all four regions of the country. The survey was designed to collect, analyze, and disseminate information on housing and household characteristics, education, maternal and child health, nutrition, fertility and family planning, gender, and knowledge and behaviour related to HIV/AIDS and sexually transmitted infections (STIs).

The 2009 SDHS is the first DHS survey to be undertaken in Samoa both by the health sector and for an improved health system. The planning and implementation of the survey was carried out jointly by the Samoa Bureau of Statistics (SBS) and the Ministry of Health (MOH) with the technical assistance and guidance of ICF Macro. The Ministry of Women, Community and Social Development assisted by facilitating community support for the survey through village mayors.

The MOH is grateful to the Samoa Bureau of Statistics for their valuable partnership in conducting the SDHS fieldwork and making arrangements with village communities that were selected for data collection. The MOH is also grateful to the government of Samoa, the World Bank/International Development Association (IDA), the Australian Agency for International Development (AusAID), and the New Zealand Agency for International Development (NZAID) for providing funding for the survey. The MOH is also grateful to the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) for support during 2009 SDHS final report writing.

The MOH further acknowledges the technical assistance by ICF Macro during the preparation and finalization of the survey instruments, training of fieldworkers and data entry operators, creation of the sample design and weighting, and final report writing.

As the Minister of Health I extend our appreciation to all who participated directly or indirectly in the SDHS survey: the final report contributors, the field staff, and the other survey personnel whose names appear in Appendix D.

I especially appreciate the cooperation of all the survey respondents for making the 2009 SDHS a success.

It is my hope that this report will be useful for advocacy and results-oriented decision-making and help to inform service delivery. This report provides only a snapshot of the analysis that can be done with the data that have been collected. It is my sincere hope that researchers will deepen their understanding of the topics covered in the survey by undertaking further research with the survey data set.

Gatoloaifaana Amataga Alesana Gidlow
Hon. Minister of Health

MESSAGE FROM THE DIRECTOR GENERAL OF HEALTH / CEO MOH

The role of the Ministry of Health in the Health Sector is changing as a result of major structural reforms initiated in 1998 and culminated in the physical and technical separation of the MOH on 1st July 2006. This evolution of organizational and technical change is currently under implementation.

The MOH Act 2006 formalizes the reformed role of the Ministry of Health to provide regulatory oversight of the health sector, including operational budgets and human resources, monitoring of health system performance as well as health promotion and primordial prevention, all of which warrant a high degree of accurate and credible information system.

The Samoa 2009 Demographic and Health Survey is a major achievement for the Ministry of Health to realize its mandated monitoring role for health system performance in Samoa. It is also a respond to the increasing demand from development partners to have baseline data and information in place, not only to guide the prioritization of Health Sector Wide Approach Program activities; but also as a measure to any SWAP outcomes and impacts.

This DHS provides key data for planning, monitoring and evaluating programs in population health areas such as maternal and child health, family planning, etc and these are crucial in enhancing the monitoring and regulatory role of the Ministry of Health in the health sector.

I am privileged to be the Director General of Health and Chief Executive Officer of the Ministry of Health at a time when the first ever Demographic and Health Survey was implemented and successfully completed.

The credit therefore goes to all our Government and Non Government Alliances, Development Partners, the Samoan Communities and more specifically the Ministry of Health, Strategic Development and Planning Division staff who capitalized on the professional collaboration of the Samoa Bureau of Statistics as well as Macro International Ltd (Measure DHS USA) to make this a reality.

I urge the MOH, all health service providers and health sector partners to make full use of this DHS in order to strengthen the Samoa Health System for better health outcomes and universal coverage.

Palanitina Tupuimatagi Toelupe
Director General of Health/CEO MOH

CONTENTS

TABLES AND FIGURES

CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY

CHAPTER 7 FERTILITY PREFERENCES

CHAPTER 8 INFANT AND CHILD MORTALITY

CHAPTER 9 MATERNAL HEALTH

CHAPTER 10 CHILD HEALTH

CHAPTER 11 NUTRITION OF CHILDREN AND ADULTS

CHAPTER 12 HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

CHAPTER 13 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

SUMMARY OF FINDINGS

The 2009 Samoa Demographic and Health Survey (2009 SDHS) is a nationally representative sample survey designed to provide information on population and health issues in Samoa. The survey used a two-stage sample based on the 2006 Population and Housing Census (PHC) to produce separate estimates for key indicators for each of the four geographic regions in Samoa. Each household selected for the SDHS was eligible for interview with the Household Questionnaire, and a total of 2,247 households were interviewed. In all of the households selected for the survey, all eligible women age 15-49 were interviewed with the Women's Questionnaire. In addition, all eligible men age 15-54 in every other household (half of all households) selected for the survey were interviewed with the Men's Questionnaire. A total of 3,033 women age 15-49 and 1,689 men age 15-54 were interviewed. Data collection took place from early August to early September 2009.

The survey obtained detailed information on fertility, marriage, sexual activity, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutritional status of women and young children, childhood mortality, maternal and child health, awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs), and knowledge and attitudes toward tuberculosis.

The 2009 SDHS was implemented by the Samoa Bureaus of Statistics (SBS) in collaboration with the Samoa Ministry of Health (MOH). Technical assistance was provided by ICF Macro through the MEASURE DHS programme. Funding for the survey was provided by the World Bank/International Development Association (IDA), the Australian Agency for International Development (AusAID), and the New Zealand Agency for International Development (NZAID). The United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) also provided financial support for the report writing.

Fertility Levels and Trends. The 2009 SDHS findings indicate that a Samoan woman who is at the beginning of her childbearing years will, on average, give birth to 4.6 children by the end of her reproductive period (if fertility levels remain constant at the levels observed in the three-year period preceding the 2009 SDHS). Data from available sources over time show that the TFR in the 1960s and 1970s was very high, around 7 children per woman. According to the 1986 PHC, the TFR dropped to around 5.6 children per woman, and it further declined to 4.8 children per woman according to the 1991 PHC. The 1999 Samoa DHS reported a TFR of 4.5 children per woman. In the subsequent 2001 and 2006 Population and Housing Censuses, the TFRs were 4.4 and 4.2 children, respectively, indicating that fertility decline has stagnated and that the TFR has remained fairly constant over the past 20 years or so. The results of the 2009 SDHS show a slight increase in TFR from 4.2 children per woman in 2006 to the current level of 4.6 children per woman. This suggests that Samoa is going through a protracted demographic transition in which mortality rates have significantly declined but the decline in fertility has stagnated.

Fertility Differentials. Fertility varies by background characteristics. The TFR for rural areas (4.7 births) is higher than the rate for urban areas (4.1 births). The small difference in fertility level between urban and rural areas may be due to better access to reproductive health services for women in urban areas. Among regions, the TFR ranges from 4.1 births per woman in Apia Urban Area to 5.4 births in the Rest of Upolu. Some of these differences may be due to sampling variability, which is quite large because of the small number of respondents in each region. The TFR is highest (5.1 births per woman) among women with secondary education that is incomplete, compared with 4.1 to 4.3 births among women in the other education categories. It is surprising that the TFR is lowest (4.1 births per woman) among women with primary or less education when compared with women with higher education. There is a negative association between fertility and wealth; women living in the poorest households have the highest fertility (5.9 births per woman), and women in the highest wealth quintile have the lowest fertility (4.0 births per woman).

Unplanned Fertility. Overall, 6 percent of births in Samoa are unwanted, and 9 percent are mistimed (wanted later). The proportion of unplanned births is highest for women age 15-19, amongst whom one in four births was either mistimed (17 percent) or unwanted altogether (8 percent). Also women of age 40-44 experience relatively high rates of unplanned births, with 22 percent of births mistimed (4 percent) or unwanted (18 percent), indicating a high level of desire to terminate childbearing in this age group.

Fertility Preferences. There is considerable desire among currently married Samoans to control the timing and number of births. Fifteen percent of currently married women and 28 percent of currently married men would like to wait for two or more years for the next birth, while 52 percent of women and 43 percent of men do not want to have another child. If one were to add to these values the 7 percent of currently married women and the 3 percent of currently married men who are sterilized, about three-fourths of currently married Samoan women (74 percent) and men (73 percent) want to delay or limit their next birth. The similar high proportions of women and men who desire to delay or limit the next birth convey a clear message for population and family planning experts in Samoa.

Knowledge of Contraception. Knowledge of any contraceptive method is high in Samoa, with 71 percent of all women and 83 percent of all men knowing at least one method of contraception. Among currently married women, 85 percent know at least one method of contraception compared with 71 percent of all women, 84 percent know a modern method compared with 70 percent of all women, and 34 percent know a traditional method compared with 27 percent of all women. Among modern methods, injectables are most commonly known by currently married women (74 percent), followed by the pill (69 percent), female sterilization (39 percent), and the female condom (38 percent). Emergency contraception is known by 6 percent of currently married women. Implants are the least known modern method (4 percent).

Use of Contraception. At the time of the 2009 SDHS, 29 percent of currently married women were using some method of contraception. Modern methods of contraception account for almost all the use, with 27 percent of married women reporting use of a modern method, compared with only 2 percent currently using a traditional method. Injectables (used by 14 percent of currently married women), female sterilization (used by 7 percent of currently married women), and pills (used by 6 percent of currently married women) are the most widely used modern methods. Looking at traditional methods, rhythm is used by 1 percent of currently married women, while withdrawal and folk method are used by less than 1 percent each.

Trends in Contraceptive Use. Overall contraceptive use among all women in Samoa has decreased somewhat over the past decade. Current use of any contraceptive among all women age 15-49 has decreased from 25 percent in 1998 (1998 Reproductive Health Knowledge and Services Survey) to 18 percent in 2009 (2009 SDHS), and current use of modern contraceptive methods has decreased from 23 percent in 1998 to 17 percent in 2009. The decrease in current use is observed for all age groups.

Differentials in Contraceptive Use. There is almost no difference in current use of contraception by urban-rural residence. However, women in rural areas are more likely to use injectables (15 percent) than those residing in urban areas (9 percent). Contraceptive prevalence is slightly lower among women residing in Savaii (26 percent) compared with women from other regions (29-30 percent). However, looking at specific methods, the lowest use of injectables is in the Apia Urban Area (9 percent) compared with 14-16 percent among women in other regions. The current use of any contraceptive method tends to increase with women's education; it is lowest among women with primary or less education (21 percent) and highest among those with vocational or higher than secondary education (30 percent). Use of any method of contraception does not have a clear relationship with wealth status.

Source of Modern Methods. In Samoa, the vast majority of users (93 percent) obtain their contraceptive methods from the public sector. Government hospitals are the most common public source (55 percent), followed by family planning clinics (21 percent) and government health centres (17 percent). Very few women (1 percent) use the private medical sector to obtain their contraceptive methods. The two main providers of contraception in the private sector are private medical centres and peer trainers.

Four percent of women who are using a modern method of contraception get their method from other sources, mostly from overseas (3 percent).

Unmet Need for Family Planning. Forty-six percent of currently married Samoan women have an unmet need for family planning. The unmet need for limiting (25 percent) is greater than the unmet need for spacing (20 percent). Overall, about three in ten currently married women are using a method of contraception (9 percent for spacing births and 20 percent for limiting births). The total demand for family planning among women is 74 percent (29 percent for spacing births and 46 percent for limiting births). Only 39 percent of the demand for family planning is currently being met, which implies that the contraceptive needs of about half of currently married women are not being met.

Maternal Health

Antenatal Care. The survey shows that over nine in ten women (93 percent) who had a live birth in the five years preceding the survey received antenatal care from a health care provider (doctor, nurse, midwife, or nurse aide) during the pregnancy of the most recent birth. This percentage increases to 96 percent when one includes traditional birth attendants (TBAs) as providers. Coverage is almost uniformly high among mothers regardless of their various background characteristics. Overall, only 4 percent of pregnant women did not see anyone for prenatal care during their most recent pregnancy in the past five years.

Neonatal tetanus is a leading cause of neonatal death in developing countries where a high proportion of deliveries occur at home or in places where hygienic conditions may be poor. Tetanus toxoid (TT) vaccinations are given to pregnant women to prevent neonatal tetanus. The survey results show that, for the most recent live birth in the five years preceding the survey, only one in four women in Samoa receive two or more tetanus injections during pregnancy, and only 31 percent of births are protected against neonatal tetanus.

Delivery Care. The majority of births in Samoa (81 percent) are delivered in a health facility, and mostly in public sector facilities (79 percent). Only 18 percent of births take place at home. The results also show that that virtually all births (97 percent) in Samoa are delivered with the assistance of a trained health professional (doctor, nurse/midwife, nurse aide, or traditional birth attendant. More specifically, 81 percent of births are delivered with the help of a health care provider, such as a doctor, nurse/midwife, or nurse aide, while one in six deliveries (16 percent) is assisted by a TBA. Very few births (2 percent) are assisted by a relative, a friend, or someone else, and less than 1 percent of all births are delivered without any type of assistance at all.

Postnatal Care. Postnatal coverage is relatively low in Samoa. Data show that four in ten mothers (41 percent) receive postnatal care within the first 4 hours after delivery, about one in six (17 percent) receive postnatal care 4 to 23 hours after delivery, and fewer than one in ten (8 percent) receive care 1 to 2 days after delivery. Overall, 66 percent of mothers in Samoa receive a postnatal check-up within the recommended 48 hours after delivery. Three in ten mothers (29 percent) do not receive any postnatal care within 41 days after delivery, which marks almost the end of the 6-week postnatal period.

Child Health

Childhood Mortality. The reported level of under-five mortality in the 2009 SDHS is 15 deaths per 1,000 births during the most recent five-year period before the survey. This implies that at least 1 in every 66 children born in Samoa during the period died before reaching a fifth birthday. The infant mortality rate recorded in the survey for the same period is 9 deaths per 1,000 live births.

The 2006 Population and Housing Census recorded an infant mortality rate of 20 per 1,000 live births in the 12 months prior to the census date. This is an indication that the number of reported births and deaths in the SDHS was not sufficient to give reliable mortality estimates. The Samoa Bureau of Statistics faced the same problem in the Vital Sample Surveys in 1999 and 2000. Death is generally a painful experience that most mothers prefer not to recall, especially the death of a newborn or young child. The SDHS childhood mortality rates are very likely underestimates and must, therefore, be treated with great care.

Childhood Vaccination Coverage. Overall, 25 percent of children age 18-29 months in Samoa are fully immunized with all basic vaccinations at any time before the survey. Only 15 percent of children received no vaccinations.

Looking at coverage for specific vaccines, 84 percent of children have received the BCG vaccination, 77 percent have received the first DPT dose, and 74 percent have received the first polio dose. While the coverage for the first dose of DPT and polio is relatively high, coverage declines for subsequent doses of DPT and polio; only 38 percent of children received the recommended three doses of DPT, and 34 percent received three doses of polio, reflecting dropout rates of 51 percent for DPT and 54 percent for polio. Sixty-three percent of children received at least one dose of the measles vaccine, and 70 percent were vaccinated against hepatitis B at birth.

Child Illness and Treatment. Among children under five years of age, 2 percent were reported to have had symptoms of acute respiratory illness (ARI) in the two weeks preceding the survey. About nine in ten children with symptoms (87 percent) were taken to a health facility or provider for treatment. Over half (54 percent) of children under five years who had ARI symptoms in the two weeks before the survey were reported by their mothers to have been given antibiotics for the illness.

About one in five children under age 5 (19 percent) had a fever in the two weeks preceding the survey. More than six in ten children with fever (64 percent) were taken to a health facility or provider for treatment. Over one-third of children with fever are given antibiotics (38 percent). One in four children with fever in the last two weeks was given panadol or paracetamol for their fever. The Samoa Ministry of Health policy requires that antibiotics be prescribed by trained health personnel after proper diagnosis. Consequently, it is not recommended that households stock antibiotics at home. However, the SDHS data show that in 45 percent of the cases when children had a fever and were given an oral antibiotic (pills or syrup), the antibiotic was already available at the home.

Only 5 percent of children in Samoa had diarrhoea in the two weeks before the survey, and virtually none had diarrhoea with blood, a symptom of dysentery. More than two-thirds of the children who were ill with diarrhoea were taken to a health facility or provider (68 percent). Mothers reported that more than nine in ten children with diarrhoea (91 percent) were treated with some form of Oral Rehydration Therapy (ORT) or increased fluids. ORS was given to 68 percent of children, recommended home fluids (RHF) made with salt and sugar were given to 39 percent of children, and coconut juice was given to 42 percent of children. A relatively high proportion of children with diarrhoea are treated with home remedies (27 percent). Only 3 percent of children with diarrhoea did not receive any treatment at all.

NUTRITION

Breastfeeding Practices. The results indicate that 92 percent of children born in the past five years have been breastfed at some time. For last-born children who were breastfed, 88 percent started breastfeeding within one hour of birth and 97 percent started breastfeeding within the first 24 hours after delivery. Exclusive breastfeeding is recommended by the World Health Organisation through the age of 6 months, but in Samoa only about half (51 percent) of children under 6 months are exclusively breastfed. Overall, the median duration of breastfeeding in Samoa is 21 months and the median duration of exclusive breastfeeding is 4 months.

Infant and Young Child Feeding (IYCF). Infant and young child feeding (IYCF) practices include timely introduction of solid and semi-solid foods beginning at age 6 months, and thereafter increasing the amount and variety of foods and the frequency of feeding as the child gets older, while still maintaining frequent breastfeeding. Guidelines have been established with respect to IYCF practices for children age 6-23 months. Overall, only 40 percent of Samoan children age 6-23 months are fed in accordance with IYCF practices.

Intake of Vitamin A and Iron among Children and Mothers. Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Deficiencies in vitamin A can cause blindness and can increase the severity of infections such as measles and diarrhoea among young children. There is currently no routine vitamin A supplementation of children in place in Samoa. SDHS results show that more than nine in ten (92 percent) children age 6-35

months living with their mother consumed foods rich in vitamin A in the 24 hours preceding the survey.

Iron is essential for cognitive development. Low iron intake can also contribute to anaemia. Iron requirements are greatest between the ages of 6 and 12 months, when growth is extremely rapid. Data show that more than eight in ten (81 percent) children age 6-35 months living with their mother consumed foods rich in iron.

Adequate micronutrient intake by women has important benefits for them and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. In Samoa, the great majority of mothers with young children consume on a daily basis foods that are rich in vitamin A (98 percent). Night blindness is an indicator of vitamin A deficiency that pregnant women are especially prone to experience. Only 5 percent of women with a child born in the past five years reported night blindness during pregnancy for the last birth. When the results were adjusted for blindness *not attributed to vitamin A deficiency during pregnancy*, only 1 percent of women experienced night blindness during their last pregnancy.

Iron supplementation of women during pregnancy protects the mother and infant against anaemia. About nine in ten mothers with young children consume on a daily basis foods that are rich in iron (86 percent). Half of women took some form of iron supplementation during the pregnancy of their most recent birth, and among them, 44 percent reported taking supplements for less than 60 days. Only 3 percent of pregnant women take iron supplements for 90 days or more.

HIV/AIDS

Awareness of HIV/AIDS. Knowledge of HIV/AIDS is quite high in Samoa: 85 percent of women and 87 percent of men have heard of HIV/AIDS. Nevertheless, the 2009 SDHS results indicate that only 4 percent of women and 7 percent of men have a comprehensive knowledge of HIV/AIDS prevention and transmission, that is, (1) they know that consistent use of condoms during sexual intercourse and having just one faithful, HIV-negative partner can reduce the chances of getting HIV/AIDS, (2) they know that a healthy-looking person can have HIV (the virus that causes AIDS), and (3) they reject two of the most common local misconceptions about the transmission of AIDS in Samoa—namely, that the AIDS virus can be transmitted through mosquito bites and that it can be transmitted by the saliva of a person who has HIV or AIDS.

General knowledge of HIV transmission during breastfeeding is high: 76 percent of women and 70 percent of men know of the risk of mother-to-child transmission of HIV through breastfeeding. However, only about one in three women (31 percent) and men (34 percent) know that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy.

Attitudes towards People Living with HIV/AIDS. It is encouraging to see that 65 percent of women and 77 percent of men would be willing to care in their home for a family member sick with AIDS. Furthermore, more than eight in ten women (84 percent) and nine in ten men (90 percent) would not want to keep secret the fact that a family member has an HIV infection. These results indicate that individuals are generally supportive about providing a caring environment for their family members if they were to become infected with the HIV.

On the other hand, only 16 percent of women and 27 percent of men said that they would buy vegetables from a shopkeeper with AIDS. Additionally, only 6 percent of women and 7 percent of men said that a female HIV-positive teacher who is not sick should be allowed to continue teaching. Data further show that 82 percent of women and 73 percent of men say that they would not share a meal with a person who has HIV. Eighty-five percent of women and 96 percent of men say that all newcomers to Samoa should be required to take a test for HIV. Seventy-three percent of women and 88 percent of men believe that it should be a criminal offence to knowingly pass HIV onto someone else. About six in ten women and more than seven in ten men say that they think the names of all persons with HIV should be displayed in public places for everyone to see. Finally, about four in ten women and seven in ten men believe that people with HIV or AIDS should be ashamed of themselves, and four in ten women and six in ten men believe that they should be blamed for bringing the diseases to the community.

MILLENNIUM DEVELOPMENT GOAL INDICATORS

Goal	Indicator	Value		
		Male	Female	Total
2. Achieve universal primary education	2.1 Net attendance ratio in primary school[1]	88.0	89.1	88.5
	2.2 Percentage of pupils starting grade 1 who reach grade 5	99.1	100.0	99.5
	2.3 Literacy rate of population age 15-24	97.0	99.0	98.4
3. Promote gender equality and empower women	3.1 Ratio of girls to boys in primary, secondary, or higher school	na	na	91.0
	3.2 Share of women in wage employment in the non-agricultural sector	na	na	53.9
4. Reduce child mortality	4.1 Under-five mortality rate (per 1,000 live births)	16	13	15
	4.2 Infant mortality rate (per 1,000 live births)	11	8	9
	4.3 Percentage of children one year of age immunized against measles[3]	48.0	58.5	53.6
5. Improve maternal health	5.2 Percentage of births attended by skilled health personnel[4]	78.6	83.0	80.8
	5.3 Contraceptive prevalence rate (any contraceptive method, currently married women age 15-49)	na	28.7	28.7
	5.4 Adolescent birth rate (per 1,000 women age 15-19)	na	na	44
	5.5 Antenatal care coverage (at least one visit)[5]	na	na	92.7
	5.5 Antenatal care coverage (four visits)[6]	na	na	58.4
	5.6 Unmet need for family planning (among currently married women age 15-49)	na	45.6	45.6
6. Combat HIV/AIDS, malaria and other diseases	6.3 Percentage of population age 15-24 with correct comprehensive knowledge of HIV/AIDS[7]	5.8	3.0	3.8
		Value		
		Urban	Rural	Total
7. Ensure environmental sustainability	7.8 Percentage of population using improved drinking water sources, urban and rural (de jure population)[8]	98.6	97.5	97.7
	7.9 Percentage of population using improved sanitation facilities, urban and rural (de jure population)[9]	94.3	94.0	94.1

na = Not applicable

[1] 2009 SDHS data are based on reported attendance, not enrolment, for children age 5-12 years.

[2] Refers to respondents who attended secondary school or higher or who can read a whole sentence in English

[3] 2009 SDHS data are based on children age 18-29 months.

[4] Among all births in the past 5 years. Skilled provider includes doctor, nurse, midwife, and nurse aide.

[5] Among last births in the past 5 years. Skilled health personnel include Skilled provider includes doctor, nurse, midwife, and nurse aide.

[6] Among last births in the past 5 years. Four or more visits to any provider, whether skilled or unskilled

[7] A person is considered to have comprehensive knowledge about HIV/AIDS when s/he knows that consistent use of a condom during sexual intercourse and having just one HIV-negative and faithful partner can reduce the chances of getting HIV, knows that a healthy-looking person can have HIV, and rejects the two most common misconceptions about HIV, i.e., that HIV can be transmitted by mosquito bites and a person can become infected from the saliva of a person who has HIV or AIDS.

[8] Proportion whose main source of drinking water is a household connection (piped), public standpipe, tubewell or borehole, protected dug well or spring, or rainwater collection

[9] Improved sanitation facilities are a flush toilet, ventilated improved pit (VIP) latrine, traditional pit latrine with a slab, and composting toilet.

SAMOA


Pacific Ocean
Savaii
Apia
Urban Area
North West
Upolu
Rest of
Upolu
0
25
50
100 Kilometers

INTRODUCTION 1

1.1 GEOGRAPHY, HISTORY, AND ECONOMY

1.1.1 Geography

The Independent State of Samoa consists of two main islands--Upolu and Savaii--as well as the smaller islets of Apolima, Manono, Fanuatapu, Namua, Nuutele, Nuulua, and Nuusafee. Only Upolu, Savaii, Manono, and Apolima are currently inhabited.

Samoa is located between latitudes 13 degrees and 15 degrees south and longitudes 171 degrees and 176 degrees west. The two largest islands of Savaii and Upolu are 1,820 square kilometres and 1,114 square kilometres, respectively (Samoa Bureau of Statistics, 2008). The islands of Samoa belong to the Samoan Islands archipelago in the South Pacific Ocean. They feature a rugged mountain range of volcanoes, including Mount Matavanu, which erupted in the 1900s. Mount Silisili is the highest point of Savaii at 1,800 metres. The eastern area is flat and fertile. Twenty kilometres southeast of the port of Salelologa on Savaii is Upolu, the second largest and most populous island. Like Savaii, it has a near impenetrable interior of mountains and ravines, with its highest point being Mount Fito at just over 1,000 metres in elevation. The climate is continuously hot and humid (Field, 1984, 1991).

Apia, the capital of Samoa, is situated on the main island of Upolu. Upolu's population of 137,599 persons represents 76 percent of the total Samoan population of 180,741 persons. The rest of the Samoan population currently resides in Savaii and totals 43,142 persons or 24 percent of the population (Samoa Bureau of Statistics, 2008). The official languages are Samoan and English, and Samoa has a high English literacy rate of 99 percent for women and 95 percent for men (see Chapter 2).

Samoa is in the centre of the Pacific region and as such is prone to natural disasters. The country was the site of a devastating tsunami in September 2009 that hit the coastal areas of the southeastern part of the island of Upolu and claimed 147 lives. The tsunami was triggered by an 8.1 magnitude earthquake, which struck the islands minutes before the tsunami occurred (MOH, 2009).

1.1.2 History and Governance

The Samoan Islands are believed to have been discovered and settled around 1,000 BC. The Samoans are descendents of Austronesian predecessors from Southeast Asia and Melanesia. The Austronesian migration started in southeastern Asia and moved eastward, reaching the Fiji islands around 1,000 BC. By 200 BC, Samoa was the centre of a flourishing Polynesian community, with trade taking place among Tonga, Fiji, and Samoa.

The Samoan language belongs to the Austronesian language family, said to be the world's largest (Evans, 2010). Samoa was first named the Navigator Islands by French explorer Louis de Bougainville because of its people's impressive navigating skills (Field, 1984, 1991).

As a predominantly Christian society, Samoa has a Congregational Christian church of Samoa, a Roman Catholic church, and a Methodist church, with 34 percent, 20 percent, and 14 percent of the population belonging to these three denominations, respectively (Samoa Bureau of Statistics, 2008).

Samoa was ruled by Germany during the late 19th century until 29 August 1914 when New Zealand troops landed in German Samoa and established a period of colonial rule that was to last for almost 50 years (Field, 1984, 1991). Samoa officially became independent on 1 January 1962 after the successful Mau movement, which ended a period of New Zealand administration. The Mau movement (or opinion movement), established in 1908, was a declaration of pacifism and non-violence and a commitment to democracy. Upon gaining its independence, the country was officially known as

Western Samoa until it was renamed Samoa by a change to the constitution in 1997 (www.parliament.gov.ws).

Samoa is a parliamentary democracy. The parliament consists of the head of state and the legislative assembly. There are 49 members in the legislative assembly, and they are chosen through an electoral vote every five years. The next election is to be held in 2011. To be able to run on the ballot, candidates have to be holders of Matai (Chiefly) titles, with the exception of two members who may represent the non-ethnic Samoans. The head of state holds supreme authority and is elected by the members of parliament for a five-year term. The current head of state, Tuiatua Tupua Tamasese Efi, succeeded the late Malietoa Tanumafili II in 2007. The cabinet has the responsibility to provide general direction and control of the executive government of Samoa and reports to the parliament. The prime minister is chosen by the cabinet. Since 1998, the position of the prime minister has been held by Tuilaepa Sailele Malielegaoi.

Samoa recently made headlines worldwide by becoming one of the first countries in decades to require its citizens to drive on the left side of the road. This mandated change came into effect on 17 September 2009 (www.parliament.gov.ws). The bold road switch was initially a controversial issue because of concerns that it would increase the road accident rate. The main reason behind the road switch was economic; Samoans have access to cheaper, imported right-hand drive cars from its nearest economically developed neighbours, New Zealand and Australia.

1.1.3 Economy

The Samoan economy relies heavily on remittances from overseas, as well as on agriculture, fishery, and tourism industries. With a gross domestic product (GDP) amounting to ST$1,056 million and a GDP per capita of ST$5,842,[1] the economy has experienced a gradual decrease in its wealth as a direct impact of the global financial crisis of 2007 (Ministry of Finance, 2009).

Samoans residing overseas, mainly in New Zealand, Australia, and the United States, contribute tremendously to the economy by remitting funds to their families in Samoa. Remittances make up about 9 percent of the country's GDP. Remittances from emigrants to the three countries make up 31 percent, 27 percent, and 21 percent, respectively, of total remittances (Ministry of Finance, 2009).

Agriculture represents 6 percent of the GDP, making it the leading industry in terms of overall production, followed by the tourism industry, which represents 4 percent of the GDP. Earnings from tourism were negatively affected in late 2009 after the tsunami caused much damage to almost all of the tourist areas around the southwest side of Upolu Island.

1.2 Demographic Profile

There are a number of sources in Samoa that provide diverse demographic information about its population. These include the population and housing censuses, various surveys, and government administrative data. Population censuses collect information related to social, economic, and demographic characteristics of the Samoan population. The most recent Population and Housing Census (PHC) was conducted in 2006. It recorded a total population of 180,741 people, which represents an increase of 3 percent (or 4,031 people) to the population reported in the 2001 PHC of 176,710 people. The 2006 PHC shows a sex distribution of 52 percent male and 48 percent female inhabitants, similar to that of the 1981, 1991, and 2001 censuses (Samoa Bureau of Statistics, 2008).

The population density per square kilometre in Samoa has slightly increased from 63 persons per square kilometre in 2001 to 65 persons per square kilometre in 2006. Samoa has a high total sex ratio (the ratio of males to females in a population). The 2006 census reported a total sex ratio of 108 males to 100 females compared with the worldwide ratio of 105 males to 100 females; and the sex ratio at birth was estimated at 107 males to 100 females. The 2006 census reported that almost half of the people belong to dependant age groups (age 0-14 and 65 or older), and the other half belong to the

[1] ST$ = Samoan Tala (roughly ST$100 = US$30)

working age group (age 15-64). The proportion of the population under age 15 years has decreased slightly from 41 percent in 2001 to 39 percent in 2006, and the proportion age 65 years and above has increased slightly from 4 percent to 5 percent over the same period. The life expectancy at birth in Samoa is 72 years for males and 74 years for females (Samoa Bureau of Statistics, 2008).

1.3 SAMOA HEALTH SYSTEM

The Samoan health system is made up of a modern public and a modern private health sector as well as a traditional health sector. NGOs, academic institutions, communities, and development partners play various roles within these health sectors. At present, publicly funded health services dominate the Samoan health system.

The Ministry of Health (MOH) is responsible for regulatory oversight of the health sector and provides guidance on the policy framework and health priorities of Samoa. The ministry is also responsible for (1) monitoring overall health system performance, (2) disease surveillance, and (3) and basic health promotion and prevention services, including sanitation regulation and services. Major policies and priorities are reflected in the National Health Sector Plan 2008-2018 (MOH, 2008a).

National Health Services is the main publicly funded provider of clinical health care services to the population and includes the national referral hospital (TTM Hospital) in Apia, Upolu, and seven district hospitals throughout the country, including the Savaii hospital (MTII Hospital). Outreach services are provided by the Nursing and Integrated Community Health Services. These services include home-based intermediate care for patients who still need nursing and midwifery care when discharged from hospitals. They also include disease prevention and health promotion activities, such as immunizations and maternal and child health services, offered in health centres. The health centres are located within the local communities and villages that own them. District hospitals offer 24-hour services and serve as clinical centres in rural districts. They are staffed and managed by a multi-purpose team of nurses who are responsible for in-patient, outpatient, and outreach services in their respective districts. The district hospitals are supported as necessary by doctors from Upolu TTM Hospital and Savaii MTII Hospital.

Other important service providers under the regulatory oversight of the MOH include the National Kidney Foundation of Samoa (NKFS)—a government funded service provider—and a range of health-related NGOs (including the Red Cross), which receive government subsidies to finance a part of their operations. Private practitioners, such as doctors in private clinics, and providers operating in the private MedCen Hospital, are also recognized as important service providers within the health sector.

1.3.1 Health Reforms

In the late 1990s, the Samoa Ministry of Health (MOH) undertook a number of health reforms. The reforms focused on the development of national policies and strategic plans, health financing, resource allocation, refurbishment, and institutional strengthening. The newly established National Health Service, which came into effect in July 2006 as a part of health reform, took over the service delivery aspects of health services, except for health promotion and prevention services. The Ministry of Health has taken on a strategic role in regulating and monitoring the health sector.

The health reforms resulted in a National Health Service Plan covering urban and rural areas. This national plan has been a result of the strengthened partnerships among various health sectors, including formal and informal private health sectors, community-based organizations, NGOs, the MOH, and other governmental ministries.

In February 2007, three district hospitals at Poutasi, Safotu, and Lalomanu were constructed and equipped, and a major refurbishment of the Tupua Tamasese Meaole Hospital was completed. This increased the accessibility of the Samoan citizens to higher-level health care services.

During the health reforms, the MOH established the Sector Wide Approach program (SWAp) to improve the coordination of international donor funds and activities and to avoid the duplication of efforts.

1.3.2 Maternal and Child Health Care

Maternal and child health is a priority for the Samoan Ministry of Health. Antenatal care in Samoa is provided by both public and private health professionals at hospitals, clinics and community health centres. Most deliveries occur at public health facilities, including national and district hospitals; at private hospitals; and, in rural areas, in the community health centres. In Samoa there is a strong culture of childbirth assisted by traditional birth attendants (TBAs) whose role has been acknowledged by the Ministry of Health. The MOH has arranged for provision of registered TBA training in order to ensure TBAs practice safely.

Ongoing activities have been implemented in Samoa to promote child health. The Baby Friendly Hospital Initiative (BFHI) inside maternity wards promotes the breastfeeding of newborn babies and the rooming-in. Policies also promote breastfeeding in work places.

Other health promotion activities target road safety and injury prevention, rheumatic fever screening, and strengthening the health promoting in schools programme.

1.4 Sexual Reproductive Health Programme

The Sexual Reproductive Health (SRH) programme is based within the Ministry of Health and plays a coordinating role among the various health sector partners who provide SRH services. The main goals of the SRH programme are to advocate for the development of national policies related to SRH, to help with proper resources for various SRH partners, to establish and monitor professional and service standards, and to provide SRH-related technical advice to the MOH.

1.4.1 Family Planning

The main goal of the family planning program and policy is to avoid unwanted pregnancies and to prevent complications due to closely spaced pregnancies. Family planning services is Samoa are provided at both public and private sector.

The Ministry of Health monitors the whole range of family planning activities, including the family planning education of the population and the supply of contraceptives throughout the country. Contraceptives are also marketed by the private sector. Family planning services in Samoa include provision of counselling be provided to women by health professionals to help them select and properly use contraceptive methods. For the past decade, women in Samoa have been introduced to various modern contraception methods, including injections, pills, intrauterine device (IUD), sterilization, male and female condoms, and implants.

1.4.2 HIV/AIDS and STIs

The close relationship between sexually transmitted infections (STIs) and HIV infection requires that STI control be seen as essential to the prevention and control of HIV infection (MOH, 2008). Communities have received education on STI and HIV prevention methods, treatment options for those infected, and care and support for people living with HIV/AIDS (PLWHA) and their families. A system of STI and HIV infection surveillance and epidemiology and the use of safe blood procedures have also been set up. The STI and HIV/AIDS awareness programs in Samoa also address issues related tithe stigma and misconceptions.

As part of its advocacy role in health promotion and prevention, and in implementing STI and HIV-related primary health care, the MOH continues to work in close collaboration with partners from the private and public sectors, international agencies, and NGOs.

1.5 SYSTEMS FOR COLLECTING DEMOGRAPHIC AND HEALTH DATA

The population and household censuses (PHC) are expensive, require many resources, and take a long time to implement. Sample surveys are conducted between surveys to complement the census data and to accommodate information requirements by various organizations and agencies. Because sample surveys are much less expensive and can be implemented more quickly than censuses, they are conducted at more frequent intervals. The 2009 Samoa Demographic and Health Survey (SDHS) is one example of a sample survey of nationally representative households. Another important source of information is administrative data. Vital registration systems (birth and death registration), health services and systems (e.g., childhood immunisation), and education data (school enrolment) are a few examples.

The Samoa Bureau of Statistics (SBS) is the responsible governmental agency for maintaining and updating the national registration system and for conducting population censuses and household sample surveys. As part of the national registration system, births, deaths, marriages, and divorces are registered at the local administrative level, and aggregated statistics are forwarded to the SBS central office. As mentioned earlier, the last PHC in Samoa was conducted in 2006, and the next PHC is scheduled for 2011.

Collection of health data is primarily the responsibility of the Ministry of Health. Data is provided by the two national referral hospitals, the district hospitals in Upolu and Savaii, and private clinics. The data and information collected from these health information systems are utilized by the MOH to develop evidence-based health policies and plans at the national level. The health information and data are also used to produce reports on various health topics and issues faced by Samoa.

1.6 OBJECTIVES AND ORGANIZATION OF THE SURVEY

The 2009 SDHS is a nationally representative sample survey designed to provide information on population and health issues in Samoa. The primary goal of the survey is to develop a single integrated set of demographic and health data pertaining to the population of Samoa.

The survey was an initiative of the MOH under its Health Sector Wide Approach program (SWAp). The MOH emphasized the importance of conducting a nationally representative survey such as the SDHS to provide a broad range of data to help assess the health and demographic status of the Samoan population and to assist with monitoring and evaluation of various health and population indicators. Furthermore, the SDHS survey should improve the quality and quantity of the health and population data available to the MOH by other sources.

The SDHS was conducted during August and September 2009 by the Samoa Bureau of Statistics (SBS). The SBS worked in close collaboration with the MOH for guidance in areas pertaining to health. ICF Macro provided technical support for the survey through the MEASURE DHS project. Funding for the survey was provided by the World Bank/International Development Association (IDA), the Australian Agency for International Development (AusAID), and the New Zealand Agency for International Development (NZAID). UNICEF and UNFPA also provided financial support for the report writing.

The survey collected national and regional level data on fertility and contraceptive use, maternal and child health, adult health, tuberculosis, and HIV/AIDS and other sexually transmitted diseases. The survey obtained detailed information on these issues from women of reproductive age and, on certain topics, from men as well.

The survey results are intended to provide the information needed to evaluate existing social programs and to design new strategies for improving the health of Samoans and health services for the people of Samoa. The SDHS also contributes to the growing international database on demographic and health-related variables.

1.7 SAMPLE DESIGN

The sample for the 2009 SDHS was drawn from the master sample frame that was designed for the 2006 Population and Housing Census. The sample was designed to cover 10 percent of the households in rural areas and 12 percent of households in urban areas. The sample allows for detailed analysis for most indicators at the national level, for urban and rural areas separately, and for each of the four regions of Samoa (Apia Urban Area, North West Upolu, the Rest of Upolu, and Savaii).

A representative probability sample of households was selected in two stages. The first stage involved selecting data collection points or clusters from the master sample frame. In the second stage, a complete listing of households was carried out in each selected cluster. Households were then systematically selected from each cluster for participation in the survey. The design did not allow for replacement of clusters or households. A total of 296 primary sampling units or clusters was selected, 104 in urban areas and 192 in rural areas. Because Samoan households do not move frequently, a fresh household listing was not deemed to be necessary. Instead, a listing conducted in November 2006 PHC was used. In the urban areas, 5 households were selected per cluster, whereas in the rural areas, 10 households were selected per cluster. This design resulted in a final sample of 2,247 households.

Because of the non-proportional allocation of the sample to the different economic regions, sampling weights will be required in all analysis using the DHS data to ensure the actual representativity of the sample at both the national and regional levels. The sampling weight for each household is the inverse of its overall selection probability with correction for household non-response; the individual weight is the household weight with correction for individual non-response. Sampling weights are further normalized in order to give the total number of unweighted cases equal to the total number of weighted cases at the national level, for both household weights and individual weights.

All women age 15-49 who were either permanent residents of the households in the 2009 SDHS sample or visitors present in the household on the night before the survey were eligible to be interviewed. In addition, all men age 15-54 in every other household selected for the survey were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey. There were a total of 3,033 eligible women and 1,689 eligible men in the survey sample.

1.8 QUESTIONNAIRES

Three questionnaires were used in the SDHS: a Household Questionnaire, a Women's Questionnaire, and a Men's Questionnaire. The household and individual questionnaires were based on model survey instruments developed in the MEASURE DHS program. The model questionnaires were adapted to meet the current needs of Samoa. Each household selected for the SDHS was eligible for interview with the Household Questionnaire.

The Household Questionnaire was used to list all usual members of and visitors to the selected households and to collect information on the socio-economic status of the household. The first part of the Household Questionnaire collected information on the basic demographic data for Samoan households, such as age, sex, educational attainment, and relationship of each household member or visitor to the head of the household. . It was also used to identify the women and men who were eligible for the individual interview (i.e., women age 15-49 and men age 15-54). In the second part of the Household Questionnaire, there were questions on housing characteristics (e.g., the flooring material, the source of water, and the type of toilet facilities), on ownership of a variety of consumer goods, on ownership of land and farm animals, and other questions relating to the socio-economic status of the household.

The Women's Questionnaire was used to collect information from all women age 15-49 years and covered the following topics:

- Background characteristics (education, residential history, media exposure, etc.)
- Birth history

- Antenatal, delivery, and postnatal care
- Knowledge, attitudes, and use of family planning methods
- Fertility preferences
- Marriage, woman's work, and husband's background characteristics
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Childhood mortality
- Knowledge of and attitudes toward AIDS and other sexually transmitted diseases
- Knowledge of and attitudes toward tuberculosis
- Other health issues

The Men's Questionnaire, administered to all men age 15-54 years living in every other household, collected information similar to that on the Women's Questionnaire but was shorter because it did not contain questions on reproductive history, maternal and child health, and nutrition.

After finalization of the questionnaires in English, they were translated into Samoan.

1.9 PRETEST, TRAINING, AND FIELDWORK

1.9.1 Pretest

All three survey questionnaires were pretested. The pretest training was also used as a tool for the training of trainers. The main objectives of the pretest were to provide experience for the trainers, who in turn trained the field staff during the main training, to test the survey instruments and logistics, and to build capacity of the survey team. An ICF Macro consultant visited Apia to conduct the pretest training and to assist with the pretest fieldwork.

Pretest training and fieldwork were conducted from 29 June to 10 July 2009 for 27 participants: 15 women and 12 men. Training entailed classroom discussions and practice focusing on the three survey questionnaires: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. Guest speakers from the MOH were invited to make short presentations on family planning, child health, and nutrition programmes being implemented in Samoa. The participants actively discussed the questionnaires and made suggestions for modifications. Based on these suggestions, both English and Samoan versions of the questionnaires were updated for the pretest fieldwork. Participants were divided into 9 teams and participated in one day of field practice in one selected area that was not part of the survey sample. A total of 20 household interviews, 15 women's interviews, and 12 men's interviews were completed. Interviews were conducted in both English and Samoan. By the end of the pretest, a few errors in skip patterns and translation had been identified and corrected.

1.9.2 Training and Fieldwork

The main training of the survey field personnel was conducted for a period of 15 days from 20 July to 7 August 2009 in Apia. A total of 97 persons from various backgrounds were trained; 9 supervisors, 9 field editors, 54 female interviewers, 18 male interviewers, and 7 office editors.

The training of survey field staff consisted of a detailed, question-by-question explanation of the questionnaires, reading of the interviewer's manual, demonstrations, practice interviewing in small groups and pairs, and tests. Guest speakers were invited to give lectures about family planning and immunisation programmes in Samoa. Each section of the questionnaire was tested. The test results were used to reinforce understanding of key topics among the trainees and to strengthen their interviewing skills. Training included two days of field practice in communities in and around the training site that were not included in the 2009 SDHS sample. Additional training was held for field supervisors and editors.

Fieldwork for the main survey lasted from 10 August to 5 September 2009. Senior staff from SBS and MOH coordinated and supervised the fieldwork activities. Field staff were divided into 9

teams; 2 teams worked in the Apia Urban Area, 3 teams worked in North-West Upolu, 2 teams worked in the Rest of Upolu, and 2 teams worked in the Savaii region. Each team was composed of 1 supervisor, 1 field editor, 6 female interviewers, and 2 male interviewers. Each team was assigned a driver and a vehicle.

The processing of the SDHS results began shortly after the fieldwork started. Data editing was first done in the field by field editors and supervisors. Completed and edited questionnaires for each cluster were packed and delivered to the SDHS Centre at Moto'otua where they were entered and edited by data processing personnel. The data processing team was composed of 15 data entry operators, 1 data entry supervisor with 2 assistants, and 7 office editors working in two shifts. Data operators and supervisors went through a one-week training program conducted with the technical assistance of ICF Macro. Data were entered using CSPro, a programme specially developed for use in household based surveys and censuses. All data were entered twice (100 percent verification). The concurrent processing of the data was an advantage because the survey technical staff were able to advise field teams of problems detected during the data entry using tables generated to check various data quality parameters. As a result, specific feedback was given to the teams to improve their performances. The data entry and editing phase of the survey was completed in February 2010.

1.10 Response Rates

Table 1.1 presents household and individual response rates for the survey. A total of 2,247 households were selected for the sample, of which 2,066 were found occupied at the time of the fieldwork. Of these, 1,947 households were successfully interviewed, yielding a household response rate of 94 percent.

In the households interviewed, a total of 3,033 eligible women were identified, of whom 2,657 were interviewed, yielding a response rate of 88 percent. Survey results indicate that 1,689 eligible men were identified in the sub-sample of households selected for the male survey and 1,307 were successfully interviewed, yielding a response rate of 77 percent.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Samoa 2009

Result	Residence		
	Urban	Rural	Total
Household interviews			
Households selected	486	1,761	2,247
Households occupied	445	1,621	2,066
Households interviewed	409	1,538	1,947
Household response rate[1]	91.9	94.9	94.2
Interviews with women age 15-49			
Number of eligible women	686	2,347	3,033
Number of eligible women interviewed	592	2,065	2,657
Eligible women response rate[2]	86.3	88.0	87.6
Interviews with men age 15-54			
Number of eligible men	339	1,350	1,689
Number of eligible men interviewed	275	1,032	1,307
Eligible men response rate[2]	81.1	76.4	77.4

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

The household and women's response rates are slightly lower in urban (92 percent and 86 percent, respectively) than in rural areas (95 percent and 88 percent, respectively), but for men, the response rate is higher in urban (81 percent) than in rural areas (76 percent).

The principal reason for non-response among eligible women and men was the failure to find them at home despite repeated visits to the households. The substantially lower response rates for men reflect the more frequent and longer absences of men from the home.

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS 2

This chapter summarizes the demographic and socio-economic characteristics of the household population in the 2009 SDHS, including age, sex, place of residence, educational status, and housing characteristics. Information collected on the characteristics of the households and the respondents who live within them is important to understanding and interpreting the findings of the survey. This information also provides some indication of how representative of the general population the survey results will be.

The main focus of the chapter is to describe the environment in which men, women, and children live. General characteristics of the population are described, such as the age-sex structure and level of literacy and education. Household arrangements (headship, size) and housing facilities (sources of water supply, sanitation facilities, dwelling characteristics, and household possessions) are addressed. A distinction is made between urban and rural areas because many of these indicators differ depending on the location of the residence.

A household is defined as a person or group of related and unrelated persons who live together in the same dwelling unit or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating their food. The questionnaire for the SDHS distinguishes between the de jure population (persons who usually live in a selected household) and the de facto population (persons who stayed the night before the interview in the household). According to the survey data, the differences between these populations are small. Tabulations for the household data presented in this chapter are primarily based on the de facto population.

Due to the way the sample was designed, the number of cases in some regions may appear small because they are weighted to make the regional distribution nationally representative. Throughout this report, numbers in the tables reflect weighted numbers. To ensure statistical reliability, percentages based on 25 to 49 unweighted cases are shown within parentheses, and percentages based on fewer than 25 unweighted cases are suppressed.

2.1 HOUSEHOLD POPULATION BY AGE AND SEX

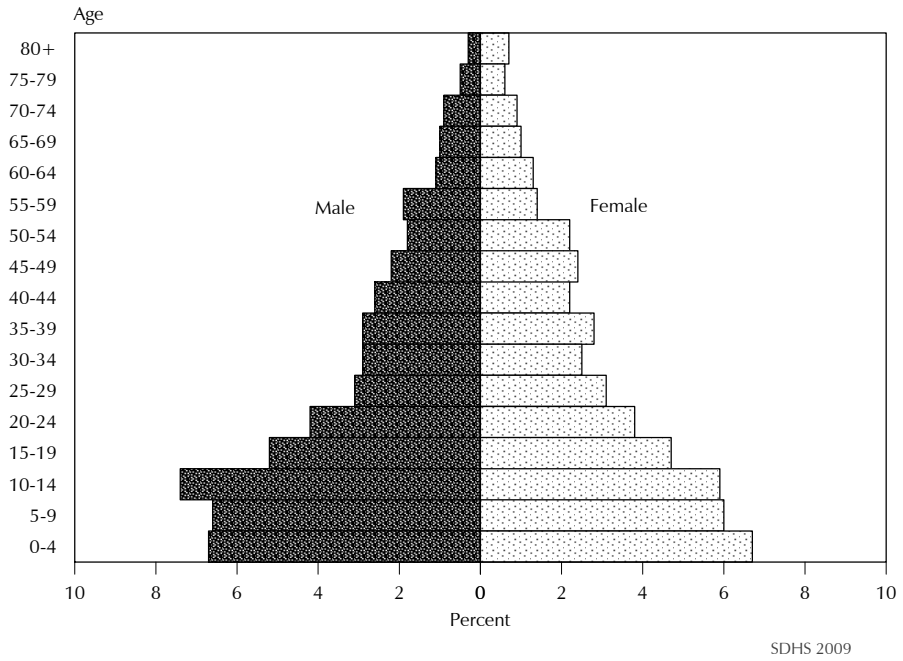
Age and sex are important variables in analysing demographic trends. Table 2.1 and Figure 2.1 present the distribution of the de facto household population in the 2009 SDHS by five-year age groups, according to sex and urban-rural residence. The population age structure shows a substantially larger proportion of persons in younger age groups than in older age groups for each sex (Figure 2.1). This reflects the young age structure of the population of Samoa and indicates a population with high fertility. This type of population structure imposes a heavy burden on the social and economic assets of a country. Thirty-nine percent of the population are less than 15 years of age, 54 percent are age 15-64, and 6 percent are age 65 or older. Male to female distribution is very similar, except for age group 10-14 which has about 2 percent more adolescent males than adolescent females. There is also a 3 percentage point drop-off between ages 10-14 and 15-19, which is slightly larger for males than females (4 percentage points versus 3 percentage points). Examination of the distribution of the household population by single year of age (Table C.1) shows some evidence that interviewers may have intentionally underestimated respondents' ages to be younger than the age cut-off of 15 so as to make them ineligible for the individual interview.

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Samoa 2009

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	13.3	13.1	13.2	13.0	14.1	13.5	13.0	13.9	13.4
5-9	11.8	12.6	12.2	13.1	12.3	12.7	12.9	12.4	12.6
10-14	14.4	12.7	13.5	14.3	12.1	13.2	14.3	12.2	13.3
15-19	11.5	10.0	10.7	9.9	9.5	9.7	10.2	9.6	9.9
20-24	9.3	9.3	9.3	7.8	7.5	7.7	8.1	7.9	8.0
25-29	6.0	6.4	6.2	6.0	6.4	6.2	6.0	6.4	6.2
30-34	4.3	4.9	4.6	5.8	5.2	5.5	5.5	5.2	5.4
35-39	4.6	4.7	4.6	5.9	6.1	6.0	5.7	5.8	5.7
40-44	5.1	4.6	4.8	5.1	4.4	4.8	5.1	4.5	4.8
45-49	4.1	4.7	4.4	4.2	4.9	4.5	4.2	4.9	4.5
50-54	3.9	5.2	4.6	3.4	4.4	3.9	3.5	4.6	4.0
55-59	3.5	2.6	3.1	3.7	2.9	3.3	3.7	2.8	3.3
60-64	2.6	2.2	2.4	2.1	2.9	2.5	2.2	2.8	2.5
65-69	2.1	2.2	2.1	1.9	1.9	1.9	1.9	2.0	2.0
70-74	1.3	1.3	1.3	1.9	2.1	2.0	1.8	1.9	1.8
75-79	0.8	1.2	1.0	1.0	1.3	1.1	0.9	1.3	1.1
80 +	0.7	1.6	1.1	0.5	1.4	0.9	0.6	1.4	1.0
Don't know/missing	0.7	0.7	0.7	0.4	0.5	0.4	0.5	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,284	1,404	2,688	6,029	5,462	11,491	7,313	6,865	14,179

Figure 2.1 **Population Pyramid**



2.2 HOUSEHOLD COMPOSITION

Table 2.2 shows the percent distribution of households in the 2009 SDHS sample by sex of the head of the household and household size. It also presents the mean household size for urban and rural areas, as well as the percentage of households with orphans and foster children under age 18. These characteristics of household composition are important because they are often associated with differences in household socioeconomic levels. For example, female-headed households are frequently poorer than households headed by males. In addition, the size and composition of the household affect the allocation of financial and other resources among household members, which in turn influence the overall well-being of these individuals. Household size is also associated with crowding in the dwelling, which can lead to unfavourable health conditions.

In Samoa, the mean household size is 7.4 persons and is the same in urban and rural areas. Households in Samoa are predominantly male-headed (78 percent), a common feature in the South Pacific countries. Nevertheless, more than two in ten households (22 percent) are headed by women, with no difference by urban-rural residence.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18 years of age, according to residence, Samoa 2009

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	78.4	78.0	78.1
Female	21.6	22.0	21.9
Total	100.0	100.0	100.0
Number of usual members			
1	1.3	1.7	1.6
2	3.2	3.3	3.3
3	6.1	6.4	6.4
4	9.2	9.8	9.7
5	14.9	12.1	12.7
6	13.4	13.3	13.3
7	8.6	12.4	11.6
8	9.2	9.1	9.1
9+	34.1	31.9	32.3
Total	100.0	100.0	100.0
Mean size of households	7.4	7.4	7.4
Percentage of households with orphans and foster children under 18 years of age			
Foster children[1]	26.7	24.7	25.1
Double orphans	0.0	1.1	0.9
Single orphans[2]	4.3	5.9	5.6
Foster and/or orphan children	29.6	28.8	28.9
Number of households	371	1,576	1,947

Note: Table is based on the de jure household members, i.e., usual residents.
[1] Foster children are those under 18 years of age living in households where neither their mother nor their father is a de jure resident.
[2] Includes children with one dead parent and an unknown survival status of the other parent.

Overall, 32 percent of households have nine or more members, 26 percent of households have five or six members, and 21 percent have seven or eight members. Single-person households are the least common (2 percent), followed by two-person households (3 percent), with no urban-rural difference. Urban households are slightly more likely to have nine or more members than rural households (34 percent versus 32 percent).

2.2.1 Children's Living Arrangements and Orphanhood

Information on households with foster children and orphans was collected in the SDHS. Foster children are defined here as children under age 18 living in households with neither their mother nor their father present; orphans are children with one or both parents dead. Foster children and orphans are of concern because they may be at increased risk of neglect or exploitation when their mothers or fathers are not present to assist them. Table 2.2 shows that 25 percent of households have at least one foster child. The proportion is slightly higher in urban areas (27 percent) than in rural areas (25 percent). Six percent of households have a single orphan, and about 1 percent have double orphans. About three in ten households (29 percent) have either foster or orphan children, with little difference seen between urban and rural areas.

Table 2.3 shows the distribution of foster children and children with one or both parents dead, according to background characteristics. The table is based on de jure household members. Of the 6,501 children under age 18 reported in the SDHS, about three-quarters (73 percent) live with both parents, and 9 percent live with their mother only, although their father is alive. Only 2 percent live with their father only, although their mother is alive. Ten percent live with neither of their natural parents, although both parents are alive. Table 2.3 also provides data on the extent of orphanhood, that is, the proportion of children who have lost one or both parents. Less than 1 percent of children under age 18 have both parents dead, and only 3 percent have one or both parents dead.

The percentage of children living with both biological parents decreases with increasing age of the child. The percentage of children living with both biological parents is slightly higher among rural households (73 percent) and among households in North West Upolu (74 percent) when compared with other households. Except for the households in the fourth wealth quintile, the proportion of children under age 18 who are living with both parents generally decreases with increasing wealth.[1] Among children in the highest wealth quintile, 69 percent are living with both biological parents compared with 78 percent in households in the lowest wealth quintile.

Table 2.3 Children's living arrangements and orphanhood

Percent distribution of de jure children under 18 years of age by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Samoa 2009

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father or mother	Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead					
Age														
0-4	75.0	12.1	1.6	1.9	0.2	6.0	0.1	0.3	0.5	2.4	100.0	6.9	2.6	1,907
<2	75.2	14.9	0.9	0.9	0.0	4.6	0.0	0.6	0.0	2.9	100.0	5.2	1.5	796
2-4	74.8	10.1	2.1	2.6	0.3	7.1	0.2	0.1	0.8	2.0	100.0	8.1	3.5	1,110
5-9	74.3	9.1	1.4	1.8	0.5	10.3	0.1	0.2	0.1	2.2	100.0	10.7	2.4	1,806
10-14	71.1	7.2	2.0	2.3	1.0	12.1	0.3	0.4	0.4	3.1	100.0	13.2	4.2	1,900
15-17	67.0	6.4	3.8	2.7	0.5	13.8	0.4	0.7	0.4	4.3	100.0	15.3	5.8	889
Sex														
Male	72.1	9.8	2.1	2.4	0.7	9.3	0.2	0.4	0.3	2.8	100.0	10.2	3.8	3,424
Female	73.1	8.3	1.8	1.8	0.4	10.9	0.2	0.3	0.4	2.9	100.0	11.7	3.1	3,077
Residence														
Urban	70.5	12.1	1.8	2.2	0.2	11.6	0.1	0.1	0.0	1.4	100.0	11.9	2.2	1,227
Rural	73.0	8.4	2.0	2.1	0.6	9.7	0.2	0.4	0.4	3.1	100.0	10.7	3.7	5,274
Region														
Apia Urban Area	70.5	12.1	1.8	2.2	0.2	11.6	0.1	0.1	0.0	1.4	100.0	11.9	2.2	1,227
North West Upolu	73.8	7.7	2.9	2.3	0.3	9.5	0.2	0.2	0.5	2.7	100.0	10.4	4.1	2,103
Rest of Upolu	72.6	8.3	2.0	2.2	1.3	9.1	0.1	0.6	0.7	3.0	100.0	10.5	4.7	1,572
Savaii	72.5	9.3	0.9	1.7	0.4	10.5	0.3	0.5	0.0	3.9	100.0	11.3	2.1	1,600
Wealth quintile														
Lowest	77.9	7.8	1.3	2.0	0.8	7.7	0.0	0.1	0.1	2.3	100.0	8.0	2.4	1,449
Second	70.2	10.9	2.8	1.9	0.3	10.4	0.1	0.3	0.6	2.5	100.0	11.4	4.1	1,331
Middle	70.3	10.5	1.2	2.6	0.5	9.5	0.4	0.8	0.4	3.8	100.0	11.0	3.3	1,310
Fourth	74.9	6.6	2.2	2.1	0.4	10.2	0.4	0.4	0.0	2.8	100.0	11.0	3.4	1,248
Highest	68.7	9.5	2.5	2.0	0.7	12.9	0.1	0.2	0.6	2.7	100.0	13.8	4.2	1,163
Total <15	73.4	9.5	1.7	2.0	0.6	9.4	0.1	0.3	0.3	2.6	100.0	10.2	3.1	5,613
Total <18	72.6	9.1	2.0	2.1	0.5	10.0	0.2	0.4	0.3	2.8	100.0	10.9	3.4	6,501

Note: Table is based on de jure household members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent.

[1] See Section 2.6 for a description of how the wealth index was calculated.

2.2.2 School Attendance by Survivorship of Parents

Children who are orphaned or who live in a house with a chronically ill adult may be at a greater risk of dropping out of school because of lack of money to pay school fees, the need to stay at home to care for the sick relative, or the need to sell goods to survive. The 2009 SDHS included information to monitor such situations, and including information on school attendance of children age 10-14 by parental survival. The overall ratio of school attendance of children whose parents are dead to those whose parents are alive (and at least one of them residing with the child) is not presented due to the low number of cases of children age 10-14 attending school whose parents are both dead (7 cases). As mentioned previously, the vast majority of children (97 percent) either have both parents alive or live with at least one parent.

2.3 Educational Attainment of Household Members

Education is important because it helps individuals make informed decisions that affect their health and well-being. At present, an increasing number of qualified teachers graduate from universities overseas and also from the National University of Samoa, which has enabled the government to improve the level of education, especially in the rural areas. The current system of formal education in Samoa is based on three tiers: eight years of primary education (years 1 through 8), followed by five years of secondary education (years 9 to 13), and then tertiary education. In addition to a university education, which is considered tertiary, many institutions offer vocational, technical, and professional training that could be considered tertiary.

Tables 2.4.1 and 2.4.2 show the percent distribution of the de facto female and male household populations, respectively, age five years and over, by highest level of education attended or completed, according to background characteristics. The majority of Samoans have gone to school. The proportion of the population with no education is low: 4 percent for females and 5 percent for males. The percentage is much higher in the age group 5-9 years (because some young children may not yet have attended school) and those age 65 years and older. Compared with results from the 2006 Population and Housing Census (Samoa Bureau of Statistics, 2008), the proportion with no education has increased slightly from 2006 to 2009, from 2 percent to 4 percent for females, and from 3 percent to 5 percent for males.

A higher percentage of males than females have attended or completed primary education (40 percent compared with 34 percent). On the other hand, females are somewhat more likely than males to be educated at the secondary or higher levels of education. Half of women and 45 percent of men have attended or completed secondary school, and one in ten women (10 percent) and men (9 percent) have more than secondary (tertiary) education.

For both males and females, the percentage who have completed or attended primary school is somewhat higher among rural residents. The opposite is true for higher levels of education, with the urban-rural difference being more pronounced. Thirty-two percent of females and 28 percent of males in urban areas have completed secondary or higher education, compared with 19 percent and 16 percent, respectively, in rural areas. There are variations across regions, and the variation patterns are similar for males and females. Individuals residing in Apia Urban Area are much more likely than those residing in other regions to have more than a secondary education. Eighteen percent of women and 15 percent of men living in the Apia Urban Area have tertiary education compared with 9 percent or less in each of the other regions. Wealth status also has a strong positive relationship with the percentage who have completed secondary education or who have tertiary education. For example, 23 percent of women and 20 percent of men in the highest wealth quintile have at least some university education, compared with 2 percent of women and 3 percent of men in the lowest quintile who do not.

The median number of years of schooling is 9.7 years for women and 8.5 years for men. The median is higher among the populations living in urban areas and in the Apia Urban Area (11 percent of women and 10 percent of men), and it is positively associated with wealth status. Respondents from the wealthiest household have about 3 more years of schooling than those from the poorest household.

Table 2.4.1 Educational attainment of the female household population

Percent distribution of the de facto female household populations age 5 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Samoa 2009

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
5-9	18.6	79.0	0.0	0.1	0.0	0.0	2.3	100.0	849	0.9
10-14	1.4	71.0	7.7	18.9	0.3	0.0	0.8	100.0	836	5.8
15-19	0.6	2.7	3.3	78.2	8.9	5.9	0.4	100.0	662	10.3
20-24	0.7	0.8	1.0	36.7	29.4	31.2	0.3	100.0	543	12.3
25-29	1.9	1.8	1.7	47.1	27.5	19.0	1.0	100.0	442	11.9
30-34	0.6	2.0	4.1	51.9	22.8	16.1	2.5	100.0	356	11.6
35-39	1.1	1.7	4.6	53.9	24.0	12.6	2.1	100.0	397	11.5
40-44	1.0	2.1	5.5	63.4	17.3	9.9	0.7	100.0	306	11.2
45-49	0.3	6.6	6.0	60.4	14.5	11.3	1.0	100.0	335	11.0
50-54	1.0	12.9	11.7	46.2	14.8	10.8	2.5	100.0	313	10.5
55-59	1.4	21.9	16.8	40.5	11.7	6.4	1.4	100.0	194	9.2
60-64	2.4	22.4	26.4	30.0	8.6	8.9	1.2	100.0	191	7.9
65+	8.8	30.0	23.8	18.2	5.4	7.4	6.4	100.0	455	7.3
Residence										
Urban	2.6	25.5	4.7	33.4	14.0	17.6	2.1	100.0	1,220	10.5
Rural	4.6	27.4	7.3	39.2	11.9	7.5	2.1	100.0	4,693	9.5
Region										
Apia Urban Area	2.6	25.5	4.7	33.4	14.0	17.6	2.1	100.0	1,220	10.5
North West Upolu	5.3	24.9	7.4	39.3	13.8	8.0	1.3	100.0	1,900	9.7
Rest of Upolu	4.2	27.8	6.9	40.2	9.7	8.5	2.7	100.0	1,370	9.6
Savaii	3.9	30.5	7.4	38.2	11.6	5.8	2.5	100.0	1,423	9.2
Wealth quintile										
Lowest	6.1	31.8	7.9	41.9	7.9	2.4	1.9	100.0	1,101	8.4
Second	4.0	31.1	6.7	40.9	9.5	5.1	2.7	100.0	1,188	9.1
Middle	4.8	27.1	6.8	41.8	12.5	5.8	1.2	100.0	1,204	9.6
Fourth	3.5	24.3	7.6	37.1	14.9	10.2	2.5	100.0	1,179	10.1
Highest	2.5	21.5	4.9	29.0	16.6	23.3	2.1	100.0	1,241	11.2
Total	4.2	27.1	6.7	38.0	12.4	9.6	2.1	100.0	5,913	9.7

Note: Total includes 36 weighted cases with missing information on age
[1] Completed 8 grade at the primary level
[2] Completed 5 grade at the secondary level

Table 2.4.2 Educational attainment of the male household population

Percent distribution of the de facto male household populations age 5 and over by highest level of schooling attended or completed and median grade completed, according to background characteristics, Samoa 2009

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
5-9	20.5	76.3	0.0	0.6	0.0	0.0	2.6	100.0	940	0.8
10-14	1.0	78.9	5.5	14.0	0.1	0.0	0.6	100.0	1,048	5.6
15-19	1.1	5.2	7.3	73.9	5.0	6.8	0.7	100.0	742	10.0
20-24	1.2	3.4	5.5	48.9	22.1	17.8	0.9	100.0	592	11.6
25-29	1.9	2.6	8.0	45.6	20.0	19.9	2.0	100.0	440	11.6
30-34	2.7	4.3	8.5	47.6	20.6	13.6	2.6	100.0	404	11.3
35-39	1.5	4.9	10.3	47.6	18.5	13.9	3.3	100.0	416	11.3
40-44	2.7	7.8	10.3	47.5	14.9	13.6	3.2	100.0	370	10.9
45-49	2.6	13.0	10.0	53.8	9.1	9.8	1.6	100.0	306	10.5
50-54	3.0	17.7	13.0	44.6	10.8	8.5	2.5	100.0	254	10.0
55-59	3.9	22.1	19.9	30.2	9.9	10.8	3.2	100.0	270	8.6
60-64	2.6	26.3	22.7	27.3	6.9	9.5	4.5	100.0	161	7.8
65+	9.8	33.3	17.9	21.2	4.2	8.5	4.9	100.0	381	7.3
Residence										
Urban	3.0	27.6	4.5	35.7	12.1	15.4	1.7	100.0	1,113	10.0
Rural	5.5	32.2	8.9	35.2	8.5	7.0	2.6	100.0	5,247	8.1
Region										
Apia Urban Area	3.0	27.6	4.5	35.7	12.1	15.4	1.7	100.0	1,113	10.0
North West Upolu	6.3	30.5	9.2	35.4	9.3	7.8	1.5	100.0	2,037	8.4
Rest of Upolu	4.7	32.8	9.6	34.3	7.4	7.7	3.6	100.0	1,574	7.9
Savaii	5.4	33.8	7.9	35.9	8.7	5.3	3.0	100.0	1,636	8.0
Wealth quintile										
Lowest	6.7	37.0	9.7	36.5	5.4	2.5	2.2	100.0	1,305	7.4
Second	5.2	33.1	8.7	37.4	7.9	5.1	2.5	100.0	1,270	8.0
Middle	4.4	30.1	9.3	38.9	8.2	7.0	2.1	100.0	1,246	8.6
Fourth	5.0	30.2	7.8	34.9	11.1	7.8	3.2	100.0	1,279	8.8
Highest	4.1	26.4	5.2	28.7	13.3	20.2	2.2	100.0	1,260	10.4
Total	5.1	31.4	8.1	35.3	9.2	8.5	2.4	100.0	6,360	8.5

Note: Total includes 33 weighted cases with missing information on age
[1] Completed 8 grade at the primary level
[2] Completed 5 grade at the secondary level

2.3.1 School Attendance Ratios

The Samoa DHS collected information on school attendance for the population age 5-24 that allows the calculation of net attendance ratios (NARs) and gross attendance ratios (GARs). The NAR for primary school is the percentage of the primary-school-age (5-12 years) population that is attending primary school. The NAR for secondary school is the measure of the secondary-school-age (13-18 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent. The GAR however, measures participation at each level of schooling among persons age 5-24. The GAR is almost always higher than the NAR for the same level because the GAR includes participation by those who may be older, may have started school later, may have repeated one or more grades in school, may have dropped out of school (and later returned), or may be younger than the official age range for that level.

Table 2.5 presents data on the NAR and GAR for the de facto household population by level of schooling and sex, according to place of residence, region, and wealth quintile. Eighty-nine percent of children age 5-12 who should be attending primary school are currently doing so. At the same time, the GAR at the primary school level is 102 percent.

The results show a nearly similar NAR for females (89 percent) and for males (88 percent) at the primary school level indicating that there is no gender gap in primary school attendance for the primary school-age population who should be attending school at a given level. The GAR at primary level is higher for males than females (104 percent versus 99 percent), indicating relatively higher overage or underage attendance among males than females.

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the gender parity index (GPI), according to background characteristics, Samoa 2009

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index (GPI)[3]	Male	Female	Total	Gender Parity Index (GPI)[3]
PRIMARY SCHOOL								
Residence								
Urban	87.4	90.0	88.8	1.03	98.8	99.2	99.0	1.00
Rural	88.1	88.8	88.4	1.01	104.9	99.4	102.4	0.95
Region								
Apia Urban Area	87.4	90.0	88.8	1.03	98.8	99.2	99.0	1.00
North West Upolu	88.5	86.3	87.5	0.97	104.3	96.9	101.0	0.93
Rest of Upolu	88.6	88.5	88.5	1.00	105.6	100.5	103.3	0.95
Savaii	87.0	92.2	89.4	1.06	105.0	101.4	103.4	0.97
Wealth quintile								
Lowest	83.9	87.0	85.3	1.04	104.9	97.9	101.7	0.93
Second	88.2	88.2	88.2	1.00	104.1	99.8	102.0	0.96
Middle	89.2	91.9	90.5	1.03	105.9	102.9	104.4	0.97
Fourth	88.4	88.4	88.4	1.00	102.7	96.8	100.1	0.94
Highest	91.2	90.3	90.8	0.99	101.7	99.6	100.8	0.98
Total	88.0	89.1	88.5	1.01	103.9	99.4	101.8	0.96
SECONDARY SCHOOL								
Residence								
Urban	58.2	70.2	64.0	1.21	63.5	72.3	67.8	1.14
Rural	48.9	69.3	58.1	1.42	54.6	73.5	63.1	1.34
Region								
Apia Urban Area	58.2	70.2	64.0	1.21	63.5	72.3	67.8	1.14
North West Upolu	50.6	71.0	60.2	1.40	55.6	74.0	64.3	1.33
Rest of Upolu	46.7	62.0	53.1	1.33	51.9	69.9	59.4	1.35
Savaii	48.7	73.0	59.7	1.50	56.1	75.6	65.0	1.35
Wealth quintile								
Lowest	40.4	62.7	49.7	1.55	48.7	70.1	57.6	1.44
Second	47.7	67.3	56.9	1.41	53.8	69.9	61.4	1.30
Middle	52.3	68.8	60.3	1.32	58.1	72.1	64.8	1.24
Fourth	56.3	73.8	64.4	1.31	62.0	76.6	68.7	1.24
Highest	59.5	75.5	66.9	1.27	61.0	78.2	69.0	1.28
Total	50.6	69.5	59.3	1.37	56.3	73.2	64.1	1.30

[1] The NAR for primary school is the percentage of the primary-school age (5-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school age (13-18 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100.0.
[3] The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

There are no major variations in the primary school NAR and GAR by the selected background characteristics.

Table 2.5 shows that both the NAR and GAR are much lower at the secondary school level: 59 percent of students age 13-18 who should be attending secondary school are in school (NAR), and the GAR for secondary school is 64 percent. The secondary school NAR is substantially higher for females (70 percent) than for males (51 percent), indicating a much wider gender gap in favour of females in the secondary school attendance. The GAR at the secondary school level is also higher for females than males (73 percent versus 56 percent), indicating higher overage or underage attendance among females than males.

The NAR and the GAR for secondary education are lower in rural than in urban areas. For example, the secondary school GAR is 63 percent in rural areas compared with 68 percent in urban areas. Regional differences also exist, with the NAR and GAR for the secondary school being notably lower in the Rest of Upolu region (62 percent and 59 percent, respectively) when compared with all other regions.

There is a strong relationship between household economic status and school attendance, which is most expressed for secondary school education. For example, the primary school NAR increases from 85 percent among children from the poorest households to 91 percent among those from the richest households. Similarly, the secondary school NAR increases from 50 percent among children in the lowest wealth quintile to 67 percent among those in the highest wealth quintile.

The Gender Parity Index (GPI) represents the ratio of the NAR (or GAR) for females to the NAR (or GAR) for males. It is presented in Table 2.5 at both the primary and secondary levels and offers a summary measure of gender differences in school attendance rates. A GPI of less than 1 indicates that a smaller proportion of females than males attend school. In Samoa, the GPI for NAR is 1.01 for primary school attendance and 1.37 for secondary school attendance, indicating that girls are ahead of boys in both levels of education.

There are no differences in the GPI for NAR for primary school attendance by urban-rural residence; however, the GPI for GAR for primary school attendance indicates slightly lower attendance by rural students (0.95) compared with those from urban areas (1.00). Generally, the overall GPI indicates slightly higher school attendance by females at both the primary and secondary levels, with the exception of the GPI of the GAR at the primary school level, indicating a slightly higher overage or underage attendance among males than among females.

2.3.2 Grade Repetition and Dropout Rates

Table 2.6 presents school repetition and dropout rates for the de facto household population age 5-24 who attended primary school in the previous school year, by school grade and background characteristics. Repetition and dropout rates describe the flow of pupils through the educational system in Samoa. Repetition rates indicate the percentage of pupils who attended a particular class during the previous school year who are repeating that grade in the current school year, that is, those who were in a particular grade in the 2007/2008 academic year who attended the same grade during the 2008/2009 academic year. Dropout rates show the percentage of pupils who attended class during the 2007/2008 academic year but who did not attend school the following year. Repetition and dropout rates approach zero when pupils nearly always progress to the next grade at the end of the school year. They often vary across grades, indicating points in the school system where pupils are not regularly promoted to the next grade, or where they decide to drop out of school.

Table 2.6 Grade repetition and dropout rates

Repetition and dropout rates for the de facto household population age 5-24 who attended primary school in the previous school year, by school grade, according to background characteristics, Samoa 2009

Background characteristic	School grade							
	1	2	3	4	5	6	7	8
REPETITION RATE[1]								
Sex								
Male	8.7	0.0	0.0	1.1	0.0	0.0	1.9	1.7
Female	7.2	0.6	0.9	0.0	0.4	0.8	2.1	0.5
Residence								
Urban	6.7	0.0	0.0	0.0	0.0	0.0	3.9	0.9
Rural	8.3	0.3	0.5	0.7	0.3	0.4	1.5	1.2
Region								
Apia Urban Area	6.7	0.0	0.0	0.0	0.0	0.0	3.9	0.9
North West Upolu	4.8	0.0	1.2	0.9	0.0	0.0	3.3	1.4
Rest of Upolu	9.1	1.3	0.0	1.3	0.9	0.0	0.0	1.1
Savaii	12.2	0.0	0.0	0.0	0.0	1.3	1.3	1.1
Wealth quintile								
Lowest	7.2	0.0	1.8	0.0	0.0	0.0	1.3	1.8
Second	5.7	0.0	0.0	0.0	1.2	1.4	0.0	0.0
Middle	7.6	1.6	0.0	3.0	0.0	0.0	1.2	1.8
Fourth	10.4	0.0	0.0	0.0	0.0	0.0	2.5	(2.0)
Highest	9.8	0.0	0.0	0.0	0.0	0.0	5.3	0.0
Total	8.0	0.3	0.4	0.6	0.2	0.3	1.9	1.1
DROPOUT RATE[2]								
Sex								
Male	0.3	0.0	0.5	0.0	0.0	0.9	1.3	5.2
Female	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.4
Residence								
Urban	0.0	0.0	0.0	0.0	0.0	0.9	0.0	5.5
Rural	0.2	0.0	0.3	0.0	0.0	0.6	0.9	2.9
Region								
Apia Urban Area	0.0	0.0	0.0	0.0	0.0	0.9	0.0	5.5
North West Upolu	0.0	0.0	0.9	0.0	0.0	1.6	0.0	2.0
Rest of Upolu	0.6	0.0	0.0	0.0	0.0	0.0	1.9	5.0
Savaii	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.3
Wealth quintile								
Lowest	0.0	0.0	0.0	0.0	0.0	1.0	2.3	4.2
Second	0.0	0.0	1.2	0.0	0.0	2.0	1.3	3.2
Middle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
Fourth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)
Highest	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Total	0.2	0.0	0.3	0.0	0.0	0.7	0.8	3.4

Note: Numbers in parentheses are based on 25-49 unweighted cases.
[1] The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.
[2] The dropout rate is the percentage of students in a given grade in the previous school year who are not attending school in the current school year.

In Samoa, virtually all primary school students in grades 1 through 8 are promoted each year. Repeaters are most common among pupils in grade 1 and, to a lesser extent, in grade 7 (8 percent and 2 percent, respectively). These proportions are especially high among first grade repeaters in the Savaii and Rest of Upolu regions (12 and 9 percent, respectively), and among those from the two highest wealth quintiles (10 percent each). Nearly all primary school students stay in school. The dropout rate is less than 1 percent for all grades, except for grade 8 where it is 3 percent. The survey results show that male students (5 percent), urban residents (6 percent), those living in the Apia Urban

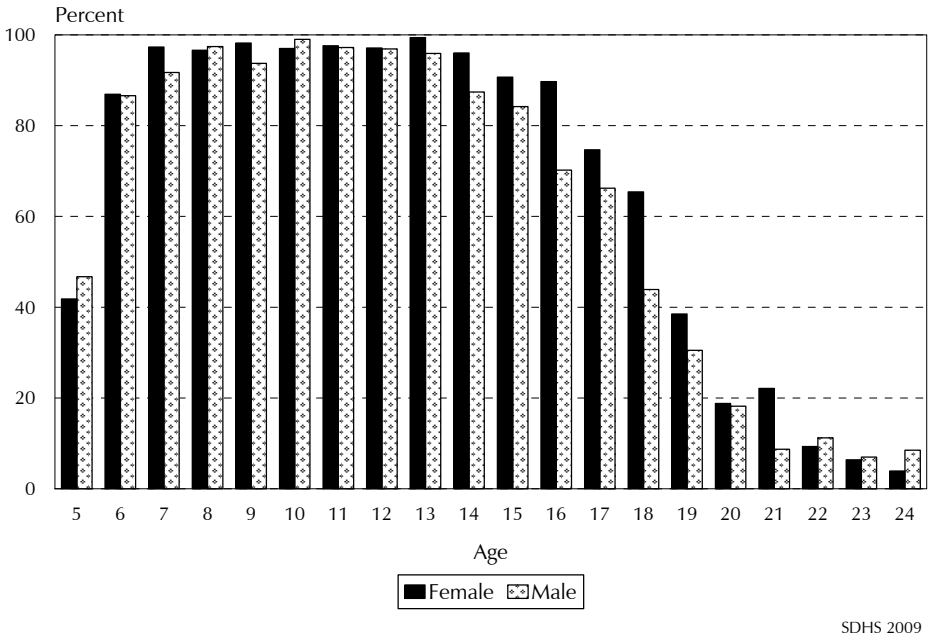
Area (6 percent) and the Rest of Upolu (5 percent), and individuals in the middle wealth quintile (7 percent) are more likely to drop out in grade 8 than other students.

2.3.3 Age-Specific School Attendance Rates

Figure 2.2 shows the age-specific attendance rates (ASAR) for the de facto household population age 5-24 by sex. The ASAR shows participation in schooling at any level, from primary through higher education. The closer the ASAR is to 100, the higher is the participation of a given age population at that level. More than four in ten children age 5 are attending school, 47 percent male and 42 percent female. It should be noted that children age 5 at the time the household was interviewed may still be in pre-school and have not yet entered primary education.

School attendance for males rises markedly up to age 10 and remains high up to age 13 and then gradually declines, whereas for females it rises at age 7, peaking at age 13 before gradually declining after age 14. There are no marked differences in the proportion of males and females attending school up to age 13, after which there are substantially higher proportions of females than males attending school, except for ages 22 and 24.

Figure 2.2 **Age-Specific Attendance Rates of the De Facto Population Age 5 to 24 by Sex**



2.4 HOUSING CHARACTERISTICS

There is a strong association between the socioeconomic condition of households and the vulnerability of its members, especially children, to common diseases. The amenities and assets available to households are important in determining the general socioeconomic status of the population. The 2009 SDHS included questions on the household's access to electricity, source of drinking water, type of sanitation facilities, flooring materials, and ownership of durable goods.

2.4.1 Household Drinking Water

The availability of and accessibility to improved drinking water may, to a large extent, minimise the prevalence of water-borne diseases among household members, especially young children. The source of drinking water is important because potentially fatal diseases, such as diarrhoeal diseases, guinea worm, typhoid, schistosomiasis, trachoma, and dysentery, are common in Samoa. Table 2.7 shows the percent distribution of main sources of drinking water, time to collect drinking water, person who usually collects drinking water, and treatment of water prior to drinking, all according to residence.

Table 2.7 Household drinking water

Percent distribution of households and de jure population by source, time to collect, person who usually collects drinking water; and percentage of households and the de jure population by treatment of drinking water, according to residence, Samoa 2009

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	86.5	94.8	93.2	89.0	95.3	94.1
Piped water into dwelling/ yard/ plot	84.4	80.6	81.4	86.6	81.4	82.4
Public tap/ standpipe	0.4	1.3	1.2	0.5	1.3	1.2
Tube well or borehole	0.0	0.2	0.2	0.0	0.3	0.3
Protected dug well	0.6	2.3	1.9	0.8	2.4	2.1
Protected spring	0.5	1.5	1.3	0.6	1.7	1.4
Rainwater	0.7	8.9	7.3	0.5	8.2	6.8
Non-improved source	**0.6**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**
Surface water	0.6	0.7	0.7	0.7	0.7	0.7
Bottled water, improved source for cooking/washing[1]	11.8	2.6	4.4	9.7	2.2	3.6
Bottled water, non-improved source for cooking/washing[1]	0.3	0.1	0.1	0.2	0.1	0.1
Other sources/missing	0.8	1.8	1.6	0.5	1.8	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water	**98.3**	**97.5**	**97.6**	**98.6**	**97.5**	**97.7**
Time to obtain drinking water (round trip)						
Water on premises	98.6	96.3	96.8	98.4	96.2	96.6
Less than 30 minutes	0.6	2.6	2.2	0.5	2.7	2.3
30 minutes or longer	0.8	0.7	0.7	1.1	0.7	0.8
Don't know/ missing	0.0	0.4	0.3	0.0	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult female 15+	0.0	0.7	0.6	0.0	0.7	0.6
Adult male 15+	1.4	1.9	1.8	1.6	2.0	1.9
Female child under age 15	0.0	0.1	0.1	0.0	0.1	0.1
Male child under age 15	0.0	0.5	0.4	0.0	0.5	0.4
Other	0.0	0.3	0.3	0.0	0.3	0.2
Water on premises	98.6	96.3	96.8	98.4	96.2	96.6
Missing	0.0	0.1	0.1	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[2]						
Boiled	30.1	48.4	44.9	32.5	49.8	46.5
Bleach/chlorine	4.0	0.3	1.0	4.3	0.3	1.0
Strained through cloth	1.8	14.2	11.9	1.9	14.9	12.4
Ceramic, sand or other filter	1.3	3.1	2.8	1.5	2.9	2.6
Other	1.0	1.9	1.7	0.7	1.9	1.7
No treatment	61.2	46.3	49.1	59.2	45.5	48.1
Percentage using an appropriate treatment method[3]	32.4	53.0	49.1	34.5	53.8	50.1
Number	371	1,576	1,947	2,726	11,645	14,371

[1] Because the quality of bottled water is not known, households using bottled water for drinking are classified as using an improved or non-improved source according to their water source for cooking and washing.
[2] Respondents may report multiple treatment methods, so the sum of treatment may exceed 100 percent.
[3] Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

Overall, 98 percent of households obtain drinking water from an improved source. Eighty-one percent of households have access to piped water in their dwelling, yard, or plot, and just 1 percent access drinking water from a public tap. Seven percent of households use rainwater for drinking, 2 percent get their drinking water from a protected dug well, and 1 percent from a protected spring. Less than 1 percent of households use non-improved sources of drinking water, and about 4 percent use bottled water. Surprisingly, there is no difference between urban and rural households in access to improved sources of drinking water (98 percent each).

Table 2.7 provides information on persons who usually collect the drinking water. Almost all households in Samoa (97 percent) have water on their premises (99 percent in urban and 96 percent in rural areas). Therefore, less than 1 percent of households spend more than 30 minutes to collect water. Drinking water is collected more frequently by male adults (2 percent) than by other household members (less than 1 percent). Regarding treatment of water, about half of the households (49 percent) do not treat their water prior to drinking. Of households that do treat their drinking water, the most common treatment methods are boiling (45 percent) or straining through cloth (12 percent).

2.4.2 Household Sanitation Facilities

Poor sanitation coupled with unsafe water sources increases the risk of waterborne diseases and illnesses due to poor hygiene. An improved toilet facility is considered the most efficient and hygienic method of human waste disposal. Table 2.8 shows the proportion of households and of the de jure population having access to hygienic sanitation facilities. Hygienic status is determined on the basis of type of facility used and whether or not it is a shared facility. A household's toilet/latrine facility is classified as hygienic if it is used only by household members (i.e., not shared) and if the type of facility effectively separates human waste from human contact. The types of facilities that are most likely to accomplish this are flush or pour flush into a piped sewer system/septic tank/pit latrine; ventilated, improved pit (VIP) latrine; pit latrine with a slab; and composting toilet. A household's sanitation facility is classified as unhygienic if it is shared with other households or if it does not effectively separate human waste from human contact.

Overall, 94 percent of households in Samoa use improved sanitation facilities that are not shared with another household. Nine in ten (91 percent) households use a flush toilet connected to a septic tank or to a pit latrine, and 3 percent use a pit latrine with a slab. Flush toilets are slightly more widespread in urban than in rural areas (94 percent versus 90 percent). Overall, 6 percent of households use a non-improved toilet.

Table 2.8 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Samoa 2009

	Households			Population		
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility	**95.1**	**93.7**	**94.0**	**94.3**	**94.0**	**94.1**
Flush/pour flush to septic tank	90.6	83.5	84.9	89.5	84.3	85.3
Flush/pour flush to a pit latrine	2.9	6.8	6.1	3.3	6.4	5.9
Ventilated improved pit (VIP) latrine	0.9	1.6	1.4	0.9	1.6	1.5
Pit latrine with a slab	0.7	1.8	1.6	0.6	1.6	1.4
Non-improved facility	**4.9**	**6.3**	**6.0**	**5.7**	**6.0**	**5.9**
Any facility shared with other households	3.3	3.5	3.4	3.8	3.4	3.5
Flush/ pour flush not to sewer/septic tank/pit latrine	0.0	0.4	0.3	0.0	0.4	0.3
Pit latrine without slab/open pit	0.5	1.1	1.0	0.4	1.1	0.9
No facility/bush/field	0.0	0.1	0.1	0.0	0.1	0.1
Other/missing	1.1	1.2	1.2	1.6	1.1	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	371	1,576	1,947	2,726	11,645	14,371

2.4.3 Household Characteristics

Table 2.9 presents the distribution of households by household characteristics, according to residence. Overall, almost all Samoan households have electricity (100 percent in urban and 97 percent in rural areas).

The type of flooring material used in dwellings is a proxy indicator of the socioeconomic status of the household as well as the likelihood of exposure to disease-causing agents. Most households (91 percent) have finished floors (parquet or polished wood, vinyl or asphalt strips, ceramic tiles, cement, carpet), with only 8 percent of households having rudimentary or natural flooring material (gravel, sand, wood planks, coconut midribs). Carpeted floors are the most common type of flooring, used by half of all households (52 percent in rural areas and 46 percent in urban areas). The second most common flooring material is cement, used by 28 percent of all households. Cement flooring is much more common in rural than in urban households (30 percent compared with 17 percent). Overall, 7 percent of households have ceramic tiles, 18 percent in urban areas compared with 5 percent in rural areas. Five percent of all households have floors of wooden planks (6 percent in urban areas and 4 percent in rural areas) or parquet or polished wood floors (10 percent in urban areas and 4 percent in rural areas).

The number of rooms used for sleeping indicates the extent of crowding in households. Overcrowding increases the risk of contracting infectious diseases like acute respiratory infections and skin diseases, which particularly affect children. The 2009 SDHS results show that 42 percent of households have three or more rooms for sleeping, 37 percent have only one room, and 21 percent have two rooms. Households in urban areas are markedly more likely than those in rural areas to have three or more rooms for sleeping (62 and 37 percent, respectively). On the other hand, rural households are much more likely to have one room for sleeping (42 percent) compared with urban households (17 percent).

Smoke from solid fuels used for cooking, such as charcoal, wood, and other biomass fuels, is a major cause of respiratory infections. The type of fuel used for cooking, the location where food is cooked, and the type of stove used are all related to indoor air quality and the degree to which household members are exposed to risk of respiratory infections and other diseases. Nearly seven in ten households (69 percent) do their cooking in a separate building, 28 percent cook in the house, and 2 percent cook outdoors. The majority of rural households do their cooking in a separate building (77 percent), while the majority of urban households prefer cooking inside of the house (62 percent).

Almost two-thirds of the Samoan households (63 percent) use wood for cooking, about one in five (21 percent) use LPG/ natural gas/bio gas, and about one in ten (9 percent) use kerosene. In rural areas, the main cooking fuel is wood (72 percent), followed by LPG/ natural gas/bio gas (16 percent). In urban areas, the most common fuel used for cooking is LPG/ natural gas/bio gas, used by 45 percent of households, followed by wood (28 percent).

Reducing the proportion of the population relying on solid fuels is a Millennium Development Goal (MDG). Two-thirds of households (66 percent) use solid fuels for cooking (28 percent in urban areas and 75 percent in rural areas). The majority of these households (95 percent) use an open fire or stove without a chimney or hood, with no major difference between urban and rural areas, and less than 1 percent use a closed stove with chimney.

Table 2.9 Household characteristics

Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking and among those using solid fuels, percent distribution by type of fire/stove, according to residence, Samoa 2009

Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	99.7	97.4	97.9	99.6	97.9	98.2
No	0.3	2.5	2.1	0.4	2.0	1.7
Missing	0.0	0.1	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Gravel, sand	0.6	2.1	1.9	0.7	2.1	1.8
Wood planks	5.5	4.4	4.6	4.8	4.1	4.2
Coconut midribs	0.6	1.5	1.3	0.9	1.3	1.2
Parquet or polished wood	10.1	3.5	4.8	11.4	3.2	4.7
Vinyl or asphalt strips	2.1	1.0	1.2	2.1	1.2	1.4
Ceramic tiles	17.9	4.8	7.3	13.7	4.0	5.8
Cement	17.0	30.1	27.6	18.3	31.5	29.0
Carpet	45.8	51.5	50.4	47.8	51.5	50.8
Other/missing	0.5	1.1	1.0	0.2	1.1	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One	17.1	41.6	36.9	17.7	39.2	35.1
Two	20.7	20.7	20.7	19.1	19.4	19.4
Three or more	62.2	36.9	41.7	63.2	40.5	44.8
Missing	0.0	0.8	0.6	0.0	0.9	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking						
In the house	62.0	19.9	27.9	56.0	16.5	24.0
In a separate building	34.4	77.4	69.2	39.0	81.1	73.1
Outdoors	3.6	1.6	2.0	4.9	1.8	2.4
Other/missing	0.0	1.0	0.9	0.0	0.7	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel						
Electricity	10.7	2.5	4.1	9.4	1.3	2.9
LPG/ natural gas/ biogas	44.7	15.5	21.0	41.7	13.6	18.9
Kerosene	16.7	6.5	8.5	17.3	6.0	8.2
Wood	27.5	71.5	63.1	31.3	75.8	67.4
Coconut parts	0.3	3.0	2.5	0.3	2.7	2.2
No food cooked in household	0.0	0.8	0.7	0.0	0.5	0.4
Other/missing	0.0	0.2	0.2	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	27.8	74.5	65.6	31.6	78.5	69.6
Number of households/ population	371	1,576	1,947	2,726	11,645	14,371
Type of fire/stove among households using solid fuels[1]						
Closed stove with chimney	0.5	0.3	0.4	0.6	0.3	0.3
Open fire/ stove with chimney	7.1	3.4	3.7	5.0	3.2	3.4
Open fire/ stove with hood	1.1	0.2	0.3	1.3	0.3	0.3
Open fire/ stove without chimney or hood	91.3	95.4	95.0	93.1	95.7	95.5
Other/missing	0.0	0.7	0.6	0.0	0.6	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/ population using solid fuel	103	1,175	1,278	861	9,139	10,000

LPG = Liquid petroleum gas
[1] Includes wood and coconut parts

2.5 HOUSEHOLD POSSESSIONS

The availability of durable goods is a proximate measure of household socioeconomic status. Moreover, particular goods have specific benefits. For example, having access to a radio or a television exposes household members to innovative ideas; a refrigerator prolongs the wholesomeness of foods; and a means of transport allows greater access to many services away from the local area. Table 2.10 provides information on household ownership of durable goods (radios, televisions, telephones, and refrigerators) and modes of transportation (bicycles, motorcycles, and automobiles).

The SDHS results indicate that urban households are more likely than rural households to own durable goods. Looking at electronic appliances, 93 percent of households have a mobile telephone, 85 percent have a television or a radio, 51 percent have a refrigerator, and 31 percent have a deep freezer. Furthermore, 44 percent of households have a gas stove, 37 percent have a kerosene stove, and 32 percent have a microwave oven. More than one-third of households (35 percent) have a sewing machine or an electric fan. About one in five households has a non-mobile phone (23 percent) or a rice cooker (22 percent), while around one in ten has a washing machine (14 percent), a desktop or a laptop computer (12 percent), or a blender (10 percent). Televisions, refrigerators, washing machines, and computers are much more common in urban areas than in rural areas.

Around nine in ten households have a bed, table, chair, sofa, or food safe, and about half have a cupboard or clock/wall clock. Generally, possession of household fittings is somewhat more common in urban than in rural areas. More than one in five households (27 percent) have fishing gear, about three times as many rural as urban households (31 percent versus 11 percent).

About one-third (34 percent) of households in Samoa has a car or truck, or a bicycle (32 percent). Fifteen percent of all households have a canoe. Cars or trucks are more common in urban areas than in rural areas (48 percent and 31 percent, respectively). On the other hand, rural households are more likely than urban households to own a bicycle or a canoe.

About nine in ten (88 percent) Samoan households own their residential house, while about three in ten (28 percent) own another house.

Seventy-one percent of Samoa households own agricultural land; the proportion is understandably higher in rural than in urban areas (78 percent and 43 percent, respectively). Three-quarters of households own livestock (83 percent in rural and 45 percent in urban areas).

Table 2.10 Household possessions

Percentage of households and de jure population possessing various household effects, means of transportation, houses, types of land, and livestock/farm animals by residence, Samoa 2009

	Households			Population		
Possession	Urban	Rural	Total	Urban	Rural	Total
Household effects						
Electronic appliances:						
Radio	84.6	84.7	84.7	83.9	85.9	85.5
Television	93.3	82.7	84.7	93.6	84.6	86.3
Mobile telephone	98.5	93.3	94.3	98.7	94.1	95.0
Non-mobile telephone	37.4	19.8	23.1	36.0	19.7	22.8
Refrigerator	67.5	47.2	51.0	65.1	47.5	50.8
Deep freezer	32.2	30.4	30.7	33.1	31.5	31.8
Gas stove	59.8	40.5	44.2	58.3	40.4	43.8
Kerosene stove	44.1	35.2	36.9	45.9	35.4	37.4
Microwave oven	44.3	29.4	32.2	40.6	28.8	31.1
Electric jug or kettle	83.3	71.5	73.8	81.6	72.6	74.3
Rice cooker	36.8	18.2	21.7	32.7	17.2	20.1
Blender	19.8	7.9	10.1	17.7	7.4	9.3
Sewing machine	39.1	33.6	34.6	40.2	34.8	35.8
CD or cassette player	70.6	62.5	64.0	71.7	64.4	65.8
Video or DVD player	72.3	64.5	66.0	73.0	65.8	67.2
Electric water pump	13.5	3.2	5.2	12.3	3.4	5.1
Washing machine	30.1	9.6	13.5	26.1	8.4	11.8
Desktop or laptop computer	27.8	8.6	12.2	25.0	7.6	10.9
Electric fan	52.9	31.3	35.4	50.4	30.6	34.3
Air conditioner	4.0	2.4	2.7	3.2	2.4	2.5
Household Fittings:						
Bed	94.0	90.3	91.0	93.3	91.4	91.8
Table	95.8	92.4	93.0	95.0	92.9	93.3
Chair	97.3	91.8	92.8	96.8	92.6	93.4
Sofa	88.9	87.9	88.1	89.4	88.6	88.7
Food safe	85.6	85.1	85.2	84.8	86.2	86.0
Cupboard	65.8	48.9	52.1	63.7	50.0	52.6
Clock or wall clock	66.2	43.1	47.5	66.6	43.7	48.1
Other items:						
Generator	1.2	1.1	1.2	1.1	1.0	1.0
Solar power	1.2	0.2	0.4	0.8	0.1	0.3
Fishing gear	11.3	31.1	27.3	12.6	33.8	29.7
Means of transport						
Bicycle	25.1	33.4	31.8	25.9	35.6	33.7
Motorcycle/ scooter	3.6	1.9	2.2	3.4	1.7	2.0
Car/ truck	47.9	31.1	34.3	45.5	31.0	33.7
Hand cart	4.9	4.5	4.6	5.9	4.7	5.0
Boat	1.9	2.1	2.1	1.7	2.6	2.5
Outboard motor	2.4	1.9	2.0	1.9	2.4	2.3
Canoe	3.7	17.0	14.5	4.5	19.7	16.8
Ownership of a house						
House of residence	86.7	87.6	87.5	87.1	88.5	88.3
Another house	31.3	27.7	28.4	29.6	26.7	27.2
Ownership of land						
Residential	66.4	55.3	57.4	64.3	55.8	57.4
Agricultural	42.7	77.9	71.2	44.9	78.9	72.4
Commercial	10.5	8.3	8.8	8.3	7.8	7.9
Ownership of farm animals						
Ownership of livestock[1]	44.7	82.7	75.4	50.5	85.7	79.0
Ownership of cats and dogs	73.3	77.6	76.8	75.7	80.8	79.8
Number	371	1,576	1,947	2,726	11,645	14,371

[1] Pigs, horses, ducks, chickens

2.6 WEALTH QUINTILES

The wealth index was developed and tested in a number of countries as a tool for assessing inequities in household income and relating those inequities to use of health services and health outcomes (Rutstein et al., 2000). The wealth index is constructed by assigning a weight or factor score to each household asset through principal components analysis. These scores are summed by household, and individuals are ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles—five groups with an equal number of individuals in each group. At the national level, approximately 20 percent of the population is in each wealth quintile.

Wealth quintiles provide a consistent measure of combined indicators of household income and expenditures. The wealth quintile, as constructed, uses information on household ownership of consumer items, ranging from a television to a bicycle or car, as well as on dwelling characteristics, such as source of drinking water, sanitation facilities, and type of flooring material.

Each asset was assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores were standardised in relation to a normal distribution with a mean of zero and standard deviation of one. Each household was then assigned a score for each asset, and the scores were summed for each household; individuals were ranked according to the total score of the household in which they resided. The sample was then divided into quintiles from one (lowest) to five (highest). A single asset index was developed for the whole sample; separate indices were not prepared for the urban and rural populations.

Table 2.11 shows the distribution of the population across the five wealth quintiles by urban-rural residence and region. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed by geographic areas. The findings indicate that wealth in Samoa is concentrated in urban areas. Among the population in urban areas, 41 percent are in the highest wealth quintile, and 11 to 18 percent are in each of the other four quintiles. In rural areas, the opposite is true; a lower percentage of the population is in the highest wealth quintile (15 percent) compared with the other four wealth quintiles (20 to 22 percent). Marked differentials in the wealth distribution are also observed among regions. For example, more than four in ten residents (41 percent) in the Apia urban area are in the highest wealth quintile compared with 11 percent in the lowest wealth quintile. In contrast, in the Savaii region, 28 percent of the population falls in the lowest two wealth quintiles compared with 8 percent in the highest wealth quintile.

Table 2.11 Wealth quintiles

Percent distribution of the jure population by wealth quintiles according to residence and region, Samoa 2009

Residence/region	Wealth quintile					Total	Number of population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	10.9	12.9	18.1	16.7	41.4	100.0	2,726
Rural	22.2	21.6	20.4	20.8	15.0	100.0	11,645
Region							
Apia Urban Area	10.9	12.9	18.1	16.7	41.4	100.0	2,726
North West Upolu	17.5	21.4	18.3	21.7	21.0	100.0	4,601
Rest of Upolu	22.9	18.3	23.5	21.5	13.8	100.0	3,509
Savaii	27.5	25.2	20.0	19.0	8.2	100.0	3,535
Total	20.0	20.0	20.0	20.1	20.0	100.0	14,371

2.7 BIRTH REGISTRATION

The Convention on the Child's Right (UN General Assembly, 1989) states that every child has the right to a name and a nationality and the right to protection from being deprived of his or her identity. Parents are required to give their children a name and to register the child because the child has a right to know who his or her parents are and to have a nationality through registration in accordance with national laws and relevant international instruments.

Table 2.12 shows the percentage of children under age 5 whose births were officially registered and the percentage with a birth certificate at the time of the survey. The births of 48 percent of children under age 5 in Samoa have been registered: 44 percent have birth certificates, and 4 percent do not. The reason that not all children reported as registered had a birth certificate may be because some certificates have been lost or were never issued at the time of birth. However, all children with a certificate had been registered.

Table 2.12 Birth registration of children under age five

Percentage of de jure children under five years of age whose births are registered with the civil authorities, according to background characteristics, Samoa 2009

Background characteristic	Percentage of children whose births are registered: Had a birth certificate	Did not have a birth certificate	Total registered	Number of children
Age				
<2	29.6	5.0	34.6	796
2-4	54.7	2.4	57.1	1,110
Sex				
Male	44.8	3.3	48.1	958
Female	43.7	3.7	47.4	949
Residence				
Urban	61.4	0.7	62.1	356
Rural	40.3	4.1	44.4	1,551
Region				
Apia Urban Area	61.4	0.7	62.1	356
North West Upolu	44.4	1.1	45.5	610
Rest of Upolu	32.8	8.2	41.0	494
Savaii	43.0	3.8	46.8	447
Wealth quintile				
Lowest	27.3	3.2	30.5	403
Second	44.9	1.9	46.8	391
Middle	41.3	3.3	44.7	372
Fourth	49.3	6.1	55.4	375
Highest	59.8	3.0	62.8	367
Total	44.2	3.5	47.7	1,907

Children age 2-4 years (57 percent) are markedly more likely to have their births registered than those younger than 2 years (35 percent), possibly reflecting the fact that Samoan children are allowed to enter school starting at age 5 and a birth certificate is commonly required for enrolment. There is no substantial variation in birth registration by sex of child. There are, however, marked differences by urban-rural residence. Although 62 percent of children under age 5 years in urban areas have their births registered, only 44 percent of their rural counterparts have been registered. The distribution of children whose births are registered varies by region. Children in the Apia Urban Area region are more likely to be registered (62 percent) than children in all other regions (41 to 47 percent), with the Rest of Upolu region having the lowest level of birth registration (41 percent). Births to households in the highest wealth quintile (63 percent) are much more likely to be registered than those in the lowest wealth quintile (31 percent).

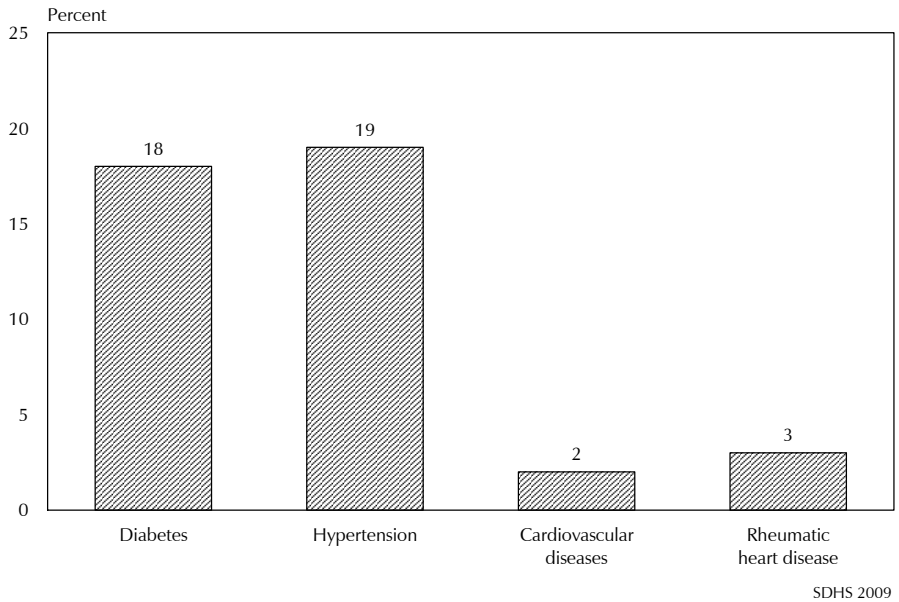
2.8 BURDEN OF DISEASES

In an effort to assess the burden of diseases in Samoa, all respondents to the Household Questionnaire in the 2009 SDHS were asked whether the respondent or any other household member has ever been diagnosed by a medical doctor with a list of non-communicable diseases and infectious diseases, whether the respondent or any other household member has had certain infectious diseases in the previous 12 months, and how many of the household members have had each of the specific diseases ever or in the last 12 months.

2.8.1 Household Level: Burden of Diseases

Approximately one in five households reported having at least one household member age 25 or older ever diagnosed with a non-communicable disease, including hypertension or diabetes (19 and 18 percent, respectively). Cardiovascular and rheumatic heart diseases were ever diagnosed among members age 25 or older in 2 and 3 percent of households, respectively (Figure 2.3). The age range for measuring the burden of non-communicable diseases is 25 or more years because these diseases mostly affect adults.

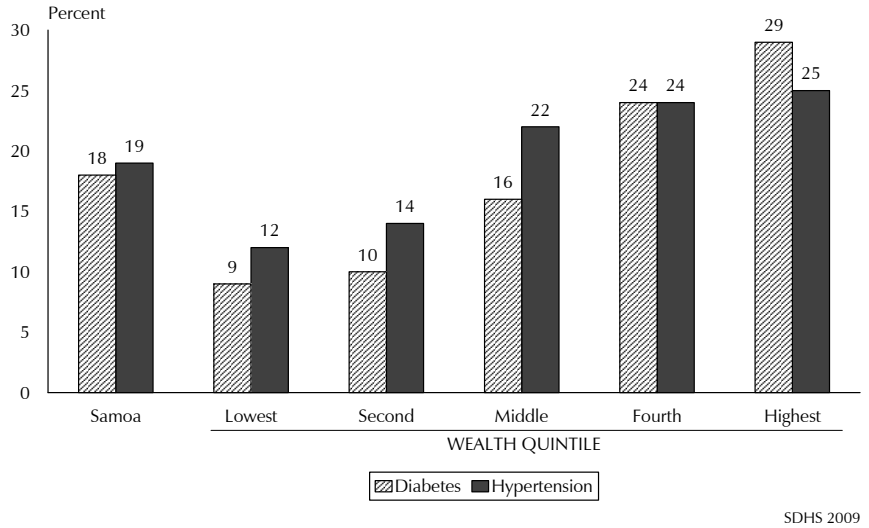
Figure 2.3 **Percentage of Households with Usual Members Age 25 or Older Ever Diagnosed with Specific Diseases**



The proportion of households with members ever diagnosed with diabetes or hypertension increases steadily with an increase in wealth (Figure 2.4). For example, only 9 percent of households in the lowest wealth quintile have a member age 25 or older diagnosed with diabetes compared with 29 percent of households in the highest wealth quintile. Similarly, 12 percent of the poorest households reported having at least one member age 25 or older ever diagnosed with hypertension compared with 25 percent of those in the wealthiest households.

Diabetes is less common in the Savaii region (14 percent) than in other regions (17 to 21 percent), and hypertension is less common in the North West Upolu (15 percent) compared with other regions (20 to 22 percent). Rheumatic heart disease is somewhat higher in the Apia urban area region (6 percent) than elsewhere. Diabetes, hypertension, cardiovascular disease, or rheumatic heart disease have been diagnosed in an average of 1 individual age 25 or older per household (data not shown).

Figure 2.4 **Percentage of Households with Usual Members Age 25 or Older Ever Diagnosed with Diabetes or Hypertension, by Wealth**



The proportion of households with usual members of any age having been diagnosed with an infectious disease, including dengue fever, measles, typhoid, meningococcal disease, rubella, and leprosy, over the last 12 months is quite small. Overall, 2 percent of households reported having at least one member who was diagnosed with dengue fever, 2 percent with measles, 1 percent each with typhoid fever, meningococcal disease, and filiriasis, and less than 1 percent combined with rubella and leprosy. A somewhat higher proportion of urban households have members who have been diagnosed recently with dengue fever (6 percent) and measles (3 percent) compared with rural households (2 percent and 1 percent, respectively). In the 12 months before the survey, an average of 2 household members of any age per household have been diagnosed with measles, while an average of 1 household member has been diagnosed with any of the other infections (data not shown).

2.8.2 Household Members: Burden of Diseases

Seven percent of the household members age 25 or older have been ever diagnosed with hypertension, 6 percent with diabetes, and 1 percent each with cardiovascular or rheumatic heart diseases (Figure 2.5).

Figure 2.5 **Percentage of Household Members Age 25 or Older Ever Diagnosed with Specific Diseases**

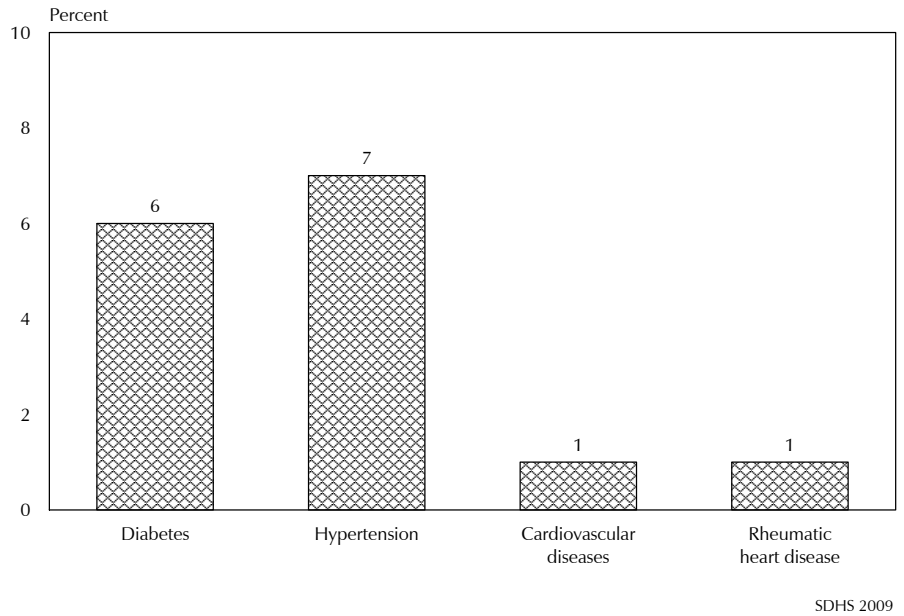
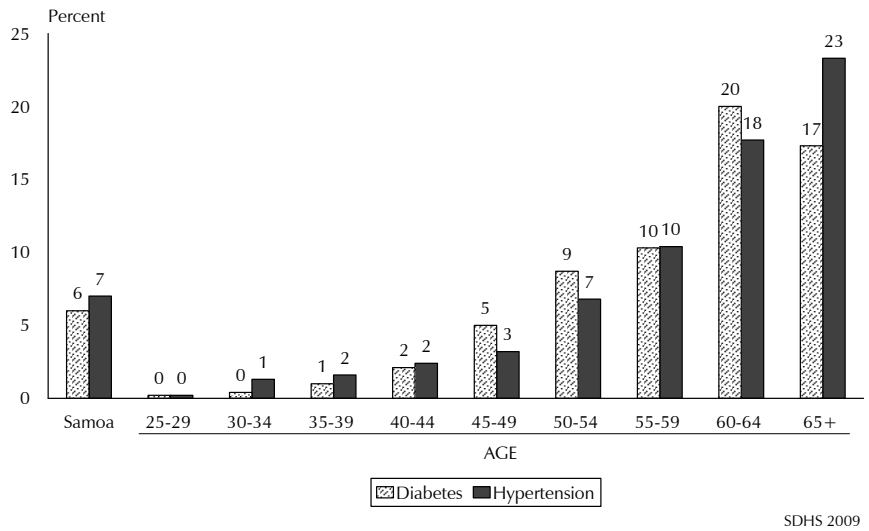


Figure 2.6 shows that the percentages of household members ever diagnosed with diabetes or hypertension increase with age and are especially high among older residents who are age 60 or more. For example, only 1 percent or less of usual household members age 30-34 were reported as having ever been diagnosed with hypertension or diabetes, while one in ten of household members age 55-59 and about one in five of those age 60-64 were reported as having ever been diagnosed with these diseases. The percentage of household members age 25 or older who have ever been diagnosed with diabetes and hypertension also increases with an increase in wealth (data not shown).

Figure 2.6 **Percentage of Households with Usual Members Age 25 or Older Ever Diagnosed with Diabetes or Hypertension, by Age**



The percentage of household members of any age being diagnosed in the last 12 months by a medical doctor with any of the specified infections (dengue fever, measles, typhoid, meningococcal disease, rubella, and leprosy) is less than 1 percent for each of the infections.

The prevalence of diabetes and hypertension among the population age 25-64 reported in the 2002 Samoa STEPS Survey (MOH, 2002) (22 percent for diabetes and 21 percent for hypertension) cannot be directly compared with the 2009 SDHS prevalence. The direct comparison of the results between the two surveys is hampered by a number of factors, such as the differences in sampling methodology, age ranges of the survey population, and wording of the questions asked to measure the prevalence of diabetes and hypertension in the two surveys.

In the 2002 Samoa STEPS survey, individuals age 25-64 were *directly* asked whether they had ever been diagnosed with diabetes or hypertension, and whether the reported disease had been validated by a specific diagnostic test. In the 2009 SDHS, data on diabetes and hypertension were collected in the Household Questionnaire, where the respondent was asked whether he/she or any other member of the household had ever been diagnosed by a medical doctor with a list of 11 specified diseases, including diabetes and hypertension. There is a risk of recall bias in the 2009 SDHS results because the Household Questionnaire respondent may not have been fully aware of all diseases affecting other members in the household.

CHARACTERISTICS OF SURVEY RESPONDENTS 3

This chapter provides a descriptive summary of the demographic and socioeconomic profile of respondents who participated in the 2009 SDHS. Basic information on women and men of reproductive age is crucial for the interpretation of findings on reproduction, health, and women's status. Moreover, the distribution of respondents according to their demographic and socioeconomic characteristics indicates how representative they are of the general population. The main background characteristics that are described here in detail—age at the time of the survey, marital status, residence, education, and wealth quintile—will re-appear in subsequent chapters on reproduction and health. This chapter on characteristics of respondents also includes information on their level of literacy, exposure to the mass media, employment and earnings, health insurance coverage, knowledge and attitudes concerning tuberculosis, use of tobacco, and participation in physical activity campaigns.

3.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Table 3.1 shows the distribution of women age 15-49 and men age 15-49 by selected background characteristics, including age, religion, ethnicity, marital status, urban-rural residence, region, education, and wealth status.

More than half of both women and men (53 percent each) are under age 30. The proportions in each age group decline with increasing age, reflecting the comparatively young age structure of the Samoan population.

The majority of respondents (96 percent of women and 95 percent of men) are Christians of different denominations. About one-third of both women and men belong to the Congregational Christian Church of Samoa (EFKS/Taiti), while about one-fifth are Roman Catholic, and between 12 and 15 percent each, are either Methodist or members of the Latter Day Saints (LDS) Church. Almost all respondents are members of the Samoan ethnic group.

The results of the 2009 SDHS indicate that 59 percent of women are married or in a union (living in an informal arrangement with a partner) compared with 47 percent of the men. Because men marry later in life than women, more than half of the men interviewed in the survey (51 percent) have never married, compared with 37 percent of women. On the other hand, women are more than twice as likely as men to be widowed or divorced/separated (5 and 2 percent, respectively)

The survey shows that about eight in ten women (79 percent) and men (83 percent) live in rural areas. The highest percentage of women and men (34 percent of women and 36 percent of men) live in North West Upolu, and the lowest percentage (21 percent of women and 17 percent of men)live in the Apia Urban Area. The distribution in the other two regions does not vary much (23 to 24 percent). The majority of respondents (60 percent of women and 55 percent of men) have attended some secondary school but have not completed it. Women tend to be more educated than men. Women are less likely than men to have no education or only a primary education (5 percent and 13 percent, respectively) and more likely to have completed secondary school or higher (35 percent and 32 percent, respectively).

Smaller percentages of both women and men comprise the two lower wealth quintiles (17 to 19 percent), and higher percentages of both are fairly evenly distributed among the three higher wealth quintiles (20 to 23 percent).

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Samoa 2009

Background characteristic	Women			Men		
	Weighted percentage	Weighted number	Unweighted number	Weighted percentage	Weighted number	Unweighted number
Age						
15-19	21.1	560	558	22.1	269	276
20-24	17.8	474	470	17.1	209	204
25-29	14.1	375	377	13.8	168	164
30-34	11.6	308	313	13.2	161	167
35-39	13.5	358	359	12.5	153	153
40-44	10.7	284	289	12.1	147	145
45-49	11.2	299	291	9.2	112	109
Religion						
EFKS/Taiti[1]	33.6	893	899	33.1	404	411
Methodist	13.6	361	368	14.7	179	176
Roman Catholic	17.3	460	459	20.3	247	247
Latter Day Saints (LDS)	14.4	383	385	11.7	143	149
Seventh Days Adventists (SDA)	4.7	126	121	4.9	60	57
Assembly of God	10.2	272	267	8.7	106	99
Worship Centre	1.3	35	34	1.1	13	15
Jehovah's Witness	0.9	24	25	0.8	10	11
Other	3.7	98	92	4.3	53	49
Refused to answer	0.2	4	4	0.1	1	1
Don't know	0.0	1	1	0.0	0	0
Missing	0.1	2	2	0.3	4	3
Ethnicity						
Samoan	98.3	2,613	2,610	99.2	1,210	1,207
Part-Samoan	1.1	30	31	0.5	6	7
Other	0.3	9	10	0.3	4	4
Don't know	0.0	1	1	0.0	0	0
Missing	0.2	5	5	0.0	0	0
Marital status						
Never married	36.6	971	967	50.8	619	622
Married	42.5	1,129	1,128	39.2	479	474
Living together	16.0	425	426	7.7	94	94
Divorced/ separated	4.0	107	112	2.1	26	26
Widowed	0.9	24	24	0.2	2	2
Residence						
Urban	20.6	548	592	17.3	211	254
Rural	79.4	2,109	2,065	82.7	1,009	964
Region						
Apia Urban Area	20.6	548	592	17.3	211	254
North West Upolu	34.1	907	897	36.0	439	441
Rest of Upolu	22.5	597	566	22.8	279	263
Savaii	22.8	605	602	23.9	291	260
Education						
Primary/old mission/ no education	5.0	132	132	13.0	158	157
Secondary incomplete	60.1	1,598	1,588	54.9	670	672
Secondary complete	19.5	519	524	15.3	187	187
Vocational/ higher	15.4	408	413	16.8	206	202
Wealth quintile						
Lowest	17.8	472	482	17.1	209	204
Second	19.4	516	524	18.5	226	232
Middle	21.0	557	548	22.5	274	271
Fourth	20.9	555	540	21.7	264	248
Highest	21.0	558	563	20.3	248	263
Total 15-49	100.0	2,657	2,657	100.0	1,220	1,218
50-54	na	na	na	na	87	89
Total 15-54	na	na	na	na	1,307	1,307

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = Not applicable
[1] EFKS/Taiti = Ekalesia Faapotopotoga Kerisiano Samoa = Congregational Christian Church

3.2 EDUCATIONAL ATTAINMENT

Education provides people with the knowledge and skills that lead to a better quality of life. Level of education has been found to be closely associated with the health of women and children, as well as with the reproductive health behaviours of women and men. Tables 3.2.1 and 3.2.2 show the distribution of women and men by highest level of schooling attended or completed, and the median number of years of schooling, according to background characteristics. The results reflect the fact that education has been almost universal in Samoa for some time. Overall, a negligible percentage of all respondents age 15-49 (less than 1 percent) have never attended school, and the majority (95 percent of women and 87 percent of men) have attended or completed at least a secondary or higher education. The median number of years of schooling for women age 15-49 is 11.5 years and for men age 15-49 is 11.2 years.

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Samoa 2009

Background characteristic	Highest level of schooling: No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Median years completed	Number of women
Age									
15-24	0.5	0.8	1.7	60.0	19.0	18.0	100.0	11.5	1,033
15-19	0.9	0.7	2.3	77.6	10.8	7.7	100.0	10.8	560
20-24	0.2	0.9	0.9	39.3	28.7	30.2	100.0	12.3	474
25-29	1.0	0.6	1.2	50.7	26.5	20.0	100.0	11.9	375
30-34	0.0	1.7	2.9	58.8	21.9	14.7	100.0	11.6	308
35-39	0.2	1.0	4.5	61.5	20.6	12.2	100.0	11.4	358
40-44	0.0	2.6	4.8	65.6	17.1	9.9	100.0	11.2	284
45-49	0.0	6.2	5.7	66.8	11.3	9.9	100.0	10.9	299
Residence									
Urban	0.0	1.2	2.2	49.2	22.2	25.2	100.0	11.9	548
Rural	0.5	1.8	3.1	63.0	18.8	12.8	100.0	11.4	2,109
Region									
Apia Urban Area	0.0	1.2	2.2	49.2	22.2	25.2	100.0	11.9	548
North West Upolu	0.6	2.0	3.5	59.0	21.8	13.1	100.0	11.4	907
Rest of Upolu	0.6	0.7	2.3	69.3	13.5	13.6	100.0	11.3	597
Savaii	0.3	2.6	3.3	62.7	19.6	11.6	100.0	11.3	605
Wealth quintile									
Lowest	0.8	3.4	4.3	74.7	12.6	4.2	100.0	11.0	472
Second	0.6	2.6	3.0	68.3	16.3	9.2	100.0	11.2	516
Middle	0.4	1.2	3.4	64.2	20.4	10.4	100.0	11.4	557
Fourth	0.0	1.0	3.2	56.3	22.8	16.7	100.0	11.6	555
Highest	0.3	0.6	0.8	40.0	24.2	34.1	100.0	12.3	558
Total	0.4	1.7	2.9	60.1	19.5	15.4	100.0	11.5	2,657

[1] Completed grade 8 at the primary level
[2] Completed grade 5 at the secondary level

Data show that the variation of patterns in educational attainment by background characteristics is similar for women and men. The differences across subgroups in educational attainment are more pronounced at the level of secondary education or higher. For example, 25 percent of urban women and 21 percent of urban men have some higher-level education, compared with 13 and 16 percent, respectively, of rural women and men. Residents in the Apia Urban Area region seem to have an educational advantage over the rest of the country: 25 percent of women and 21 percent of men in the Apia Urban Area region have a higher than secondary education, compared with 12 percent of women and 13 percent of men in the Savaii region. Attainment of a higher than secondary education closely relates to wealth status: 34 percent of women and 30 percent of men in the highest wealth quintile have attended or completed more than a secondary education, compared with 4 percent of women and 9 percent of men in the lowest quintile. Men living in the wealthiest households have, on average, almost two additional years of schooling compared with men in the poorest households (12.2 and 10.5 years, respectively). However, for women the overall difference between the median numbers of years of schooling is smaller: 11.0 years among women in the lowest wealth quintile compared with 12.3 years among those in the highest quintile.

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Samoa 2009

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	0.3	4.7	4.9	59.1	13.9	17.0	100.0	11.1	478
15-19	0.6	5.1	5.3	69.9	6.7	12.4	100.0	10.5	269
20-24	0.0	4.3	4.4	45.1	23.3	23.0	100.0	11.8	209
25-29	0.8	1.5	7.1	47.6	19.8	23.3	100.0	11.7	168
30-34	1.1	3.1	7.8	50.3	21.2	16.5	100.0	11.5	161
35-39	0.6	5.7	9.9	50.8	16.7	16.2	100.0	11.1	153
40-44	1.2	5.4	13.3	54.6	13.0	12.5	100.0	10.9	147
45-49	0.0	8.1	11.0	60.4	7.0	13.5	100.0	10.7	112
Residence									
Urban	1.1	2.8	2.6	54.4	18.2	20.9	100.0	11.5	211
Rural	0.5	5.0	8.9	55.0	14.7	16.0	100.0	11.1	1,009
Region									
Apia Urban Area	1.1	2.8	2.6	54.4	18.2	20.9	100.0	11.5	211
North West Upolu	0.4	4.3	8.7	58.3	12.9	15.5	100.0	10.9	439
Rest of Upolu	0.3	6.5	9.0	50.0	14.5	19.7	100.0	11.3	279
Savaii	0.8	4.5	9.2	54.8	17.6	13.2	100.0	11.2	291
Wealth quintile									
Lowest	0.4	9.0	10.9	59.8	11.0	8.9	100.0	10.5	209
Second	1.0	6.7	11.3	58.3	11.2	11.4	100.0	10.7	226
Middle	0.3	3.8	6.8	63.7	12.2	13.2	100.0	11.1	274
Fourth	0.0	3.5	7.1	55.0	15.5	18.8	100.0	11.2	264
Highest	1.3	1.0	3.8	37.7	25.8	30.4	100.0	12.2	248
Total 15-49	0.6	4.6	7.8	54.9	15.3	16.8	100.0	11.2	1,220
50-54	0.0	14.6	17.8	52.4	9.5	5.7	100.0	9.6	87
Total 15-54	0.6	5.2	8.5	54.7	14.9	16.1	100.0	11.1	1,307

[1] Completed grade 8 at the primary level
[2] Completed grade 5 at the secondary level

3.3 LITERACY

The ability to read and write are important assets that allow each individual to progress throughout life. It is a key factor that assists people, especially those involved in decision making, policy and development planning, and the assessment and creation of future programmes based on these data. Having a clear idea population able to read and write are distributed within the general population will greatly help policy makers and programme providers build a solid foundation for future initiatives and projects, such as providing health services and family planning, knowing what kind of messages they can provide so that people understand and able to interpret them. During the 2009 SDHS, the respondents were given both simple English and Samoan sentences to read. Only, men and women who had never attended secondary school were asked. The literacy rate for Samoa was measured by whether the respondent could read the whole sentence, part of the sentence or not at all. Those with visual impaired or blindness were not asked.

Tables 3.3.1 and 3.3.2 show the percent distribution of women and men age 15-49 respectively, by level of literacy and percent of literacy, according to background characteristics.

Virtually all Samoan women and the vast majority of men are literate (99 and 95 percent, respectively). There are no major differences across subgroups of women in the proportions who are literate. There are some variations among men. The levels of literacy are somewhat lower among older men, men living in the rural areas, men living in the Savaii region (92 percent), and men from the lowest wealth quintile (91 percent each).

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Samoa 2009

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	Blind/ visually impaired	Missing	Total	Percentage literate[1]	Number
Age									
15-19	96.1	1.8	0.8	0.4	0.0	0.8	100.0	98.8	560
20-24	98.1	0.7	0.5	0.8	0.0	0.0	100.0	99.2	474
25-29	97.2	0.0	1.3	1.1	0.0	0.4	100.0	98.5	375
30-34	95.5	2.5	1.1	0.9	0.0	0.0	100.0	99.1	308
35-39	94.3	2.9	2.1	0.4	0.0	0.4	100.0	99.2	358
40-44	92.6	3.2	1.5	2.3	0.0	0.5	100.0	97.3	284
45-49	88.1	4.9	4.1	1.7	1.0	0.3	100.0	97.0	299
Residence									
Urban	96.7	1.8	0.8	0.5	0.0	0.2	100.0	99.2	548
Rural	94.6	2.2	1.6	1.1	0.1	0.4	100.0	98.4	2,109
Region									
Apia Urban Area	96.7	1.8	0.8	0.5	0.0	0.2	100.0	99.2	548
North West Upolu	93.9	2.6	1.6	1.3	0.2	0.4	100.0	98.1	907
Rest of Upolu	96.4	1.3	1.4	0.4	0.0	0.5	100.0	99.1	597
Savaii	93.8	2.3	1.9	1.4	0.2	0.3	100.0	98.1	605
Wealth quintile									
Lowest	91.6	2.5	3.5	2.3	0.0	0.1	100.0	97.6	472
Second	93.8	2.0	2.0	1.4	0.6	0.3	100.0	97.7	516
Middle	95.0	2.5	1.2	0.7	0.0	0.6	100.0	98.7	557
Fourth	95.8	2.8	0.8	0.2	0.0	0.4	100.0	99.4	555
Highest	98.3	0.7	0.1	0.6	0.0	0.3	100.0	99.2	558
Total	95.0	2.1	1.5	1.0	0.1	0.4	100.0	98.6	2,657

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence in English

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Samoa 2009

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	Missing	Total	Percentage literate[1]	Number
Age								
15-19	89.0	2.1	4.9	3.5	0.6	100.0	96.0	269
20-24	91.3	2.1	4.8	1.8	0.0	100.0	98.2	209
25-29	90.6	3.1	2.2	2.7	1.4	100.0	95.9	168
30-34	88.0	1.7	3.0	6.7	0.5	100.0	92.8	161
35-39	83.7	6.3	4.2	5.8	0.0	100.0	94.2	153
40-44	80.1	7.8	7.0	5.0	0.0	100.0	95.0	147
45-49	80.9	5.0	5.5	8.6	0.0	100.0	91.4	112
Residence								
Urban	93.5	3.1	2.8	0.2	0.3	100.0	99.5	211
Rural	85.7	3.8	4.8	5.3	0.4	100.0	94.3	1,009
Region								
Apia Urban Area	93.5	3.1	2.8	0.2	0.3	100.0	99.5	211
North West Upolu	86.7	4.6	4.8	3.7	0.2	100.0	96.1	439
Rest of Upolu	84.2	4.1	5.6	5.5	0.7	100.0	93.8	279
Savaii	85.6	2.2	4.1	7.6	0.5	100.0	91.9	291
Wealth quintile								
Lowest	79.7	3.7	7.7	7.8	1.1	100.0	91.1	209
Second	81.0	6.4	7.6	5.0	0.0	100.0	95.0	226
Middle	89.1	2.9	3.1	4.9	0.0	100.0	95.1	274
Fourth	89.4	3.4	3.5	3.4	0.3	100.0	96.2	264
Highest	93.9	2.3	1.4	1.8	0.6	100.0	97.6	248
Total 15-49	87.0	3.7	4.5	4.5	0.4	100.0	95.2	1,220
50-54	67.6	9.2	12.7	10.5	0.0	100.0	89.5	87
Total 15-54	85.7	4.0	5.0	4.9	0.4	100.0	94.8	1,307

[1] Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence in English

3.4 ACCESS TO MASS MEDIA

The mass media, such as newspapers, television, and radio just to name a few, play an important role in the everyday life of Samoan people. Various types of media are commonly used by governmental and non-governmental organisations (NGOs) to disseminate public messages about important issues of concern in the country. The availability and easy access to various types of media by the public has greatly improved the understanding and awareness of the population on various issues affecting the country.

Access to information is essential to increase people's knowledge and awareness of the events that take place around them. In the 2009 SDHS, information was collected on respondents' exposure to print and broadcast media, both of which are effective in reaching the population with important health messages, including those on reproductive health and HIV/AIDS. In the survey, exposure to media was assessed by asking how often a respondent reads a newspaper, watches television, or listens to the radio. Tables 3.4.1 and 3.4.2 show that exposure of women and men to print and broadcast media in Samoa is high. Overall, men are somewhat more likely than women to watch television or listen to the radio at least once a week. Eighty-four percent of women age 15-49 and 89 percent of men age 15-49 watch television weekly, and 83 percent of women and 92 percent of men listen to the radio weekly. Women, on the other hand, are somewhat more likely than men to read a newspaper at least once a week (47 versus 44 percent, respectively). About four in ten women (38

percent) and men (40 percent) age 15-49 are exposed to all three media at least once a week. Only 4 percent of women and 2 percent of men have no access to any of the specified media.

Media exposure is higher among younger women than among older women. For example, 45 percent of women age 20-24 have been exposed to all three media at least once a week compared with 31 percent of women age 45-49. However, among men, exposure is lower among those in their late thirties and early forties (33 to 34 percent), as well as among teenagers (35 percent) when compared with other age groups (41 to 49 percent). Men and women in urban areas (54 percent and 46 percent, respectively) are more likely to be exposed to all three media on a weekly basis than those in rural areas (34 and 39 percent, respectively). Exposure to all three media at least once a week ranges from 30 percent for women living in the Rest of Upolu to 54 percent of women living in Apia Urban Area. For men, it ranges from 24 percent among men in Savaii to 50 percent among men in North West Upolu. The proportion of respondents exposed to all three media increases with the level of education and with the wealth quintile. For example, more than four times as many men with higher than secondary education (65 percent) as men with primary or less education (15 percent) are exposed to all three media at least once a week. Similarly, about three times as many men in the highest wealth quintile (58 percent) as men in the lowest wealth quintile (23 percent) are exposed to all three media on a weekly basis. The same patterns are observed among women.

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Samoa 2009

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	All three media at least once a week	No media at least once a week	Number of women
Age						
15-19	49.4	86.7	85.3	39.9	2.9	560
20-24	56.0	89.8	82.6	45.1	2.1	474
25-29	49.0	83.7	84.0	40.5	4.9	375
30-34	43.7	85.1	83.7	35.8	3.6	308
35-39	44.2	80.3	84.2	35.9	3.9	358
40-44	39.7	75.1	79.1	31.5	9.5	284
45-49	39.6	80.9	81.7	31.3	3.8	299
Residence						
Urban	63.5	91.9	82.4	53.8	1.9	548
Rural	42.8	81.8	83.5	34.0	4.6	2,109
Region						
Apia Urban Area	63.5	91.9	82.4	53.8	1.9	548
North West Upolu	49.1	82.0	82.6	37.8	4.2	907
Rest of Upolu	37.3	79.5	83.6	29.5	4.9	597
Savaii	38.7	83.8	84.6	32.6	5.0	605
Education						
Primary or less	23.7	75.4	78.3	18.5	7.4	132
Secondary incomplete	41.8	83.3	83.8	34.1	4.3	1,598
Secondary complete	51.0	85.1	85.1	41.5	3.2	519
Vocational/higher	70.0	87.3	80.2	55.4	3.2	408
Wealth quintile						
Lowest	36.6	68.9	78.6	25.4	9.1	472
Second	39.1	85.1	83.2	30.7	3.3	516
Middle	45.1	87.4	83.6	37.6	3.1	557
Fourth	49.7	87.1	85.7	41.5	2.5	555
Highest	62.3	88.7	84.4	52.6	3.0	558
Total	47.0	83.9	83.2	38.1	4.1	2,657

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Samoa 2009

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	All three media at least once a week	No media at least once a week	Number of men
Age						
15-19	38.3	87.8	91.3	35.3	2.7	269
20-24	43.6	95.7	94.9	41.4	0.9	209
25-29	50.9	94.7	96.9	49.2	0.0	168
30-34	46.3	88.2	90.4	43.1	4.0	161
35-39	41.0	81.5	91.1	33.8	2.0	153
40-44	41.0	85.6	90.1	33.4	1.7	147
45-49	54.9	85.6	87.9	45.6	1.6	112
Residence						
Urban	50.7	91.7	86.7	46.0	3.3	211
Rural	42.8	88.3	93.2	38.5	1.6	1,009
Region						
Apia Urban Area	50.7	91.7	86.7	46.0	3.3	211
North West Upolu	53.0	90.0	92.9	50.3	2.1	439
Rest of Upolu	44.4	86.3	91.7	35.3	1.8	279
Savaii	25.9	87.6	95.3	23.9	0.7	291
Education						
Primary or less	16.9	78.2	87.2	15.2	6.8	158
Secondary incomplete	39.1	89.2	92.3	34.7	1.6	670
Secondary complete	55.4	91.3	95.2	50.9	0.9	187
Vocational/higher	71.6	93.9	92.4	65.3	0.0	206
Wealth quintile						
Lowest	30.4	71.1	88.4	22.8	5.8	209
Second	39.5	90.5	92.2	36.0	1.5	226
Middle	38.1	92.5	93.7	34.2	0.4	274
Fourth	48.3	93.5	92.9	44.9	0.9	264
Highest	62.4	93.6	92.5	58.4	1.6	248
Total 15-49	44.2	88.9	92.1	39.8	1.9	1,220
50-54	46.8	79.1	82.8	33.7	6.7	87
Total 15-54	44.4	88.2	91.5	39.4	2.2	1,307

3.5 EMPLOYMENT

In the 2009 SDHS, respondents were asked about their employment status at the time of the survey and, if they were not currently employed, about any work they may have done in the 12 months prior to the survey.[1] All employed respondents were asked additional questions about their occupation; whether they were paid in cash, in kind, or not at all; and for whom they worked.

[1] The measurement of women's employment can be especially difficult because some of the activities that women do, especially work on family farms, for family businesses, or in the informal sector, are often not perceived by women themselves as employment and hence are not reported as such. To avoid underestimating women's employment, therefore, the questions relating to employment in the Women's Questionnaire encouraged women to report such activities. First, women were asked, "Aside from your own housework, have you done any work in the last seven days?" Women who answered "No" to this question were then asked, "As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business, or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?"

Tables 3.5.1 and 3.5.2 show the percent distribution of female and male respondents by employment status according to background characteristics. Men are more likely to be employed than women. A substantially higher proportion of men (42 percent) than women (20 percent) reported being currently employed. Another 10 percent of men and 9 percent of women had worked in the 12 months preceding the survey although not at the time of the survey (Figure 3.1). Furthermore, 71 percent of women were not currently employed or employed in the 12 months preceding the survey compared with 48 percent of men,

Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Samoa 2009

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
Age					
15-19	4.9	2.7	92.4	100.0	560
20-24	25.8	14.0	60.1	100.0	474
25-29	26.3	13.0	60.7	100.0	375
30-34	20.5	11.4	68.1	100.0	308
35-39	18.3	15.0	66.4	100.0	358
40-44	25.3	6.1	68.6	100.0	284
45-49	27.1	4.3	68.6	100.0	299
Marital status					
Never married	17.3	7.1	75.6	100.0	971
Married/living together	21.3	10.6	68.0	100.0	1,554
Divorced/separated/widowed	23.2	11.4	65.4	100.0	132
Number of living children					
0	17.1	7.3	75.6	100.0	967
1-2	23.5	12.5	63.9	100.0	662
3-4	23.6	10.3	66.0	100.0	545
5+	16.6	8.2	75.2	100.0	483
Residence					
Urban	32.0	8.6	59.4	100.0	548
Rural	16.8	9.6	73.5	100.0	2,109
Region					
Apia Urban Area	32.0	8.6	59.4	100.0	548
North West Upolu	18.0	9.7	72.3	100.0	907
Rest of Upolu	13.2	9.9	76.7	100.0	597
Savaii	18.6	9.1	72.3	100.0	605
Education					
Primary or less	15.3	4.1	80.6	100.0	132
Secondary incomplete	13.6	8.3	78.1	100.0	1,598
Secondary complete	22.8	13.5	63.8	100.0	519
Vocational/higher	42.8	10.2	47.0	100.0	408
Wealth quintile					
Lowest	11.7	9.0	79.2	100.0	472
Second	15.2	10.2	74.6	100.0	516
Middle	18.6	8.6	72.8	100.0	557
Fourth	22.8	9.0	68.1	100.0	555
Highest	29.8	10.1	60.1	100.0	558
Total	19.9	9.4	70.6	100.0	2,657

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Samoa 2009

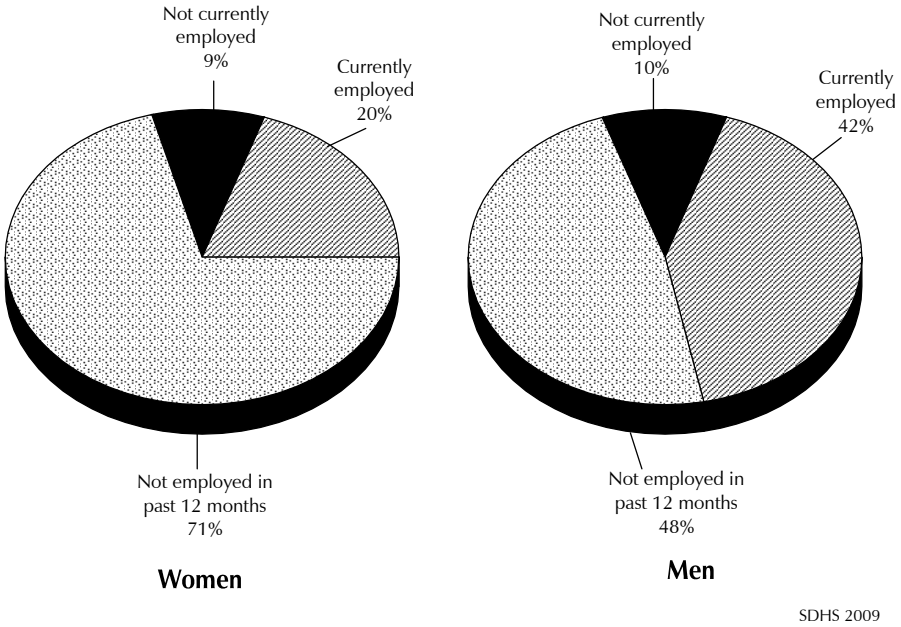
Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing	Total	Number of men
Age						
15-19	10.3	4.4	85.3	0.0	100.0	269
20-24	43.0	11.7	45.2	0.0	100.0	209
25-29	56.3	11.8	31.5	0.4	100.0	168
30-34	53.6	13.3	33.2	0.0	100.0	161
35-39	59.2	10.0	30.9	0.0	100.0	153
40-44	44.4	11.7	43.9	0.0	100.0	147
45-49	55.6	9.4	35.0	0.0	100.0	112
Marital status						
Never married	28.8	8.2	63.1	0.0	100.0	619
Married/living together	55.8	12.2	31.9	0.1	100.0	573
Divorced/separated/widowed	(69.0)	(0.0)	(31.0)	(0.0)	100.0	28
Number of living children						
0	31.3	8.1	60.6	0.0	100.0	682
1-2	56.2	14.7	28.7	0.4	100.0	214
3-4	57.7	10.5	31.7	0.0	100.0	189
5+	54.6	10.4	35.0	0.0	100.0	136
Residence						
Urban	39.6	12.6	47.8	0.0	100.0	211
Rural	43.0	9.3	47.7	0.1	100.0	1,009
Region						
Apia Urban Area	39.6	12.6	47.8	0.0	100.0	211
North West Upolu	43.0	5.1	51.9	0.0	100.0	439
Rest of Upolu	47.5	13.9	38.6	0.0	100.0	279
Savaii	38.6	11.3	49.9	0.3	100.0	291
Education						
Primary or less	37.1	6.9	56.1	0.0	100.0	158
Secondary incomplete	38.9	9.4	51.7	0.0	100.0	670
Secondary complete	46.3	10.7	43.1	0.0	100.0	187
Vocational/higher	54.1	13.1	32.4	0.4	100.0	206
Wealth quintile						
Lowest	38.5	11.0	50.5	0.0	100.0	209
Second	41.9	9.3	48.8	0.0	100.0	226
Middle	39.9	9.7	50.2	0.3	100.0	274
Fourth	42.1	9.2	48.7	0.0	100.0	264
Highest	49.1	10.5	40.4	0.0	100.0	248
Total 15-49	42.4	9.9	47.7	0.1	100.0	1,220
50-54	47.6	11.3	40.2	0.9	100.0	87
Total 15-54	42.7	10.0	47.2	0.1	100.0	1,307

Note: Figures in parentheses are based on 25-49 unweighted cases.

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Looking at the differentials by background characteristics, employment is lower among younger respondents age 15-19, as well as among women age 30-39 and men age 20-24 and 40-44. Women and men who are currently or formerly married are more likely than their never-married counterparts to be currently employed. Women with no living children and those with five or more children are less likely to be currently employed compared with women with one or two children. Men with no children are less likely to be currently employed than men who have one or more living children.

Figure 3.1 Employment Status of Women and Men Age 15-49



Women in urban areas (32 percent) are much more likely to be currently employed than their rural counterparts (17 percent); among men there is not much difference by urban-rural residence with rural men only slightly more likely to be currently employed than urban men (43 percent versus 40 percent). Employment among women is highest in the Apia Urban Area (32 percent) and lowest in the Rest of Upolu region (13 percent). Among men, those living in the Rest of Upolu region are most likely to be employed at the time of the survey (48 percent), and men in Savaii are least likely to be currently employed (39 percent).

The likelihood that a woman or a man is currently employed increases with education level. For example, 43 percent of women with vocational or higher than secondary education are currently employed compared with 15 percent of women with primary or less education. Current employment also increases with wealth. Among women, it ranges from 12 percent of those in the lowest wealth quintile to 30 percent among women in the highest wealth quintile. Among men, the current employment rate also increases with wealth status, although the relationship is less uniform than that observed for women.

3.6 OCCUPATION

Information on a woman's occupation not only allows an evaluation of the woman's source of income but also has implications for her empowerment. To obtain information on occupation in the survey, respondents who indicated that they were currently working or had been employed in the 12-month period prior to the survey were asked about the kind of work they did. Their responses were recorded verbatim and served as the basis for the coding of occupation that occurred in the central office.

Table 3.6.1 shows the percent distribution of women employed in the 12 months preceding the survey by occupation, according to background characteristics. More than half (55 percent) of employed women are in sales and services; about one in four (23 percent) is employed in professional, technical, or managerial positions; and one in seven (14 percent) works in clerical positions. Only 4 percent of women work in agriculture.

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Samoa 2009

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of women
Age									
15-19	(1.4)	(22.2)	(71.8)	(2.0)	(0.0)	(0.0)	(2.6)	100.0	43
20-24	22.0	20.2	52.2	1.9	0.6	2.3	0.8	100.0	189
25-29	22.6	15.7	56.0	0.0	1.3	2.2	2.2	100.0	147
30-34	25.5	10.3	54.0	0.9	1.2	4.8	3.4	100.0	98
35-39	23.6	12.3	55.1	3.5	0.0	3.5	1.9	100.0	119
40-44	25.9	5.7	55.6	4.4	0.0	3.3	5.1	100.0	89
45-49	26.9	8.7	48.7	1.0	1.4	12.1	1.0	100.0	94
Marital status									
Never married	24.2	21.4	50.0	1.1	0.0	1.3	2.0	100.0	237
Married/living together	22.8	10.7	55.8	2.2	1.1	5.0	2.5	100.0	496
Divorced/separated/widowed	(14.2)	(10.9)	(66.3)	(2.0)	(0.0)	(6.6)	(0.0)	100.0	46
Number of living children									
0	20.8	20.3	53.6	0.9	0.5	1.8	2.1	100.0	236
1-2	21.7	12.6	57.6	2.3	0.5	3.6	1.7	100.0	239
3-4	31.4	9.1	49.3	2.5	0.5	4.9	2.4	100.0	185
5+	15.1	11.6	58.9	1.9	2.1	7.6	2.9	100.0	120
Residence									
Urban	23.0	17.4	55.9	0.0	0.0	3.2	0.4	100.0	222
Rural	22.6	12.6	54.1	2.6	1.0	4.3	2.9	100.0	557
Region									
Apia Urban Area	23.0	17.4	55.9	0.0	0.0	3.2	0.4	100.0	222
North West Upolu	20.0	15.5	53.6	4.7	1.0	2.6	2.6	100.0	251
Rest of Upolu	23.1	11.9	53.9	2.0	2.2	3.2	3.6	100.0	138
Savaii	26.0	8.8	55.0	0.0	0.0	7.5	2.7	100.0	168
Education									
Primary or less	*	*	*	*	*	*	*	100.0	26
Secondary incomplete	8.0	7.2	70.3	3.6	1.6	5.9	3.4	100.0	349
Secondary complete	13.7	17.5	64.0	1.0	0.0	1.6	2.3	100.0	188
Vocational/higher	56.8	22.2	19.2	0.0	0.0	1.3	0.5	100.0	216
Wealth quintile									
Lowest	7.2	6.3	74.8	3.1	1.2	7.3	0.0	100.0	98
Second	15.7	10.0	63.0	2.2	1.9	6.5	0.8	100.0	131
Middle	18.4	11.8	60.3	1.5	0.8	6.5	0.7	100.0	152
Fourth	26.8	14.3	50.0	3.6	0.0	1.3	4.0	100.0	176
Highest	33.4	20.8	40.6	0.0	0.4	1.4	3.5	100.0	222
Total	22.7	13.9	54.6	1.9	0.7	4.0	2.2	100.0	779

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

There is no difference by urban-rural residence (23 percent each) among women who hold professional, technical, or managerial jobs and only minor differences exist by region. However, there are substantial differences by education and wealth. For example, over half of women with vocational or higher than secondary education hold professional, technical, or managerial jobs compared with 8 percent of women who have attended and 14 percent of women who have completed secondary education. Additionally, one-third of women living in households in the highest wealth quintile have professional, technical, or managerial jobs compared with 7 percent of women in the lowest quintile. The proportion of women working in sales and services is markedly higher among women who have attended or completed secondary school (70 and 64 percent, respectively) than among women with vocational or higher education (19 percent). The percentage of women working in sales and services decreases steadily with wealth from 75 percent of women in the lowest wealth quintile to 41 percent of women in the highest wealth quintile.

Table 3.6.2 shows that among employed men age 15-49, 51 percent are employed in sales and services, 24 percent work in agriculture, 15 percent hold professional, technical, or managerial positions, 7 percent work as skilled manual labourers, and only 3 percent are employed in clerical positions. The variations across subgroups in the occupational profile among employed men are generally similar to those observed among women.

Table 3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Samoa 2009

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of men
Age									
15-19	(2.9)	(2.8)	(59.8)	(2.6)	(0.0)	(31.9)	(0.0)	100.0	39
20-24	14.7	5.1	45.7	6.6	0.7	27.2	0.0	100.0	114
25-29	17.1	3.2	53.5	5.6	0.0	19.9	0.7	100.0	115
30-34	9.8	0.0	53.0	12.7	0.8	22.9	0.9	100.0	108
35-39	18.8	4.1	51.3	5.4	0.9	19.4	0.0	100.0	106
40-44	14.8	6.9	51.4	6.9	0.0	20.0	0.0	100.0	83
45-49	18.4	1.6	42.4	4.5	0.0	32.6	0.5	100.0	73
Marital status									
Never married	11.8	3.9	50.8	5.8	0.3	26.9	0.4	100.0	229
Married/living together	15.6	3.0	51.1	7.7	0.5	21.7	0.3	100.0	390
Divorced/separated/widowed	*	*	*	*	*	*	*	100.0	19
Number of living children									
0	13.5	3.7	49.0	6.1	0.3	27.0	0.3	100.0	269
1-2	17.4	2.0	53.4	8.1	0.6	18.1	0.5	100.0	152
3-4	17.4	6.9	50.8	6.1	0.0	18.4	0.3	100.0	129
5+	9.7	0.0	49.6	7.6	1.1	32.0	0.0	100.0	88
Residence									
Urban	24.8	6.4	49.8	7.3	0.0	10.6	1.2	100.0	110
Rural	12.6	2.8	50.7	6.7	0.5	26.6	0.2	100.0	527
Region									
Apia Urban Area	24.8	6.4	49.8	7.3	0.0	10.6	1.2	100.0	110
North West Upolu	16.2	4.3	62.2	5.6	0.0	11.7	0.0	100.0	211
Rest of Upolu	10.9	1.2	36.6	7.9	1.5	41.3	0.5	100.0	171
Savaii	9.2	2.5	50.4	6.9	0.0	31.0	0.0	100.0	145
Education									
Primary or less	4.1	1.4	44.0	3.8	1.1	45.5	0.0	100.0	70
Secondary incomplete	4.6	2.2	53.3	9.9	0.6	29.4	0.0	100.0	324
Secondary complete	11.1	6.1	61.6	6.5	0.0	13.4	1.2	100.0	106
Vocational/higher	46.4	5.1	38.7	1.3	0.0	7.9	0.6	100.0	138
Wealth quintile									
Lowest	6.0	0.9	51.0	8.7	0.0	33.4	0.0	100.0	103
Second	7.8	3.0	56.8	8.0	0.8	23.6	0.0	100.0	115
Middle	7.2	4.4	52.3	6.9	0.6	28.0	0.6	100.0	136
Fourth	12.6	3.2	58.3	6.5	0.0	19.4	0.0	100.0	136
Highest	35.0	4.8	36.4	4.8	0.6	17.5	0.9	100.0	148
Total 15-49	14.7	3.4	50.5	6.8	0.4	23.8	0.3	100.0	638
50-54	17.1	0.0	40.2	4.2	0.0	38.5	0.0	100.0	51
Total 15-54	14.9	3.2	49.7	6.6	0.4	24.9	0.3	100.0	689

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.7 Type of Employer, Form of Earnings, and Continuity of Employment

Women and men who were employed in the 12 months preceding the survey were asked about the type of earnings they received, that is, whether they were paid in cash, in kind, or not at all. They were also asked about whether they were employed by a relative or a nonrelative or if they were self-employed. Additionally, women and men were asked whether they worked continuously throughout the year or seasonally. Table 3.7 shows the percent distribution of women and men age 15-49 employed in the 12 months preceding the survey by the type of earnings and employer, and continuity of employment, according to type of employment (agricultural or non-agricultural).

Overall, 87 percent of employed women earn cash only, 3 percent are paid in cash and in kind, and 10 percent receive either in-kind payment or no payment at all. Although more men are currently employed than women, they are slightly less likely than women to be paid in cash only (75 percent versus 87 percent). Men are twice as likely as women to receive no payment at all or in kind only (20 percent versus 10 percent). This is possibly because overall more men than women are self-employed, particularly men working in the agricultural sector.

Nearly half (46 percent) of women and two-thirds of men (65 percent) who work in agriculture do not receive payment, and 41 percent of women and 21 percent of men are paid in cash only. In contrast, 90 percent of women and 92 percent of men who work in nonagricultural jobs are paid in cash only.

Table 3.7 shows that over half of women (51 percent) and more than four in ten men (44 percent) who have been employed in the preceding 12 months are employed by a nonfamily member, 11 percent of women and 8 percent of men are employed by a family member, and 37 percent of women and 47 percent of men are self-employed. The proportion self-employed among women working in agricultural jobs is 74 percent, compared with 36 percent of those employed in nonagricultural jobs. The corresponding proportions for men are 86 and 35 percent, respectively.

Table 3.7 Type of employment

Percent distribution of women and men age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer and continuity of employment, according to type of employment (agricultural or nonagricultural), Samoa 2009

	Women			Men		
Employment characteristic	Agricultural work	Nonagricultural work	Total	Agricultural work	Nonagricultural work	Total
Type of earnings						
Cash only	(40.8)	89.8	86.7	20.6	91.9	74.9
Cash and in-kind	(13.3)	2.0	2.5	10.1	3.5	5.1
In-kind only	(0.0)	0.3	0.3	4.2	1.2	1.9
Not paid	(45.9)	7.5	9.3	65.1	3.3	18.0
Missing	(0.0)	0.4	1.2	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Type of employer						
Employed by family member	(18.8)	10.1	10.5	3.5	9.7	8.2
Employed by nonfamily member	(6.9)	54.1	51.3	10.5	55.0	44.4
Self-employed	(74.4)	35.8	37.3	86.0	35.3	47.4
Missing	(0.0)	0.0	0.8	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Continuity of employment						
All year	(59.2)	81.9	79.9	74.1	76.8	76.2
Seasonal	(31.2)	15.6	16.5	23.2	21.4	21.7
Occasional	(9.7)	2.2	2.4	1.8	1.8	1.8
Missing	(0.0)	0.3	1.1	0.8	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women employed during the past 12 months	31	731	779	152	484	638

Note: Total includes women with missing information on type of employment who are not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

With regard to continuity of employment, the data show that about eight in ten employed respondents (80 percent of women and 76 percent men) work all year. As expected, most women who work in nonagricultural jobs typically work all year (82 percent) compared with women who work in agriculture (59 percent). The difference observed for men is substantially smaller; the majority of men typically work all year regardless of type of employment (74 percent of men work in agricultural jobs and 77 percent of men work in nonagricultural jobs). This is not surprising considering that the climate in Samoa is mostly tropical, with no winter. There are only two distinct seasons: a dry season from May to October and a wet season from November to April. Due to its close proximity to the Equator, there are no large seasonal differences in temperature, which allows agricultural activities to occur continuously throughout the year.

3.8 Health Insurance Coverage

In Samoa, health care is heavily subsidized by the government in all the areas of health services. The main goal of the government is to make health care accessible and affordable for all Samoan people. Sixty-six percent of total health expenditures in Samoa are sourced from public funds, while 9 percent are financed from out-of-pocket household funds as part of the user-fee system that has been put in place. Donor funding covers 21 percent of health care expenditures in Samoa. It is clear from these figures that the Samoan health system is mostly funded by public and donor funds, in an effort to limit the population's out-of-pocket support for health care (MOH, 2008a)

The only form of health insurance that exists in the public sector is the Senior Citizens Benefit Scheme initiated in 1990 for citizens age 65 and older. It is coordinated by the Samoa National Provident Fund. The benefit package includes free health care services for the senior population in any of the public facilities, free inpatient and diagnostic services, and a free supply of medication and drugs from the public pharmacies. The Samoan and the New Zealand government also provide funding for the Overseas Treatment Scheme, facilitated by the National Health Service, which represents 9 percent of all health care funding. Under the Overseas Treatment Scheme, the Samoan government and the New Zealand Agency for International Development (NZAID) cover the fee for hospital treatment overseas for patients who need to go abroad, and the patients are responsible only for the airfare (MOH, 2008a).

All women and men who were interviewed in the 2009 SDHS were asked if they hold a membership in any health insurance scheme such as social security, employer-based insurance, or privately purchased commercial insurance. The vast majority of women and men age 15-49 (97 percent each) say that they are not covered by any type of health insurance scheme. Less than 1 percent of respondents are covered by social security, and about 1 percent are covered by insurance through their employer or by privately purchased commercial insurance (data not shown).

3.9 Knowledge and Attitude Concerning Tuberculosis

Tuberculosis (TB) is primarily caused by a bacterium called *Mycobacterium tuberculosis.*[2] The disease usually affects the lungs, although other organs are involved in up to one-third of cases. If properly treated, tuberculosis caused by drug-susceptible strains is curable in virtually all cases. If untreated, more than half the cases may be fatal within five years. Transmission is usually airborne through the spread of droplets produced when patients with infectious pulmonary tuberculosis cough. Tuberculosis is a major global health problem and is currently responsible for the deaths of about two million people each year.

[2] Bovine tuberculosis was eliminated with the introduction of pasteurization. In Samoa, any commercially available animal milk is pasteurized, and milk products available for human consumption are made from pasteurized milk.

TB is a minor public health problem in Samoa. The 2009 SDHS collected information on the respondent's knowledge and attitudes concerning TB. Tables 3.8.1 and 3.8.2 show the percentage of women and men who have heard of TB, and among those who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want a family member's TB to be kept secret.

Table 3.8.1 Knowledge and attitude concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Samoa 2009

	Among all women		Among women who have heard of TB			
Background characteristic	Percentage who have heard of TB	Number of women	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of women
Age						
15-19	64.4	560	71.2	67.4	13.9	360
20-24	74.4	474	74.1	72.0	13.2	352
25-29	78.6	375	81.1	78.9	9.7	295
30-34	83.9	308	80.4	81.4	7.5	259
35-39	74.7	358	75.3	78.9	13.7	267
40-44	86.5	284	80.8	82.7	11.6	246
45-49	81.6	299	83.0	86.5	7.8	244
Residence						
Urban	79.2	548	80.8	81.4	14.8	434
Rural	75.3	2,109	76.6	76.2	10.3	1,588
Region						
Apia Urban Area	79.2	548	80.8	81.4	14.8	434
North West Upolu	74.8	907	76.6	73.6	11.7	678
Rest of Upolu	74.1	597	82.9	78.9	10.8	443
Savaii	77.2	605	70.5	77.5	8.0	467
Education						
Primary or less	57.3	132	73.6	67.9	6.0	76
Secondary incomplete	72.8	1,598	76.8	75.3	12.8	1,163
Secondary complete	81.9	519	79.6	80.5	9.9	425
Vocational/higher	87.9	408	78.0	82.1	9.4	359
Wealth quintile						
Lowest	68.7	472	76.0	74.8	12.9	324
Second	73.8	516	76.1	79.0	10.6	380
Middle	73.0	557	74.8	76.3	10.3	407
Fourth	80.0	555	78.4	75.3	12.1	444
Highest	83.8	558	81.0	80.6	11.0	468
Total	76.1	2,657	77.5	77.3	11.3	2,023

More than three-quarters of women (76 percent) and men (78 percent) in Samoa have heard of TB. Younger respondents age 15-49 are less likely to have heard of TB, and the level of knowledge tends to increase with age. There are no major variations by urban-rural residence or region, although women in rural areas are slightly less likely to have heard of TB than those in urban areas (75 percent compared with 79 percent). Respondents with less education and those in households in the lowest wealth quintile are less likely to know about TB. For example, 57 percent of women with primary or less education have heard of TB compared with 88 percent of women with vocational or higher than secondary education. Similarly, knowledge of TB increases from 69 percent of women in the lowest wealth quintile to 84 percent of those in the highest wealth quintile.

Among women and men who have heard of TB, a relatively high proportion know that TB is spread through the air by coughing (78 percent of women and 70 percent of men). About 8 in 10 respondents believe that TB can be cured (77 percent women and 85 percent men). The knowledge that TB can be cured is generally lower among the youngest respondents, those with less education, and those in the lower wealth quintiles.

There is very little stigma attached to TB. For example, only 11 percent of women and 8 percent of men said that if a family member had TB, they would want it to remain a secret. There are no major variations by background characteristics except for urban-rural residence. Urban women and men (15 percent each) are more likely than rural women (10 percent) and men (6 percent) to want to keep secret that a family member has TB.

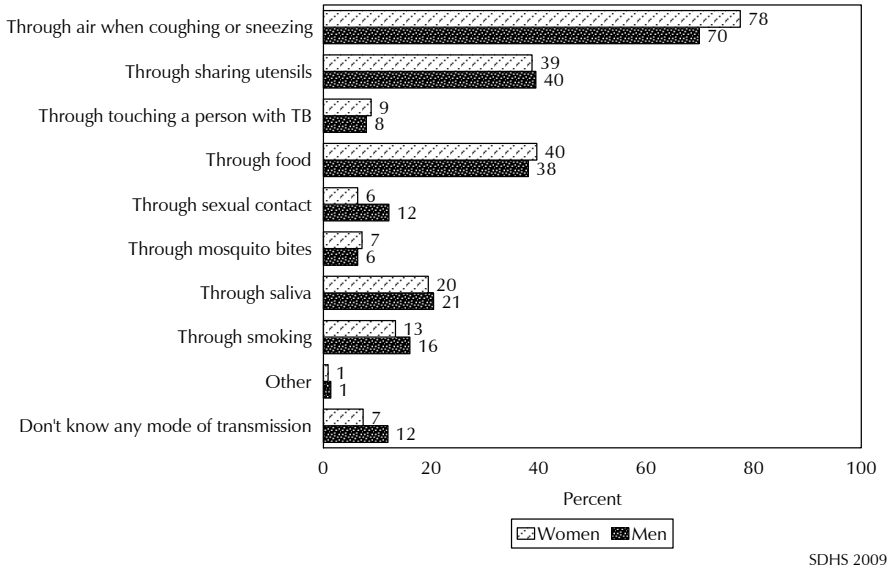
Compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the percentage of women and men in Samoa who know that TB spreads through the air by coughing (78 percent of women and 70 percent of men) is higher than that observed in Tuvalu where 61 percent of women and 56 percent of men in 2007 knew (TCSD, SPC, and Macro International , 2009). The prevalence observed in Samoa is lower, however, than in the Solomon Islands where 82 percent of women and 86 percent of men in 2006-07 (SISO, SPC and Macro International Inc. 2009) knew this fact and also lower than in the Marshall Islands where 82 percent of women and men each in 2007 knew the way that TB spread (EPPSO, SPC and Macro International Inc. 2008). Prevalence in Samoa is similar to that in Nauru for men (31 percent, but not for women (74 percent) (Nauru Bureau of Statistics, SPC, and Macro International Inc. 2009).

Table 3.8.2 Knowledge and attitude concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Samoa 2009

	Among all men		Among men who have heard of TB			
Background characteristic	Percentage who have heard of TB	Number of men	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of men
Age						
15-19	55.0	269	66.0	79.1	8.0	148
20-24	75.4	209	70.6	86.3	5.7	157
25-29	84.8	168	69.0	81.2	15.9	143
30-34	84.5	161	68.6	88.7	4.1	136
35-39	88.2	153	70.5	85.5	6.7	135
40-44	87.9	147	69.2	81.7	3.4	129
45-49	87.4	112	78.2	91.3	8.5	98
Residence						
Urban	76.7	211	85.4	83.0	14.7	162
Rural	77.8	1,009	66.7	84.8	6.0	785
Region						
Apia Urban Area	76.7	211	85.4	83.0	14.7	162
North West Upolu	78.5	439	65.4	86.3	4.8	345
Rest of Upolu	74.4	279	78.8	90.0	7.2	207
Savaii	80.0	291	58.0	78.0	6.8	233
Education						
Primary or less	67.5	158	62.4	77.8	1.8	107
Secondary incomplete	74.9	670	69.6	83.0	6.6	501
Secondary complete	84.6	187	72.7	87.9	13.6	158
Vocational/higher	88.0	206	73.0	89.7	8.0	181
Wealth quintile						
Lowest	73.3	209	64.0	80.1	3.8	153
Second	79.2	226	64.9	83.0	7.7	179
Middle	76.7	274	75.0	85.0	9.1	210
Fourth	78.9	264	69.4	84.2	6.1	208
Highest	79.4	248	74.2	89.2	9.9	197
Total 15-49	77.6	1,220	69.9	84.5	7.5	947
50-54	81.2	87	76.0	86.0	5.2	70
Total 15-54	77.8	1,307	70.4	84.6	7.3	1,017

Figure 3.2 **Among Women and Men Age 15-49 Who Have Heard of TB, Knowledge and Misconception About Transmission of TB**



3.9.1 Misconceptions about the Way Tuberculosis Spreads

Although the majority of women and men are able to correctly identify that TB is spread through the air by coughing, misconceptions about TB transmission are widespread in the adult population. Figure 3.2 shows the percentages of women and men who have heard about TB and how TB is spread. As commented earlier (see Tables 3.8.1 and 3.8.2), overall, 78 percent of women and 70 percent of men correctly know that the illness is spread through air when coughing or sneezing. Figure 3.2 shows that the two most common misconceptions, reported by about four in ten respondents, are that TB spreads through sharing utensils (40 percent of men and 39 percent of women) and through sharing food (40 percent of women and 38 percent of men). About one in five women and men who have heard of TB believe that it can be contracted through saliva, while 13 percent of women and 16 percent of men think that TB can be contracted through smoking. Furthermore, although 6 percent of women and 12 percent of men believe that TB can be contracted through sexual contact, less than 10 percent (9 percent of women and 8 percent of men) believe that TB can be transmitted by touching a person with tuberculosis. A small proportion of respondents believe that TB can be transmitted through mosquito bites (7 percent of women and 6 percent of men).

3.9.2 Exposure to Messages on Tuberculosis

The media is seen as an effective way to disseminate public health information. To assess the extent to which various types of media serve as a source of messages on tuberculosis, respondents were asked whether they ever had read or seen information about TB in a newspaper or magazine; in leaflets, brochures, or booklets; or on the Internet. Results are shown in Table 3.9.

Overall, nearly three in ten women (29 percent) and men (30 percent) report having read a message about TB at some point in a newspaper or magazine, and about one in five (20 percent of women and 23 percent of men) saw a message in a brochure or a booklet. The Internet is the least common source of TB messages for both women (7 percent) and men (5 percent). Overall, 66 percent of women and men have not heard or seen any TB messages in any of the specified media.

Table 3.9 Exposure to messages about TB in printed media and the Internet

Percentage of women and men age 15-49 who have ever read or seen a TB message in a newspaper/magazine, in leaflets/brochures or booklets, or on the Internet, according to background characteristics, Samoa 2009

Background characteristic	Newspaper/ magazine	Leaflets/ brochures or booklets	Internet	None of these three media sources[1]	Number of women	Newspaper/ magazine	Leaflets/ brochures or booklets	Internet	None of these three media sources[1]	Number of men
Age										
15-19	21.1	14.4	4.8	74.9	560	13.6	12.9	1.5	82.8	269
20-24	28.5	19.2	10.2	66.1	474	29.2	23.5	3.4	67.2	209
25-29	30.3	22.0	7.2	65.2	375	41.7	30.1	14.5	53.6	168
30-34	34.8	26.0	8.2	58.3	308	26.7	23.7	4.6	67.3	161
35-39	29.5	22.2	6.0	65.4	358	38.6	28.5	4.6	56.7	153
40-44	31.1	23.4	5.9	62.5	284	33.0	31.6	3.6	58.9	147
45-49	31.6	20.3	4.5	64.1	299	37.6	19.4	1.9	59.7	112
Residence										
Urban	32.0	27.3	12.6	62.5	548	24.8	22.9	4.6	70.8	211
Rural	27.8	18.5	5.2	67.2	2,109	30.6	23.4	4.8	64.7	1,009
Region										
Apia Urban Area	32.0	27.3	12.6	62.5	548	24.8	22.9	4.6	70.8	211
North West Upolu	28.4	16.1	6.5	67.1	907	36.2	24.5	3.7	60.8	439
Rest of Upolu	32.3	24.9	6.4	63.6	597	32.5	26.8	7.3	63.9	279
Savaii	22.4	15.9	2.2	70.9	605	20.3	18.5	3.8	71.4	291
Education										
Primary or less	13.8	7.9	0.6	86.2	132	13.6	10.4	0.8	84.0	158
Secondary incomplete	24.9	16.7	2.7	70.7	1,598	25.2	19.9	1.9	69.7	670
Secondary complete	32.4	22.8	5.9	61.8	519	40.4	31.6	6.6	55.8	187
Vocational/higher	43.6	35.6	25.4	47.9	408	46.2	37.0	15.2	48.0	206
Wealth quintile										
Lowest	21.0	13.2	1.7	75.8	472	23.6	21.5	2.0	69.7	209
Second	24.4	15.2	4.0	70.6	516	25.9	22.6	4.2	68.9	226
Middle	27.1	18.7	4.1	68.6	557	24.2	17.9	1.6	71.6	274
Fourth	30.4	23.6	6.4	63.1	555	31.6	24.3	4.2	65.0	264
Highest	39.0	29.6	16.5	54.8	558	41.8	30.4	11.6	54.0	248
Total 15-49	28.7	20.4	6.7	66.2	2,657	29.6	23.3	4.7	65.8	1,220
50-54	na	na	na	na	na	22.7	17.7	1.7	74.2	87
Total men 15-54	na	na	na	na	na	29.1	22.9	4.5	66.3	1,307

na = Not applicable
[1] Includes respondents who cannot read at all

Among women, exposure to TB messages in any type of the specified media is more common in urban than rural areas. Rural men, however, are slightly more likely than urban men to read about TB in a newspaper or magazine; exposure to the other two types of media among men does not vary much by urban-rural residence. Exposure of women and men to TB messages through any type of these three media increases with level of education and wealth quintile. For example, only 14 percent of women who have heard of TB and who have a primary or less education have read a TB message on a newspaper or magazine compared with 44 percent of women with vocational or higher than secondary education. Exposure to TB messages via newspaper or magazine ranges from 21 percent among women in the lowest wealth quintile to 39 percent of women in the highest quintile.

Women and men who have heard about TB were also asked whether they saw or heard a TB message on a billboard or poster, on the television or the radio, or through a TB peer education program, or other TB-related programs or a community event. They were also asked whether they received information about TB from other sources, such as an outreach worker, family, or friends. Tables 3.10.1 and 3.10.2 show the results by background characteristics. Results in the tables and in Figure 3.3 show that TV is the most common source of TB-related information among respondents who have heard of TB; it is reported by 65 percent of women and 67 percent of men. Approximately six in ten respondents (60 percent of women and 59 percent of men) heard about TB on the radio, and more than one-third (37 percent of women and 38 percent of men) saw or read TB messages on billboards or posters or heard them from family or friends (37 percent of women and 32 percent of men). About one-fifth of respondents (22 percent of women and 23 percent of men) have heard a TB message from an outreach worker. Peer or other types of TB education programs and community events are the least common source of TB messages reported by 12 to 17 percent of women and men.

Table 3.10.1 Exposure to messages about TB: Women

Percentage of women age 15-49 who have ever seen or heard a TB message in a billboard/poster, on the television or radio, through a TB education program, or from other specified sources, according to background characteristics, Samoa 2009

Background characteristic	Billboards/ posters	TV	Radio	Peer education program on TB	Other education program on TB	Community event on TB	Outreach worker	Family/ friends	None of these sources	Number of women
Age										
15-19	28.0	51.5	41.1	9.0	7.5	14.4	26.4	26.4	37.3	560
20-24	38.4	64.0	53.0	17.8	15.3	19.4	25.3	38.4	26.7	474
25-29	37.2	71.5	65.7	17.9	11.7	16.7	22.9	39.0	22.0	375
30-34	40.6	72.6	69.9	21.0	14.8	19.4	20.8	40.3	17.0	308
35-39	40.0	60.9	63.9	18.6	17.9	13.9	17.4	40.9	26.4	358
40-44	41.1	72.0	71.4	19.7	19.1	17.4	21.6	40.6	13.8	284
45-49	36.6	72.3	73.9	20.5	17.2	18.6	17.3	37.1	18.7	299
Residence										
Urban	42.5	70.6	58.1	15.5	14.4	20.3	23.8	38.7	21.4	548
Rural	35.1	63.3	60.5	17.3	14.0	16.1	21.9	36.1	25.7	2,109
Region										
Apia Urban Area	42.5	70.6	58.1	15.5	14.4	20.3	23.8	38.7	21.4	548
North West Upolu	33.5	65.5	58.2	14.0	10.8	10.1	17.8	33.2	26.1	907
Rest of Upolu	40.0	58.8	61.2	19.2	17.6	21.7	24.4	40.3	26.9	597
Savaii	32.5	64.4	63.4	20.5	15.1	19.4	25.7	36.2	24.0	605
Education										
Primary or less	18.6	42.8	45.2	8.6	12.7	5.1	6.9	26.9	44.2	132
Secondary incomplete	33.0	61.4	58.5	15.1	11.5	15.1	19.5	33.2	28.2	1,598
Secondary complete	40.7	70.8	65.5	17.4	13.4	15.2	22.5	40.2	18.4	519
Vocational/higher	51.4	77.5	64.0	26.4	25.1	29.9	38.1	48.7	13.5	408
Wealth quintile										
Lowest	27.9	51.3	55.0	14.4	11.1	13.4	17.6	33.1	32.9	472
Second	31.4	63.2	60.3	17.1	13.3	15.6	21.5	32.4	26.8	516
Middle	35.6	63.3	59.1	16.2	12.5	16.5	20.9	36.5	27.8	557
Fourth	41.4	70.0	63.5	16.5	14.7	16.6	23.9	37.6	21.1	555
Highest	45.0	73.9	61.6	20.2	18.2	21.8	26.9	42.7	16.9	558
Total 15-49	36.6	64.8	60.0	17.0	14.0	16.9	22.3	36.6	24.8	2,657

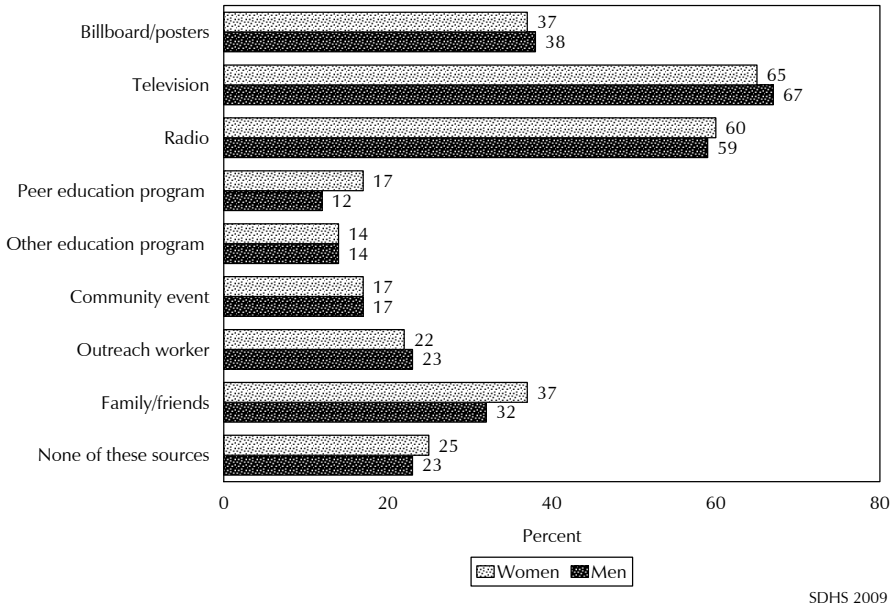
Roughly one in four respondents (25 percent of women and 23 percent of men) reported not having been exposed to TB messages via any of the specified media. For both men and women, lack of exposure to TB messages through any type of media is highest for the youngest age groups. Rural women are slightly less likely to be exposed to TB messages through the specified media than urban women (26 percent compared with 21 percent), but there is no major difference among men. Lack of exposure to TB messages through the media is inversely associated with education and wealth quintile; it decreases with an increase in education and wealth. Women and men with more education who belong to the higher wealth quintiles are more likely to be exposed to TB messages through the specified media than those with less education and in the lower wealth quintiles.

Table 3.10.2 Exposure to messages about TB: Men

Percentage of men age 15-49 who have ever seen or heard a TB message in a billboard/poster, on the television or radio, through a TB education program, or from other specified sources, according to background characteristics, Samoa 2009

Background characteristic	Billboards/ posters	TV	Radio	Peer education program on TB	Other education program on TB	Community event on TB	Outreach worker	Family/ friends	None of these sources	Number of men
Age										
15-19	25.0	47.2	34.8	4.9	6.2	8.4	19.3	20.1	45.3	269
20-24	39.4	63.7	54.1	14.0	10.9	19.5	29.4	27.2	25.9	209
25-29	49.2	77.8	67.2	17.0	20.1	25.4	27.3	39.6	15.8	168
30-34	37.2	73.8	65.7	10.6	11.9	16.0	22.7	36.3	16.8	161
35-39	43.3	74.5	72.6	13.4	14.9	17.8	22.0	36.3	14.1	153
40-44	44.0	75.1	67.0	13.8	18.0	16.9	20.9	42.0	12.1	147
45-49	35.0	68.6	72.0	11.5	23.3	16.5	20.4	30.9	12.6	112
Residence										
Urban	36.7	69.6	52.8	3.9	5.0	7.6	11.3	14.2	24.2	211
Rural	38.2	65.9	59.9	13.2	15.6	18.5	25.7	35.5	23.0	1,009
Region										
Apia Urban Area	36.7	69.6	52.8	3.9	5.0	7.6	11.3	14.2	24.2	211
North West Upolu	43.4	69.3	56.4	6.9	9.7	13.1	17.7	36.8	21.9	439
Rest of Upolu	34.3	58.5	58.2	24.9	22.8	26.7	31.6	28.9	26.5	279
Savaii	34.2	67.8	66.9	11.7	17.5	18.7	32.2	39.8	21.4	291
Education										
Primary or less	20.9	51.6	48.8	5.7	10.9	7.4	7.7	26.9	32.5	158
Secondary incomplete	33.7	64.3	55.1	10.2	11.8	14.2	19.7	29.4	26.1	670
Secondary complete	48.9	72.3	68.3	15.6	14.9	23.4	37.1	39.1	17.2	187
Vocational/higher	54.9	80.1	69.2	17.2	21.4	25.5	34.0	36.8	12.0	206
Wealth quintile										
Lowest	34.3	56.8	54.1	12.4	10.7	11.1	23.1	34.8	27.2	209
Second	33.4	65.2	55.9	7.8	11.6	12.2	19.0	32.4	22.3	226
Middle	33.5	68.5	61.7	10.4	13.6	16.7	23.0	25.7	23.9	274
Fourth	40.8	68.8	58.6	13.5	18.4	21.5	24.2	36.7	21.5	264
Highest	47.1	71.3	61.9	13.8	13.5	19.9	26.4	30.2	21.7	248
Total 15-49	38.0	66.5	58.7	11.6	13.8	16.6	23.2	31.8	23.2	1,220
50-54	31.1	66.0	64.4	21.4	15.8	21.2	17.2	34.2	22.8	87
Total men 15-54	37.5	66.5	59.1	12.3	13.9	16.9	22.8	32.0	23.2	1,307

Figure 3.3 **Percentage of Women and Men Exposed to Messages about Tuberculosis**



SDHS 2009

3.10 SMOKING

Smoking is a known risk factor for cardiovascular disease. It also causes lung and other forms of cancer and contributes to the severity of pneumonia, emphysema, and chronic bronchitis. Smoking may also have an impact on individuals who are exposed to the smoke second-hand. For example, inhaling second-hand smoke may adversely affect children's growth and cause childhood illness, especially respiratory diseases. An increasing number of Samoans suffer from non-communicable diseases, so smoking is a behaviour that has a negative impact on the nation's efforts to combat diseases and improve the population's lifestyles. The fact that smoking is an acquired behaviour indicates that the morbidity and mortality associated with smoking is highly preventable.

The Health Sector Situational Analysis conducted in May 2006 by the Samoa Ministry of Health identified noncommunicable diseases as one of the most important health challenges in the country. Noncommunicable diseases in Samoa are increasing rapidly, and they continue to place a major burden on the country's health sector and economy as well as have a significant impact on the adult morbidity and mortality (Samoa National Health Accounts, 2006/2007). These findings have been the driving force behind the health sector's focus on health promotion activities and programs, which include campaigns against smoking. The percentage of the population that smokes in Samoa is expected to decline in the near future because of the recent passage of the Tobacco Control Act 2008 (www.parliament.gov.ws), which prohibited smoking in public areas, including but not limited to restaurants, nightclubs or bars, and public transport vehicles. Ongoing awareness campaigns and health promotion activities against smoking are constantly being implemented by the Health Promotion and Prevention Division, including the School Tobacco Control Program, which plays a role in all primary schools in Samoa.

To measure the extent of smoking and other tobacco use in Samoa, women and men who were interviewed in the 2009 SDHS were asked if they currently smoke cigarettes or use any other forms of tobacco. Tables 3.11.1 and 3.11.2 show the percentage by background characteristics of women and men age 15-49 who smoke cigarettes or a pipe, smoke Tapaa Samoa (a local tobacco product), or use other forms of tobacco. .

Cigarette smoking is the most common type of tobacco use in Samoa, and its practice is significantly higher among men than among women (35 and 15 percent, respectively). Additionally, Samoan men smoke more cigarettes per day than Samoan women do. Sixty percent of men say they smoke 10 or more cigarettes per day compared with 37 percent of women.

The distribution of women smoking cigarettes does not vary much by age or education. On the other hand, women residing in urban areas and in Apia Urban Area in particular (20 percent each), women who are neither breastfeeding nor pregnant (16 percent), and women from the second wealth quintile (19 percent) are more likely to smoke cigarettes than other women. The proportion of men smoking cigarettes increases dramatically with age, from 11 percent among men age 15-19 to nearly half of men in their thirties. Cigarette smoking among men decreases with an increase in education and wealth.

A higher percentage of men (6 percent) than women (less than 1 percent) smoke Tapaa Samoa, a locally grown tobacco product. The use of Tapaa Samoa is almost entirely concentrated among rural men (being used by 7 percent of men in rural areas versus less than 1 percent of men in urban areas) and in Savaii (15 percent) and the Rest of Upolu (6 percent). The use of Tapaa Samoa among men decreases from 10 percent among men with primary or less education to 2 percent of men with complete secondary education and 5 percent of men with vocational or higher than secondary education. Men in the lowest wealth quintile have the highest percentage of use of Tapaa Samoa (12 percent), while men in the highest wealth quintile have the least use (2 percent).

Table 3.11.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or Tapaa Samoa or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Samoa 2009

Background characteristic	Cigarettes	Tapaa Samoa	Other tobacco	Does not use tobacco	Number of women	Number of cigarettes in the past 24 hours: 0	1-2	3-5	6-9	10+	Don't know/ missing	Total	Number of cigarette smokers
Age													
15-19	4.2	0.0	0.0	95.8	560	(0.0)	(5.0)	(32.3)	(9.5)	(38.5)	(14.7)	100.0	24
20-24	16.0	0.0	0.2	84.0	474	0.0	23.5	36.5	9.3	27.6	3.1	100.0	76
25-29	19.3	0.2	0.2	80.4	375	0.0	18.5	30.4	15.0	30.2	5.7	100.0	72
30-34	19.6	0.4	0.0	80.0	308	0.0	20.1	27.6	6.9	43.5	1.9	100.0	61
35-39	15.8	0.0	0.3	83.6	358	0.0	14.3	37.7	7.0	39.2	1.8	100.0	57
40-44	19.3	0.2	0.0	80.7	284	3.1	5.3	24.8	19.1	45.1	2.6	100.0	55
45-49	21.2	0.7	0.0	78.8	299	0.0	21.7	22.5	11.8	42.4	1.6	100.0	63
Residence													
Urban	20.4	0.1	0.0	79.4	548	0.5	21.7	26.3	8.3	41.1	2.1	100.0	112
Rural	14.0	0.2	0.1	85.8	2,109	0.4	15.3	31.8	12.5	35.9	4.1	100.0	295
Region													
Apia Urban Area	20.4	0.1	0.0	79.4	548	0.5	21.7	26.3	8.3	41.1	2.1	100.0	112
North West Upolu	13.9	0.1	0.1	86.1	907	0.0	12.7	36.3	7.5	41.3	2.2	100.0	126
Rest of Upolu	16.4	0.1	0.3	83.3	597	0.0	19.6	32.7	13.8	29.2	4.7	100.0	98
Savaii	11.9	0.4	0.0	87.9	605	1.5	13.8	22.7	19.5	35.7	6.7	100.0	72
Education													
Primary or less	15.2	0.0	0.0	84.8	132	*	*	*	*	*	*	100.0	20
Secondary incomplete	14.8	0.1	0.1	85.0	1,598	0.7	18.5	32.2	11.7	33.8	3.1	100.0	237
Secondary complete	16.5	0.3	0.2	83.1	519	0.0	18.3	22.1	9.2	47.4	3.1	100.0	85
Vocational/higher	15.9	0.3	0.0	84.1	408	0.0	14.4	27.9	13.1	40.9	3.6	100.0	65
Maternity status													
Pregnant	10.2	0.0	0.5	89.8	175	*	*	*	*	*	*	100.0	18
Breastfeeding (not pregnant)	15.1	0.1	0.2	84.8	635	0.0	17.7	28.8	14.6	36.0	2.8	100.0	96
Neither	15.9	0.2	0.0	83.9	1,847	0.6	16.3	29.7	10.3	39.0	4.1	100.0	294
Wealth quintile													
Lowest	13.9	0.0	0.4	86.1	472	0.0	20.1	31.3	11.6	35.8	1.2	100.0	66
Second	19.4	0.4	0.0	80.3	516	0.0	14.2	33.7	17.4	30.3	4.3	100.0	100
Middle	14.8	0.3	0.2	84.8	557	1.3	15.2	30.4	10.5	39.0	3.5	100.0	82
Fourth	13.2	0.0	0.0	86.6	555	0.0	15.5	24.0	4.4	50.8	5.3	100.0	73
Highest	15.4	0.3	0.0	84.6	558	0.7	21.0	30.7	10.8	33.6	3.1	100.0	86
Total	15.3	0.2	0.1	84.5	2,657	0.4	17.0	30.3	11.4	37.3	3.6	100.0	407

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed..

When compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, Samoa has the lowest percentage of cigarette smoking among men: 35 percent of men age 15-49 currently smoke cigarettes in Samoa versus 55 percent of men in Tuvalu (TCSD, SPC, and Macro International Inc., 2009), 52 percent in Nauru (Nauru Bureau of Statistics, SPC, and Macro International Inc., 2009), and 45 percent in Solomon Islands (SISO, SPC, and Macro International Inc., 2009). As for women, the percentage of women age 15-49 who smoke cigarettes in Samoa (15 percent) is lower than the prevalence in Nauru (53 percent), and Tuvalu (24 percent) and similar to that observed in the Solomon Islands (14 percent).

Table 3.11.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes, a pipe, or Tapaa Samoa or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Samoa 2009

Background characteristic	Cigarettes	Pipe	Tapaa Samoa	Other tobacco	Does not use tobacco	Number of men	Number of cigarettes in the past 24 hours: 0	1-2	3-5	6-9	10+	Don't know/ missing	Total	Number of cigarette smokers
Age														
15-19	10.8	0.0	1.0	0.3	88.9	269	(0.0)	(5.9)	(30.2)	(15.9)	(48.1)	(0.0)	100.0	29
20-24	31.0	0.0	3.5	1.9	68.0	209	0.0	2.4	35.8	7.8	50.7	3.4	100.0	65
25-29	41.5	0.0	4.6	1.1	57.6	168	0.0	7.4	16.6	11.8	62.4	1.8	100.0	70
30-34	49.4	0.0	9.1	1.5	50.1	161	1.0	3.0	20.6	11.9	63.4	0.0	100.0	80
35-39	47.9	0.6	8.8	1.0	51.0	153	0.0	2.4	24.0	18.0	53.9	1.7	100.0	73
40-44	38.6	0.0	7.0	1.3	58.8	147	0.0	1.0	14.7	10.3	71.9	2.1	100.0	57
45-49	42.5	0.9	15.1	1.1	56.8	112	(0.0)	(2.6)	(18.1)	(8.9)	(68.5)	(1.8)	100.0	48
Residence														
Urban	34.8	0.0	0.2	0.6	64.9	211	0.0	3.9	18.4	3.9	72.3	1.6	100.0	74
Rural	34.5	0.2	7.2	1.2	64.4	1,009	0.2	3.3	23.3	13.8	57.8	1.6	100.0	348
Region														
Apia Urban Area	34.8	0.0	0.2	0.6	64.9	211	0.0	3.9	18.4	3.9	72.3	1.6	100.0	74
North West Upolu	29.9	0.0	2.8	1.8	70.1	439	0.6	1.8	28.5	10.7	55.7	2.7	100.0	131
Rest of Upolu	42.2	0.7	6.4	1.3	57.1	279	0.0	4.4	18.3	16.3	59.3	1.7	100.0	118
Savaii	33.9	0.0	14.5	0.3	62.9	291	0.0	4.1	22.3	14.8	58.7	0.0	100.0	99
Education														
Primary or less	39.5	0.0	10.4	1.4	57.8	158	0.0	0.0	27.8	13.5	58.7	0.0	100.0	63
Secondary incomplete	35.2	0.1	6.3	1.0	63.9	670	0.3	3.6	22.0	11.2	61.6	1.4	100.0	236
Secondary complete	31.0	0.0	2.3	1.6	69.0	187	0.0	5.4	22.1	18.1	54.4	0.0	100.0	58
Vocational/higher	31.5	0.5	4.8	0.8	67.7	206	0.0	4.3	19.4	8.4	62.4	5.4	100.0	65
Wealth quintile														
Lowest	40.2	0.5	11.6	1.5	57.4	209	0.0	0.0	25.1	11.9	60.7	2.3	100.0	84
Second	37.0	0.0	7.8	1.8	62.6	226	0.0	5.7	34.9	8.3	51.1	0.0	100.0	84
Middle	33.4	0.0	6.3	1.2	65.5	274	0.8	2.8	13.3	20.6	61.2	1.3	100.0	92
Fourth	32.6	0.0	3.4	0.7	66.8	264	0.0	3.5	22.1	9.0	62.6	2.7	100.0	86
Highest	30.7	0.4	1.9	0.5	68.8	248	0.0	5.3	17.3	9.4	66.4	1.6	100.0	76
Total 15-49	34.5	0.2	6.0	1.1	64.5	1,220	0.2	3.4	22.4	12.0	60.3	1.6	100.0	421
50-54	39.6	0.0	11.6	0.0	59.5	87	(0.0)	(0.0)	(13.1)	(12.0)	(75.0)	(0.0)	100.0	34
Total men 15-54	34.9	0.2	6.3	1.0	64.2	1,307	0.2	3.2	21.7	12.0	61.4	1.5	100.0	456

Note: Figures in parentheses are based on 25-49 unweighted cases.

3.11 PARTICIPATION IN THE PHYSICAL ACTIVITY CAMPAIGN

Based on findings from the STEPS survey (MOH, 2002), the Ministry of Health developed a Physical Activity Campaign to help control noncommunicable diseases (mainly diabetes and hypertension), improve maternal and child health, lower the perinatal mortality rate, and control and prevent communicable diseases and injuries (MOH, 2008a). This campaign was greatly supported by the government of Samoa, and it motivated the participation of young children and adults from all communities in the rural and urban areas. This campaign was also introduced within workplaces in both private and public sectors, with the main goal of promoting healthy eating and a better lifestyle in the workplace.

The Ministry of Health in partnership with the Ministry of Women in Community and Social Development (MWCSD) launched the campaign of the Prime Minister of Samoa to promote health and well being. This campaign, implemented in 2006,encouraged aerobic activities and walking among both urban and rural communities. In 2009, almost all village communities from Upolu (83 villages) and Savaii (80 villages) participated in the Physical Activity Campaign (MOH, 2009b). The Ministry of Health Sector Wide Approach program (SWAp) was able to provide funding to further strengthen the Physical Activity Campaign within village organisations. Additionally, the MOH introduced the Vegetable Gardens Project, as another village-based initiative aimed at promoting healthy eating and decreasing the prevalence of noncommunicable diseases (MOH, 2008c).

In an effort to assess the prevalence of participation in physical activities, women and men in the 2009 SDHS[3] survey were asked whether they were involved in the MOH and MWCSD Physical Activity Campaign. Table 3.12 shows the results by background characteristics. About one in three women (32 percent) and three in ten men (28 percent) were engaged in the Physical Activity Campaign (PAC) promoted by the MOH and MWCSD.

Table 3.12 Participation in the Physical Activity Campaign

Percentage of women and men age 15-49 participating in the MOH and MWCSD Physical Activity Campaign, according to background characteristics, Samoa 2009

	Women		Men	
Background characteristic	Percentage involved in Physical Activity Campaign	Number of women	Percentage involved in Physical Activity Campaign	Number of men
Age				
15-19	27.3	560	27.5	269
20-24	24.3	474	31.6	209
25-29	33.5	375	31.0	168
30-34	32.1	308	21.2	161
35-39	33.3	358	27.2	153
40-44	39.3	284	34.2	147
45-49	44.8	299	24.5	112
Residence				
Urban	19.7	548	20.2	211
Rural	35.5	2,109	30.1	1,009
Region				
Apia Urban Area	19.7	548	20.2	211
North West Upolu	24.0	907	19.9	439
Rest of Upolu	30.9	597	31.1	279
Savaii	57.3	605	44.4	291
Education				
Primary or less	27.3	132	29.9	158
Secondary incomplete	32.6	1,598	25.2	670
Secondary complete	30.5	519	34.7	187
Vocational/higher	34.7	408	31.6	206
Wealth quintile				
Lowest	31.0	472	21.4	209
Second	36.3	516	30.8	226
Middle	35.1	557	30.5	274
Fourth	31.1	555	30.9	264
Highest	27.9	558	26.9	248
Total 15-49	32.2	2,657	28.4	1,220
50-54	na	na	37.7	87
Total men 15-54	na	na	29.0	1,307

na = Not applicable

There are some differences in the level of engagement in the Physical Activity Campaign by background characteristics. Women age 45-49 (45 percent) are more likely to be engaged in physical activity than younger women. A substantially higher percentage of rural women reported being involved in the PAC than urban women (36 and 20 percent, respectively). Looking at regional variations, women in the Savaii region (57 percent) are the most likely to be engaged in the Physical Activity Campaign, and women in the Apia Urban Area are the least likely (20 percent). Level of education is positively associated with participation in physical activity. For example, only 27 percent of women with primary or no education are engaged in the PAC compared with 35 percent of women with higher than secondary education. Household wealth, however, does not show any clear relationship with participation in the Physical Activity Campaign. Nevertheless, women in the second and middle wealth quintiles (35-36 percent) are slightly more

[3] Data on physical activity in the 2002 STEPS survey are based on a population age 25-64, and the physical activity prevalence is estimated based on any type of physical activity (for leisure and for work). In the 2009 SDHS, data are based on population age 15-49, and the physical activity prevalence is estimated based on respondents' participation in the MOH and MWCSD physical activity campaigns. Therefore, comparison of the data between the two surveys is not possible.

likely than women in the other three wealth quintiles (28-31 percent) to engage in the Physical Activity Campaign.

Differentials in the PAC participation among men by background characteristics indicate that men age 30-34 (21 percent), men in urban areas (20 percent), those in the North West Upolu and Apia Urban Area regions (20 percent each), and men in the poorest households (21 percent) are less likely to report participation than other men. As with women, men in the Savaii region are most likely to engage in physical activity (44 percent). Men with a complete secondary education (35 percent) are more likely to participate in the MOH Physical Activity Campaign than are men with lesser levels of education (25 percent for incomplete secondary and 31 percent for primary or less).

FERTILITY 4

The 2009 Samoa Demographic and Health Survey (SDHS) reports on fertility levels, trends, and differentials in Samoa. Fertility is one of the three principal demographic components of population change, the other two being mortality and migration. Samoa's population of approximately 188,000 people is growing at an annual rate of around 1.3 percent. This population growth rate is driven exclusively by the relatively high fertility in Samoa. Growth would have been considerably greater if it were not for the country's negative migration rate of approximately 1 percent per year (Samoa Bureau of Statistics, 2008).

After the 1994 International Conference on Population in Cairo, the Samoan cabinet directed the formation of a National Population Policy Council (NPPC) to develop a population policy. The, Health Department was to act as the coordinator. With the help of the new policy council, the government of Samoa developed its first National Population Policy in 1998 to manage population resources in a manner consistent with the government's ultimate objective of accelerating the rate of economic development and improving the quality of life of the Samoan people. Because the population growth in Samoa continued to remain unacceptably high, the National Population Policy was revised in 2001 and again in 2008 to integrate population issues into planning for development. Emphasis on fertility reduction was renewed. Reduction in fertility and slowing of population growth would speed up economic modernisation, sustainable development, and poverty eradication (MOH, 2008a).

This chapter looks at a number of fertility indicators, including current fertility levels, trends, and differentials; age at first birth; teenage pregnancy; and motherhood. Analysis is based on the birth histories collected from women age 15-49 who were interviewed during the survey. To obtain information, women were first asked a series of questions to determine the total number of live births in their lifetime. Then, for each live birth, information was collected on the age, sex, and survival status of the child. For dead children, age at death was recorded. The birth histories constitute the core of any DHS, and utmost care is always taken to ensure that the information recorded is complete and accurate. However, it must be kept in mind that certain cultural factors may affect women's reporting, resulting in a failure to report live births in which infants die shortly after delivery and false reporting of adopted children as biological children. Therefore, special attention was paid during the training of the interviewers to ensure proper interviewing and data recording during the birth history.

The following measures of current fertility are derived from birth history data:

- **Age-specific fertility rates** (ASFR) are expressed as the number of births per thousand women in a specified age group. They represent a valuable measure for assessing the current age pattern of childbearing. They are calculated by dividing the number of live births to women in a specific age group by the number of woman-years lived in that age group.
- **Total fertility rate** (TFR) is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The TFR is obtained by summing the age-specific fertility rates and multiplying by five.
- **General fertility rate** (GFR) is the number of live births occurring during a specified period per 1,000 women.
- **Crude birth rate** (CBR) is the number of births per 1,000 population during a specified period.

The various measures of current fertility are calculated for the three-year period preceding the survey, which roughly corresponds to the calendar period 2007-2009. A three-year period was chosen because it reflects the current fertility situation and also provides a sufficient number of cases for statistical precision.

4.1 FERTILITY LEVELS AND TRENDS

4.1.1 Fertility Levels

The total fertility rate (TFR), which is calculated for women age 15-49, is a useful measure for examining the overall level of fertility. Table 4.1 shows the age-specific fertility rates, total fertility rates, general fertility rates, and crude birth rates for Samoa as a whole as well as for those persons living in urban and rural areas.

The 2009 survey findings in Table 4.1 indicate that a Samoan woman who is at the beginning of her childbearing years will, on average, give birth to 4.6 children by the end of her reproductive period (if fertility levels remain constant at the levels observed in the three-year period preceding the 2009 SDHS). The TFR for rural areas (4.7 births) is higher than the rate for urban areas (4.1 births). The small difference in fertility level between urban and rural areas may be due to better access to reproductive health services for women in urban areas.

The 2009 SDHS findings indicate that the main childbearing years for Samoan women are during their twenties and early thirties. Urban-rural differences in childbearing rates are evident for all age groups, but they are especially great for women in their early twenties. Figure 4.1 shows that fertility among rural women is highest in this young age group (20-24) at 226 births per 1,000, although among urban women, fertility peaks in an older age group (30-34) at 234 births per 1,000.

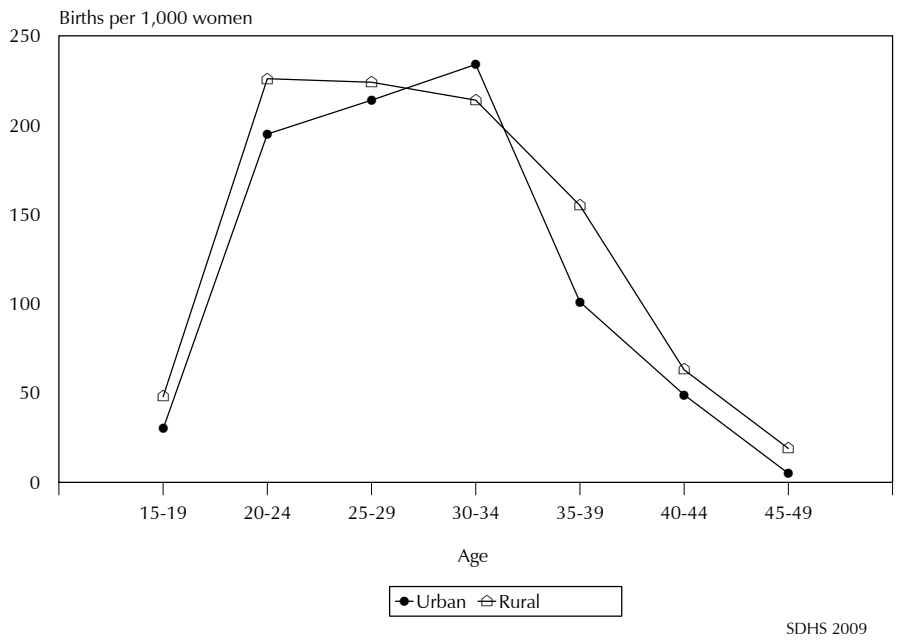
Table 4.1 Current fertility

Age-specific and total rate, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Samoa 2009

	Residence		
Age group	Urban	Rural	Total
15-19	30	48	44
20-24	195	226	219
25-29	214	224	222
30-34	234	214	218
35-39	101	155	146
40-44	49	63	60
45-49	5	19	16
TFR	4.1	4.7	4.6
GFR	129	152	148
CBR	28.1	28.7	28.6

Notes: Age-specific fertility rates are per 1,000 women. Rates for the age group 45-49 may be slightly biased due to truncation.
Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women
CBR: Crude birth rate expressed per 1,000 population

Figure 4.1 **Age-Specific Fertility Rates by Urban-Rural Residence**



The general fertility rate (GFR) for Samoa is 148. This means that for every 1,000 women in the population, there are 148 births. Table 4.1 shows a crude birth rate (CBR) for Samoa of 28.6 per 1,000 population for the period under review. Both measures are based on the birth history for the three-year period preceding the survey.

One of the main targets of the 2001 revised National Population Policy was to reduce the total fertility rate from 4.4 in 2001 to 3.8 by the year 2011 (MOH, 2008a). With a TFR of 4.6 in 2009, Samoa has not yet achieved its fertility target, and only two years remain before the 2011 target year.

4.1.2 Differentials in Current and Completed Fertility

Table 4.2 presents differentials in the TFR and the percentage of women who are currently pregnant by background characteristics. There is some variation in fertility by region, ranging from a TFR of 4.1 births in Apia Urban Area to 5.4 births in the Rest of Upolu. Undoubtedly, some of these differences are due to sampling variability, which is quite large because there are a small number of respondents in each region (see Appendix B). In Samoa, there is no clear relationship between the level of education and the number of children born to a woman. The TFR is highest (5.1 births per woman) among women with secondary education that is incomplete, compared with 4.1 to 4.3 births among women in the other education categories. It must be noted that it is surprising that the TFR is lowest (4.1) among women with primary or less education. There is a negative association between fertility and wealth; women living in the poorest households have the highest fertility (5.9 births per woman), and women in the highest wealth quintile have the lowest fertility (4.0 births per woman).

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Samoa 2009

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	4.1	6.6	4.2
Rural	4.7	6.6	4.6
Region			
Apia Urban Area	4.1	6.6	4.2
North West Upolu	4.3	6.8	4.2
Rest of Upolu	5.4	5.1	4.8
Savaii	4.7	7.8	5.0
Education			
Primary or less	4.1	5.6	5.4
Secondary incomplete	5.1	5.6	4.7
Secondary complete	4.2	9.5	3.7
Vocational/ higher	4.3	6.9	3.7
Wealth quintile			
Lowest	5.9	9.0	5.2
Second	4.3	5.5	4.7
Middle	4.7	5.3	4.9
Fourth	4.4	7.6	4.3
Highest	4.0	5.8	3.7
Total	4.6	6.6	4.6

Note: Total fertility rates are for the period 1-36 months prior to the interview.

The percentage currently pregnant provides a useful measure of current fertility. Seven percent of women age 15-49 in Samoa are currently pregnant. This is likely to be an underestimate, as some women in the early stages of pregnancy may be unaware or unsure that they are pregnant, and other women may be reluctant to declare that they are pregnant. The percentage of women who are currently pregnant is lowest in the Rest of Upolu (5 percent) and highest in the Savaii region (8 percent). There are no clear patterns in the variation of percentage of currently pregnant women and education or wealth. The highest percentage of currently pregnant women is among women who have completed secondary education (10 percent) and women who are in the lowest wealth quintile (9 percent).

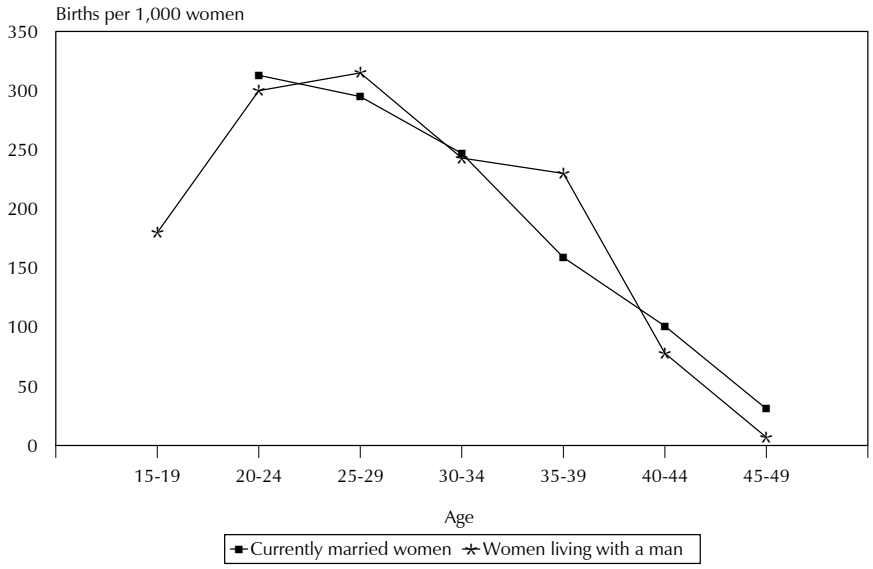
Table 4.2 also shows differentials in the mean number of children ever born to women age 40-49, that is, to women who are at the end of their childbearing years, which is a measure of completed or past fertility. If fertility remains stable over time, the two fertility measures, TFR and children ever born, should be equal or similar. The findings show that the mean number of children ever born to women age 40-49 is the same as the TFR for the three years preceding the survey (4.6 children per woman), indicating that fertility has not changed over the past 30 years in Samoa.

Comparison of the completed fertility with the TFR across sub-groups indicates that the largest decline in fertility over time is observed among women with primary or less education (from 5.4 births for women 40-49 to a TFR of 4.1 births per woman). Fertility has slightly increased among women in the Rest of Upolu region, among those with secondary or higher education and among women in the lowest wealth quintile. Fertility changes over time in all other groups are quite small.

4.1.3 Fertility by Marital Status

Childbearing in Samoa occurs primarily within marital unions. Other types of unions exist in Samoa, but these unions may not be legal. In many societies women who cohabit with a man but who are not legally married are more vulnerable than those who are legally married. They tend to depend more on support by others, be it their partner, immediate family, or government social services. Working mothers often face the challenge of finding adequate childcare. Together, these factors tend to put the wellbeing of unmarried mothers and their children at heightened risk. Figure 4.2 shows the age-specific fertility rates by marital status. The data show that there are similar patterns in the age-specific fertility rates for currently married women and for cohabiting women up to age 35. The ASFR is higher for cohabiting women age 35-39 (230 births per 1,000) than for those who are currently married (159 births per 1,000). For older women, age 40 or beyond, the reverse pattern is observed: currently married women have a higher fertility rate than those women who are cohabiting with a man.

Figure 4.2 **Age-Specific Fertility Rates by Marital Status**



Note: The data point for currently married women age 15-19 is not presented because there were fewer than 25 unweighted cases in this category

SDHS 2009

4.1.4 Trends in Fertility

Besides the comparison of current and completed fertility, fertility trends in Samoa can be assessed in other ways. Retrospective data from the birth histories collected from respondents in a single survey may show trends in fertility. The TFR from the 2009 SDHS can also be compared with estimates obtained from other sources.

Table 4.3 uses information from the retrospective birth histories obtained from SDHS respondents to examine the trends in age-specific fertility rates for successive five-year periods preceding the survey. To calculate these rates, births were classified according to the period of time in which the birth occurred and the mother's age at the time of birth. The age-specific rates are progressively truncated with increasing time before the survey. Because women age 50 and older were not interviewed in the 2009 SDHS, the rates for older age groups become progressively more

truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years more prior to the survey, because women in that age group would have been 50 years or older at the time of the survey. Partially truncated rates are enclosed in brackets in the table.

Table 4.3 indicates that fertility in Samoa has fluctuated over the last two decades and, for the most part, it has remained more or less at the same levels.

Table 4.3 Trends in age-specific fertility rates

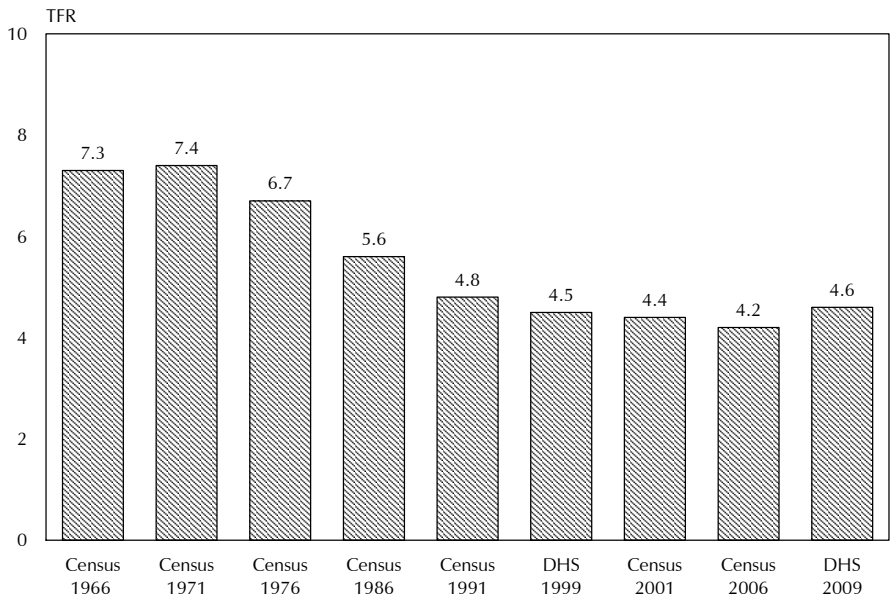
Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Samoa 2009

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	44	40	50	54
20-24	200	184	209	179
25-29	220	242	245	234
30-34	209	189	220	[234]
35-39	154	145	[181]	-
40-44	59	[100]	-	-
45-49	[20]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview.

Data from available sources over time indicate that fertility was very high in Samoa until the 1970s and early 1980s (Figure 4.3). For the 1960s and 1970s, the TFR was around 7 children per woman (Western Samoa Census Commissioner's Office, 1968; Western Samoa Department of Statistics, 1972; Western Samoa Department of Statistics, 1979). According to the 1986 Census of Population and Housing, the TFR then dropped to around 5.6[1] (Western Samoa Department of Statistics, 1990). By 1991, the TFR had declined to 4.8 children per woman (Western Samoa Department of Statistics, 1993). The 1999 Samoa DHS reported a TFR of 4.5 children per woman. In the subsequent 2001 and 2006 Censuses of Population and Housing, the TFRs were 4.4 and 4.2 children, respectively (Samoa Department of Statistics, 2001; Samoa Bureau of Statistics, 2008), indicating that fertility decline has stagnated and that the TFR has remained fairly constant over the past 20 years or so and that the decline . The results of the 2009 SDHS show a slight increase in TFR from 4.2 children per woman in 2006 (Samoa Bureau of Statistics, 2008) to the current level of 4.6 children per woman. This suggests that Samoa is going through a protracted demographic transition in which mortality rates have significantly declined but the decline in fertility has stagnated

Figure 4.3 **Trends in Total Fertility Rate by Different Sources**



[1] The estimated TFR of 5.6 is based on indirect estimation using Trussell equations in conjunction with examination of best fitting curves from the Relational Gompertz model.

4.2 CHILDREN EVER BORN AND LIVING

Table 4.4 shows the distribution of all women and of currently married women by the total number of children ever born and by the mean number of living children. Data on the number of children ever born reflect the accumulation of births to women over their entire reproductive lives and therefore have limited reference to current fertility levels, particularly when the country has experienced a decline in fertility. However, the information is useful for looking at how average family size varies across age groups and for looking at the level of primary infertility.

Table 4.4 shows that women in Samoa have given birth to an average of 2.24 children, nearly all of whom (2.21 children) are still alive. The number of children that women have increases with age, reflecting the natural family-building process. On average, women in Samoa have given birth to one child by their early twenties. Samoan women attain a parity of 4.8 children by the end of their reproductive period, which is very similar to the total fertility rate of 4.6 children per woman.

Table 4.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Samoa 2009

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of living children
ALL WOMEN															
15-19	93.1	6.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	560	0.08	0.08
20-24	54.6	25.5	14.4	5.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	474	0.71	0.71
25-29	23.8	26.1	21.0	14.8	10.9	3.2	0.0	0.2	0.0	0.0	0.0	100.0	375	1.73	1.70
30-34	10.5	13.9	14.8	20.5	19.0	11.7	5.9	3.1	0.4	0.3	0.0	100.0	308	3.02	2.97
35-39	6.4	10.2	11.9	17.0	18.7	15.9	10.4	6.0	2.2	1.1	0.3	100.0	358	3.74	3.69
40-44	8.2	7.8	9.2	12.5	18.2	11.6	14.1	6.5	7.2	1.9	2.6	100.0	284	4.28	4.23
45-49	5.2	6.4	6.2	13.7	13.8	14.1	14.3	10.8	8.3	5.4	1.8	100.0	299	4.82	4.74
Total	36.2	14.0	10.7	10.6	9.8	6.8	5.2	3.1	2.0	1.0	0.5	100.0	2,657	2.24	2.21
CURRENTLY MARRIED WOMEN															
15-19	(53.2)	(37.0)	(9.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	39	(0.56)	(0.54)
20-24	21.1	37.9	28.8	11.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	100.0	196	1.33	1.32
25-29	9.2	24.8	27.4	20.1	14.2	4.0	0.0	0.2	0.0	0.0	0.0	100.0	272	2.18	2.15
30-34	2.2	12.5	13.4	23.6	22.4	14.2	7.0	3.8	0.5	0.4	0.0	100.0	246	3.47	3.41
35-39	3.3	8.3	11.1	18.0	21.1	17.1	10.9	6.0	2.6	1.2	0.3	100.0	305	3.98	3.92
40-44	4.0	6.4	8.2	13.2	18.8	12.8	16.2	7.1	8.4	1.8	3.1	100.0	243	4.65	4.60
45-49	1.4	5.6	5.9	13.8	13.2	14.6	16.0	12.2	8.8	6.4	2.2	100.0	252	5.18	5.08
Total	7.5	15.6	15.2	16.6	15.3	10.7	8.4	4.9	3.3	1.6	0.9	100.0	1,554	3.46	3.41

Note: Figures in parentheses are based on 25-49 unweighted cases.

The distribution of children ever born by age shows that early childbearing is not common in Samoa; 93 percent of women age 15-19 have never given birth. This proportion declines rapidly to 11 percent among women in their early thirties and to 5 percent among those in their late forties.

As expected, currently married women have had more births than all women in all age groups. Currently married women in Samoa have given birth to an average of 3.46 children (3.41 living children). The largest difference between the data on children ever born for currently married women and all women is in the young age groups because a large number of unmarried young women are not exposed to the risk of pregnancy. Differences at older ages reflect the impact of marital dissolution (divorce or widowhood).

Among currently married women, 16 percent have had only one live-born child, nearly half (47 percent) have had two to four children, and 30 percent have had five or more children. Voluntary childlessness is rare in Samoa, and most married women tend to have at least one child. The proportion of childless women age 45-49 is an indirect indicator of primary infertility. In total, only 1 percent of currently married women age 45-49 have never had a live birth.

The progression of average parities by age of woman suggests that recall lapse is minimal amongst Samoan women. However, the minimal differences between numbers of children ever born and children surviving, indicating implausibly low mortality rates, suggest that some omission of children's deaths may have taken place. While the SDHS did not investigate the issue, it is known that adoption is a common practice in Samoa[2]. It is not implausible that omission of children's deaths in conjunction with substitution through adoption may have affected the reported parities to some extent.

4.2.1 Children Ever Born by Marital Status

Table 4.5 presents mean number of children ever born by mother's age group, according to marital status. The data show that the mean number of children ever born for women living with a man closely resembles that of currently married women for all age groups up to age 40. After age 40 the mean number of children ever born for women living with a man starts lagging slightly behind the number for currently married women. Even so, women who are cohabiting with a man as if married achieve relatively high fertility levels for all age groups. It must be noted that women, especially in the older age groups, may have passed through different marital statuses during their lifespan, and they may have had some of their births while being in another marital status.

Table 4.5 Mean number of children ever born by marital status

Mean number of children ever born by age group of mother, according to marital status, Samoa 2009

	Mean number of children ever born (CEB) to			
Age	Never-married women	Currently married women	Women living with a man	Number of children ever born
15-19	0.03	*	(0.54)	43
20-24	0.21	1.37	1.28	336
25-29	0.36	2.19	2.18	650
30-34	(0.67)	3.35	3.83	931
35-39	(0.88)	3.97	3.96	1,337
40-44	*	4.81	4.06	1,217
45-49	*	5.35	(4.44)	1,440

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

Table 4.6 shows the percent distribution of children ever born by mother's age group, according to marital status. Overall, in Samoa 70 percent of children ever born are to currently married women, 21 percent are born to women living with a man, 7 percent are born to previously married women, and only 3 percent are born to never-married women. The data further show that the large majority of children of mothers up to age 25 are born outside the institution of conventional marriage. Just 21 percent of children ever born to women age 15-19 are born to currently married women, and 42 percent are born to never married women and 30 percent to those who live with a man as if married. By age 25-29, 61 percent of ever born children are born to currently married women, 30 percent are born to cohabiting women, and only 5 percent are born to never-married women.

[2] Samoan population census tabulations for censuses conducted during the 1960s and 1970s distinguished "own" children from "non-own" children. Based on these data, Levin and Retherford (Levin and Retherford, 1986) observed that the proportion of "non-own" children in Samoa was higher than in most other Pacific Island Countries.

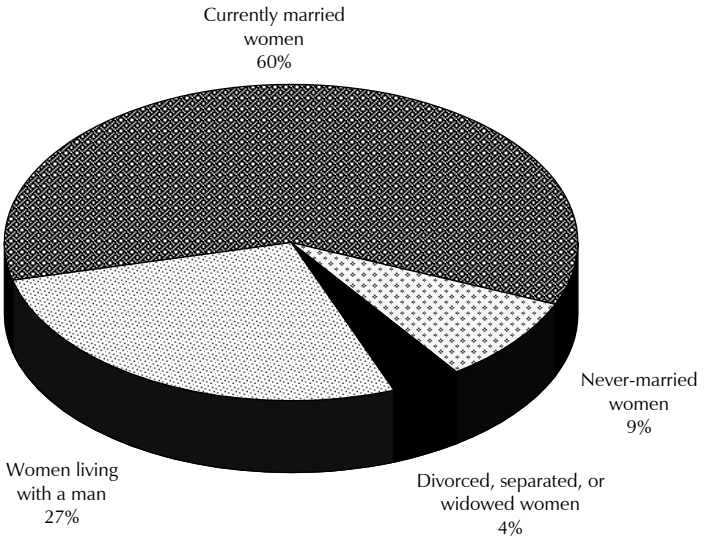
Table 4.6 Children ever born by marital status

Percent distribution of children ever born by age group of mother, according to marital status, Samoa 2009

Age	Never-married women	Currently married women	Women living with a man	Divorced, separated, or widowed women	Number of children ever born
15-19	41.9	20.9	30.2	7.0	43
20-24	16.7	47.0	30.4	6.0	336
25-29	4.9	61.2	30.2	3.7	650
30-34	3.1	65.8	25.9	5.2	931
35-39	1.7	69.8	21.0	7.5	1,337
40-44	1.4	75.9	17.0	5.7	1,217
45-49	0.4	76.9	13.9	8.8	1,440
Total	3.0	69.6	20.8	6.6	5,954

The percent distribution of births in the three years preceding the survey is very similar to that of children ever born. But since births in the past three years reflect the most recent fertility, there is less chance that a woman has changed marital status since giving birth. Figure 4.4 shows that even though 60 percent of births in the past three years occurred to currently married women, a total of 40 percent of births occur outside of a formal marital union (27 percent are born to cohabiting women, 9 percent to never-married women, and 4 percent to women who are divorced, separated, or widowed).

Figure 4.4 **Percent Distribution of Births in the Past Three Years by Marital Status**



SDHS 2009

4.3 BIRTH INTERVALS

A birth interval is defined as the length of time between two live births. Research has shown that short birth intervals may adversely affect maternal health and children's chances of survival (Rutstein, 2005; WHO, 2006). Children born too close in time to a previous birth, especially if the interval between the births is less than two years, are at increased risk of health problems and death at an early age. The occurrence of closely spaced births gives the mother insufficient time to restore her health, which may limit her ability to take care of her children. The duration of breastfeeding for the older child may also be shortened if the mother becomes pregnant. Longer birth intervals, on the other hand, contribute to the improved health status of both mother and child.

Table 4.7 presents the distribution of non-first births in the five years preceding the survey by number and median number of months since preceding birth, according to background characteristics.

The overall median birth interval in Samoa is 32.5 months. However, about one-third (32 percent) of all non-first births occur fewer than 24 months after an earlier birth, an interval perceived to be too short. This proportion is as high as 50 percent among women in their twenties, 39 percent among second and third birth orders, and 41 percent among women living in urban areas.

Table 4.7 Birth intervals

Percent distribution of non-first births in the five years preceding the survey, by number of months since preceding birth, and by median number of months since preceding birth, according to background characteristics, Samoa 2009

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	*	*	*	*	*	*	100.0	5	*
20-29	29.2	19.7	27.0	11.4	6.2	6.4	100.0	383	24.4
30-39	13.8	11.5	23.1	15.0	12.5	24.1	100.0	603	36.8
40-49	10.1	6.3	14.8	13.0	12.7	43.1	100.0	191	52.4
Sex of preceding birth									
Male	17.9	11.1	26.0	13.1	9.9	22.0	100.0	613	32.4
Female	19.0	15.7	19.6	14.0	11.0	20.7	100.0	569	32.7
Birth order									
2-3	22.7	16.0	23.0	12.0	8.8	17.5	100.0	572	28.9
4-6	13.3	11.2	23.5	14.9	11.9	25.3	100.0	486	37.4
7+	18.7	9.5	20.6	15.6	12.0	23.5	100.0	125	36.5
Residence									
Urban	24.1	17.3	20.7	12.5	10.5	14.9	100.0	202	27.0
Rural	17.2	12.5	23.4	13.8	10.4	22.7	100.0	981	33.6
Region									
Apia Urban Area	24.1	17.3	20.7	12.5	10.5	14.9	100.0	202	27.0
North West Upolu	15.8	12.7	24.8	13.5	10.5	22.8	100.0	369	33.7
Rest of Upolu	21.5	11.7	20.9	12.9	9.7	23.2	100.0	320	32.0
Savaii	14.3	13.2	24.5	15.0	11.1	22.0	100.0	292	34.8
Education									
Primary or less	18.6	7.1	20.6	15.7	9.2	28.8	100.0	47	38.5
Secondary incomplete	17.8	12.9	21.1	14.9	10.7	22.6	100.0	768	34.7
Secondary complete	19.6	12.8	25.2	13.5	8.3	20.6	100.0	230	30.3
Vocational/higher	19.9	18.6	30.5	5.2	13.0	12.8	100.0	137	27.3
Wealth quintile									
Lowest	19.4	15.6	20.7	14.2	8.7	21.4	100.0	278	30.5
Second	15.9	10.6	26.8	15.6	10.6	20.5	100.0	237	33.9
Middle	18.3	13.8	22.4	13.0	7.5	25.0	100.0	244	32.7
Fourth	18.7	13.5	21.0	12.1	14.4	20.3	100.0	232	33.5
Highest	19.8	12.6	24.5	12.5	11.6	19.0	100.0	192	32.3
Total	18.4	13.3	22.9	13.6	10.4	21.3	100.0	1,182	32.5

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

In general, younger women have shorter birth intervals than older women. The median number of months that pass before birth increases from 24.4 months for births to women age 20-29 to 52.4 months for births to women age 40-49. The longer birth interval among older women may be attributed to the decline in fecundity as women grow older. There are no substantial differences in the sex of the child and median birth interval. The median birth interval is longer (37 months) for births of fourth or higher order children than for those of lower parity (29 months). The median interval between births is six months longer among women in urban areas (27 months) than among those in rural areas (33.6 months). By region, the median birth interval ranges from a low of 27 months in the Apia Urban Area to 34.8 months in the island of Savaii. Surprisingly, the median birth interval is inversely related to women's level of education, with women who have primary or less education having the longest median birth interval (38.5 months) and women with vocational or higher education having the shortest interval (27.3 months). Women's household wealth status does not show a clear relationship with the median birth interval.

4.4 Age at First Birth

The age at which childbearing begins has important demographic consequences for society as a whole as well as for the health and welfare of the mother and the child. One of the factors that determine the level of fertility in a population is age at first birth. Women who marry early are typically exposed to the risk of pregnancy for a longer time, especially when there is little or no contraceptive use. Thus, early childbearing generally leads to a larger family size than does later-onset childbearing. A rise in the median age at first birth is typically a sign of transition from high to low fertility. In many countries, postponement of first births, reflecting a rise in age at marriage, has made a large contribution to overall fertility decline. Table 4.8 shows the percentage of women age 15-49 that gave birth by specific ages, the percentage who have never given birth, and the median age at first birth, according to current age. For women age 25 and older, the median age at first birth is presented in the final column of the table.

The 2009 SDHS findings indicate that childbearing among women in Samoa begins relatively late. More than half of women age 20-24 (55 percent) have never given birth. The median age at first birth among women age 25 and older is 23.4. The median age at first birth among women 25-29 years is 23.6 years, which is nearly the same as the median ages at which older cohorts first gave birth (23.1 to 23.8 years), suggesting that age at first birth has remained more or less the same over the past three decades. Further evidence of this is the fact that the percentage of first births occurring at age 18 or less has decreased slightly, from 6 percent among the oldest cohort (women age 45-49) to 5 percent among the youngest cohort for which complete information is available (women age 20-24). This negligible reduction in the percentage of women giving birth early implies that the majority of young women in Samoa postpone childbearing.

Table 4.8 Age at first birth

Percentage of women age 15-49 who gave birth by specific ages, percentage who have never given birth, and median age at first birth, according to current age, Samoa 2009

	Percentage who gave birth by specific age					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
15-19	0.0	na	na	na	na	93.1	560	a
20-24	0.8	4.9	18.3	na	na	54.6	474	a
25-29	0.3	7.0	18.5	37.3	62.0	23.8	375	23.6
30-34	0.7	7.7	22.1	42.1	66.3	10.5	308	23.1
35-39	0.2	4.3	18.3	35.8	60.5	6.4	358	23.5
40-44	1.8	8.8	24.0	35.8	54.9	8.2	284	23.8
45-49	0.5	5.5	20.3	38.1	66.2	5.2	299	23.3
25-49	0.6	6.6	20.4	37.7	62.0	11.3	1,624	23.4

na = Not applicable due to censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 4.9 shows the differential patterns in the median age at first birth among women currently age 25-49, according to background characteristics. The measures are presented beginning with age group 25-49 to ensure that at least half of the women in the age group have already had a birth. Women in urban areas generally have a slightly higher median age at first birth than women in rural areas (24.0 and 23.3 years, respectively). Across regions, the median age at first birth ranges from 22.9 years in the Savaii region to 24 years in the Apia Urban Area.

Median age at first birth increases with educational attainment, from 22.0 years among women with primary or no education to 23.9 years among women who have completed secondary education. Similarly, median age at first birth increases with wealth quintile from 22.5 years among women in the lowest wealth quintile to 24.7 years in the highest quintile.

Table 4.9 Median age at first birth

Median age at first birth among women age 25-49 years, by current age, according to background characteristics, Samoa 2009

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	23.7	23.7	25.7	24.1	23.7	24.0
Rural	23.5	23.0	23.3	23.8	23.2	23.3
Region						
Apia Urban Area	23.7	23.7	25.7	24.1	23.7	24.0
North West Upolu	24.4	23.4	23.5	25.2	23.5	23.8
Rest of Upolu	23.6	22.6	23.1	23.4	(24.0)	23.3
Savaii	22.9	22.9	23.3	23.1	22.4	22.9
Education						
Primary or less	a	*	*	*	(21.5)	22.0
Secondary incomplete	22.2	21.9	23.2	23.6	23.3	22.9
Secondary complete	24.3	24.0	23.1	26.3	(23.5)	23.9
Vocational/ higher	a	(27.3)	(27.6)	(25.7)	(24.4)	a
Wealth quintile						
Lowest	21.8	(21.4)	22.5	23.1	(23.6)	22.5
Second	22.7	22.8	23.1	24.4	22.9	23.1
Middle	23.4	22.8	22.8	(22.2)	23.4	23.1
Fourth	24.2	24.2	24.5	24.7	22.8	24.0
Highest	24.8	24.7	25.7	26.2	23.8	24.7
Total	23.6	23.1	23.5	23.8	23.3	23.4

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group

4.5 TEENAGE FERTILITY

Adolescent childbearing has potentially negative demographic and social consequences. Births to teenage mothers have been found to have the highest infant and child mortality in Samoa (MOH, 2008b). Adolescent mothers are more likely to have complications during labour, which results in higher morbidity and mortality for themselves and their children. Moreover, childbearing during the teenage years frequently has adverse social consequences, particularly on female educational attainment, because women who become mothers in their teens are more likely to curtail education.

Table 4.10 shows the percentage of women age 15-19 (teenagers) who are mothers or pregnant with their first child, by background characteristics. Overall, 9 percent of teenagers in Samoa

have begun childbearing. The percentage of adolescent women who have begun childbearing increases steadily with age, from less than 2 percent among those who are age 15 to 26 percent among teenagers who are age 19. Teenage fertility varies slightly by residence (7 percent in urban areas compared with 10 percent in rural areas), and it varies significantly across regions, ranging from 7 percent in the Apia Urban Area region to 15 percent in the Rest of Upolu region. Although not uniform, childbearing tends to increase with education; the proportion of early childbearing is highest among women who have completed secondary education (18 percent) compared with 8 percent who have not completed secondary education. The proportion that has begun childbearing decreases from 13 percent among teenagers in the lowest wealth quintile to 6 percent among teenagers in the highest wealth quintile. This finding suggests that socioeconomic status has a strong effect on adolescent childbearing in Samoa.

Table 4.10 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Samoa 2009

Background characteristic	Percentage who: Have had a live birth	Percentage who: Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	0.0	1.7	1.7	111
16	1.0	2.1	3.2	105
17	5.6	0.0	5.6	138
18	7.1	3.5	10.6	88
19	20.2	5.9	26.2	117
Residence				
Urban	4.7	2.1	6.8	126
Rural	7.6	2.6	10.2	434
Region				
Apia Urban Area	4.7	2.1	6.8	126
North West Upolu	5.6	2.9	8.5	214
Rest of Upolu	13.2	1.5	14.7	111
Savaii	5.7	3.3	9.0	109
Education				
Primary or less	*	*	*	22
Secondary incomplete	5.8	2.3	8.1	434
Secondary complete	14.9	2.9	17.9	61
Vocational/ higher	(5.3)	(5.8)	(11.1)	43
Wealth quintile				
Lowest	9.4	3.9	13.3	104
Second	6.8	4.1	10.9	99
Middle	6.5	2.6	9.2	140
Fourth	7.7	0.9	8.6	113
Highest	4.4	1.2	5.5	103
Total	6.9	2.5	9.4	560

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

FAMILY PLANNING 5

Reproductive Health is recognised as a national priority in the National Strategy for Development of Samoa 2008-2012 (Samoa Ministry of Finance, 2008). Additionally, the Health Sector Plan 2008-2018 (MOH, 2008a) recognises improved 'reproductive, maternal and child health' as a key result of its 'Quality Health Care Service Delivery' strategy. One of the main components outlined in the Samoa Reproductive Health Policy and Strategy is to improve the family planning programme in all areas of the country and among all age groups. Encouraging contraceptive use in general and increasing the proportion of women using modern contraceptive methods are key interventions in this context.

This chapter presents the 2009 SDHS findings on contraceptive knowledge and use, attitudes, sources of contraception, and exposure to media messages about family planning. The information is particularly useful for policymakers, programme managers, and researchers in population and family planning because it provides a means to assess the success of the Samoa family planning programme. Although the focus is on women, some results from the male survey are also presented because men play an important role in helping women to realise reproductive goals. Comparisons are also made, where feasible, with findings from previous surveys to evaluate trends over the past 20 years in Samoa. Data on exposure to family planning messages through the media, sources and costs of contraception, contact with family planning providers, and husbands' knowledge about their wives' contraceptive use are also presented.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

A major objective of the 2009 SDHS was to assess the level of knowledge of contraception methods among women and men. Acquiring knowledge about contraceptive methods is an important step towards gaining access to family planning services and then adopting a suitable contraceptive method. Information on knowledge of contraception was collected in two ways. Respondents were asked to mention all ways or methods that couples can use to avoid or delay pregnancy. When a respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent knew of it. Using this approach, information was collected for 10 modern family planning methods: female and male sterilization, the pill, the IUD, injectables, implants, male and female condoms, the lactational amenorrhoea method (LAM), and emergency contraception. Information was also collected on two traditional methods: rhythm or periodic abstinence, and withdrawal. Provision was also made in the questionnaire to record any other methods named spontaneously by respondents; these were coded as 'folk methods.' This report combines both prompted and unprompted knowledge. Thus, knowledge of a family planning method in the SDHS is defined simply as having heard of a method.

Table 5.1 shows the percentage of all women and men and currently married women and men age 15-49 who have heard of specific contraceptive methods. Knowledge of any contraceptive method is high in Samoa, with 71 percent of all women and 83 percent of all men knowing at least one method of contraception. Modern methods are much more widely known than traditional methods. Seventy percent of all women know of a modern method, compared with only 27 percent who know of a traditional method. Among all women, injectables are the most commonly known method (59 percent), followed by the pill (56 percent), male condoms (37 percent), and female sterilization (30 percent). LAM is known by only 7 percent and emergency contraception is known by 5 percent of all women. Implants are the least known modern method (3 percent). Among the traditional methods, rhythm is the most commonly known method (21 percent), followed closely by withdrawal (17 percent). A very small proportion (2 percent) of all women mentioned folk methods.

Knowledge of contraceptive methods among currently married women is higher than that among all women. Among currently married women, 85 percent know at least one method of contraception compared with 71 percent of all women, 84 percent know a modern method compared with 70 percent of all women, and 34 percent know a traditional method compared with 27 percent of all women. Among modern methods, injectables are most commonly known by currently married women (74 percent), followed by the pill (69 percent), female sterilization (39 percent), and female condom (38 percent). Emergency contraception is known by 6 percent of currently married women. Implants are the least known modern method (4 percent).

Table 5.1 Knowledge of contraceptive methods

Percentage of all respondents and currently married respondents age 15-49 who know any contraceptive method, by specific method, Samoa 2009

	Women		Men	
Method	All women	Currently married women	All men	Currently married men
Any method	70.7	84.7	82.9	93.4
Any modern method	70.1	84.0	81.6	91.9
Female sterilization	29.9	38.5	22.6	36.2
Male sterilization	7.7	10.2	8.7	13.1
Pill	56.4	68.6	35.2	52.1
IUD	23.1	30.6	12.2	20.0
Injectables	58.6	74.3	33.9	52.4
Implants	3.1	3.9	2.2	3.5
Male condom	36.7	38.2	74.5	79.9
Female condom	11.3	13.0	7.0	9.7
Lactational amenorrhoea method (LAM)	7.1	9.7	4.5	7.1
Emergency contraception	4.7	5.8	2.4	3.7
Any traditional method	27.0	34.0	35.4	45.9
Rhythm	20.8	26.9	10.9	18.1
Withdrawal	16.5	21.3	32.3	41.3
Folk method	1.8	2.5	1.2	1.6
Mean number of methods known by respondents 15-49	2.8	3.4	2.5	3.4
Number of respondents	2,657	1,554	1,220	573
Mean number of methods known by respondents 15-54	na	na	2.5	3.4
Number of respondents	na	na	1,307	651

na = Not applicable

As mentioned, knowledge of contraception is slightly higher among men than women—83 percent of all men know at least one method of contraception compared with 71 percent of all women. Like women, a larger proportion of all men know a modern method (82 percent) than a traditional method (35 percent). Knowledge of all methods is higher among currently married men than among all men. The most commonly known modern method is the male condom, reported by 75 percent of all men and 80 percent of currently married men, and knowledge is much higher among men than among women (known by 37 percent of all women and 38 percent of currently married women). Emergency contraception and implants are the least known modern methods (each known by 2 percent of all men and 4 percent of currently married men). Among traditional methods, the rhythm method is known by 11 percent of all men and 18 percent of currently married men. It is worth noting that, with the exception of male sterilization and male condoms, knowledge of each of the contraception methods is lower among men than women.

The mean number of contraceptive methods known by women and men age 15-49 in Samoa is about three.

Table 5.2 shows differentials in knowledge of any contraceptive method and any modern contraceptive method, among currently married women and men age 15-49, by background characteristics. Knowledge of at least one method is high in almost all categories. Nevertheless, among women, it is lower for younger women age 15-24, for women in rural areas, and for women living in the Rest of Upolu region. Knowledge of at least one method increases with level of education and wealth quintile, but the differences are small. For example, 83 percent of women in the lowest wealth quintile have heard of at least one method of family planning compared with 89 percent of women in the highest wealth quintile.

Similar patterns are observed among the currently married men age 15-49.

Table 5.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, Samoa 2009

	Women			Men		
Background characteristic	Heard of any method	Heard of any modern method[1]	Number of women	Heard of any method	Heard of any modern method[1]	Number of men
Age						
15-19	(52.3)	(50.0)	39	*	*	2
20-24	77.3	76.8	196	(97.9)	(94.9)	45
25-29	86.6	85.9	272	94.2	90.1	77
30-34	86.7	86.3	246	95.3	93.5	106
35-39	85.2	84.6	305	91.4	91.4	119
40-44	85.2	83.0	243	94.2	93.1	124
45-49	90.7	90.7	252	90.9	90.0	101
Residence						
Urban	88.5	87.9	271	93.3	88.9	94
Rural	84.0	83.2	1,283	93.4	92.4	479
Region						
Apia Urban Area	88.5	87.9	271	93.3	88.9	94
North West Upolu	85.9	85.5	505	94.4	92.8	195
Rest of Upolu	72.9	72.7	378	89.2	89.2	145
Savaii	92.0	90.1	400	96.4	95.3	140
Education						
Primary or less	77.4	75.4	85	83.7	80.3	79
Secondary incomplete	84.1	83.4	951	93.8	91.8	309
Secondary complete	87.5	86.8	321	95.5	95.5	92
Vocational/ higher	86.3	85.8	197	98.3	98.3	93
Wealth quintile						
Lowest	83.0	82.4	301	92.7	92.7	111
Second	83.8	82.6	312	88.7	88.7	100
Middle	85.8	85.3	323	93.6	90.9	118
Fourth	82.7	82.2	323	97.0	93.8	125
Highest	88.6	87.7	295	93.9	92.5	119
Total 15-49	84.7	84.0	1,554	93.4	91.9	573
50-54	na	na	na	83.6	81.7	78
Total 15-54	na	na	na	92.2	90.6	651

Note: Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, lactational amenorrhoea method (LAM), emergency contraception, and other modern methods.

5.2 EVER USE OF CONTRACEPTION

All women interviewed in the 2009 SDHS survey who said they had heard of a method of family planning were asked whether they had ever used that method. Men were asked if they had ever used 'male-oriented' methods (i.e., male sterilization, condoms, rhythm, and withdrawal). Table 5.3.1 shows the percentage of all women and currently married women who have ever used specific methods of family planning, by age, and Table 5.3.2 shows comparable information for men.

Thirty-two percent of all women reported having used a method of contraception at some point in time; 30 percent have used a modern method, and 5 percent have used a traditional method. Among modern methods, injectables (20 percent) are the most commonly used method, followed by the pill (12 percent) and female sterilization (4 percent). Male sterilization, male and female condoms, IUDs, emergency contraception, and LAM are the least-used methods (each 1 percent or less). Among traditional methods, withdrawal and rhythm (3 percent each) are the most commonly used methods, followed by folk methods (less than 1 percent). The ever use of any contraceptive method increases with age, peaking among women in their late thirties through forties, and then declining among women age 45-49. The only exception is female sterilization; ever use increases dramatically with age and reaches its peak at age 45-49 (13 percent).

Half of currently married women age 15-49 have used a method of contraception at some point in time; 47 percent have used a modern method, and 8 percent have used a traditional method. The injectables are the most commonly used method among currently married women (32 percent) followed by the pill (18 percent) and female sterilization (7 percent). Similar to all women, ever use of each of the modern contraceptive methods increases with age, peaking among women in their late thirties through forties, and then declining among those age 45-49, with the exception of female sterilization that increases with age and peaks at age 45-49 (14 percent).

Table 5.3.1 Ever use of contraception: Women

Percentage of all women and currently married women age 15-49 who have ever used any contraceptive method by method, according to age, Samoa 2009

			Modern method										Traditional method			
Age	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Male condom	Female condom	LAM	Emergency contraception	Any traditional method	Rhythm	Withdrawal	Folk method	Number of women
ALL WOMEN																
15-19	1.3	0.9	0.0	0.0	0.0	0.0	0.6	0.1	0.1	0.1	0.1	0.5	0.0	0.5	0.0	560
20-24	16.9	16.1	0.2	0.2	8.4	0.0	9.5	1.7	0.0	0.7	0.0	2.8	0.6	2.3	0.2	474
25-29	34.7	32.0	0.5	0.0	14.6	0.7	24.5	0.3	0.7	0.0	0.3	6.5	3.0	3.6	0.8	375
30-34	48.8	45.1	3.1	0.0	16.3	1.6	31.3	0.9	0.4	1.3	0.0	6.9	2.1	3.7	1.9	308
35-39	52.7	50.9	7.4	0.0	18.0	0.8	33.5	1.4	0.0	0.6	0.3	7.0	4.4	1.5	1.9	358
40-44	50.3	46.1	11.7	0.0	17.9	1.4	32.1	2.4	0.0	1.1	0.0	12.7	8.4	5.9	0.0	284
45-49	45.7	44.3	12.6	0.0	16.4	2.6	27.4	1.5	0.7	0.4	0.2	5.9	2.8	4.0	0.8	299
Total	31.5	29.6	4.1	0.0	11.6	0.8	19.9	1.1	0.2	0.5	0.1	5.3	2.6	2.7	0.7	2,657
CURRENTLY MARRIED WOMEN																
15-19	(9.4)	(8.1)	(0.0)	(0.0)	(0.0)	(0.0)	(8.1)	(0.0)	(0.0)	(0.0)	(0.0)	(1.4)	(0.0)	(1.4)	(0.0)	39
20-24	35.1	33.7	0.4	0.6	17.1	0.0	22.1	2.5	0.0	1.7	0.0	5.0	1.5	3.9	0.6	196
25-29	45.3	42.0	0.7	0.0	18.7	1.0	31.8	0.0	0.9	0.0	0.5	7.8	4.1	4.2	0.7	272
30-34	57.4	53.6	3.9	0.0	19.2	1.9	37.7	0.6	0.5	0.9	0.0	7.8	2.3	4.1	2.4	246
35-39	56.8	54.8	7.6	0.0	19.8	0.8	36.5	1.4	0.0	0.7	0.4	7.4	4.8	1.6	1.8	305
40-44	55.1	50.7	13.3	0.0	19.9	1.7	35.0	2.5	0.0	1.3	0.0	14.0	9.1	6.1	0.0	243
45-49	49.6	48.7	14.1	0.0	16.6	2.7	30.7	1.7	0.8	0.5	0.3	5.8	3.3	3.5	0.9	252
Total	49.5	46.9	6.7	0.1	18.2	1.3	32.2	1.4	0.4	0.8	0.2	7.8	4.2	3.7	1.1	1,554

Note: Numbers in parentheses are based on 25-49 unweighted cases
LAM = Lactational amenorrhoea method

Table 5.3.2 shows the percentage of all men and currently married men age 15-49 who reported having ever used one of four male methods of contraception—male sterilization, male condom, rhythm, and withdrawal. Twenty-three percent of all men and 25 percent of currently married men have ever used a contraceptive method at some point in time. Similar proportions of all men (15 percent) and currently married men (13 percent) have ever used a modern method while a higher percentage of currently married men (18 percent) than all men (12 percent) have ever used a traditional method. Overall, ever use of any method tends to increase with age, peaks at age 40-44 (30 percent of all men and 32 percent of currently married men have ever used a method), and declines sharply thereafter. The most popular modern male method, the condom, has been used by only 15 percent of all men, and even less (12 percent) by currently married men. Male sterilization is practically non-existent in Samoa; less than 1 percent of men reported ever use of male sterilization. Among traditional methods, withdrawal is the most popular method, used by 11 percent of all men and 16 percent of currently married men.

Ever use of a modern method is considerably higher among women than men; 30 percent of all women and 47 percent of currently married women have ever used a modern method compared with 15 percent of all men and 13 percent of currently married men. On the other hand, ever use of a traditional method is much higher among men than women; 12 percent of all men and 18 percent of currently married men have ever used a traditional method compared with 5 percent of all women and 8 percent of currently married women. The difference in ever use of traditional methods is mostly due to a considerably higher proportion of men than women who have ever used withdrawal. Withdrawal is reported as having been used by 11 percent of all men and 16 percent of currently married men compared with 3 percent of all women and 4 percent of currently married women. Rhythm has only been used by 2 percent of all men and 4 percent of currently married men, similar to the percentages observed for women.

Table 5.3.2 Ever use of contraception: Men

Percentage of all men and currently married men 15-49 who have ever used any contraceptive method by method, according to age, Samoa 2009

			Modern method			Traditional method		
Age	Any method	Any modern method	Male sterilization	Male condom	Any traditional method	Rhythm	Withdrawal	Number of men
ALL MEN								
15-19	10.3	8.5	0.0	8.5	3.7	0.0	3.7	269
20-24	25.1	21.9	0.0	21.9	8.3	0.0	8.3	209
25-29	27.1	19.6	1.1	18.5	14.0	1.8	12.8	168
30-34	26.4	17.9	0.0	17.9	15.2	2.8	13.8	161
35-39	27.5	18.2	0.0	18.2	14.6	1.2	13.4	153
40-44	29.5	11.4	0.8	10.6	22.6	4.3	20.3	147
45-49	19.2	9.7	0.0	9.7	15.1	5.8	11.5	112
Total 15-49	22.6	15.2	0.2	15.0	12.1	1.8	11.0	1,220
50-54	10.9	4.3	0.0	4.3	9.0	2.3	9.0	87
Total 15-54	21.8	14.5	0.2	14.3	11.9	1.8	10.9	1,307
CURRENTLY MARRIED MEN								
15-19	*	*	*	*	*	*	*	2
20-24	(28.5)	(19.9)	(0.0)	(19.9)	(13.4)	(0.0)	(13.4)	45
25-29	22.4	14.6	2.4	12.3	11.8	2.6	10.4	77
30-34	23.0	11.8	0.0	11.8	17.9	3.4	16.5	106
35-39	25.5	13.5	0.0	13.5	15.8	1.5	14.3	119
40-44	32.4	11.5	0.9	10.6	26.2	5.1	23.4	124
45-49	19.3	8.8	0.0	8.8	16.8	6.4	12.8	101
Total 15-49	25.3	12.7	0.5	12.2	17.8	3.5	15.8	573
50-54	9.4	3.9	0.0	3.9	8.1	2.6	8.1	78
Total 15-54	23.4	11.7	0.4	11.2	16.7	3.4	14.8	651

Note: Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

5.3 CURRENT USE OF CONTRACEPTIVE METHODS

This section presents information on the prevalence of contraceptive use among all women and among currently married women age 15-49. The level of current use is the most widely used and valuable measure of the success of a family planning programme. Furthermore, it can be used to estimate the reduction in fertility attributable to contraception. The contraceptive prevalence rate (CPR) is usually defined as the percentage of currently married women who are currently using a method of contraception. Information on sexually active women is not available.

Table 5.4 shows that current use of contraception is higher among currently married women than among all women. For example, 18 percent of all women and 29 percent of currently married women are currently using some method of contraception. Modern methods of contraception account for almost all the use, with 17 percent of all women and 27 percent of married women reporting use of a modern method, compared with only 1 percent and 2 percent, respectively, currently using a traditional method. Injectables (used by 8 percent of all women and 14 percent of married women), female sterilization (used by 4 percent of all women and 7 percent of married women), and pills (used by 4 percent of all women and 6 percent of married women) are the most widely used modern methods. Looking at traditional methods, rhythm is used by 1 percent of all women and currently married women, while withdrawal and folk method are used by less than 1 percent, each.

Table 5.4 Current use of contraception by age

Percent distribution of all women and currently married women age 15-49 by contraceptive method currently used, according to age, Samoa 2009

			Modern method							Any	Traditional method					
Age	Any method	Any modern method	Female sterili-zation	Pill	IUD	Inject-ables	Male con-dom	Female con-dom	LAM	tradi-tional method	Rhythm	With-drawal	Folk method	Not currently using	Total	Number of women
ALL WOMEN																
15-19	1.0	0.8	0.0	0.0	0.0	0.6	0.1	0.1	0.0	0.2	0.0	0.2	0.0	99.0	100.0	560
20-24	10.4	9.4	0.2	2.9	0.0	6.0	0.1	0.0	0.2	1.0	0.2	0.8	0.0	89.6	100.0	474
25-29	18.8	16.5	0.5	4.8	0.0	11.2	0.0	0.0	0.0	2.3	1.1	1.2	0.0	81.2	100.0	375
30-34	29.5	27.5	3.1	7.8	0.9	15.7	0.0	0.0	0.0	2.0	0.8	0.4	0.8	70.5	100.0	308
35-39	31.0	29.8	7.4	5.8	0.0	16.1	0.6	0.0	0.0	1.2	1.2	0.0	0.0	69.0	100.0	358
40-44	29.5	25.9	11.7	4.6	0.0	9.1	0.2	0.0	0.4	3.6	2.2	1.4	0.0	70.5	100.0	284
45-49	20.9	20.5	12.6	1.6	0.3	5.9	0.0	0.0	0.0	0.4	0.4	0.0	0.0	79.1	100.0	299
Total	17.8	16.5	4.1	3.5	0.1	8.4	0.1	0.0	0.1	1.4	0.7	0.5	0.1	82.2	100.0	2,657
CURRENTLY MARRIED WOMEN																
15-19	(8.1)	(8.1)	(0.0)	(0.0)	(0.0)	(8.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(91.9)	100.0	39
20-24	22.6	20.8	0.4	6.0	0.0	13.6	0.3	0.0	0.5	1.8	0.6	1.2	0.0	77.4	100.0	196
25-29	25.1	22.3	0.7	6.2	0.0	15.5	0.0	0.0	0.0	2.7	1.5	1.2	0.0	74.9	100.0	272
30-34	34.5	32.5	3.9	9.3	1.1	18.2	0.0	0.0	0.0	2.0	1.1	0.0	0.9	65.5	100.0	246
35-39	34.6	33.2	7.6	6.8	0.0	18.1	0.7	0.0	0.0	1.4	1.4	0.0	0.0	65.4	100.0	305
40-44	32.7	28.9	13.3	5.3	0.0	9.8	0.0	0.0	0.4	3.8	2.2	1.6	0.0	67.3	100.0	243
45-49	23.9	23.4	14.1	1.9	0.4	7.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	76.1	100.0	252
Total	28.7	26.7	6.7	5.8	0.2	13.7	0.2	0.0	0.1	2.0	1.2	0.6	0.2	71.3	100.0	1,554

Note: If more than one method is used, only the most effective method is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases
LAM = Lactational amenorrhoea method

Among currently married women, the proportion currently using any modern method of contraception rises with age from 8 percent of those age 15-19 to 33 percent among those age 30-39, after which it declines to reach a low of 23 percent for the 45-49 age group. This pattern is true for each of the individual methods, with the exception of female sterilization. Female sterilization is used mostly by currently married women in their forties (13 to 14 percent) compared with less than 1 percent of women below age 30.

Similar to married women, use of a modern contraceptive method among all women rises with age, peaks at 30 percent for the 35-39 age group, after which it declines to reach 21 percent of women in the 45-49 age group.

5.4 DIFFERENTIALS IN CONTRACEPTIVE USE BY BACKGROUND CHARACTERISTICS

Table 5.5 shows the percent distribution of currently married women by contraceptive method currently used, according to background characteristics.

The proportion of married women currently using contraception generally increases with increasing number of children. Two percent of women without children are currently using a contraceptive method compared with 36 percent of women with five or more children. Current use of contraception is highest among women who have three or four children (37 percent).

Table 5.5 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Samoa 2009

			Modern method						Any	Traditional method					
Background characteristic	Any method	Any modern method	Female sterilization	Pill	IUD	Injectables	Male condom	LAM	traditional method	Rhythm	Withdrawal	Folk method	Not currently using	Total	Number of women
Number of living children															
0	1.7	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	98.3	100.0	120
1-2	19.9	18.2	1.3	4.9	0.3	11.7	0.0	0.0	1.7	0.7	0.8	0.2	80.1	100.0	482
3-4	36.9	33.8	8.5	8.6	0.5	15.4	0.3	0.4	3.1	2.1	0.7	0.3	63.1	100.0	498
5+	36.2	34.6	12.0	5.1	0.0	17.3	0.2	0.0	1.5	1.0	0.5	0.0	63.8	100.0	453
Residence															
Urban	30.1	26.8	9.5	7.0	0.6	9.0	0.6	0.0	3.3	1.9	1.5	0.0	69.9	100.0	271
Rural	28.4	26.7	6.0	5.5	0.2	14.7	0.1	0.2	1.7	1.1	0.4	0.2	71.6	100.0	1,283
Region															
Apia Urban Area	30.1	26.8	9.5	7.0	0.6	9.0	0.6	0.0	3.3	1.9	1.5	0.0	69.9	100.0	271
North West Upolu	30.4	28.0	7.5	5.9	0.2	13.8	0.2	0.4	2.4	1.3	0.7	0.5	69.6	100.0	505
Rest of Upolu	28.7	28.3	5.9	6.3	0.0	16.1	0.0	0.0	0.4	0.4	0.0	0.0	71.3	100.0	378
Savaii	25.5	23.6	4.4	4.4	0.2	14.5	0.0	0.0	1.9	1.4	0.5	0.0	74.5	100.0	400
Education															
Primary or less	20.5	20.5	8.9	2.5	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	79.5	100.0	85
Secondary incomplete	29.6	27.6	6.8	5.6	0.2	14.7	0.2	0.2	2.0	1.3	0.5	0.2	70.4	100.0	951
Secondary complete	27.2	25.2	4.7	6.2	0.0	14.3	0.0	0.0	1.9	0.8	1.2	0.0	72.8	100.0	321
Vocational/higher	30.1	27.5	8.2	7.4	1.1	10.1	0.6	0.0	2.6	1.8	0.8	0.0	69.9	100.0	197
Wealth quintile															
Lowest	28.2	27.9	8.3	5.8	0.0	13.4	0.3	0.0	0.3	0.3	0.0	0.0	71.8	100.0	301
Second	26.9	25.9	4.8	6.0	0.3	14.6	0.2	0.0	1.0	0.3	0.4	0.3	73.1	100.0	312
Middle	29.1	26.7	7.2	4.3	0.0	14.6	0.0	0.6	2.4	1.7	0.7	0.0	70.9	100.0	323
Fourth	24.3	21.6	6.9	4.2	0.2	10.3	0.0	0.0	2.7	1.2	1.0	0.4	75.7	100.0	323
Highest	35.4	32.0	6.1	8.8	0.7	16.0	0.4	0.0	3.4	2.4	1.0	0.0	64.6	100.0	295
Total	28.7	26.7	6.7	5.8	0.2	13.7	0.2	0.1	2.0	1.2	0.6	0.2	71.3	100.0	1,554

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhoea method

There is almost no difference in current use of contraception by urban-rural residence, although women in rural areas are more likely to use injectables (15 percent) than those residing in urban areas (9 percent). Contraceptive prevalence is slightly lower among women residing in Savaii (26 percent) compared with 29-30 percent among women from other regions. However, looking at specific methods, the lowest use of injectables is in the Apia Urban Area (9 percent) compared with 14-16 percent among women in other regions. Pills are the least popular among women in Savaii (4 percent). Two percent of women residing in Apia Urban Area are using withdrawal compared with less than 1 percent of women in other regions. The current use of any contraceptive method tends to increase with women's education; it is lowest among women with primary or less education (21 percent) and highest among those with vocational or higher than secondary education (30 percent). Use of any method of contraception does not have a clear relationship with wealth status. However,

currently married women in the highest wealth quintile report the highest current use of any method (35 percent) when compared with women in the other wealth quintiles.

The variation of current use of modern and traditional methods of contraception across subgroups follows similar patterns. Current use of each specific modern and traditional method is slightly more common in urban areas than in rural areas (except for injectables, where the reverse is true), and tends to increase with level of education and wealth quintile.

5.5 Trends in the Use of Family Planning

Upon comparison of results from the current survey with those from the 1998 Samoa Reproductive Health Knowledge and Services Survey (Kesaia Seniloli, 2003), current use of any contraceptive among all women age 15-49 has decreased from 25 percent in 1998 to 18 percent in 2009 and current use of modern contraceptive methods has decreased from 23 percent in 1998 to 17 percent in 2009. The decrease in current use is observed for all age groups. Comparisons by background characteristics are not possible due to differences in the background categories. In both surveys, the most commonly used methods among all women are injectables, pills, and female sterilization.

5.6 Number of Children at First Use of Contraception

Couples use family planning methods to either limit family size or delay the next birth. The decision to initiate family planning use differs according to the circumstances of couples and individuals concerned. Couples using family planning to control family size (i.e., to stop having children) adopt contraception when they have had the number of children they want. When contraception is used to space births, couples may start to use family planning earlier, with the intention of delaying a possible pregnancy. Using contraception for birth spacing may also be done before a couple has had their desired number of children.

In the 2009 SDHS, women were asked how many children they had at the time they first used a method of family planning. The number of living children at the time of first use of contraception is both a measure of the willingness to postpone the first birth (i.e., women who have no children), and of the desire of women with children to space subsequent births. Thus, differences in fertility-control behaviour among cohorts of women can be observed by examining the parity and number of living children at first use of contraception.

Table 5.6 shows the percent distribution of women by number of living children at the time of first use of contraception, according to current age. The results indicate that the average parity at which Samoan women start using contraception has decreased. More Samoan women are adopting family planning methods at lower parities (i.e., when they have fewer children) than previously. A change in behaviour can be seen by comparing women's parity at first use of contraception among younger and older women. Among women age 25-29, the highest proportion (15 percent) began using contraception after one child whereas among women age 45-49, 8 percent began using contraception after one child. Older women are more likely to have waited until they had children to start using contraception. The largest proportion of women age 45-49 started using contraception after four or more children (18 percent). The survey findings suggest a move towards earlier use of contraception by Samoan women to delay childbearing. In a culture where smaller family size has not yet become a norm, young women are still less likely to adopt family planning at lower parity than their older counterparts. On the other hand, older women initiate contraceptive use at a later age primarily to limit births rather than to space them.

Table 5.6 Number of children at first use of contraception

Percent distribution of women age 15-49 by number of living children at the time of first use of contraception, according to current age, Samoa 2009

Current age	Never used	Number of living children at time of first use of contraception						Total	Number of women
		0	1	2	3	4+	Missing		
15-19	98.7	1.0	0.3	0.0	0.0	0.0	0.0	100.0	560
20-24	83.1	2.6	9.4	4.1	0.2	0.2	0.4	100.0	474
25-29	65.3	1.5	15.1	9.2	6.6	1.8	0.5	100.0	375
30-34	51.2	2.3	16.6	15.3	6.8	7.8	0.0	100.0	308
35-39	47.3	1.8	16.8	12.6	8.4	13.1	0.0	100.0	358
40-44	49.7	3.1	14.0	12.1	7.4	13.3	0.4	100.0	284
45-49	54.3	0.5	7.6	10.5	8.9	17.5	0.7	100.0	299
Total	68.5	1.8	10.4	8.0	4.7	6.4	0.3	100.0	2,657

5.7 KNOWLEDGE OF FERTILE PERIOD

A basic knowledge of reproductive physiology is important for the successful practice of coitus-related methods such as withdrawal, condoms, vaginal methods, and fertility-awareness methods that are collectively referred to as periodic abstinence, rhythm, or the calendar method. Knowledge of the fertile period in a woman's menstrual cycle is particularly critical in the case of the rhythm method, and the successful practice of natural family planning depends on an understanding of when during the menstrual cycle a woman is most likely to conceive.

The 2009 SDHS included a question designed to obtain information on the respondent's understanding of when a woman is most likely to become pregnant during the menstrual cycle. Both women and men were asked, 'From one menstrual period to the next, are there certain days when a woman is more likely to get pregnant if she has sexual intercourse?' If the answer was 'yes', they were further asked whether that time was just before her period begins, during her period, right after her period ended, or halfway between two periods. Table 5.7 shows the results for all women and men age 15-49.

Table 5.7 Knowledge of fertile period

Percent distribution of women and men age 15-49 by knowledge of the fertile period during the ovulatory cycle, Samoa 2009

Perceived fertile period	Women	Men
Just before her menstrual period begins	1.7	4.1
During her menstrual period	3.1	3.3
Right after her menstrual period has ended	10.2	14.1
Halfway between two menstrual periods	5.0	2.4
Other	0.3	0.1
No specific time	44.2	39.7
Don't know	35.2	36.3
Missing	0.2	0.1
Total	100.0	100.0
Number of women	2,657	1,220

Among all women, only one in 20 (5 percent) is aware that a woman is most likely to conceive halfway between her menstrual periods. Ten percent of women wrongly believe that the fertile period is right after a woman's period has ended, 35 percent say they do not know when the fertile period falls, and 44 percent believe that there is no specific fertile time during the ovulatory cycle.

Knowledge of a woman's ovulatory cycle is even more limited among men than among women. Only 2 percent of men know that a woman is most likely to conceive halfway between her menstrual periods, 14 percent of men wrongly believe that the fertile period is right after a woman's period has ended, and 40 percent say there is no specific time when a woman is most fertile.

5.8 TIMING OF STERILIZATION

The 2009 SDHS collected information on the timing of female sterilization among those using the method. However, the number of cases was too small for meaningful analysis by background characteristics. Thirty-six percent of sterilized women underwent the procedure at age 35-39 and 31 percent at age 30-34. About one in five sterilized women (19 percent) underwent the procedure at age 40-44, and about one in ten (9 percent) did so at age 25-29. The smallest proportion of sterilized women underwent the procedure before age 25. The median age at sterilization is calculated only for women sterilized before 40 years of age to avoid problems of censoring. The median age at sterilization among women in Samoa is 35 years (data not shown separately).

5.9 SOURCE OF CONTRACEPTION

Information on sources of modern contraceptive methods is important when designing and managing family planning (FP) programmes. In Samoa, both public and private sectors are strategically important in the provision of family planning services. Non-clinical short-term methods such as the pill and condoms are distributed by the private sector. In addition a few pharmacies, private clinics, and a major NGO, the Samoa Family Health Association, provide both clinical and non-clinical methods. The public sector provides the full range of clinical and non-clinical methods mainly through health facilities but also by supporting major contributors in the family planning sector.

In the 2009 SDHS, all current users of modern contraceptive methods were asked the most recent source of their methods. Interviewers were instructed to record the name of the source or facility because respondents may not always be able to accurately categorise a source as public or private. Supervisors and editors then verified and coded this information to improve the accuracy.

Table 5.8 shows that the vast majority of users (93 percent) obtain their contraceptive methods from the public sector. Government hospitals are the most common public source (55 percent), followed by family planning clinics (21 percent) and government health centres (17 percent).

Table 5.8 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of the method, according to method, Samoa 2009

Source	Female sterilization	Pill	Injectables	Total
Public sector	94.3	94.3	94.3	93.4
Government hospital	94.3	44.0	41.9	55.3
Government health centre	0.0	13.2	27.2	16.8
Family planning clinic	0.0	37.1	25.2	21.3
Private medical sector	0.4	1.0	2.0	1.3
Private medical centre	0.4	1.0	1.4	1.0
Peer trainer	0.0	0.0	0.6	0.3
Other source	5.3	3.3	1.4	3.5
Friend/ relative	0.0	1.4	0.0	0.3
Hotel/ night club	0.0	0.0	0.5	0.3
Overseas	5.3	1.9	0.9	2.9
Other	0.0	1.4	0.9	1.1
Missing	0.0	0.0	1.4	0.7
Total	100.0	100.0	100.0	100.0
Number of women	110	94	223	435

Total includes IUD, male condom, female condoms that are not shown separately but excludes lactational amenorrhoea method (LAM).

Very few women (1 percent) use the private medical sector to obtain their contraceptive methods. The two main providers of contraception in the private sector are private medical centres and peer trainers.

Four percent of women who are using a modern method of contraception get their method from other sources, mostly from overseas (3 percent).

The type of source does differ slightly by method. The majority of users of injectables, pills, and female sterilization obtain their methods from a government source (94 percent each). Whereas virtually all female sterilizations are performed at a government hospital (94 percent), fewer than half of pill users (44 percent) or injectable users (42 percent) receive them from a government hospital. Additionally, 37 percent of pill users and 25 percent of injectable users get their method from a family planning clinic. Five percent of female sterilizations occur overseas. Three percent of pill users obtain their method from other sources, such as friends or relatives (1 percent) or overseas (2 percent).

5.10 COST OF CONTRACEPTION

Even though the majority of contraceptives are obtained from the public sector, information on the cost of obtaining contraceptive methods is useful to family planning programmes. It is important to know how much clients are paying for contraceptive methods. This information provides guidance on price differentials among the sectors and pricing of commodities. It also gives an indication of adherence to stipulated prices by the various sectors. In the Samoa DHS, women who were using modern methods of contraception were asked how much they paid in total the last time they obtained their method, including the cost of the method and any consultation they may have had. Table 5.9 shows the percentage of women who obtained the method free and, for those who paid, the median cost, by current method.

Table 5.9 Cost of modern contraceptive methods

Percentage of current users of modern contraceptive methods age 15-49 who did not pay for the method and who do not know the cost of the method and the median cost of the method, by current method, Samoa 2009

Cost	Female sterilization	Pill	Injectables	Total
Percentage free	72.5	10.0	9.2	25.9
Do not know cost	13.9	9.3	5.1	8.7
Median cost in Tala[1]	24.7	4.5	4.5	4.5
Number of women	110	94	223	435

Note: Table excludes lactational amenorrhoea method (LAM) but includes other modern methods that are not shown separately. Costs are based on the last time current users obtained method. Costs include consultation costs, if any. For pills, costs are per cycle. For sterilization, data are based on women who received the operation in the 5 years before the survey.
[1] Median cost is based only on those women who reported a cost

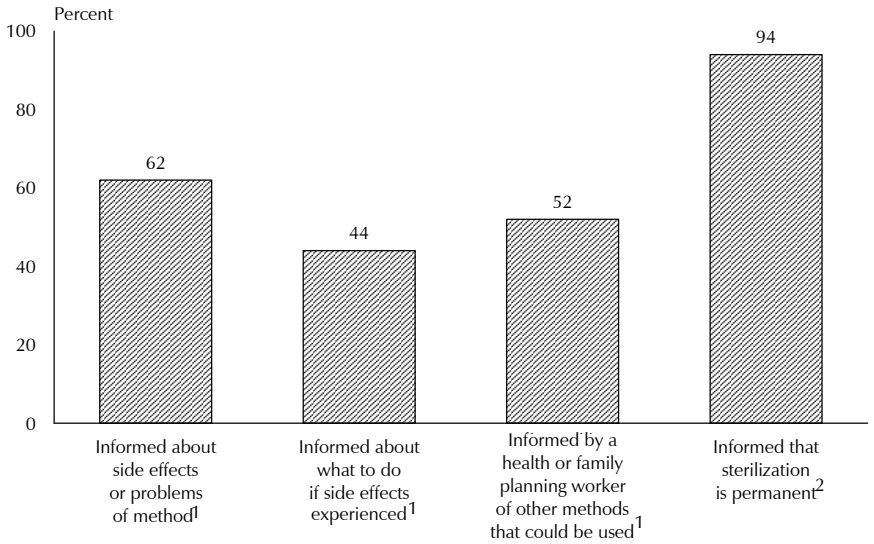
In Samoa contraceptives are generally provided free of charge or at a nominal fee, which covers the cost of the consultation. Commodities are sold at highly subsidised prices, and public sector prices are expected to be much lower than those in the private sector. Few respondents were able to provide cost information, which may affect the inferences drawn. Nevertheless, the information remains useful for family planning programmes. Among users of female sterilization, 73 percent reported that the method was provided for free. The median cost for female sterilization is 24.7 Samoan tala. Only about one in ten pill and injectables users (10 and 9 percent, respectively) reported that they got their method free of charge. The median cost of pills and injectables is 4.5 Samoan tala each.

5.11 INFORMED CHOICE

Informed choice is an important aspect of the delivery of family planning services. Family planning clients have a right to information about their contraceptive method. Providers are required to inform all users of contraceptive methods about (1) the potential side effects of their method, (2) action to take if they encounter side effects or signs of a problem, and (3) alternate methods of family planning they can use. Current users of modern methods who are well informed about the side effects and problems associated with methods and know of a range of method options are better placed to make an informed choice about the method they would like to use. This information improves the quality of care and compliance by assisting users to cope with side effects, thereby decreasing unnecessary discontinuation of temporary methods.

Current users of selected modern contraceptive methods were asked whether, at the time they adopted the particular method, they were informed about the possible side effects or problems that might be encountered with the method. Figure 5.1 shows that 62 percent of current users of modern methods were informed about side effects or problems related to the method they last used, 44 percent were told what to do if they experienced side effects and 52 percent were informed by a health or family planning worker of other methods that could be used. A large majority of women who were sterilized (94 percent) were informed that sterilization is permanent.

Figure 5.1 **Informed Choice among Women Age 15-49 Currently Using Modern Contraceptive Methods and Female Sterilization**



[1] Among women who started last episode of modern contraceptive method within five years preceding the survey (N = 326)
[2] Among women who were sterilized in the five years preceding the survey (N=47)

SDHS 2009

Information about contraceptive methods varies little by type of method, although information about side effects and what to do about them is less likely to be provided to users of injectables than users of female sterilization and the pill. Approximately two-thirds (64 percent) of users who initially obtained their method in the public sector were informed of other methods and possible side effects, but only 45 percent of them were told what to do if they had these side effects. Current users who obtained their method at a family planning clinic reported the highest percentage (71 percent) of being informed about side effects and problems of method used, being told what to do if side effects occurred (54 percent), and being given information about other methods they could use (60 percent) when compared with users who obtained their method from a government hospital or a government health clinic (data not shown separately).

5.12 FUTURE USE OF CONTRACEPTION

Intention to use family planning is an important indicator of the potential demand for services. Currently married women who were not using contraceptives at the time of the survey were asked about their intention to use family planning in the future. Table 5.10 shows the percent distribution of currently married women who are not using a contraceptive method by intention to use in the future and according to number of living children.

Only 18 percent of currently married women who are not using a contraceptive method say they intend to use family planning in the future; another 63 percent do not intend to use, and 18 percent are unsure. The proportion of those intending to use varies slightly with the number of living children, increasing from 11 percent for those with no children to a peak of 27 percent for those with two children, after which it levels off to 15-17 percent among those with three or more living children. The proportion of non-users who do not intend to use contraception in the future is highest among those with three or more children (63-66 percent). About six of ten women with no children or with one child do not intend to use contraception. These findings indicate there is a need to increase the level of family planning messages and services to women of any parity.

Table 5.10 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Samoa 2009

	Number of living children[1]					
Intention to use in the future	0	1	2	3	4+	Total
Intends to use	11.2	19.6	26.8	15.1	16.5	18.1
Unsure	29.9	19.3	14.2	21.0	15.3	17.9
Does not intend to use	58.9	60.6	58.4	62.8	65.7	62.5
Missing	0.0	0.5	0.5	1.2	2.5	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	88	208	181	180	451	1,108

[1] Includes current pregnancy

5.13 REASONS FOR NOT INTENDING TO USE CONTRACEPTION

An understanding of the reasons non-users of contraception have for intending not to use a contraceptive method in the future is crucial for identifying strategies to improve the access, acceptability, and quality of care of family planning services. Table 5.11 presents the main reasons for not intending to use contraception reported by currently married women who are not using a contraceptive method and who do not intend to use contraception in the future.

Table 5.11 shows that that the main reasons for not intending to use contraception in the future among currently married women who are not using are opposition to use (59 percent), followed by method-related reasons (19 percent), and fertility-related reasons (17 percent). Fertility-related reasons for future non-use such as menopause or infertility are slightly more likely to be cited by older women, and younger women are more likely to cite method-related reasons or lack of knowledge. Sixty-one percent of women age 30-49 are opposed to use of family planning compared with 55 percent of women age 15-29. Method-related reasons are more likely to be cited by younger than by older women (24 and 17 percent, respectively). More specifically, health concerns and fear of side effects are cited by 16 and 4 percent, respectively, of younger women compared with 13 percent and less than 1 percent, respectively, of older women. Additionally, younger women age 15-29 are slightly more likely than older women age 30-49 to say that lack of knowledge of method or source of method is the main reason for future non-use (3 percent versus less than 1 percent). These results indicate a need for family planning programmes in Samoa to increase information and counselling on the side effects of contraceptive methods among non-users.

Table 5.11 Reason for not intending to use contraception in the future by age

Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future by main reason for not intending to use, according to age, Samoa 2009

Reason	Age 15-29	Age 30-49	Total
Fertility-related reasons	**15.8**	**17.3**	**16.8**
Infrequent sex/no sex	2.0	6.1	4.9
Menopausal/had hysterectomy	5.0	4.6	4.7
Subfecund/infecund	3.1	4.1	3.8
Wants as many children as possible	5.7	2.5	3.4
Opposition to use	**54.5**	**61.2**	**59.2**
Respondent opposed	49.8	59.8	56.9
Husband/partner opposed	3.7	1.0	1.8
Religious prohibition	1.0	0.4	0.5
Lack of knowledge	**2.8**	**0.6**	**1.3**
Knows no method	2.1	0.6	1.1
Knows no source	0.7	0.0	0.2
Method-related reasons	**24.0**	**17.3**	**19.3**
Health concerns	16.1	13.3	14.1
Fear of side effects	4.0	0.7	1.7
Costs too much	1.0	0.2	0.5
Interfere with body's normal process	2.9	3.1	3.0
Other	0.9	2.6	2.1
Don't know	1.0	0.7	0.8
Missing	1.0	0.2	0.5
Total	100.0	100.0	100.0
Number of women	198	495	693

5.14 Preferred Method of Contraception for Future Use

Of particular interest to programme managers is the preferred method of contraception among non-users who reported that they intend to use a family planning method in the future. This information is useful in assessing the potential demand for specific methods of family planning. Table 5.12 shows that among currently married women not using a contraceptive method, the most preferred method for future use is injectables (59 percent), followed by the pill (23 percent) and female sterilization (11 percent). Only 1 percent cited rhythm as the preferred method for future use, and less than 1 percent cited other methods such as the IUD, male condom, or withdrawal.

When compared with results from the 1998 Samoa Reproductive Health Knowledge and Services Survey (Kesaia Seniloli, 2003), there has been no change in the order of preferred methods over time. Similar to 2009, the most preferred method among non-users in 1998 were injectables, followed by the pill and by female sterilization.

Table 5.12 Preferred method of contraception for future use

Percent distribution of currently married women age 15-49 who are not using a contraceptive method but who intend to use in the future, by preferred method, Samoa 2009

Preferred method	Percent distribution
Female sterilization	11.4
Pill	22.5
IUD	0.4
Injectables	58.6
Male condom	0.9
Rhythm	1.4
Withdrawal	0.6
Unsure of method	3.3
Missing	0.9
Total	100.0
Number of women	201

5.15 Exposure to Family Planning Messages

The media is seen as an effective means to disseminate family planning information. To assess the extent to which media serve as sources of family planning messages, respondents were asked whether they had heard or seen a message about family planning on the radio or television or in newspapers or magazines in the few months preceding the survey. Exposure to family planning

messages in the media over the past few months among women and men age 15-49 is shown in Table 5.13.

Exposure to family planning messages through any of the specified media is more common among women than men. Television is the most common source of family planning messages for both women (52 percent) and men (44 percent) age 15-49. More than half of women (51 percent) and more than four in ten men (44 percent) heard a family planning message on the radio. Newspapers and magazines are the least common source of family planning messages for both women (20 percent) and men (12 percent). Thirty-seven percent of women and 43 percent of men have not been exposed to any family planning messages in any of the three specified media.

Table 5.13 Exposure of respondents to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio or television or in a newspaper in the past few months, according to background characteristics, Samoa 2009

	Women					Men				
Background characteristic	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of women	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of men
Age										
15-19	28.5	31.7	14.7	57.6	560	25.2	27.2	6.5	63.9	269
20-24	42.7	53.0	23.2	40.0	474	38.8	42.0	11.2	48.5	209
25-29	55.6	56.4	18.8	34.0	375	53.1	55.2	11.2	31.4	168
30-34	57.0	61.4	23.5	29.6	308	55.1	51.4	14.7	34.2	161
35-39	62.0	54.2	18.8	28.9	358	47.9	45.1	16.9	36.6	153
40-44	61.2	57.7	24.8	30.1	284	48.9	48.9	11.7	39.1	147
45-49	69.4	62.6	21.4	22.0	299	54.7	57.0	17.1	29.7	112
Residence										
Urban	47.1	55.2	27.5	37.2	548	33.9	32.4	10.7	55.5	211
Rural	51.7	50.8	18.3	37.0	2,109	45.8	46.9	12.2	40.7	1,009
Region										
Apia Urban Area	47.1	55.2	27.5	37.2	548	33.9	32.4	10.7	55.5	211
North West Upolu	53.0	56.0	19.8	32.8	907	39.8	48.3	16.2	42.9	439
Rest of Upolu	48.5	44.6	20.3	43.8	597	55.2	47.6	12.8	34.5	279
Savaii	53.0	49.2	14.2	36.8	605	45.9	44.1	5.7	43.3	291
Education										
Primary or less	38.9	33.4	8.8	54.5	132	41.1	32.2	4.3	50.2	158
Secondary incomplete	50.6	48.9	15.3	38.9	1,598	41.4	43.0	8.3	45.4	670
Secondary complete	55.9	60.2	24.1	30.0	519	52.2	51.5	21.1	38.1	187
Vocational/ higher	48.7	58.0	38.2	33.1	408	46.0	51.9	21.6	35.9	206
Wealth quintile										
Lowest	52.1	42.0	13.3	40.4	472	45.7	38.1	6.4	41.2	209
Second	52.5	53.6	15.1	35.1	516	36.1	40.8	6.3	49.0	226
Middle	46.9	49.8	18.4	40.9	557	45.4	42.3	7.8	45.3	274
Fourth	53.2	53.6	22.0	36.5	555	44.8	49.7	13.1	42.1	264
Highest	49.5	58.3	30.9	32.8	558	46.3	49.8	25.2	38.9	248
Total 15-49	50.8	51.7	20.2	37.1	2,657	43.8	44.4	12.0	43.3	1,220
50-54	na	na	na	na	na	52.4	53.6	14.7	33.6	87
Total 15-54	na	na	na	na	na	44.3	45.0	12.1	42.6	1,307

na = Not applicable

Women and men age 15-19 report the lowest level of exposure to family planning messages in the media. Fifty-eight percent of young women and 64 percent of young men age 15-19 have heard no family planning messages through any of the specified media. These results indicate a need for family planning programmes to specifically target youth with family planning messages through their preferred television and radio channels and other sources of information. Among women, exposure to family planning messages through television and newspaper is higher in urban areas (55 and 28 percent, respectively) than in rural areas (51 and 18 percent, respectively); while exposure through the radio is slightly lower in urban (47 percent) than in rural areas (52 percent). On the other hand, exposure to family planning messages through any of the media is higher among men in rural areas than among those in urban areas. For example, 32 percent of men in urban areas have seen a family

planning message on television compared with 47 percent of men in rural areas. Among the regions, women in Apia Urban Area and North West Upolu (5556 percent) have the greatest exposure to family planning messages through television; women in North West Upolu and the Savaii regions (53 percent each) have the highest exposure through the radio; and women in Apia Urban Area (28 percent) have the highest exposure through newspaper and magazines. The Rest of Upolu has the highest percentage of women who have never been exposed to any of the three media (44 percent), and Apia Urban Area has the highest percentage of men with no exposure (56 percent), mainly because of less exposure to family planning messages through television. Exposure to family planning messages generally increases with level of education (especially exposure through newspapers and magazines) and wealth quintile (especially exposure through television and newspapers and magazines).

5.16 CONTACT OF NON-USERS WITH FAMILY PLANNING PROVIDERS

To determine whether non-users of family planning in Samoa have had an opportunity to receive information about family planning from providers, women who were not using contraception were asked whether they had attended a health facility in the past year for any reason and, if so, whether a staff person at that facility spoke to them about family planning methods. They were also asked whether they had been visited by a fieldworker who discussed family planning. The results are shown in Table 5.14.

Table 5.14 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a peer trainer who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who neither discussed family planning with a peer trainer nor at a health facility, by background characteristics, Samoa 2009

Background characteristic	Percentage of women who were visited by peer trainer who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who: Discussed family planning	Did not discuss family planning	Percentage of women who neither discussed family planning with a peer trainer nor at a health facility	Number of women
Age					
15-19	2.9	0.7	3.8	96.5	554
20-24	5.4	4.6	7.8	91.2	424
25-29	3.7	5.4	12.1	92.2	305
30-34	2.8	5.2	12.8	92.8	217
35-39	5.2	5.7	13.1	92.0	247
40-44	3.5	4.5	9.6	93.8	200
45-49	3.4	5.5	9.2	92.1	236
Residence					
Urban	4.6	3.7	10.5	93.2	456
Rural	3.7	4.1	8.3	93.3	1,727
Region					
Apia Urban Area	4.6	3.7	10.5	93.2	456
North West Upolu	3.7	2.2	5.8	94.5	743
Rest of Upolu	4.1	5.7	8.3	91.2	488
Savaii	3.2	5.2	12.2	93.5	496
Education					
Primary or less	3.9	3.8	6.9	93.3	114
Secondary incomplete	3.4	3.7	7.5	93.9	1,304
Secondary complete	3.8	4.6	10.3	93.4	425
Vocational/ higher	5.6	4.5	12.3	90.5	340
Wealth quintile					
Lowest	4.4	4.4	7.2	93.2	385
Second	2.7	2.7	9.2	95.2	423
Middle	4.5	3.6	8.7	93.2	457
Fourth	3.4	3.7	8.7	93.6	470
Highest	4.3	5.5	9.9	91.1	448
Total	3.9	4.0	8.8	93.3	2,183

Table 5.14 shows that 4 percent of non-users reported that they had visited a health facility in the 12 months preceding the survey and discussed family planning, while 9 percent of women visited a health facility and did not discuss family planning. Additionally, 4 percent of women not using contraception were visited by a peer trainer in the preceding 12 months who discussed family planning with them. Overall, the majority of women (93 percent) did not discuss family planning with a peer trainer or at a health facility in the past 12 months.

5.17 Husband/Partner's Knowledge about Woman's Use of Family Planning

The husband or partner's knowledge about a woman's use of family planning is an indication of their prior discussion of, interest in, and continued practice of family planning. Inter-spousal/partner communication is an important intermediate step along the path to adopting a contraceptive method and also is critical to continuing to use that or other contraceptive methods in the future. Lack of knowledge or discussion of family planning may relate to a number of factors, including lack of interest in family planning, hostility to the subject of family planning, or customary reticence to talk about sex-related matters. To assess the extent to which women use contraception without informing their husbands or partners, the 2009 SDHS asked married women whether their husbands or partners know they are using a method of family planning.

Table 5.15 shows that the majority of currently married women (80 percent) who are using contraception say that their husband or partner knows about their use of family planning. Only 4 percent said that their husband/partner does not know about their use of contraception, and 16 percent were unsure.

In Samoa, communication between couples about family planning use is high by most background characteristics. More currently married women age 40-49 (86-88 percent) report that their husband or partner knows about their contraceptive use than do younger women. More women in urban areas (93 percent) report that their husband or partner knows about their contraception use than do women in rural areas (77 percent). A higher proportion of women in Apia Urban Area say that their husband or partner is aware of their contraceptive use (93 percent) than do women in the Rest of Upolu (66 percent). There is little variation in the husband's or partner's knowledge of women's use of contraception by level of education or wealth quintile. Interestingly, women who have completed secondary education (89 percent) and those in the middle wealth quintile (88 percent) are more likely than other women to say that their husband or partner knows about their use of family planning.

Table 5.15 Husband/partner's knowledge of women's use of contraception

Among currently married women age 15-49 who are using a method, percent distribution by whether they report that their husbands/partners know about their use, according to background characteristics, Samoa 2009

Background characteristic	Knows[1]	Does not know	Unsure whether knows/ missing	Total	Number of women
Age					
15-19	*	*	*	100.0	3
20-24	(82.2)	(2.8)	(15.0)	100.0	44
25-29	75.6	5.9	18.5	100.0	68
30-34	74.8	5.4	19.9	100.0	85
35-39	76.5	3.4	20.1	100.0	106
40-44	87.6	2.1	10.3	100.0	79
45-49	85.5	4.3	10.3	100.0	60
Residence					
Urban	93.4	2.1	4.5	100.0	81
Rural	76.7	4.4	19.0	100.0	364
Region					
Apia Urban Area	93.4	2.1	4.5	100.0	81
North West Upolu	84.8	5.9	9.2	100.0	154
Rest of Upolu	66.2	4.0	29.8	100.0	108
Savaii	75.5	2.4	22.1	100.0	102
Education					
Primary or less	*	*	*	100.0	17
Secondary incomplete	77.3	3.2	19.5	100.0	282
Secondary complete	89.3	2.9	7.7	100.0	87
Vocational/ higher	75.9	10.1	14.0	100.0	59
Wealth quintile					
Lowest	79.5	2.0	18.6	100.0	85
Second	75.4	2.0	22.6	100.0	84
Middle	87.8	0.6	11.7	100.0	94
Fourth	72.2	8.9	18.9	100.0	78
Highest	81.9	6.5	11.6	100.0	104
Total	79.7	4.0	16.3	100.0	446

Note: Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes women who report use of male sterilization, male condoms, or withdrawal

5.18 MALE ATTITUDES TOWARDS FAMILY PLANNING

The 2009 SDHS assessed male respondent's attitudes towards contraception by asking currently married respondents whether they agreed or disagreed with two statements about family planning use: (1) contraception is a women's business, and a man should not have to worry about it; and (2) women who use contraception may become promiscuous. The results are shown in Table 5.16.

The results on attitudes towards family planning show that the majority of currently married men age 15-49 in Samoa think that men should take some responsibility for family planning. Sixty-six percent of men reject the statement that contraception is a woman's business and men should not have to worry about it. However, 21 percent of men agree with the statement, and 12 percent say they don't know.

Older men age 45-49, men living in urban areas, and those living in Apia Urban Area (80 percent each) are more likely to disagree that contraception is the woman's business than other men. Furthermore, male respondents with secondary complete or higher education (77-78 percent) and those in the highest wealth quintile (75 percent) are more likely than other respondents to disagree with the statement that contraception is a woman's business.

Regarding the statement that women who use contraception may become promiscuous, 25 percent of men agree with the statement, but 57 percent disagree and 18 percent are unsure. Compared with other men, those age 30-34, men from rural areas, men residing in the Rest of Upolu and Savaii regions men with secondary education and in the lowest wealth quintile are the most likely to agree with the statement that women who use contraception may become promiscuous..

Table 5.16 Male attitudes towards contraceptive use

Among men age 15-49, attitudes about women's use of contraceptive methods, according to background characteristics, Samoa 2009

Background characteristic	Contraception is woman's business					Women who use contraception may become promiscuous					Number of men
	Agree	Disagree	Don't know	Missing	Total	Agree	Disagree	Don't know	Missing	Total	
Age											
15-19	19.7	44.4	35.4	0.4	100.0	19.1	41.5	39.0	0.4	100.0	269
20-24	23.1	66.5	10.4	0.0	100.0	27.0	56.2	16.8	0.0	100.0	209
25-29	24.6	66.8	8.6	0.0	100.0	23.2	68.0	8.9	0.0	100.0	168
30-34	19.9	76.9	3.2	0.0	100.0	28.4	59.2	12.4	0.0	100.0	161
35-39	20.5	76.4	3.1	0.0	100.0	26.4	62.1	10.8	0.8	100.0	153
40-44	24.2	72.6	3.2	0.0	100.0	26.8	59.0	14.2	0.0	100.0	147
45-49	15.0	80.4	3.9	0.7	100.0	26.8	65.2	7.3	0.7	100.0	112
Residence											
Urban	4.6	79.6	15.3	0.5	100.0	10.6	68.9	19.9	0.5	100.0	211
Rural	24.7	63.6	11.7	0.1	100.0	27.8	54.3	17.7	0.2	100.0	1,009
Region											
Apia Urban Area	4.6	79.6	15.3	0.5	100.0	10.6	68.9	19.9	0.5	100.0	211
North West Upolu	31.0	55.4	13.4	0.2	100.0	23.1	56.6	19.9	0.5	100.0	439
Rest of Upolu	14.0	73.8	12.1	0.0	100.0	33.4	51.4	15.2	0.0	100.0	279
Savaii	25.3	66.0	8.7	0.0	100.0	29.5	53.7	16.8	0.0	100.0	291
Education											
Primary or less	21.7	58.5	19.9	0.0	100.0	23.0	52.4	24.6	0.0	100.0	158
Secondary incomplete	24.2	61.8	13.7	0.3	100.0	25.7	54.0	19.8	0.5	100.0	670
Secondary complete	14.7	77.6	7.7	0.0	100.0	25.4	62.3	12.3	0.0	100.0	187
Vocational/ higher	17.0	76.8	6.2	0.0	100.0	22.5	64.8	12.7	0.0	100.0	206
Wealth quintile											
Lowest	27.8	58.6	13.1	0.5	100.0	32.0	49.1	18.4	0.5	100.0	209
Second	24.2	60.9	14.8	0.0	100.0	19.9	58.3	21.8	0.0	100.0	226
Middle	15.6	70.9	13.5	0.0	100.0	25.8	55.4	18.8	0.0	100.0	274
Fourth	24.4	64.5	11.1	0.0	100.0	27.1	57.5	15.0	0.5	100.0	264
Highest	15.6	74.6	9.5	0.3	100.0	19.6	63.1	17.0	0.3	100.0	248
Total 15-49	21.2	66.3	12.3	0.2	100.0	24.8	56.9	18.1	0.3	100.0	1,220
50-54	24.1	71.1	4.0	0.9	100.0	27.6	61.1	10.4	0.9	100.0	87
Total 15-54	21.4	66.6	11.8	0.2	100.0	25.0	57.1	17.6	0.3	100.0	1,307

OTHER PROXIMATE DETERMINANTS OF FERTILITY 6

This chapter addresses the principal factors, other than contraception, that affect a woman's risk of becoming pregnant. These factors typically may include marital status, polygyny, sexual intercourse, postpartum amenorrhoea, abstinence from sexual relations, and onset and termination of exposure to pregnancy. The 2009 Samoa DHS did not include any questions on polygyny or history of sexual intercourse, so these factors are not discussed.

6.1 CURRENT MARITAL STATUS

Marriage is a primary indication of the regular exposure of women to the risk of pregnancy and therefore is important for the understanding of fertility. Populations in which age at first marriage is low tend to have early childbearing and high fertility. In Samoa, childbearing is largely restricted to occurrence within marital unions. More than 90 percent of all births occur to women who are currently married (Chapter 4). Nevertheless, Table 6.1 shows that 16 percent of Samoan women age 15-49 are reportedly living with a partner without being formally married. In this report, the term 'married' refers to legal or formal marriage, and 'living together' refers to an informal union in which a man and a woman live together, even if a formal civil or religious ceremony has not occurred. In other tables that do not list 'living together' as a separate category, these women and men are included in the 'currently married' group. Respondents who are currently married, widowed, divorced, or separated are referred to as 'ever-married.'

Table 6.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Samoa 2009

	Marital status							Percentage of respondents currently in union	
Age	Never married	Married	Living together	Divorced	Separated	Widowed	Total		Number of respondents
				WOMEN					
15-19	92.4	2.7	4.3	0.2	0.4	0.0	100.0	7.0	560
20-24	55.3	24.3	17.0	2.2	1.0	0.1	100.0	41.3	474
25-29	23.5	48.4	24.0	2.9	0.3	0.7	100.0	72.5	375
30-34	14.0	59.3	20.5	5.1	0.8	0.3	100.0	79.9	308
35-39	7.4	65.6	19.7	5.8	1.2	0.2	100.0	85.3	358
40-44	7.3	67.5	18.0	4.0	0.3	2.9	100.0	85.5	284
45-49	4.7	69.5	15.1	7.1	0.0	3.7	100.0	84.5	299
Total 15-49	36.6	42.5	16.0	3.4	0.6	0.9	100.0	58.5	2,657
				MEN					
15-19	98.9	0.7	0.0	0.0	0.0	0.3	100.0	0.7	269
20-24	77.5	17.1	4.5	0.4	0.4	0.0	100.0	21.6	209
25-29	51.8	37.0	8.6	2.6	0.0	0.0	100.0	45.6	168
30-34	31.8	50.7	14.7	2.3	0.5	0.0	100.0	65.4	161
35-39	17.3	64.3	13.2	5.2	0.0	0.0	100.0	77.5	153
40-44	13.8	70.1	14.0	2.0	0.0	0.0	100.0	84.1	147
45-49	5.3	84.8	5.2	3.7	0.0	1.0	100.0	90.0	112
Total 15-49	50.8	39.2	7.7	2.0	0.1	0.2	100.0	46.9	1,220
50-54	4.0	80.7	9.6	5.7	0.0	0.0	100.0	90.3	87
Total 15-54	47.7	42.0	7.8	2.2	0.1	0.2	100.0	49.8	1,307

Table 6.1 shows the percent distribution of women and men interviewed in the 2009 SDHS by their current marital status, according to age. Table 6.1 shows that 37 percent of women age 15-49 have never married, 43 percent are formally married, 16 percent are living together with a man, and 5 percent are divorced, separated, or widowed. Marriage occurs relatively early in life in Samoa, and about one in four women (24 percent) age 20-24 are currently married.

A greater proportion of men than women (51 percent versus 37 percent) have never married. The percentage of men who have never married declines rapidly as age increases, from 99 percent for men in age group 15-19 to 5 percent for men who are age 45-49. This means that nearly all Samoan men will get married at some point in time. The same pattern is observed for Samoan women, but the proportion of women who have never married declines much faster at younger ages than for men. Samoan men tend to marry and cohabit with a partner at older ages than Samoan women. About three-quarters sof Samoan women age 25-29 are currently in a union (73 percent), while less than half (46 percent) of men in the same age group are currently in a union.

The divorce rate among Samoan women is relatively high; 3 percent of women age 15-49 are currently divorced. The divorce rate is highest among women age 35-39 (6 percent) and age 45-49 (7 percent). Tuvalu has the divorce rate closest to that of Samoa in general (3 percent among women age 15-29 in 2007), peaking at 5 percent among women age 45-49 (TCSD, SPC, and Macro International Inc., 2009). The divorce rate among Samoan men age 15-49 is lower (2 percent) than the rate among women (3 percent). The divorce rate for Samoan men peaks at 5 percent for men age 35-39 and 6 percent for men age 50-54.

Less than 1 percent of Samoan women or men are separated or widowed. Among women, the percentage who are currently widowed increases to 3-4 percent for age 40 or older. The comparable rates for men are less than 1 percent. This difference could be explained by the fact that women have a longer life expectancy at birth (74 years) than men (72 years) and that men tend to remarry after having become widowed (Samoa Bureau of Statistics, 2008).

6.2 Singulate Mean Age at Marriage

The 2009 SDHS did not include the standard module on marriage and sexual activity. Consequently, it is not possible to calculate the 'Mean Age at First marriage'. Nevertheless, based on proportion of never-married women and men by age it is possible to indirectly estimate the so-called Singulate Mean Age at Marriage (SMAM). In essence, the SMAM calculates the mean age at which the transition between never-married and ever-married status is made. While the SMAM is a useful measure, any interpretation must be made with some caution. It is a retrospective measure based on experiences of individuals across the entire age range, usually 15-54. It will reflect an average marriage pattern for the respondents in this age range, even though the experiences of older persons may be quite different from those of younger ones. Most important, in the case of Samoa, the relatively high rate of migration may introduce bias into the SMAM estimates, particularly if the proportion of those who never married differs among the migrants in in comparison with the survey population.

Table 6.2 presents the SMAM estimates for Samoan women and men age 15-49 by selected

Table 6.2 Singulate mean age at marriage

Singulate mean age at marriage for women and men age 15-49, according to background characteristics, Samoa 2009

Background characteristic	Women	Men
Residence		
Urban	25.5	28.0
Rural	23.2	28.9
Region		
Apia Urban Area	25.5	28.0
North West Upolu	23.3	29.1
Rest of Upolu	23.3	27.9
Savaii	23.1	29.7
Education		
Primary or less	25.5	29.8
Secondary incomplete	22.6	28.1
Secondary complete	22.0	29.1
Vocational/ higher	26.9	29.5
Wealth quintile		
Lowest	22.8	27.0
Second	23.4	30.0
Middle	23.2	30.1
Fourth	23.3	27.2
Highest	25.1	29.7
Total	23.6	28.8

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

background characteristics. The results show that the mean age at marriage for Samoan women is 23.6, while for Samoan men it is 28.8, about five years higher than for women. However, while the results of the SMAM estimation for Samoan women appear to be fairly consistent and meaningful across background characteristics, those for Samoan men need to be treated with caution. The results for men do not reveal any particular pattern by background characteristics. This could be explained by the fact that the results may be influenced to a large extent by migration. The results for Samoan men are, therefore, presented for illustrative purposes only.

The mean age at marriage for women in urban areas is on average about two and a half years higher than that for women in rural areas (25.5 versus 23.2 years). The differentials between the mean age at marriage across the three rural regions (North West Upolu, Rest of Upolu, and Savaii regions) are marginal (23.1-23.3 years). On the other hand, the mean age at marriage among women in Apia Urban Area (25.5 years) is more than two years higher than that observed for rural regions. The variation in the SMAM of Samoan women by education shows an atypical pattern; it is highest among women with primary or less education (25.5 years) and those with vocational or higher than secondary education (26.9). Although it is expected for women with higher education to marry later in life, it is surprising that the SMAM among women with the lowest educational attainment is also among the highest. This unexpected pattern resembles, however, the findings with regard to the Total Fertility Rate (TFR) by educational attainment. As shown in Chapter 4 of this report, the TFR among women with primary or less education is lower when compared with women with higher education, the opposite pattern of that observed in many countries around (see Chapter 4, Section 4.1.2). The SMAM estimates for women age 5-49 by wealth quintile show a relatively consistent pattern of progressively higher values as wealth increases. Women in the lowest wealth quintile marry on average at age 22.8 compared with age 25.1 for women in the highest wealth quintile.

6.3 Amenorrhoea, Abstinence, and Insusceptibility

Postpartum amenorrhoea is the interval between the birth of a child and the return of the menstrual cycle. It is the period during which the woman becomes temporarily and involuntarily infecund following childbirth. Postpartum protection from conception can be prolonged by breastfeeding, which can lengthen the duration of amenorrhoea. Delaying the resumption of post-partum sexual relations can also prolong protection. The period of voluntary sexual inactivity after childbirth is referred to as postpartum abstinence. A woman is said to be insusceptible to the risk of pregnancy if she is either amenorrhoeic or abstaining from sexual intercourse following childbirth. Women who gave birth during the three years prior to the survey were asked about their breastfeeding practices, the duration of amenorrhoea, and postpartum sexual abstinence.

Table 6.3 shows the percentage of births in the three years preceding the survey for which mothers were postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since the birth. Mean and median durations are also shown. In Samoa, the median duration of amenorrhoea is 1.3 months. This is an exceptionally short duration, which suggests a similarly short duration of exclusive breastfeeding among Samoan mothers. Even though the interval is less than in most Pacific countries, the Samoa findings are comparable to those from the 2007 Tuvalu DHS, which reported a median age of amenorrhoea of 0.7 months (Central Statistics Division, SPC, and Macro International Inc. 2009).

The median duration of postpartum abstinence among Samoan women is 2.4 months, shorter than the median duration found in most Pacific countries for which comparable data are available. For example, the median duration of postpartum abstinence for Tuvaluan women in 2007 was 4.6 months (Central Statistics Division, SPC, and Macro International Inc. 2009), almost two and a half months longer than that for Samoan women.

Table 6.3 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Samoa 2009

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible[1]	
< 2	56.7	75.9	89.3	53
2-3	28.6	47.1	59.2	62
4-5	23.4	28.5	42.9	73
6-7	27.9	34.0	53.7	66
8-9	16.7	29.6	37.5	59
10-11	25.6	38.2	55.3	52
12-13	(26.4)	(23.1)	(39.3)	49
14-15	6.3	18.9	23.8	63
16-17	9.7	12.6	21.0	70
18-19	3.3	18.2	21.6	57
20-21	(7.3)	(22.1)	(24.7)	41
22-23	12.0	12.3	24.4	52
24-25	10.6	22.2	30.8	56
26-27	4.8	13.6	16.8	52
28-29	4.5	24.2	28.7	64
30-31	8.8	16.2	23.0	56
32-33	(4.6)	(11.1)	(13.4)	44
34-35	(3.8)	(8.1)	(11.9)	43
Total	15.9	25.7	35.0	1,012
Median	1.3	2.4	4.9	na
Mean	6.1	9.5	12.6	na

Note: Estimates are based on status at the time of the survey. Numbers in parentheses are based on 25-49 unweighted cases
na = Not applicable
[1] Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth

The two factors of postpartum amenorrhoea and abstinence result in a median duration of insusceptibility of 4.9 months. In interpreting these figures, it must be noted that the mean values for these indicators tend to be considerably higher than the medians. This indicates a distribution of responses that deviates considerably from the normal distribution, i.e., there are many births for which relatively long durations of amenorrhea and abstinence were reported in the early months after birth. For instance, at 10-11 months after giving birth, 26 percent of women are still amenorrhoeic and 38 percent are abstaining. By 34 to 35 months, the effect of postpartum amenorrhoea is almost completely gone (4 percent) and insusceptibility to pregnancy is low (12 percent).

6.4 MENOPAUSE

Menopause marks the onset of infecundity and is another factor influencing the risk of pregnancy. In this report, women are considered menopausal if they are neither pregnant nor postpartum amenorrhoeic and they have not had a menstrual period in the past six months.

Table 6.4 shows that, overall, 8 percent of women age 30-49 are menopausal. The proportion of women who are menopausal increases with age, from 4 percent among women age 30-34 to 27 percent among women age 48-49. This proportion stays relatively constant from age 30 through 45 (3-9 percent) but increases sharply after age 45 (21-27 percent).

Table 6.4 Menopause

Percentage of women age 30-49 who are menopausal, by age, Samoa 2009

Age	Percentage menopausal[1]	Number of women
30-34	4.3	308
35-39	2.9	358
40-41	4.7	118
42-43	7.7	107
44-45	8.6	139
46-47	20.8	136
48-49	26.7	83
Total	8.0	1,249

[1] Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey

FERTILITY PREFERENCES 7

The subject of future reproductive preferences is of fundamental importance for population policy and family planning programmes. Particularly in Samoa, where attempts to institute a population policy have so far been unsuccessful and where couples' use of family planning has remained relatively low, it is crucial to gain insight into the fertility desires of the population and assess the potential demand for family planning. In the 2009 SDHS, women and men were asked specific questions about their desire to have another child, the length of time they would like to wait before having another child, and what they considered to be the ideal number of children. The questions were designed to ascertain individual fertility preferences. Based on this data, the current chapter discusses Samoan couples' desire to cease childbearing or delay the next pregnancy and explores the extent to which contraceptive behaviour diverges from expressed fertility desires.

A woman's fertility preferences are subjective and may not necessarily predict her reproductive behaviour because childbearing decisions are not made solely by the woman. These decisions are frequently affected by the attitudes of other family members, particularly the husband. Survey information on fertility preferences can also be influenced by the respondent's current family size. To ascertain their childbearing desires, SDHS respondents were first asked if they wanted to have additional children, after which several additional questions were asked. The responses to these additional questions ascertain the validity of the responses given to the first question. If a woman was pregnant at the time of the survey she was asked whether she wanted to have another child after the birth of the child she was carrying. Taking into account the way in which the preference variable is defined for pregnant women, a current pregnancy is treated as being equivalent to a living child. Women who have been sterilized are classified as wanting no more children.

7.1 DESIRE FOR MORE CHILDREN

Women's preferences concerning future childbearing serve as indicators of future fertility. However, sterilized women and women who state that they are infecund (declared infecund) have no impact on future fertility because their potential contribution to fertility has been curtailed. The data on fertility preferences also provides information on the potential need for contraceptive services for spacing and limiting births.

Table 7.1 shows fertility preferences among currently married women and currently married men by the number of living children at the time of the survey. The findings indicate that there is considerable desire among married Samoan women and men to control the timing, and especially the number, of births. In Samoa, men are more inclined than Samoan women towards postponement of childbearing, while women are more inclined than men to want no more children. Fifteen percent of currently married women and 28 percent of currently married men would like to wait for two or more years for the next birth, while 52 percent of women and 43 percent of men do not want to have another child. If one adds to these the percentages of sterilized, currently married women and men-- 7 percent and 3 percent--, about three-quarters of currently married Samoan women (74 percent) and men (73 percent) want to delay or limit their next birth. The similar high proportions of women and men who desire to delay or limit the next birth convey a clear message for purposes of population and family planning in Samoa.

Only 8 percent of women and 13 percent of men would like to have another child within the next two years. The remaining women and men are uncertain about their fertility desires or say they are unable to get pregnant (infecund).

Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Samoa 2009

Desire for children	Number of living children 0	1	2	3	4	5	6+	Total 15-49	Total 15-54
WOMEN[1]									
Have another soon[2]	20.4	21.0	9.8	5.0	3.7	2.8	0.9	7.9	na
Have another later[3]	12.9	35.7	25.8	13.0	9.7	7.9	2.7	15.4	na
Have another, undecided when	3.1	3.2	1.3	0.6	1.2	0.5	0.0	1.2	na
Undecided	48.5	15.3	13.5	13.1	11.1	13.0	9.2	14.5	na
Want no more	4.7	21.4	47.0	59.8	62.6	63.8	73.7	52.3	na
Sterilized[4]	0.0	0.5	2.1	7.7	9.1	10.6	12.1	6.7	na
Declared infecund	10.4	2.4	0.5	0.4	1.7	0.0	0.7	1.5	na
Missing	0.0	0.4	0.0	0.3	0.8	1.5	0.7	0.5	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number	91	236	249	265	242	169	303	1,554	na
MEN[5]									
Have another soon[2]	20.6	22.8	21.4	8.0	6.7	(4.5)	5.4	13.0	12.0
Have another later[3]	22.5	53.0	37.0	30.5	16.6	(17.2)	8.0	27.7	24.8
Have another, undecided when	20.6	5.4	2.4	1.2	2.1	(0.0)	1.4	3.9	3.6
Undecided	18.7	6.1	4.4	9.1	9.0	(9.1)	7.1	8.2	7.6
Want no more	3.9	9.0	33.7	47.1	63.0	(65.0)	70.7	42.5	47.0
Sterilized[4]	0.0	1.9	1.1	3.6	1.2	(4.3)	5.7	2.6	2.8
Declared infecund	4.3	0.0	0.0	0.0	0.0	(0.0)	0.0	0.4	0.6
Missing	9.4	1.8	0.0	0.6	1.5	(0.0)	1.6	1.7	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	50	96	100	98	87	35	105	573	651

Note: Numbers in parentheses are based on 25-49 unweighted cases.
na =Not applicable
[1] The number of living children includes current pregnancy for women.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization
[5] The number of living children includes one additional child if respondent's wife is pregnant.

Fertility preferences are typically closely related to the number of children a couple already has. Table 7.1 results are somewhat surprising in this regard. In many countries, the proportions of women and men wanting a child soon are high for those who do not yet have any children, and taper off with increasing numbers of living children. However, in Samoa, a relatively low proportion of childless women and men who are currently married want to have a child soon (20 percent of women and 21 percent of men). The majority of childless women appear to be undecided about having a child (49 percent), while a majority of childless men want to delay the first birth or are unsure about when to have their first child (43 percent). After having experienced their first birth most Samoan women (36 percent) and men (53 percent) want to have another child, but only after two or more years.

Table 7.2.1 shows the percentage of currently married women who want no more children or who have been sterilized. Overall, 59 percent of currently married Samoan women want to limit childbearing. Depending on the number of children the women already have, there is a sharp increase in the proportion of women who want no more children, from 17 percent of those who have no children to 59 percent of women with two to three children to 78 percent of women with four or more children.

Women in urban areas are more likely than those in rural areas to want no more children, irrespective of the number of children a woman has. Overall, 66 percent of women in urban areas want no more children compared with 58 percent of women in rural areas. Despite its small total

population, there are notable differences across Samoa's four regions in women's desire to limit childbearing. Women in Apia Urban Area (66 percent) and in North West Upolu (61 percent) have the highest proportions of women who want no more children. On the other hand, women residing in the Rest of Upolu (55 percent) and in the Savaii (56 percent) regions appear to be the least inclined to limit their childbearing. The increase in the proportion of women who want no more children by parity is especially pronounced in the Savaii region. Forty-five percent of women in Savaii who have two to three children want no more children compared with 76 percent of those with four or more children, suggesting that Savaii women are more inclined than women in other regions to want to stop childbearing when they have two to three children.

The desire of currently married women to limit childbearing decreases as a woman's education increases. Overall, women with primary or less education are the most likely to want no more children (66 percent), while women with vocational or higher than secondary education are the least likely (51 percent). When looking at number of living children, it must be noted that the highest percentage of women who want to limit childbearing when they have no children or just one child is among women with vocational or higher than secondary education (21 percent).

The differentials in desire of women to stop childbearing by wealth quintile also indicate that the desire generally decreases with an increase in wealth. Sixty-three percent of women in the lowest quintile want to stop having more children compared with 56 percent, each, of women in the fourth and highest quintiles.

Table 7.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Samoa 2009

Background characteristic	Number of living children[1]			Total
	0-1	2-3	4+	
Residence				
Urban	18.8	66.0	85.1	65.8
Rural	16.9	56.7	77.0	57.5
Region				
Apia Urban Area	18.8	66.0	85.1	65.8
North West Upolu	18.9	66.6	81.6	61.0
Rest of Upolu	15.1	55.8	72.3	54.7
Savaii	15.2	45.3	76.2	55.8
Education				
Primary or less	*	*	74.6	66.3
Secondary incomplete	17.6	58.3	78.9	61.9
Secondary complete	14.7	58.9	78.2	53.4
Vocational/ higher	20.9	55.3	77.2	50.8
Wealth quintile				
Lowest	(19.3)	54.9	77.6	62.7
Second	14.4	58.1	79.3	58.9
Middle	20.6	56.8	82.1	61.5
Fourth	18.6	61.0	73.9	56.2
Highest	13.8	61.3	78.3	55.5
Total	17.2	58.6	78.3	59.0

Note: Women who have been sterilized are considered to want no more children. Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

[1] The number of living children includes the current pregnancy

Table 7.2.2 shows the percentage of currently married men who want no more children or who have been sterilized. A higher percentage of currently married men (45 percent) than women (59 percent) want no more children. Similar to women, the desire increases sharply with number of living children. Only 9 percent of men with no children or with one child want to limit childbearing compared with 43 percent of men with two to three children and 71 percent of men with four or more children.

There are no major variations in the proportion of men who want no more children by urban-rural residence. The differentials by region are less pronounced for men than for women. The desire to limit childbearing ranges from 36 percent of currently married men in the Savaii region to 50 percent of men in the Rest of Upolu.

The highest percentage of men who want no more children is for men with primary or less education (53 percent) compared with 43-47 percent of men in the other educational categories. Looking at wealth, men in the highest wealth quintile are somewhat more likely to want no more children (49 percent) when compared with men in the other wealth quintiles (43-46 percent).

Table 7.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Samoa 2009

Background characteristic	Number of living children[1]			Total
	0-1	2-3	4+	
Residence				
Urban	(7.9)	(42.2)	(77.6)	46.4
Rural	8.6	42.8	69.4	44.8
Region				
Apia Urban Area	(7.9)	(42.2)	(77.6)	46.4
North West Upolu	6.1	43.5	78.7	47.3
Rest of Upolu	(16.8)	47.3	73.3	49.8
Savaii	(3.6)	(37.3)	52.6	36.2
Education				
Primary or less	*	*	(82.2)	53.4
Secondary incomplete	10.1	43.2	63.9	43.1
Secondary complete	(7.7)	(38.2)	(71.9)	42.5
Vocational/ higher	(9.4)	(47.0)	(82.4)	47.0
Wealth quintile				
Lowest	(12.7)	(30.5)	67.5	44.0
Second	(8.0)	(54.2)	(63.6)	43.5
Middle	(14.4)	(29.8)	64.9	42.6
Fourth	(4.8)	(37.5)	(84.9)	45.7
Highest	(3.7)	53.6	(71.2)	49.2
Total 15-49	8.5	42.7	70.6	45.1
50-54	*	*	90.5	84.6
Total 15-54	9.4	45.8	74.5	49.8

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children. Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] The number of living children includes one additional child if respondent's wife is pregnant.

7.2 NEED AND DEMAND FOR FAMILY PLANNING

This section discusses the extent of the need for family planning in Samoa and the potential demand for contraception to space or limit childbearing. Currently married women who do not want any more children or who want to wait two or more years before having another child, but are not using contraception, are considered to have an unmet need for family planning. Menopausal and infecund women are excluded from the unmet need calculations. Women who are using a family planning method are said to have a met need for family planning. The total demand for family planning comprises women with unmet need and met need for family planning. The unmet need for family planning is a core indicator for the ICPD Programme of Action[1] and one of the targets under MDG 5.[2]

Table 7.3 shows the need for family planning among currently married women.. Overall, 46 percent of currently married Samoan women have an unmet need for family planning. The unmet need for limiting (25 percent) is greater than the unmet need for spacing (20 percent). Overall, about three in ten currently married women are using a method of contraception (9 percent for spacing births and 20 percent for limiting births). The total demand for family planning among women is 74 percent (29 percent for spacing births and 46 percent for limiting births). Only 39 percent of the demand for family planning is currently being met, which implies that the contraceptive needs of about half of currently married women are not being met.

The total demand for family planning increases sharply with age, to reach a peak of 81 percent for women age 35-39, after which it decreases slightly. However, even at young ages there is already considerable demand for family planning among Samoan women. The total demand for family planning is 64 percent for women in the 20-24 age group, of which only one-third (23 percent) is met.

The unmet need for family planning tends to increase with age and is highest for women age 45-49 (54 percent). It is also relatively high (52 percent) for women age 15-19, but the unweighted number of women in this category is too small for meaningful conclusions to be drawn. For women of younger ages, the unmet need is mostly for spacing, while for older women the unmet need is increasingly for limiting of births.

There is no major difference in unmet need for family planning among currently married women by urban-rural residence. Among the four Samoan regions, unmet need for family planning is slightly higher for women in Savaii (47 percent) than for women in other regions. With regard to educational attainment, the total unmet need is highest among women with primary or less education (55 percent). The difference is mostly due to unmet need for limiting; 33 percent for women with primary or less education have an unmet need for limiting births compared with 20 percent for women with vocational or higher than secondary education. This suggests that women with higher education are better able to satisfy their demand for limiting their births than women who have little education.

The differentials in unmet need according to wealth quintiles are somewhat less consistent and pronounced. However, findings show that women in the highest wealth quintile have the lowest level of unmet need (41 percent) compared with women in the other wealth quintiles (44-48 percent). This difference is mostly in unmet need for limiting.

[1] http://www.un.org/ecosocdev/geninfo/populatin/icpd.htm
[2] http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm

Table 7.3 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Samoa 2009

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	(49.9)	(2.4)	(52.3)	(5.9)	(2.1)	(8.1)	(55.9)	(4.6)	(60.4)	(13.4)	39
20-24	31.7	9.9	41.5	15.8	6.8	22.6	47.5	16.7	64.1	35.2	196
25-29	25.9	16.0	41.9	10.9	14.2	25.1	36.8	30.2	67.0	37.4	272
30-34	19.9	21.6	41.5	13.3	21.2	34.5	33.2	42.8	76.1	45.4	246
35-39	19.3	27.1	46.4	8.0	26.6	34.6	27.4	53.7	81.0	42.7	305
40-44	9.3	36.9	46.2	4.0	28.7	32.7	13.3	65.6	78.9	41.4	243
45-49	11.9	41.9	53.8	1.0	22.9	23.9	12.8	64.8	77.6	30.7	252
Residence											
Urban	17.6	27.8	45.4	7.3	22.8	30.1	24.9	50.5	75.5	39.9	271
Rural	20.7	24.9	45.6	8.8	19.6	28.4	29.4	44.6	74.0	38.4	1,283
Region											
Apia Urban Area	17.6	27.8	45.4	7.3	22.8	30.1	24.9	50.5	75.5	39.9	271
North West Upolu	18.9	25.2	44.1	7.4	23.0	30.4	26.3	48.2	74.5	40.9	505
Rest of Upolu	20.5	25.4	45.9	11.8	16.9	28.7	32.3	42.3	74.6	38.5	378
Savaii	23.0	24.3	47.2	7.5	18.0	25.5	30.5	42.2	72.8	35.1	400
Education											
Primary or less	22.1	32.7	54.8	5.8	14.7	20.5	27.9	47.4	75.3	27.2	85
Secondary incomplete	18.0	27.5	45.4	8.5	21.1	29.6	26.5	48.6	75.1	39.5	951
Secondary complete	22.4	20.8	43.2	8.3	18.9	27.2	30.7	39.7	70.4	38.6	321
Vocational/ higher	26.0	20.1	46.1	9.9	20.2	30.1	35.9	40.3	76.2	39.5	197
Wealth quintile											
Lowest	21.7	25.1	46.8	5.9	22.3	28.2	27.6	47.4	75.0	37.6	301
Second	21.7	26.0	47.7	7.1	19.8	26.9	28.9	45.8	74.6	36.1	312
Middle	18.0	30.2	48.1	10.4	18.7	29.1	28.4	48.8	77.2	37.7	323
Fourth	18.2	25.4	43.6	7.6	16.7	24.3	25.8	42.1	67.8	35.8	323
Highest	21.3	20.1	41.4	11.6	23.9	35.4	32.9	44.0	76.8	46.1	295
Total	20.1	25.4	45.6	8.5	20.2	28.7	28.6	45.6	74.3	38.6	1,554

Note: Numbers in parentheses are based on 25-49 unweighted cases.

[1] *Unmet need for spacing:* Includes women who are fecund and not using family planning and who say they want to wait two or more years for their next birth, or who say they are unsure whether they want another child, or who want another child but are unsure when to have the child. In addition, unmet need for spacing includes pregnant women whose current pregnancy was mistimed, or whose current pregnancy was unwanted but who now say they want more children. Unmet need for spacing also includes amenorrhoeic women whose last birth was mistimed, or whose last birth was unwanted but who now say they want more children. *Unmet need for limiting:* Includes women who are fecund and not using family planning and who say they do not want another child. In addition, unmet need for limiting includes pregnant women whose current pregnancy was unwanted but who now say they do not want more children or who are undecided whether they want another child. Unmet need for limiting also includes amenorrhoeic women whose last birth was unwanted but who now say they do not want more children or who are undecided whether they want another child.

[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. *Using for limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

7.3 IDEAL FAMILY SIZE

Respondents were asked to consider a hypothetical situation independent of their current family size and to report the number of children they would choose to have. Information on what women and men believe to be the ideal family size was elicited through two questions. Respondents who had no living children were asked, 'If you could choose exactly the number of children to have in your whole life, how many would that be?' Respondents who had children were asked, 'If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?'

There is usually a high positive correlation observed between actual and ideal number of children. The reasons are two-fold. First, to the extent that women implement their preferences, those who want larger families tend to achieve larger families. Second, women may adjust their ideal

number of children upwards as their actual number of children increases. It is also possible that women with larger families have larger ideal family sizes because of attitudes they acquired 20 or 30 years ago. Nevertheless, even though these questions are based on hypothetical situations, they give an idea of the total number of children women who have not started childbearing will have in the future, while among older women and high parity women this information provides a measure of the level of unwanted fertility.

The questions on ideal number of children were asked of all women and men in the survey sample. Ninety-six percent of women and 92 percent of men gave a numerical answer. Non-numerical answers are usually to the extent of 'it's up to God's will'. These responses are not included in the calculation of means in Tables 7.4 and 7.5.

Table 7.4 Ideal number of children

Percent distribution of women and men 15-49 by ideal number of children and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, Samoa 2009

	Number of living children							
Ideal number of children	0	1	2	3	4	5	6+	Total
				WOMEN[1]				
0	31.5	4.5	5.6	6.1	6.1	7.3	4.2	14.5
1	8.7	16.2	3.8	1.2	2.4	1.7	1.2	6.4
2	24.0	20.7	27.7	11.1	12.4	8.3	9.3	18.5
3	11.8	18.9	8.3	24.8	6.8	8.2	7.4	12.6
4	11.3	20.6	22.7	21.5	35.2	16.0	15.9	18.3
5	5.4	10.5	14.5	19.9	12.9	29.5	17.2	12.5
6+	4.2	5.8	13.7	12.0	19.0	26.0	40.2	13.6
Non-numeric responses	3.2	2.9	3.7	3.5	5.2	2.9	4.4	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	924	377	302	288	265	183	318	2,657
Mean ideal number children for:[2]								
All women	2.0	3.0	3.6	3.9	4.2	4.6	5.4	3.3
Number	894	366	290	278	251	178	304	2,562
Currently married women	3.2	3.3	3.6	3.9	4.3	4.7	5.4	4.2
Number	90	231	239	255	229	163	289	1,495
				MEN[3]				
0	12.9	0.6	1.9	2.5	1.9	(1.7)	2.9	8.0
1	4.2	7.1	0.4	0.0	2.2	(0.0)	0.0	3.1
2	17.2	14.5	18.2	2.6	0.9	(0.0)	1.9	12.8
3	21.7	16.9	11.8	17.2	5.9	(9.2)	3.1	16.9
4	14.4	23.4	28.8	30.8	24.6	(9.5)	8.9	17.9
5	11.9	22.0	17.4	21.2	30.2	(36.5)	12.9	16.3
6+	10.2	8.2	13.5	19.1	27.4	(33.3)	56.9	17.1
Non-numeric responses	7.5	7.2	8.0	6.6	6.9	(9.8)	13.4	8.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	671	109	108	100	90	38	105	1,220
Mean ideal number children for men 15-49:[2]								
All men	3.2	3.8	4.1	4.6	5.0	(5.6)	6.2	3.9
Number	620	101	99	94	84	34	91	1,123
Currently married men	(4.3)	3.8	4.1	4.6	5.0	(5.7)	6.2	4.7
Number	48	91	94	93	82	33	91	531
Mean ideal number children for men 15-54:[2]								
All men	3.2	3.8	4.1	4.5	5.0	(5.8)	6.3	4.0
Number	626	106	109	101	91	43	121	1,197
Currently married men	4.2	3.9	4.1	4.5	5.0	(5.8)	6.3	4.8
Number	50	94	102	98	89	42	121	597

Note: Numbers in parentheses are based on 25-49 unweighted cases.
[1] The number of living children includes current pregnancy for women
[2] Means are calculated excluding respondents who gave non-numeric responses.
[3] The number of living children includes one additional child if respondent's wife is pregnant.

The mean ideal number of children for all women age 15-49 is 3.3, while for men age 15-49 it is 3.9. While the value for men is higher than that for women, it is important to note that both values are significantly lower than the observed TFR for Samoan women, which is 4.6 children per woman.

The preference for a larger family size is higher for men than women, irrespective of the number of living children. The mean ideal number of children increases with the number of living children. Among all women, the ideal number of children ranges from 2.0 for those with no children to 5.4 for those with six or more children. As with women, the mean ideal number of children among all men increases with the number of children and ranges from 3.2 for those with no children to 6.2 for those with six or more children.

As expected, the proportions of women and men whose ideal number of children matches their current parity increase with increasing parities. For example, 40 percent of women and 57 percent of men with six or more children indicate that their ideal family size is the same as its current size. The exception to this pattern is for women (and, to a much lesser extent, men) who have zero living children. Thirty-two percent of these women indicate that their ideal number of children is zero. This finding is most likely due to the inclusion of never married women in the tabulation. The pattern of differences in mean ideal numbers of children for all women and currently married women shows a strong convergence according to parity, which reflects the fact that in Samoa relatively little childbearing takes place outside of marital unions.

Table 7.5 shows the mean ideal number of children for all women by background characteristics. Ideal family size increases with age, from 1.8 children among women age 15-19 to 4.9 children among women age 45-49. Although this pattern might suggest a trend towards smaller family size, it probably also reflects to some extent complacency with achieved parities. Unlike women in most other countries, the ideal number of children for women in urban areas in general and in the Apia Urban Area, in particular, is not lower than that for women in rural areas or in rural regions. The differences are marginal; however, it must be noted that the ideal number of children for women in North West Upolu is lower than the national average (3.1 versus 3.3 children per woman).

The differentials according to educational attainment are consistent and show a steady decline in ideal number of children as educational attainment increases, from 3.5 children for women with primary or less education to 3.1 children for women with vocational or higher than secondary education. Similar differentials exist in the mean ideal number of children by wealth, although they drop somewhat less regularly. The mean ideal number of children for women in the lowest wealth quintile is 3.5, and for women in the highest quintile it is 3.2 children per woman.

Table 7.5 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Samoa 2009

Background characteristic	Mean	Number of women[1]
Age		
15-19	1.8	534
20-24	2.8	465
25-29	3.3	362
30-34	3.7	305
35-39	4.1	340
40-44	4.5	270
45-49	4.9	285
Residence		
Urban	3.4	535
Rural	3.3	2,026
Region		
Apia Urban Area	3.4	535
North West Upolu	3.1	875
Rest of Upolu	3.6	574
Savaii	3.5	578
Education		
Primary or less	3.5	124
Secondary incomplete	3.4	1,532
Secondary complete	3.4	506
Vocational/ higher	3.1	400
Wealth quintile		
Lowest	3.5	453
Second	3.3	498
Middle	3.4	535
Fourth	3.3	532
Highest	3.2	544
Total	3.3	2,562

[1] Number of women who gave a numeric response

7.4 FERTILITY PLANNING

Women were asked a series of questions about all their children born in the five years preceding the survey, as well as any current pregnancy, to determine whether the pregnancy was planned, mistimed, or unwanted. The answers to these questions provide insight into the degree to which couples are able to control their fertility. In interpreting the

data, however, it is important to remember that women may rationalize mistimed or unwanted pregnancies, declaring them as wanted after the children are born.

Table 7.6 shows the percent distribution of births (including current pregnancies) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth. The results show that 84 percent of births in the five years preceding the survey were planned (wanted then), and 15 percent were unplanned—9 percent were mistimed (wanted later), and 6 percent were not wanted.

The proportion of planned births (wanted then) remains nearly constant at 86-87 percent for births of the first through third order, but then it drops to 80 percent for higher order births. The proportion of planned births (wanted then) is lowest for births of youngest mothers age 15-19 (74 percent) and for those age 40-44 (76 percent).

The proportion of unplanned births is highest for women age 15-19, amongst whom one in four births was either mistimed (17 percent) or unwanted altogether (8 percent). Also women of age 40-44 experience relatively high rates of unplanned births, with 22 percent of births mistimed (4 percent) or unwanted (18 percent), indicating a high level of desire to terminate childbearing in this age group.

Table 7.6 Fertility planning status

Percent distribution of births to women 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Samoa 2009

Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	86.2	8.6	4.0	1.3	100.0	474
2	87.1	7.8	4.6	0.5	100.0	359
3	87.0	9.8	3.2	0.0	100.0	282
4+	80.3	9.6	8.8	1.2	100.0	673
Mother's age at birth						
15-19	74.2	17.2	7.8	0.8	100.0	134
20-24	89.7	5.7	3.3	1.3	100.0	458
25-29	85.5	11.0	3.3	0.2	100.0	428
30-34	84.6	10.0	4.3	1.1	100.0	375
35-39	81.0	8.0	10.2	0.8	100.0	281
40-44	75.8	4.4	17.9	1.8	100.0	99
45-49	*	*	*	*	100.0	13
Total	84.3	9.0	5.8	0.9	100.0	1,788

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 7.7 provides information on total 'wanted' fertility rates and total fertility rates for the three years preceding the survey. Unwanted births are defined as births that exceed the number considered ideal. Women who did not report a numeric ideal family size were assumed to want all their births. The total wanted fertility rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births were prevented. To the extent that women are unwilling to report an ideal family size that is lower than their actual family size, the wanted fertility rate may be an overestimate. A comparison of the total wanted fertility and total fertility rate suggests the potential demographic impact of the elimination of unwanted births.

Table 7.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Samoa 2009

Background characteristic	Total wanted fertility rates	Total fertility rate
Residence		
Urban	3.1	4.1
Rural	3.6	4.7
Region		
Apia Urban Area	3.1	4.1
North West Upolu	3.1	4.3
Rest of Upolu	4.4	5.4
Savaii	3.4	4.7
Education		
Primary or less	3.0	4.1
Secondary incomplete	3.7	5.1
Secondary complete	3.4	4.2
Vocational/ higher	3.2	4.3
Wealth quintile		
Lowest	4.1	5.9
Second	3.0	4.3
Middle	3.7	4.7
Fourth	3.5	4.4
Highest	3.2	4.0
Total	3.5	4.6

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.

As expected, the wanted fertility rates for Samoan women are considerably lower than the TFRs. Overall, Samoan women want 3.5 children, which coincides fairly well with the mean of the stated ideal numbers of children (3.3 children per woman). The wanted fertility for women in urban areas is lower than that for women in rural areas (3.1 versus 3.6 children). When examining the total wanted fertility rates by region, it appears that the urban-rural difference is mainly due to the relatively high wanted fertility rate among women in the Rest of Upolu region (4.4 children).

The differentials in wanted fertility according to educational attainment show unexpected patterns similar to the ones observed in Chapter 4 on fertility. In Samoa, women with primary or less education have the lowest total wanted fertility rate (3.0 children) and TFR (4.1 children) when compared with women with higher education, a pattern that is uncommon for most countries.

The differentials in the total wanted fertility rates by wealth quintile follow the same pattern as the TFR; they tend to decrease with an increase in wealth (with the exception of women in the second wealth quintile that have the lowest wanted fertility rate of 3.0 children). The gap between wanted fertility rates and the TFR declines with increasing wealth. The highest gap between TFR and the wanted fertility is observed among women in the lowest wealth quintile (1.8 children), while the lowest gap is for women in the highest wealth quintile (0.8 children).

INFANT AND CHILD MORTALITY 8

This chapter presents estimates on levels, trends, and differentials in neonatal, postneonatal, infant, child, and under-five mortality in Samoa. The information used to measure these childhood mortality rates was collected from the birth history section of the Women's Questionnaire. Women of reproductive age (15-49 years) were asked to specify the number of biological sons and daughters living with them, the number living elsewhere, and the number who have died. In addition, for each live birth, women were asked to provide the sex, date of birth, whether the birth was single or multiple, and the survival status of the child. Current age was collected for living children, and age at death was collected for dead children.

Infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life as well as specific measures of health status. Measures of childhood mortality are also useful in projecting population size and in monitoring and evaluating population and health programmes and policies. Characteristics of childhood mortality, such as age patterns and socioeconomic and demographic differentials, are used to highlight factors that have positive or negative impacts on child survival. Analysis of mortality measures is useful for identifying promising directions for health programmes and for improving child survival status in Samoa.

8.1 DEFINITION, DATA QUALITY, AND METHODOLOGY

Childhood mortality estimates in DHS surveys measure the risk of dying from birth through age five. The rates of childhood mortality presented in this chapter are defined as follows:

Neonatal mortality (NN): the probability of dying between birth and the first month of life

Postneonatal mortality (PNN): the difference between neonatal mortality and infant mortality

Infant mortality ($_1q_0$): the probability of dying between birth and exact age one

Child mortality ($_4q_1$): the probability of dying between exact age one and exact age five

Under-five mortality ($_5q_0$): the probability of dying between birth and exact age five.

All rates are expressed per 1,000 live births, except child mortality, which is expressed per 1,000 children surviving to age 12 months.

The reliability of mortality estimates depends on the sampling variability of the estimates and on nonsampling errors. Sampling errors for the 2009 SDHS are presented in Appendix B. With regard to sampling errors concerning infant and child mortality, it must be noted that the number of households visited and individual interviews conducted in the survey is relatively low, resulting in broad confidence intervals around mortality estimates.

In addition, nonsampling errors arise from problems associated with the quality of data collection, including, for example, the completeness with which births and deaths are reported and recorded. The most common problems are misreporting of age at death, misreporting of date of birth, and underreporting of events (both the birth and death of a child). The possible occurrence of these data problems in the 2009 SDHS is discussed with reference to the data quality tables in Appendix C.

A typical problem with survey data is the misreporting of infant deaths that occur in the late postneonatal period as well as deaths at 12 months or one year of age (due to preference for rounding up child's reported age). Such misreporting results in underestimation of the infant mortality rates and overestimation of the child mortality rates. Table C.6 in Appendix C displays a slight digit preference

in reported deaths at 12 months or one year. This 'heaping' took place despite the care taken in the SDHS to minimise errors of this type by requiring that age at death be recorded in days if the death took place within one month of birth, in months if the child died within 24 months of birth, and in years if the child died between age two and age five.

Event underreporting is usually more likely for deaths that occur early in infancy. Omission of deaths may also be more common among women who have had several children or in cases where the death took place a long time ago. To assess the impact of omission on measures of child mortality, two indicators are used: the percentage of deaths that occur under seven days to the number that occur under one month, and the percentage of neonatal to infant deaths. It is hypothesised that omission will be more prevalent for children who die immediately after birth than among those who live longer, and that omission will be more common for events that take place in the distant past than for those in the recent past. Table C.5 shows that the percentage of early neonatal deaths ranges from 43 percent for the period 10-14 years preceding the survey to 80 percent for the periods 0-4 and 5-9 years before the survey. However, the total number of neonatal deaths is too small to draw meaningful conclusions about the trend of selective omissions over the preceding 20 years. In addition to recall errors for the more distant retrospective periods, there are structural reasons for limiting mortality estimation to recent periods, preferably to the periods 0-4, 5-9, and 10-14 years before the survey. In fact, except for the first period (0-4 years), the numbers are slightly biased estimates because they are based on the child mortality experiences of women age 15-44 and age 15-39, respectively, instead of women age 15-49 as in the period 0-4 years preceding the survey. Therefore, estimating mortality for periods more than 10-15 years before the survey is not advisable.

8.2 Levels and Trends in Infant and Child Mortality

Caution should be taken in interpreting the mortality information presented in this report because it uses information from the birth history section of the Woman's Questionnaire to construct the rates. It is well-known that, in some communities, women are reluctant to discuss their dead children, which could result in underestimation of childhood mortality rates. The mortality rates are also based on a relatively small sample and consequently are subject to wide confidence intervals.

Table 8.1 presents mortality rates for cohorts of children born in three five-year periods preceding the survey. The level of under-five mortality in Samoa was 15 deaths per 1,000 births during the most recent five-year period before the survey, implying that at least 1 in every 66 children born in Samoa during the period died before reaching a fifth birthday. The infant mortality rate recorded in the survey for the same period was 9 deaths per 1,000 live births.

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Samoa 2009

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	5	5	9	6	15
5-9	6	3	9	4	13
10-14	5	3	8	4	12

[1] Computed as the difference between the infant and neonatal mortality rates

The 2006 Report of the Population and Housing Census recorded an infant mortality rate of 20 per 1,000 live births in the 12 months prior to the census date—18 for male births and 23 for female births (Samoa Bureau of Statistics, 2008). This indicates that the number of reported births and deaths in the SDHS was not sufficient to give reliable mortality estimates. This is not surprising in Samoa as the Samoa Bureau of Statistics has faced the same problem in the Vital Sample Surveys in 1999 and 2000. Death is generally a painful experience that most mothers prefer not to recall, especially the death of a newborn or young child.

The SDHS childhood mortality rates are very likely underestimates and must, therefore, be treated with great care.

8.3 SOCIOECONOMIC DIFFERENTIALS IN MORTALITY

Child survival closely relates to socioeconomic and demographic characteristics of mothers and children. Table 8.2 shows differentials in childhood mortality by four socioeconomic variables: residence, region, mother's education, and household wealth status (quintile). When interpreting mortality data, it is useful to bear in mind that sampling errors are quite large and the sample is relatively small. To ensure a sufficient number of cases for statistical reliability, mortality rates were calculated for a ten-year period.

Mortality levels in rural areas are consistently higher than those in urban areas. In the ten-year period before the survey, infant mortality in rural areas was 11 deaths per 1,000 live births, compared with 36 deaths per 1,000 live births in urban areas. The under-five mortality rate during the same period was 17 deaths per 1,000 live births in rural areas and 3 deaths per 1,000 live births in urban areas.

Differences in mortality by region also exist. The infant mortality rate varies from 3 deaths per 1,000 live births in Apia Urban Area to 18 deaths per 1,000 live births in the Savaii region. Differentials in under-five mortality show a similar pattern. For example, under-five mortality is 3 deaths per 1,000 live births in Apia Urban Area but 27 deaths per 1,000 live births in the Savaii region. These estimates should be interpreted with caution because of the small number of exposed persons they are based on.

Analysis of early childhood mortality by mother's education is limited by the small number of children who die for each maternal education category.

Children in households in the highest wealth quintile have the lowest mortality rates for both child mortality and under-five mortality (7 deaths per 1,000 live births, each). Infant mortality (12 and 16 deaths per 1,000 live births, respectively) and under-five mortality rates (23 and 19 deaths per 1,000 live births, respectively) are highest among children in the lowest two quintiles.

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, Samoa 2009

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	1	2	3	(0)	(3)
Rural	6	4	11	6	17
Region					
Apia Urban Area	1	2	3	(0)	(3)
North West Upolu	2	6	7	6	13
Rest of Upolu	3	4	7	3	10
Savaii	15	4	18	9	27
Mother's education					
Primary or less	*	*	*	*	*
Secondary incomplete	8	4	12	6	18
Secondary complete	2	6	9	(2)	(11)
Vocational/higher	*	*	*	*	*
Wealth quintile					
Lowest	11	1	12	11	23
Second	8	7	16	3	19
Middle	1	4	6	7	12
Fourth	1	3	5	(2)	(7)
Highest	(3)	(4)	(7)	(0)	(7)

Note: Numbers in parentheses are based on 250-499 unweighted children exposed to the risk of death. An asterisk represents a rate based on fewer than 250 children and has been suppressed.
[1] Computed as the difference between the infant and neonatal mortality rates

8.4 DEMOGRAPHIC CHARACTERISTICS AND CHILD MORTALITY

Studies have shown that a number of demographic factors are strongly associated with the survival chances of young children. These factors include sex of the child, age of the mother at birth, birth order, length of preceding birth interval, and size of the child at birth. Table 8.3 shows the relationship between childhood mortality and these demographic variables. Again, for all variables except birth size, the mortality estimates are calculated for the ten-year period preceding the survey to reduce sampling variability. Mortality rates by birth size are for the five-year period preceding the survey because information on birth size was collected only for children born in the past five years.

Childhood mortality is higher for males than females (Table 8.3). Infant mortality rates for male and female children are 11 and 8 deaths per 1,000 live births, respectively. The excess mortality among male children is most likely due to their higher biological risk during the first month of life.

The 2009 SDHS findings indicate that infants born to younger mothers age 20-29 are at an elevated risk of dying. The infant mortality rate is 10 deaths per 1,000 live births for children of mothers age 20-29 compared with 5 deaths per 1,000 live births for children of mothers age 30-39.

Infants born either first or after two to three siblings typically have an elevated risk of dying. Results from the 2009 SDHS confirm this pattern. With the exception of postneonatal mortality, births of first order and of fourth and higher order experience the highest levels of childhood mortality. Neonatal, infant, child, and under-five mortality is lowest for second- and third-order births.

Mortality among children is negatively associated with the length of the previous birth interval. This is particularly true when the birth interval is less than two years. The results of the 2009 SDHS indicate that this pattern holds for post-neonatal, infant, and under-five mortality rates. For example, infant mortality among children born less than two years after a previous birth is 11 deaths per 1,000 live births compared with 7 deaths per 1,000 live births among children born after a birth interval of four years or more.

Table 8.3 Early childhood mortality rates by demographic characteristics

Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Samoa 2009

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	7	4	11	5	16
Female	4	4	8	5	13
Mother's age at birth					
20-29	6	5	10	5	15
30-39	2	3	5	6	11
Birth order					
1	5	7	11	3	14
2-3	3	4	8	0	8
4+	8	2	10	11	20
Previous birth interval[2]					
<2 years	4	7	11	5	16
2 years	7	1	8	7	15
3+ years	6	1	7	5	11

[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births

8.5 PERINATAL MORTALITY

The perinatal mortality rate serves as a good indicator of the state of health of a population in general, and at the time of delivery in particular. It reflects the level of utilisation of health services and the ability of women to cope with the demands of childbirth in order to deliver a healthy baby. Women in the 2009 SDHS were asked to report on any pregnancy loss that occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of pregnancy

was recorded. In this report, perinatal deaths include pregnancy losses of at least seven months' gestation (stillbirths) and deaths among live births that occurred within the first seven days of life (early neonatal deaths). The perinatal mortality rate is the sum of stillbirths and early neonatal deaths divided by the sum of all stillbirths and live births. Information on stillbirths and infant deaths that occurred within the first week of life is highly susceptible to omission and misreporting. However, retrospective surveys such as the SDHS generally provide more representative and accurate perinatal death rates than the vital registration system.

Table 8.4 shows that out of the 1,618 reported pregnancies of at least seven months' gestation, four were stillbirths and six were early neonatal deaths, yielding an overall perinatal mortality rate of 7 per 1,000 pregnancies of seven months or more duration. Perinatal mortality is highest among mothers age 40-49 (37 per 1,000 pregnancies), when the previous pregnancy interval is less than 15 months (13 per 1,000 pregnancies), among women in rural areas (7 per 1,000 pregnancies) and in Savaii (18 per 1,000 pregnancies), among mothers with incomplete secondary education (10 per 1,000 pregnancies), and among those in the lowest wealth quintile (15 per 1,000 pregnancies).

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Samoa 2009

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	1	0	5	118
20-29	1	1	3	801
30-39	3	1	7	596
40-49	0	4	37	104
Previous pregnancy interval in months[4]				
First pregnancy	1	1	4	420
<15	0	2	13	154
15-26	1	2	8	353
27-38	0	1	3	220
39+	3	1	8	471
Residence				
Urban	1	1	4	291
Rural	4	6	7	1,327
Region				
Apia Urban Area	1	1	4	291
North West Upolu	2	0	3	499
Rest of Upolu	1	0	2	436
Savaii	1	6	18	392
Mother's education				
Primary or less	0	0	0	55
Secondary incomplete	4	6	10	977
Secondary complete	0	1	2	358
Vocational/ higher	0	0	0	228
Wealth quintile				
Lowest	2	4	15	357
Second	2	2	12	316
Middle	0	0	0	338
Fourth	1	0	3	324
Highest	0	1	2	283
Total	4	6	7	1,618

[1] Stillbirths are foetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000.
[4] Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.

8.6 HIGH-RISK FERTILITY BEHAVIOUR

The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. These characteristics are of particular importance because many health problems are easily avoided for a relatively low cost. Infants and children have an elevated risk of dying if their mothers are too young (under 18 years of age) or too old (over 35 years old), if they are born after too short a birth interval (less than 24 months), and if they are of high birth order (mother has three or more children). Although first births are commonly associated with higher mortality risk, they are not included in the high-risk category because the risks associated with first births are unavoidable.

Table 8.5 shows the percent distribution of children born in the five years preceding the survey and the percent distribution of currently married women, by risk factors. About one in five (19 percent) births in Samoa are not in any high-risk category. Among those who are at risk, 24 percent of births are in an unavoidable risk category (first-order births between age 18 and 34), 32 percent are in a single high-risk category, and 25 percent of births are in a multiple high-risk category.

In Samoa, 4 percent of births occur to mothers age 35 or older, 13 percent are born less than 24 months after a previous birth, and 14 percent are born to mothers who have had three or more children. About one in seven births (15 percent) occurs to mothers age 35 or older who have three or more children.

The final column of Table 8.5 shows the distribution of currently married women who have the potential for having a high-risk birth, by category of risk. The potential of currently married women for having a birth in a single high-risk category is 29 percent and in a multiple high-risk category is 46 percent.

Table 8.5 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Samoa 2009

Risk category	Percentage of births in the five years preceding the survey	Percentage of currently married women[1]
Not in any high-risk category	19.0	19.0[a]
Unavoidable risk category		
First-order births between ages 18 and 34 years	23.7	5.8
Single high-risk category		
Mother's age <18	1.8	0.2
Mother's age >34	3.9	9.1
Birth interval <24 months	12.9	10.0
Birth order >3	13.8	9.6
Subtotal	32.4	28.9
Multiple high-risk category		
Age <18 and birth interval <24 months[2]	0.1	0.0
Age >34 and birth interval <24 months	0.7	0.3
Age >34 and birth order >3	14.5	33.2
Age >34 and birth interval <24 months and birth order >3	2.8	5.3
Birth interval <24 months and birth order >3	6.7	7.4
Subtotal	24.8	46.3
In any avoidable high-risk category	57.3	75.2
Total	100.0	100.0
Number of births/ women	1,614	1,554

na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category *age <18* and *birth order >3*
[a] Includes sterilized women

MATERNAL HEALTH 9

The health care that a mother receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and child. This chapter presents findings in several areas related to maternal health—antenatal care, delivery, and postnatal care—as well as problems in accessing care. These findings are important for designing appropriate strategies and interventions to improve maternal and newborn health care services.

The safe motherhood program in Samoa consists of the combined efforts of the Ministry of Health (MOH), the National Health Services, non-governmental organizations (NGOs), public and private practitioners, and traditional birth attendants (TBAs). Together, they work to ensure high quality and standards of care during pregnancy and delivery. One of the main roles of the MOH is to monitor and check that protocols and standards of maternal health care are maintained and periodically reviewed. The MOH promotes and supports the continuing professional training and education of health providers as well as the collection and analysis of health system data that enable constant monitoring of the quality of health services.[1]

9.1 ANTENATAL CARE

9.1.1 Antenatal Care Coverage

The major objective of antenatal care is to identify and treat problems such as anaemia and infection that occur during pregnancy. It is during an antenatal care visit that screening for complications and advice on a range of issues, including birth preparedness, place of delivery, and referral of mothers with complications, occurs. Information on antenatal care is of great value in identifying subgroups of women who do not use such services and also is useful in planning improvements to services. The antenatal care findings from the 2009 Samoa Demographic and Health Survey (SDHS) provide information on the type of service provider, the number of antenatal care visits, the stage of pregnancy at the time of the first visit, and the services and information provided during antenatal care, including whether tetanus toxoid was received.

Table 9.1 presents the percent distribution of women age 15-49 who had a live birth in the five years preceding the survey, The women were asked what type of antenatal care provider they consulted during the pregnancy. They were also queried about their background, including their age, birth order, place of residence, education, and income. If a woman received antenatal care from more than one provider, the provider with the highest qualifications was recorded.

Overall, 93 percent of the women who had a live birth in the five years preceding the survey received antenatal care from a health care provider (doctor, nurse, midwife, or nurse aide) for the pregnancy of the most recent birth. This percentage increases to 96 percent when one includes traditional birth attendants (TBAs) as providers.[1] Coverage is almost uniformly high among mothers regardless of their various background characteristics. Overall, only 4 percent of pregnant women did not see anyone for prenatal care during their most recent pregnancy in the past five years.

[1] The Ministry of Health of Samoa provides training to registered traditional birth attendants. The Ministry of Health 2006 Act mandates the ministry to regulate and monitor services provided by TBAs to ensure quality of services.

Table 9.1 Antenatal care

Among women age 15-49 who had a live birth in the five years preceding the survey, percent distribution by antenatal care provider and the percentage receiving antenatal care from a health care provider, for the most recent birth, according to background characteristics,, Samoa 2009

Background characteristic	Percentage receiving antenatal care from a health care provider[1]	Traditional birth attendant	Other	No one	Missing	Total	Percentage receiving antenatal care from a health care provider[1] and TBA	Number of women
Mother's age at birth								
<20	94.1	4.6	0.0	1.3	0.0	100.0	98.7	74
20-34	94.2	2.2	0.2	3.1	0.3	100.0	96.4	737
35-49	89.9	3.7	0.3	5.3	0.8	100.0	93.5	294
Birth order								
1	97.1	1.0	0.4	1.0	0.4	100.0	98.2	273
2-3	93.4	3.2	0.0	3.4	0.0	100.0	96.6	370
4-5	91.6	3.5	0.4	4.1	0.5	100.0	95.0	279
6+	88.4	3.5	0.0	6.8	1.3	100.0	91.9	183
Residence								
Urban	93.5	2.0	0.5	3.4	0.6	100.0	95.5	190
Rural	92.9	3.0	0.1	3.6	0.4	100.0	95.9	916
Region								
Apia Urban Area	93.5	2.0	0.5	3.4	0.6	100.0	95.5	190
North West Upolu	95.4	2.3	0.0	2.2	0.0	100.0	97.8	342
Rest of Upolu	93.7	1.9	0.4	4.0	0.0	100.0	95.6	296
Savaii	89.0	4.8	0.0	4.8	1.3	100.0	93.9	277
Mother's education								
Primary or less	(87.6)	(4.9)	(0.0)	(7.5)	(0.0)	100.0	(92.5)	39
Secondary incomplete	90.6	4.0	0.3	4.7	0.4	100.0	94.6	660
Secondary complete	97.5	0.7	0.0	1.2	0.6	100.0	98.2	251
Vocational/ higher	97.3	0.7	0.0	1.3	0.7	100.0	98.0	155
Wealth quintile								
Lowest	86.5	4.9	0.0	8.1	0.6	100.0	91.3	235
Second	91.6	3.9	0.0	4.1	0.4	100.0	95.5	220
Middle	95.1	2.6	0.5	1.8	0.0	100.0	97.7	234
Fourth	93.9	1.7	0.4	2.8	1.1	100.0	95.6	225
Highest	99.1	0.5	0.0	0.4	0.0	100.0	99.6	191
Total	93.0	2.8	0.2	3.6	0.4	100.0	95.8	1,105

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. Numbers in parentheses are based on 25-49 unweighted cases.
[1] Health care provider includes doctor, nurse, midwife, and nurse aide

Women age 35 and older are slightly less likely (94 percent) to receive antenatal care from a health care provider or a TBA than younger women (96 to 99 percent). The percentage of pregnant women in Samoa who receive antenatal care from a health professional or a TBA decreases with the birth order, from 98 percent for first-order births to 92 percent for sixth- or higher-order births.

There are no differences in the use of antenatal care services by health professionals between women in urban and rural areas. Small differences exist by region; 98 percent of mothers in the North West Upolu region receive antenatal care services from health professionals or TBAs compared with 94 percent of mothers in the Savaii region.

According to the survey results, the use of antenatal care services strongly relates to women's educational level. Ninety-eight percent of mothers who have completed secondary education receive antenatal care services from a health professional or a TBA, compared with 93 percent of mothers with no education. There is also a positive relationship between professional antenatal care coverage and wealth quintile, with women in the highest wealth quintile being more likely to receive antenatal care from a health professional or a TBA than those in the lowest wealth quintile (100 and 91 percent, respectively).

9.1.2 Number and Timing of Antenatal Care Visits

Antenatal care is most beneficial in preventing pregnancy outcomes when it is sought early in the pregnancy and is continued until delivery. Under normal circumstances, the World Health Organization (WHO) recommends that a woman without complications have at least four prenatal care visits, the first of which should take place during the first trimester. Table 9.2 presents information on prenatal care visits, including the number of visits and the timing of the first visit.

In Samoa, about six in ten pregnant women (58 percent) who had a live birth in the five years preceding the survey had four or more antenatal care visits for the most recent live birth, as recommended by the WHO. About three in ten (28 percent) pregnant women had 2 to 3 visits, and 6 percent had only one ANC visit. Overall, 4 percent of women had no ANC visits at all during their most recent pregnancy in the last five years.

The survey results show that women in Samoa receive antenatal care services late in their pregnancy. Only 13 percent of mothers obtain care in the first trimester, as recommended, while the majority (72 percent) make their first visit between the fourth month and the seventh month. Nine percent of women have their first antenatal care visit in their eighth month of pregnancy or later.

Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Samoa 2009

Number and timing of ANC visits	Residence		
	Urban	Rural	Total
Number of ANC visits			
None	3.4	3.6	3.6
1	9.9	5.4	6.2
2-3	30.7	27.6	28.1
4+	54.8	59.2	58.4
Don't know/ missing	1.2	4.3	3.8
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	3.4	3.6	3.6
<4	17.7	12.3	13.2
4-5	35.9	34.3	34.5
6-7	32.9	38.6	37.7
8+	9.2	9.5	9.4
Don't know/ missing	0.9	1.7	1.6
Total	100.0	100.0	100.0
Number of women	190	916	1,105
Median months pregnant at first visit (for those with ANC)	5.7	6.0	6.0
Number of women with ANC	182	879	1,061

The differences in antenatal care coverage between women in urban and rural areas are small. A slightly lower percentage of women in urban areas make four or more prenatal care visits compared with women in rural areas (55 percent compared with 59 percent). However, urban women typically receive antenatal care earlier than rural women; 18 percent of urban women saw a provider for prenatal care in the first trimester compared with 12 percent of rural women.

9.1.3 Components of Antenatal Care

Describing the content of antenatal care is essential for assessing the quality of antenatal care services. Pregnancy complications are a primary source of maternal and child morbidity and mortality. Therefore, ensuring that pregnant women receive information on the signs of complications and testing them for complications should be routinely included in all antenatal care visits. To help assess antenatal care services, respondents were asked whether they had been advised of possible pregnancy complications or whether they had received certain screening tests during at least one of the prenatal visits. Caution should be used in considering this information on the components of

antenatal care because it depends on pregnant women's recall of events during antenatal care that may have taken place a number of years before the interview. Nevertheless, the results are useful in providing insights into the content of antenatal care.

Table 9.3 shows the percentage of women with a live birth in the five years preceding the survey who took iron tablets and drugs for intestinal parasites during the pregnancy for the most recent birth, and among women who received antenatal care, the percentage who received specific services, according to background characteristics.

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Samoa 2009

Background characteristic	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:		Number of women with a live birth in the past five years	Among women who received antenatal care for their most recent birth in the past five years, the percentage with the selected services:					Number of women with ANC for their most recent birth
	Took iron tablets	Took intestinal parasite drugs		Informed of signs of pregnancy complications	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken	
Mother's age at birth									
<20	54.1	2.6	74	19.4	88.9	89.6	73.7	88.3	73
20-34	57.2	4.4	737	24.7	95.3	94.9	84.9	92.1	712
35-49	61.8	7.6	294	34.1	95.7	95.6	90.6	91.5	276
Birth order									
1	53.1	4.4	273	25.5	95.9	94.7	80.0	91.4	269
2-3	57.7	4.4	370	24.9	93.4	94.0	84.8	92.0	357
4-5	60.7	5.6	279	28.1	94.7	95.0	89.0	91.6	267
6+	62.8	6.8	183	31.0	97.3	95.9	91.1	91.6	169
Residence									
Urban	56.0	2.5	190	28.7	95.0	95.4	76.8	91.9	182
Rural	58.7	5.6	916	26.4	95.0	94.6	87.5	91.6	879
Region									
Apia Urban Area	56.0	2.5	190	28.7	95.0	95.4	76.8	91.9	182
North West Upolu	57.7	4.7	342	35.4	95.9	96.9	90.6	92.6	334
Rest of Upolu	58.3	4.5	296	23.0	95.3	94.1	84.3	92.5	284
Savaii	60.2	8.0	277	18.7	93.4	92.1	86.9	89.5	260
Mother's education									
Primary or less	(50.2)	(4.4)	39	(23.1)	(87.1)	(84.1)	(83.5)	(80.5)	36
Secondary incomplete	59.3	6.3	660	23.5	93.8	93.5	85.2	90.2	626
Secondary complete	56.8	3.2	251	30.3	97.7	97.9	89.4	96.6	247
Vocational/ higher	58.0	3.4	155	35.9	97.2	97.2	82.1	92.3	152
Wealth quintile									
Lowest	54.8	6.4	235	19.8	93.0	90.2	86.1	89.9	214
Second	58.2	4.6	220	23.0	94.9	94.0	85.9	92.0	210
Middle	62.5	4.3	234	27.9	95.2	96.9	84.3	91.4	229
Fourth	59.2	6.0	225	25.8	94.5	96.6	85.1	91.3	216
Highest	56.0	4.0	191	38.9	97.4	95.9	87.1	93.9	191
Total	58.2	5.1	1,105	26.8	95.0	94.7	85.6	91.7	1,061

Note: Numbers in parentheses are based on 25-49 unweighted cases.

The data show that more than half (58 percent) of women with a live birth in the preceding five years took iron tablets for their most recent pregnancy, but only 5 percent took drugs for intestinal parasites. The percentage of women who took iron and intestinal parasite (de-worming) drugs during their most recent pregnancy increases with age and birth order. For example, 54 percent of women less than 20 years old took iron tablets for their most recent pregnancy compared with 62 percent of women age 35-49. Similarly, the percentage of pregnant women who took iron tablets increases from 53 percent for first-order births to 63 percent for sixth or higher-order births. Variations by urban-rural residence are minimal, with rural women being slightly more likely to take iron tablets (56 percent) or de-worming drugs (6 percent) than urban women (56 and 3 percent, respectively). Slightly larger variations exist by region, education, and wealth quintile for iron supplementation. Women in the Apia Urban Area (56 percent), those with primary or less education (50 percent), and women in the lowest wealth quintile (55 percent) are somewhat less likely than other women to have taken iron supplements during their most recent pregnancy. On the other hand, women in the Savaii region (60 percent), those with some secondary or higher education (57 to 59 percent), and women in the middle wealth quintile (63 percent) are the most likely to receive iron supplementation during their pregnancy.

The proportion of women who undergo basic tests during pregnancy is nearly universal throughout Samoa: 95 percent of women who gave birth in the five years preceding the survey reported that, for the most recent birth, they were weighed and had their blood pressure measured, 92 percent had a blood sample taken, and 86 percent had their urine tested.

On the other hand, only slightly more than one-quarter (27 percent) of these women were informed of the signs of pregnancy complications. The proportion of women who received information about pregnancy complications increases significantly with age, with women age 35-49 being almost twice as likely as those under age 20 to receive such information (34 percent compared with 19 percent). The percentage of women who received information about pregnancy complications generally increases with birth order. The likelihood of pregnant women receiving information about pregnancy complication signs does not vary much by urban-rural residence, but regional differences are notable. More than one-third (35 percent) of women in the North West Upolu region were informed about the signs of pregnancy complications compared with about one-fifth of women (19 percent) in the Savaii region. Finally, the percentage of pregnant women who received information about the signs of pregnancy complications also tends to increase with an increase in woman's educational level and wealth.

9.1.4 Tetanus Immunisation

Neonatal tetanus is a leading cause of neonatal death in developing countries where a high proportion of deliveries are conducted at home or in places where hygienic conditions may be poor. Tetanus toxoid (TT) immunisation is given to pregnant women to prevent neonatal tetanus. For full protection, if a pregnant woman has received no previous TT injections, she needs two doses of TT during pregnancy. However, if a woman was immunized before she became pregnant, she may require one or no TT injections during pregnancy, depending on the number of injections she has ever received and the timing of the last injection. For a woman to have lifetime protection, a total of five doses is required. The 2009 SDHS collected data on whether or not women received at least two TT injections and whether or not the pregnancy was protected against neonatal tetanus for the women's most recent live birth in the five years preceding the survey.

Table 9.4 shows that only one in four women (25 percent) in Samoa receives two or more tetanus injections during pregnancy, and only 31 percent of births are protected against neonatal tetanus. There is little variation in tetanus toxoid coverage by age at birth and urban-rural residence. First-order and sixth or higher-order births (34 percent each) are somewhat more likely to be protected against tetanus than other births (28 percent). The proportion of births that are protected against neonatal tetanus is 28 percent in the North West Upolu region compared with 31 to 32 percent of births in other regions.

Births to women with vocational or higher than secondary education are least likely to be protected against neonatal tetanus (20 percent) compared with 40 percent of births to women with primary or less education, 35 percent of births to women with secondary complete education, and 31 percent of births to women with secondary incomplete education. There is no clear relationship between the percentage of births protected against neonatal tetanus and wealth; births to women in the second and middle wealth quintiles are slightly more likely to be protected against tetanus (33 percent each) than births to women in the other three quintiles (29 percent each).

Table 9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the last pregnancy and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Samoa 2009

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last live birth was protected against neonatal tetanus[1]	Number of mothers
Mother's age at birth			
<20	25.9	32.3	74
20-34	24.5	30.0	737
35-49	25.7	31.6	294
Birth order			
1	28.4	34.2	273
2-3	23.4	27.9	370
4-5	21.9	28.2	279
6+	27.4	34.4	183
Residence			
Urban	24.4	31.7	190
Rural	25.0	30.4	916
Region			
Apia Urban Area	24.4	31.7	190
North West Upolu	24.0	28.4	342
Rest of Upolu	25.4	30.9	296
Savaii	25.9	32.3	277
Mother's education			
Primary or less	(32.9)	(40.1)	39
Secondary incomplete	25.9	31.0	660
Secondary complete	28.4	34.7	251
Vocational/ higher	13.2	19.9	155
Wealth quintile			
Lowest	23.4	28.9	235
Second	27.2	33.0	220
Middle	25.6	33.3	234
Fourth	26.4	29.0	225
Highest	21.6	28.5	191
Total	24.9	30.6	1,105

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes mothers with two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within ten years of the last live birth), or five or more injections prior to the last birth.

9.2 DELIVERY CARE

Increasing the number of babies who are delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infections that can cause morbidity and mortality to either the mother or the baby.

9.2.1 Place of Delivery

Table 9.5 presents the percent distribution of live births in the five years preceding the 2009 SDHS survey, by place of delivery and according to background characteristics.

Table 9.5 Place of delivery (including overseas facilities)

Percent distribution of live births in the five years preceding the survey, by place of delivery and by percentage delivered in a health facility, according to background characteristics, Samoa 2009

Background characteristic	Health facility			Home (includes overseas home)	Other	Missing	Total	Percentage delivered in a health facility (including overseas)	Number of births
	Public sector	Private sector	Overseas						
Mother's age at birth									
<20	81.3	0.0	0.0	16.4	0.6	1.7	100.0	81.3	117
20-34	80.3	0.8	1.2	16.3	0.3	1.0	100.0	82.4	1,143
35-49	72.7	0.4	1.1	24.1	0.5	1.3	100.0	74.2	354
Birth order									
1	87.9	1.1	0.4	8.3	0.4	1.9	100.0	89.4	430
2-3	78.7	0.7	1.9	18.1	0.2	0.5	100.0	81.2	573
4-5	74.2	0.4	1.0	22.7	0.7	1.1	100.0	75.6	382
6+	69.1	0.5	0.5	28.1	0.4	1.4	100.0	70.1	228
Antenatal care visits[1]									
None	(23.5)	(0.0)	(0.0)	(71.9)	(2.3)	(2.3)	100.0	(23.5)	39
1-3	81.9	0.6	0.7	16.3	0.2	0.2	100.0	83.2	378
4+	84.4	0.4	1.2	13.5	0.4	0.0	100.0	86.1	646
Don't know/ missing	(50.0)	(2.2)	(2.9)	(33.3)	(0.0)	(11.5)	100.0	(55.1)	42
Residence									
Urban	91.0	1.7	1.8	4.7	0.4	0.4	100.0	94.5	290
Rural	76.0	0.5	0.9	20.9	0.4	1.3	100.0	77.4	1,323
Region									
Apia Urban Area	91.0	1.7	1.8	4.7	0.4	0.4	100.0	94.5	290
North West Upolu	83.6	1.1	1.4	12.9	0.2	0.8	100.0	86.1	497
Rest of Upolu	76.1	0.0	0.7	22.5	0.2	0.6	100.0	76.7	435
Savaii	66.4	0.2	0.6	29.3	0.9	2.7	100.0	67.2	391
Mother's education									
Primary or less	67.4	0.0	0.0	32.6	0.0	0.0	100.0	67.4	55
Secondary incomplete	75.4	0.1	0.5	22.7	0.4	0.8	100.0	76.0	973
Secondary complete	85.7	0.0	1.0	10.8	0.3	2.3	100.0	86.7	358
Vocational/ higher	84.7	4.5	3.9	5.4	0.5	0.9	100.0	93.1	228
Wealth quintile									
Lowest	65.9	0.0	0.3	32.0	0.5	1.2	100.0	66.2	355
Second	79.9	0.0	0.4	18.4	0.3	1.1	100.0	80.2	314
Middle	79.8	0.0	1.2	18.4	0.2	0.3	100.0	81.1	338
Fourth	81.7	0.0	1.4	14.3	0.3	2.2	100.0	83.2	323
Highest	88.7	3.9	2.3	3.6	0.7	0.8	100.0	94.9	283
Total	78.7	0.7	1.1	18.0	0.4	1.1	100.0	80.5	1,614

Note: Numbers in parentheses are based on 25-49 unweighted cases
[1] Includes only the most recent birth in the five years preceding the survey

The data show that the majority of births in Samoa (81 percent) are delivered in a health facility, and mostly in public sector facilities (79 percent). Only 18 percent of births take place at home. Delivery at a health facility is somewhat more common for births to mothers under age 35 (81 to 82 percent), for first-order births (89 percent), and for births to mothers who obtained antenatal care one or more times (83 to 86 percent). The percentage of births delivered at a health facility is significantly higher in urban areas (95 percent) than in rural areas (77 percent). The proportion of births delivered in a health facility varies by region, from 95 percent of births in the Apia Urban Area to only 67 percent of births in the Savaii region. There is also a strong association between mother's education and place of delivery; 93 percent of births to mothers with vocational or higher than secondary education are delivered in a health facility compared with 67 percent of births to mothers with primary or less education. The association between place of delivery and wealth quintile is also strong; the proportion of births delivered in a health facility ranges from 66 percent in the lowest wealth quintile to 95 percent in the highest quintile.

9.2.2 Assistance at Delivery

Assistance during childbirth is another important variable that influences birth outcome, for the mother and the infant. Assistance by a health care provider during delivery can greatly reduce the likelihood of sepsis and other complications. A strong cultural system in Samoa supports childbirth assistance provided by community members, mainly by traditional birth attendants (TBAs). Recognizing the important role that TBAs may play during pregnancy and delivery, the Samoan Ministry of Health has made efforts to retain and encourage such roles by providing training. Additionally, as mentioned earlier, the Samoan Ministry of Health regulates and monitors services provided by nurses, midwives, and TBAs in order to ensure quality midwifery and TBA services in Samoa.

Table 9.6 shows that virtually all births (97 percent) in Samoa are delivered with the assistance of a trained health professional (doctor, nurse/midwife, nurse aide, or traditional birth attendant

Table 9.6 also shows that 81 percent of births in Samoa are delivered with the help of a health care provider, such as a doctor, nurse/midwife, or nurse aide. Overall, one in six deliveries (16 percent) is assisted by a TBA. Very few births (2 percent) are assisted by a relative, a friend, or someone else, and less than 1 percent of all births are delivered without any type of assistance at all. There are some variations in the percentage of births assisted by a health care provider, excluding the TBAs. Births to mothers younger than age 35 (82 percent) and first-order births (91 percent) are more likely to be assisted by a health care provider than a traditional birth worker. Almost all births (99 percent) that occur in health facilities are assisted by health care providers compared with about one in ten births (12 percent) delivered elsewhere. Births in urban areas, as well as in the Apia Urban Area and North West Upolu regions, are far more likely than other births to be assisted by a health care provider at delivery. The percentage of births attended by a heath care provider increases significantly with a mother's education, from 70 percent of births to mothers with primary or less education to 93 percent of births to mothers with vocational or higher than secondary education. The same pattern is observed for wealth; the percentage of births to mothers in the lowest wealth quintile that are delivered by a health care provider is 66 percent compared with 95 percent of births to mothers in the highest wealth quintile. However, all these variations disappear when the delivery assistance by TBAs is taken into account.

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey, by person providing assistance during delivery, by percentage of birth assisted by a health care provider and TBA, and by percentage delivered by caesarean-section, according to background characteristics, Samoa 2009

Background characteristic	Person providing assistance during delivery: Percentage delivered by a health care provider[1]	Traditional birth attendant	Relative/ friend/ other	No one	Don't know/ missing	Total	Percentage delivered by a health care provider[1] and TBA	Percentage delivered by C-section	Number of births
Mother's age at birth									
<20	85.9	9.9	3.4	0.0	0.9	100.0	95.8	15.3	117
20-34	82.1	15.4	1.6	0.2	0.8	100.0	97.5	11.9	1,143
35-49	74.9	22.0	1.4	0.8	1.0	100.0	96.9	14.7	354
Birth order									
1	90.5	6.0	2.0	0.2	1.3	100.0	96.5	15.9	430
2-3	80.3	17.3	1.8	0.2	0.5	100.0	97.6	12.5	573
4-5	77.0	20.5	1.2	0.5	0.8	100.0	97.4	11.1	382
6+	70.0	27.1	1.5	0.4	1.0	100.0	97.1	10.5	228
Place of delivery									
Health facility	98.7	0.3	1.0	0.0	0.0	100.0	99.0	16.1	1,281
Elsewhere	12.0	83.3	3.9	0.9	0.0	100.0	95.3	0.0	314
Residence									
Urban	94.3	3.6	1.8	0.0	0.4	100.0	97.9	16.0	290
Rural	77.8	19.2	1.6	0.3	1.0	100.0	97.1	12.1	1,323
Region									
Apia Urban Area	94.3	3.6	1.8	0.0	0.4	100.0	97.9	16.0	290
North West Upolu	86.1	11.8	1.5	0.0	0.6	100.0	97.9	9.5	497
Rest of Upolu	77.4	21.3	0.9	0.2	0.2	100.0	98.7	12.1	435
Savaii	67.8	26.5	2.5	0.9	2.3	100.0	94.3	15.3	391
Mother's education									
Primary or less	69.6	28.6	1.8	0.0	0.0	100.0	98.2	14.6	55
Secondary incomplete	76.1	21.2	1.7	0.3	0.6	100.0	97.4	11.4	973
Secondary complete	87.7	9.0	1.3	0.5	1.5	100.0	96.7	16.4	358
Vocational/ higher	92.5	4.7	1.9	0.0	0.9	100.0	97.2	12.4	228
Wealth quintile									
Lowest	66.1	29.2	3.1	0.5	1.0	100.0	95.4	11.2	355
Second	80.1	17.4	1.4	0.0	1.1	100.0	97.5	12.6	314
Middle	81.9	16.6	1.5	0.0	0.0	100.0	98.5	13.1	338
Fourth	83.9	13.0	0.9	0.8	1.4	100.0	96.9	13.2	323
Highest	95.0	3.0	1.2	0.0	0.8	100.0	98.0	14.0	283
Total	80.8	16.4	1.7	0.3	0.8	100.0	97.2	12.8	1,614

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes cases with missing information on place of delivery

[1] Health care provider includes doctor, nurse, midwife, and nurse aide

In comparison with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the percentage of deliveries assisted by a health care professional, excluding TBAs, in Samoa (81 percent), is lower than the prevalence in (1) **Tuvalu**: 98 percent in 2007 (TCSD, SPC, and Macro International Inc. 2009), (2) **Nauru**: 97 percent in 2007 (NBS, SPC, and Macro International Inc. 2009), and (3) the **Marshall Islands**: 96 percent in 2007 (EPPSO, SPC, and Macro International Inc. 2008). It is similar to the prevalence observed in the **Solomon Islands**: 84 percent in 2006-07 (SISO, SPC, and Macro International Inc. 2009). As noted, however, when TBAs are included in the category of health care providers, the percentage of deliveries assisted by a health care professional increases to 97 percent, which ranks Samoa among the countries with the highest percentages of deliveries assisted by a health professional.

9.2.3 Complications of Delivery

Access to caesarean-section (C-section) operations is a measure of access to emergency care for childbirth complications. The global estimate of women having a 5 percent to 15 percent access to C-sections is considered adequate in any given population.

Table 9.6 presents data on the prevalence of births by C-section. In Samoa, C-section deliveries are available to all, and they are performed at the three main hospitals in the country. Overall, 13 percent of births in Samoa are delivered by C-section. The percentage of births by C-section to women age 20 or younger is15 percent, to women with first-order births is 16 percent, to women who deliver at a health facility is 16 percent, to those who deliver in urban areas and in Apia Urban Area is16 percent each, to women with secondary complete education is 16 percent, and to the wealthiest women is 14 percent.

9.3 POSTNATAL CARE

A high proportion of maternal and neonatal deaths occurs during the first 48 hours after delivery. Thus, postnatal care is important for both the mother and the child to treat possible complications arising from the delivery. Care also provides the mother with important information on how to care for herself and her child. It is recommended that all women receive a check on their health within two days of delivery. The Samoa Ministry of Health recommends that women with an uncomplicated delivery have their first postnatal check-up within the first six weeks after birth.

To assess the extent of postnatal care utilization, women who were interviewed in the 2009 SDHS were asked about their most recent birth in the five years preceding the survey, specifically, whether they received a health check-up after the delivery, when they received the first check-up, and who performed the check-up. This information is presented by background characteristics in Table 9.7 and Table 9.8.

9.3.1 Timing of First Postnatal Check-up

Table 9.7 shows that postnatal coverage is relatively low in Samoa. Data show that four in ten mothers (41 percent) receive postnatal care within the first 4 hours after delivery, about one in six (17 percent) receives postnatal care 4 to 23 hours after delivery, and fewer than one in ten (8 percent) receives care 1 to 2 days after delivery. Overall, 66 percent of mothers in Samoa receive a postnatal check-up within the recommended 48 hours after delivery.

Almost three in ten mothers (29 percent) do not receive any postnatal care within 41 days after delivery, which marks almost the end of the 6-week postnatal period.

Mothers who are younger than age 20 (62 percent) and those who deliver their first, second, or third live birth (64 percent to 65 percent) are less likely than other mothers to receive postnatal care services within the first two days after delivery. Geographically, there is no urban-rural difference in the percentage of mothers who receive postnatal care within the first two days after delivery. The use of timely postnatal care ranges from a high of 71 percent among mothers in the Rest of Upolu region to 64 percent each in the Savaii and North West of Upolu regions.

A mother's education is related to the use of postnatal care. Seventy-four percent of mothers with vocational or higher-than-secondary education receive postnatal care within two days of delivery compared with 60 percent of mothers with primary or less education. There are also significant differences by wealth quintile; 76 percent of women in the highest wealth quintile receive postnatal care within two days after delivery compared with 62 percent of those in the lowest wealth quintile.

Table 9.7 Timing of first postnatal check-up

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution of the mother's first postnatal check-up for the last live birth, by time after delivery, according to background characteristics, Samoa 2009

Background characteristic	Time after delivery of mother's first postnatal check-up					No postnatal check-up[1]	Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/ missing			
Mother's age at birth								
<20	26.2	17.8	16.8	1.4	0.0	37.9	100.0	74
20-34	41.4	17.6	7.5	3.0	2.4	28.3	100.0	737
35-49	44.2	16.2	6.9	4.0	2.1	26.7	100.0	294
Birth order								
1	40.0	16.0	8.5	2.9	1.7	30.8	100.0	273
2-3	37.8	17.5	8.6	4.8	3.2	28.1	100.0	370
4-5	41.9	18.9	7.7	2.1	1.9	27.5	100.0	279
6+	47.9	15.9	6.2	1.7	1.1	27.2	100.0	183
Residence								
Urban	49.7	10.8	5.9	1.0	2.4	30.3	100.0	190
Rural	39.3	18.5	8.4	3.6	2.1	28.1	100.0	916
Region								
Apia Urban Area	49.7	10.8	5.9	1.0	2.4	30.3	100.0	190
North West Upolu	43.3	17.7	3.0	2.5	1.4	32.1	100.0	342
Rest of Upolu	38.8	20.9	11.0	2.5	1.9	24.8	100.0	296
Savaii	34.8	17.1	12.3	6.0	3.1	26.7	100.0	277
Mother's education								
Primary or less	(32.7)	(16.7)	(10.5)	(0.0)	(1.5)	(38.6)	100.0	39
Secondary incomplete	40.5	15.7	7.9	4.0	2.0	30.0	100.0	660
Secondary complete	41.7	20.1	5.9	1.9	2.5	27.8	100.0	251
Vocational/ higher	44.4	18.9	10.9	2.5	2.6	20.7	100.0	155
Wealth quintile								
Lowest	35.0	17.5	9.2	4.1	1.5	32.8	100.0	235
Second	40.5	16.6	8.8	3.9	1.7	28.5	100.0	220
Middle	41.2	15.2	10.1	4.2	2.7	26.7	100.0	234
Fourth	39.7	17.9	5.0	2.3	2.6	32.4	100.0	225
Highest	50.7	19.2	6.3	0.9	2.3	20.7	100.0	191
Total	41.1	17.2	7.9	3.1	2.2	28.5	100.0	1,105

Note: Numbers in parentheses are based on 25-49 unweighted cases
[1] Includes women who received a check-up after 41 days

9.3.2 Type of Provider of First Postnatal Check-up

Table 9.8 presents information on the types of postnatal care providers used, according to mothers' background characteristics. In Samoa, 63 percent of mothers obtain postnatal care from a health care professional (doctor, nurse, midwife, or nurse aide), and 8 percent get postnatal care from TBAs.

Mothers younger than age 20 and those delivering their first live birth are less likely than other mothers to receive postnatal care from a health care professional or a TBA. Mothers in the North West Upolu (68 percent) and those in the Savaii region (69 percent) report the least access to postnatal care by a health care professional or a TBA when compared with women in other regions. Mothers with higher education (76 percent) are more likely to receive postnatal care from a health care professional, excluding a TBA, than are those with primary or less education (53 percent). However, mothers with secondary incomplete or less education are more likely than mothers with more education to receive postnatal checkups from a TBA. Overall, the percentage of women who receive postnatal care from a health care professional or a TBA is highest among mothers in the highest wealth quintile (79 percent) and lowest among mothers in the lowest wealth quintile (67 percent).

Table 9.8 Type of provider of first postnatal check-up

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check for the last live birth, according to background characteristics, Samoa 2009

Background characteristic	Type of health provider of mother's first postnatal check-up: Doctor/ nurse/ midwife	Nurse aide	Traditional birth attendant	Other	Don't know/ missing	No postnatal check-up[1]	Total	Number of women
Mother's age at birth								
<20	56.9	2.7	1.3	1.3	0.0	37.9	100.0	74
20-34	61.2	2.4	7.8	0.0	0.4	28.3	100.0	737
35-49	62.7	1.1	9.5	0.0	0.0	26.7	100.0	294
Birth order								
1	64.0	3.1	2.1	0.0	0.0	30.8	100.0	273
2-3	60.2	1.9	8.8	0.3	0.7	28.1	100.0	370
4-5	62.1	1.0	9.3	0.0	0.0	27.5	100.0	279
6+	58.2	2.5	12.1	0.0	0.0	27.2	100.0	183
Residence								
Urban	64.7	3.6	1.1	0.0	0.3	30.3	100.0	190
Rural	60.6	1.7	9.2	0.1	0.2	28.1	100.0	916
Region								
Apia Urban Area	64.7	3.6	1.1	0.0	0.3	30.3	100.0	190
North West Upolu	63.0	1.1	3.9	0.0	0.0	32.1	100.0	342
Rest of Upolu	60.8	3.7	9.6	0.3	0.7	24.8	100.0	296
Savaii	57.5	0.4	15.5	0.0	0.0	26.7	100.0	277
Mother's education								
Primary or less	(50.3)	(3.0)	(8.0)	(0.0)	(0.0)	(38.6)	100.0	39
Secondary incomplete	57.5	1.5	10.6	0.1	0.3	30.0	100.0	660
Secondary complete	65.5	2.9	3.8	0.0	0.0	27.8	100.0	251
Vocational/ higher	73.6	2.7	2.5	0.0	0.6	20.7	100.0	155
Wealth quintile								
Lowest	52.9	1.2	13.1	0.0	0.0	32.8	100.0	235
Second	62.0	0.5	8.8	0.0	0.2	28.5	100.0	220
Middle	59.6	3.1	9.3	0.4	0.9	26.7	100.0	234
Fourth	59.9	2.7	5.0	0.0	0.0	32.4	100.0	225
Highest	74.4	2.9	2.0	0.0	0.0	20.7	100.0	191
Total	61.3	2.1	7.8	0.1	0.2	28.5	100.0	1,105

Note: Numbers in parentheses are based on 25-49 unweighted cases.
[1] Includes women who received a check-up after 41 days

9.4 PROBLEMS IN ACCESSING HEALTH CARE

Many factors can prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery. In the 2009 SDHS, women were asked whether each of the following factors would be a big problem or not a big problem in seeking medical care for themselves: getting permission to go for treatment, getting money for treatment, travelling a distance to a health facility, taking transportation, possible absence of a health provider, and possible lack of drugs available.

As shown in Table 9.9, the great majority of Samoan women cited concerns that there will be no drugs (80 percent) or health provider available (75 percent) as serious problems in accessing health care when they are sick. The next serious problem reported by women in accessing health care is the availability of a female health care provider (61 percent). Additionally, over half of women reported that getting money for treatment, distance to a health facility, and the need to take transport were serious problems in accessing health care for themselves when they are sick. About four in ten women (39 percent) reported not wanting to go alone to the health facility as a serious problem in accessing health care, while about three in ten (29 percent) perceived getting permission to go for treatment to be a serious problem. Overall, 92 percent of interviewed women cited at least one serious problem in accessing health care.

Divorced, separated, or widowed women and those who are employed but not for cash are less likely to cite any of the factors as being a serious problem in accessing health care. Urban women and those in the Apia Urban Area are also less likely than women in rural areas or other regions to cite at least one serious problem in accessing health care for themselves when they are sick. The proportion of women who report one or more of the factors as a serious problem in getting health care decreases with an increase in wealth.

Getting money for treatment, concern that there are no drugs available, distance to health facility, and having to take transport are serious problems faced more by women in rural areas and in the Savaii region, as well as women in the lower wealth quintiles. The greatest variation is seen in the percentage of women who report having to take transport as a serious problem: 66 percent of women in the lowest wealth quintile regarded this as a serious problem compared with only 38 percent of women in the highest wealth quintile.

Table 9.9 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Samoa 2009

	Problems in accessing health care									
Background characteristic	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	Concern no provider available	Concern no drugs available	At least one problem accessing health care	Number of women
Age										
15-19	35.7	59.7	55.7	52.9	47.8	65.9	76.5	80.9	92.7	560
20-34	28.5	53.9	53.1	52.0	38.6	63.4	76.6	82.3	93.4	1,157
35-49	26.8	54.1	53.0	50.9	32.9	56.0	70.7	76.5	90.9	940
Number of living children										
0	32.9	55.7	52.9	49.2	44.2	63.0	75.5	80.1	91.9	967
1-2	26.4	50.9	50.6	52.1	34.6	58.9	75.1	82.6	92.3	662
3-4	29.7	57.1	56.9	54.5	36.5	63.2	74.1	79.8	92.4	545
5+	26.2	57.8	55.3	53.6	34.9	58.9	72.2	76.2	93.2	483
Marital status										
Never married	34.4	57.0	53.9	49.7	42.9	61.4	75.5	80.0	91.4	971
Married or living together	26.3	54.3	53.3	53.6	36.8	62.2	74.5	80.7	93.3	1,554
Divorced/separated/ widowed	29.0	52.7	55.2	46.8	26.7	50.2	66.5	70.4	88.6	132
Employed past 12 months										
Not employed	29.8	57.5	55.1	53.6	37.8	63.6	75.9	81.4	93.8	1,878
Employed for cash	27.9	50.3	50.5	48.5	40.7	56.7	72.2	77.2	89.3	695
Employed not for cash	33.0	43.9	47.4	38.7	37.4	49.1	61.4	71.3	86.1	75
Residence										
Urban	23.7	34.8	31.0	32.5	28.6	46.9	65.7	76.5	87.1	548
Rural	30.9	60.5	59.5	56.8	41.1	65.0	76.8	80.9	93.7	2,109
Region										
Apia Urban Area	23.7	34.8	31.0	32.5	28.6	46.9	65.7	76.5	87.1	548
North West Upolu	29.1	60.5	55.3	49.3	38.5	65.7	73.2	79.2	92.9	907
Rest of Upolu	36.7	53.7	62.4	60.1	36.8	60.9	78.6	80.8	93.5	597
Savaii	27.8	67.1	62.9	64.8	49.3	68.2	80.3	83.4	95.2	605
Education										
Primary or less	27.6	54.3	60.1	57.6	40.0	64.6	79.3	80.9	91.1	132
Secondary incomplete	31.0	59.0	55.8	55.0	39.7	63.3	75.1	80.0	93.9	1,598
Secondary complete	28.7	51.1	53.5	47.5	37.1	62.5	74.4	80.5	91.6	519
Vocational/ higher	24.5	45.5	43.3	43.0	35.4	50.9	70.6	78.9	87.6	408
Wealth quintile										
Lowest	33.4	68.6	65.3	66.2	42.0	62.2	77.6	83.6	96.6	472
Second	27.8	60.8	56.8	55.9	38.8	69.1	80.3	84.4	94.7	516
Middle	33.9	58.0	56.3	52.9	39.4	63.8	74.6	80.4	93.0	557
Fourth	28.6	50.1	51.9	49.1	40.4	59.1	72.6	76.6	90.8	555
Highest	23.8	40.8	39.7	37.6	32.6	53.1	68.2	75.8	87.5	558
Total	29.4	55.2	53.6	51.8	38.5	61.3	74.5	80.0	92.4	2,657

Note: Total includes cases with missing information on employment that are not shown separately

CHILD HEALTH 10

Children are the future, and thus, investing in children's health and development means investing in the future of a country. Children are an especially vulnerable group of the population whose needs must be met and rights must be protected, including the rights to proper health, growth, and development. Children's health is an important issue to be addressed at all levels: individual, family, community, national, and international levels. Individual countries and the larger international community are committed to improving children's health and wellbeing by adopting conventions, enacting policies, and drafting strategies. However, these commitments need to translate into strong programs and specific actions to reduce the level of preventable morbidity, disability, and mortality among children and to improve their quality of life.

Samoa has signed the Convention on the Rights of the Child (CRC) as part of the commitment to invest in children's health and development. The government of Samoa has also joined with other nations in adopting the declaration of the Millennium Development Goals (MDGs), which outlines clear objectives and target indicators on child health and development. The MDGs have been incorporated and clearly articulated for Samoa in the Strategy for the Development of Samoa (SDS) 2008-2012 (Samoa Ministry of Finance, 2008). Furthermore, as part of its efforts to improve the health and wellbeing of Samoan children, the Ministry of Health (MOH) has initiated efforts and implemented policies that help improve the quality of health care services provided to children in Samoa. Some of the initiatives undertaken by the MOH and the government of Samoa include areas of breastfeeding, nutrition, and health promotion in schools.

Recently, the Samoa Expanded Program on Immunization (EPI) implemented by the National Health Services added new vaccines to the recommended World Health Organisation (WHO) basic vaccination schedule. The Measles-Rubella (MR) vaccine, introduced in 2003, was replaced with the Measles-Mumps-Rubella (MMR) vaccine, introduced in 2009.

This chapter presents the findings on child health from the 2009 SDHS. It focuses particularly on neonatal conditions (birth weight and size at birth), children's vaccination status, and treatment practices that are commonly used for children experiencing the three major childhood illnesses: acute respiratory infection (ARI), fever, and diarrhoea. The information on children's birth weight and size, treatment practices, and contact with health facilities when children are sick paves the way to strategic planning and implementation of programmes to reduce neonatal and infant mortality. Combined with facts on childhood mortality, this information can be used to identify subgroups of women and children who face increased risk because they do not use existing maternal and child health (MCH) services. The knowledge also can be used to assist with planning effective improvements for these services.

10.1 CHILD'S SIZE AT BIRTH

A child's birth weight or size at birth is an important indicator of the child's vulnerability to the risk of childhood illnesses and the chances of survival. Children whose birth weight is less than 2.5 kilograms, or children reported to be 'very small' or 'smaller than average' are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight was recorded in the questionnaire if available from either a written record or the mother's recall. Because birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was also obtained. Even though it is subjective, it can be a useful proxy for the weight of the child. Table 10.1 presents information on child's weight and size at birth.

Table 10.1 Child's weight and size at birth

Percent distribution of live births in the five years preceding the survey with a reported birth weight by birth weight; percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth and percentage of all births with a reported birth weight, according to background characteristics, Samoa 2009

Background characteristic	Percent distribution of births with a reported birth weight[1]			Number of births	Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth					Number of births
	Less than 2.5 kg	2.5 kg or more	Total			Very small	Smaller than average	Average or larger	Don't know/ missing	Total	
Mother's age at birth											
<20	15.4	84.6	100.0	91	77.4	7.0	14.3	77.2	1.4	100.0	117
20-34	9.3	90.7	100.0	873	76.4	3.1	10.9	84.4	1.6	100.0	1,143
35-49	11.2	88.8	100.0	263	74.3	3.0	8.9	87.0	1.2	100.0	354
Birth order											
1	12.6	87.4	100.0	348	80.9	5.6	14.5	78.4	1.5	100.0	430
2-3	8.8	91.2	100.0	425	74.2	2.7	8.8	87.8	0.7	100.0	573
4-5	10.1	89.9	100.0	284	74.3	2.8	10.0	84.9	2.2	100.0	382
6+	8.8	91.2	100.0	170	74.4	2.0	9.3	86.6	2.2	100.0	228
Mother's smoking status											
Smokes cigarettes/ tobacco	12.7	87.3	100.0	201	77.2	5.9	9.6	83.8	0.7	100.0	261
Does not smoke	9.7	90.3	100.0	1,024	75.9	2.8	10.9	84.6	1.7	100.0	1,351
Residence											
Urban	3.6	96.4	100.0	215	74.2	3.3	9.8	86.1	0.8	100.0	290
Rural	11.6	88.4	100.0	1,011	76.4	3.4	10.9	84.1	1.7	100.0	1,323
Region											
Apia Urban Area	3.6	96.4	100.0	215	74.2	3.3	9.8	86.1	0.8	100.0	290
North West Upolu	10.1	89.9	100.0	385	77.5	3.0	12.3	84.3	0.5	100.0	497
Rest of Upolu	6.1	93.9	100.0	346	79.7	3.0	8.9	86.4	1.6	100.0	435
Savaii	20.3	79.7	100.0	280	71.5	4.4	11.2	81.2	3.2	100.0	391
Mother's education											
Primary or less	(16.3)	(83.7)	100.0	37	65.9	0.0	10.6	89.4	0.0	100.0	55
Secondary incomplete	11.6	88.4	100.0	711	73.1	3.6	10.9	83.9	1.6	100.0	973
Secondary complete	9.7	90.3	100.0	292	81.6	4.6	11.7	81.8	1.9	100.0	358
Vocational/ higher	4.2	95.8	100.0	188	82.4	1.4	8.1	89.6	0.9	100.0	228
Wealth quintile											
Lowest	12.8	87.2	100.0	235	66.0	3.6	13.2	80.8	2.4	100.0	355
Second	13.0	87.0	100.0	244	77.8	5.2	12.9	80.9	1.1	100.0	314
Middle	10.6	89.4	100.0	264	78.1	4.3	6.8	87.8	1.1	100.0	338
Fourth	9.8	90.2	100.0	245	75.8	2.1	9.9	85.6	2.4	100.0	323
Highest	4.6	95.4	100.0	239	84.5	1.6	10.5	87.5	0.3	100.0	283
Total	10.2	89.8	100.0	1,227	76.0	3.4	10.7	84.4	1.5	100.0	1,614

Note: Numbers in parentheses are based on 25-49 unweighted cases. Total includes 1 case with missing information on mother's smoking status that is not shown separately

[1] Based on either a written record or the mother's recall

Information on birth weight was obtained for 76 percent of all births. Of those babies weighed, 90 percent were reported to have a weight of at least 2.5 kilograms. Newborns born to mothers younger than age 20 (15 percent), those of the first birth order (13 percent), and newborns of mothers who smoke cigarettes or tobacco (13 percent) are more likely than other newborns to weigh less than 2.5 kilograms. Looking at regional variations, newborns living in Savaii (20 percent) are most likely to weigh less than 2.5 kilograms at birth compared with 4 to 10 percent of newborns in other regions. The proportion of newborns who weigh less than 2.5 kilograms decreases with an increase in mother's education from 16 percent of newborns to mothers with primary or less education to 4 percent of newborns of mothers with vocational or higher than secondary education. The percentage of newborns born underweight is also inversely associated with wealth; it ranges from 13 percent of newborns in the lowest two wealth quintiles to 5 percent of those in the highest wealth quintile.

Overall, 84 percent of births are reported as 'average or larger' by the mothers, 11 percent are reported as 'smaller than average' and 3 percent as 'very small'. The data on the reported size of the child at birth show only small differences by background characteristics. The proportion of births that are reported to be of average size or larger increases with mother's age at birth; it is higher for non-first births and increases with an increase in the wealth quintile. Savaii (81 percent) has the lowest proportion of babies reported as being of average or lager size compared with other regions (84 to 86 percent). There is no clear relationship between the proportion of births reported to be of average or larger size and mother's educational status. Overall, the highest proportion of births reported as average or larger size is observed among births to mothers with primary or less education and those with vocational or higher than secondary education (89 and 90 percent, respectively). The lowest proportion is observed among births to mothers with incomplete or complete secondary education (84 and 82 percent, respectively).

10.2 VACCINATION COVERAGE

The 2009 SDHS collected information on immunisation coverage for all children born in the five years before the survey. The government of Samoa has adopted the WHO and UNICEF guidelines for vaccinating children. According to these guidelines, to be considered fully vaccinated (basic vaccination), a child should receive the following vaccinations: one dose each of BCG and measles, three doses of polio vaccine, and three doses of DPT. BCG, which protects against tuberculosis, should be given at birth or at first clinical contact. DPT, which protects against diphtheria, pertussis (whooping cough), and tetanus, and polio vaccine guidelines require three vaccinations at approximately 6, 10, and 14 weeks of age.

In addition to the basic vaccines, the hepatitis B (Hep-B) vaccine is also recommended for children in Samoa; a dose of the hepatitis B vaccine is given at birth or at first clinical contact. The Measles-Mumps-Rubella (MMR) vaccine, which replaced the Measles-Rubella (MR) vaccine in 2009, should be given at 12 and 15 months of age (MMR-I and MMR-II, respectively). Currently, the pentavalent vaccine "DPT/HepB/HiB," introduced in 2009, has replaced the DPT vaccine, and it is supposed to be given by the same schedule as the DPT. The pentavalent vaccine contains in addition to DPT, the hepatitis B (Hep-B) vaccine and a vaccine against *Haemophilus* influenza type B (HiB). It is recommended that children receive the complete schedule of vaccinations before 15 months of age.

In the SDHS, information on vaccination coverage was obtained in two ways—from health cards and from mother's verbal reports. All mothers were asked to show the interviewer the health cards on which the child's immunisations are recorded. If the card was available, the interviewer copied the dates of each vaccination received. If a vaccination was not recorded on the card, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present a card for a child, she was asked to recall whether the child had received BCG, polio, DPT, MR or MMR, Hep-B and Hib vaccinations. If the mother recalled that the child had received any of the vaccines, she was asked about the number of doses that the child received for all vaccines, except for the BCG, which is only given once at birth. It must be noted that the vaccination cards were only seen for 40 percent of the children (Table 10.3). The vaccination cards are often lost, damaged, or misplaced, especially cards for children older than 1 year. Furthermore, it is often the case that, when the vaccination card is missing, mothers may not remember if a particular vaccine was administered to their child; hence underreporting of the vaccination coverage occurs.

The data presented in this chapter are for children age 18-29 months, the youngest cohort of children who have reached the age by which they should be fully vaccinated, and are restricted to children who were alive at the time of the survey. Table 10.2 shows the percentage of children age 18-29 months who received specific vaccines at any time before the survey by source of information. The coverage for each of the three doses of Hep-B and Hib vaccines are not shown here because the pentavalent vaccine was only introduced in 2009.

Overall, 25 percent of children age 18-29 months in Samoa are fully immunized with all basic vaccinations at any time before the survey. Only 15 percent of children received no vaccinations (Figure 10.1). Twenty-four percent of children age 18-29 months were fully immunised with all basic vaccines by 18 months of age.

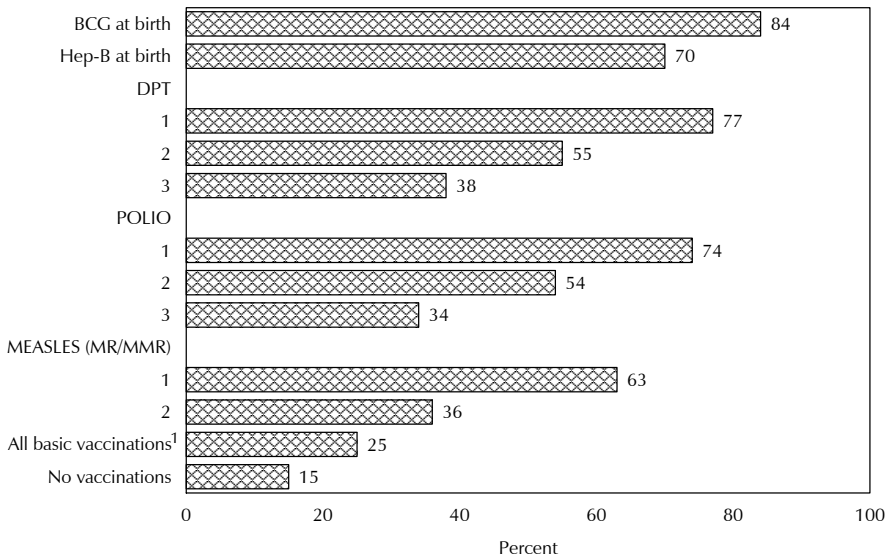
Table 10.2 Vaccinations by source of information

Percentage of children age 18-29 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 18 months of age, Samoa 2009

Source of information	BCG at birth	Hep-B at birth	DPT			Polio			Measles (MR/MMR)		All basic vacci-nations[1]	No vacci-nations	Number of children
			1	2	3	1	2	3	1	2			
Vaccinated at any time before survey													
Vaccination card	38.8	33.6	38.3	34.5	28.2	34.6	31.5	25.4	26.8	19.9	21.1	0.0	128
Mother's report	44.8	36.6	38.6	20.2	9.3	39.4	22.1	9.0	36.3	16.3	4.2	15.2	194
Either source	83.6	70.2	77.0	54.6	37.5	74.0	53.6	34.4	63.1	36.2	25.4	15.2	321
Vaccinated by 18 months of age[2]	83.6	70.2	75.7	54.3	37.2	72.4	53.0	34.1	55.7	25.0	24.3	16.7	321

[1] BCG, measles (at least an MR/MMR-1), and three doses each of DPT and Polio vaccines
[2] For children whose information was based on the mother's report, the proportion of vaccinations given during the first 18 months of life was assumed to be the same as for children with a written record of vaccination.

Figure 10.1 **Vaccination Coverage at Any Time before the Survey among Children 18-29 Months**



[1] BCG, measles (at least an MR/MMR-1), and three doses each of DPT and polio vaccines

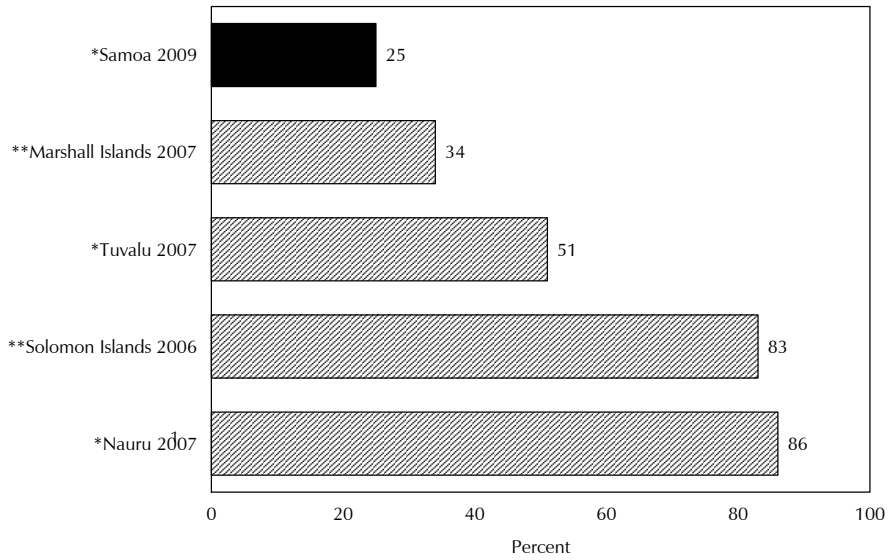
SDHS 2009

Looking at coverage for specific vaccines, 84 percent of children have received the BCG vaccination, 77 percent have received the first DPT dose, and 74 percent have received the first polio dose (Polio 1). Coverage for all three vaccinations declines with subsequent doses; only 38 percent of children received the recommended three doses of DPT, and 34 percent received three doses of polio. These figures reflect dropout rates of 51 percent for DPT and 54 percent for polio; the dropout rate represents the proportion of children who received the first dose of a vaccine but who did not get the third dose. Ideally, DPT and polio should be given on the same day, and the difference in vaccination coverage should be minimal. DPT and polio coverage in Samoa show similar patterns, with DPT having a slightly higher coverage for all three doses than polio. Sixty-three percent of children received at least one dose of the measles vaccine, and 70 percent were vaccinated against hepatitis B at birth. As mentioned above, coverage for each of the three doses of Hep-B and Hib vaccines is not shown because the pentavalent vaccine was only introduced in 2009 in Samoa. The 2009 SDHS

coverage rates are lower than those reported by the health facilities and presented in the Samoa Vaccination Annual Report (National Health Services, 2009). The BCG coverage is 84 percent in the SDHS versus 94 percent in the Samoa Vaccination Annual Report; Hep-B is 70 percent versus 85 percent, respectively; polio 1 is 74 percent versus 88 percent, respectively; polio 2 is 54 percent versus 80 percent, respectively; and polio 3 is 34 percent versus 70 percent, respectively. On the other hand, measles coverage is higher in the SDHS than in the Samoa Vaccination Annual Report; 63 percent versus 48 percent, respectively, received the first dose of measles. It must be noted that the coverage in the 2009 SDHS is based on the information collected at the household level, while the coverage reported in the Samoa Vaccination Annual Report is based on reporting from health facilities. Furthermore, there are differences in the methodology and age range of children for whom the coverage is calculated.

Figure 10.2 shows that the percentage of children age 18-29 months fully immunised against the six preventable diseases in Samoa (25 percent) is the lowest when compared with selected countries in the South Pacific region. As mentioned above, the overall coverage reported in the 2009 SDHS may be underreported because of the mother's recall bias and relatively low availability of vaccination cards in the households.

Figure 10.2 **Vaccination Coverage in Samoa Compared with Selected Pacific Countries**



* Percent of children 18-29 months fully vaccinated
** Percent of children 12-23 months fully vaccinated

Table 10.3 shows the percentage of children age 18-29 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report) and the percentage with a vaccination card..

There is little difference in the proportion of children fully vaccinated by sex of the child or by urban-rural residence. Girls (27 percent) and children in rural areas (26 percent) are slightly more likely to be fully vaccinated than boys and children in urban areas (24 and 23 percent, respectively). The proportion of children fully immunised increases somewhat as birth order increases, from 28 percent among first births to 35 percent among births of sixth or higher order. Vaccination coverage is 20 percent for children in the Savaii region compared with 31 percent of children in the Rest of Upolu region. Children of mothers with vocational or higher than secondary education and children of mothers with incomplete secondary education are more likely to be fully vaccinated (29 and 27 percent, respectively) than children of mothers who have completed secondary education (20 percent). The proportion of children fully immunised is lowest among children in the lower two wealth quintiles (15 to 20 percent) when compared with children in the upper three wealth quintiles (29 to 31 percent).

Table 10.3 Vaccinations by background characteristics

Percentage of children age 18-29 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Samoa 2009

Background characteristic	BCG at birth	Hep-B at birth	DPT			Polio			Measles (MR/MMR)		All basic vaccinations[1]	No vaccinations	Percentage with a vaccination card seen	Number of children
			1	2	3	1	2	3	1	2				
Sex														
Male	82.5	66.4	77.5	50.2	35.9	73.2	51.5	33.4	56.0	28.8	23.9	15.7	40.4	155
Female	84.6	73.7	76.5	58.8	39.0	74.7	55.5	35.4	69.7	43.1	26.7	14.7	39.1	166
Birth order														
1	74.9	61.8	68.9	53.1	38.9	66.8	49.6	35.7	61.8	37.7	27.5	23.0	40.1	98
2-3	88.4	78.1	81.0	58.5	34.4	82.5	63.2	31.8	61.9	33.6	19.0	10.9	34.8	112
4-5	79.7	58.4	73.3	41.6	31.2	65.3	38.3	31.4	62.3	29.8	26.3	18.5	37.2	66
6+	(96.1)	(85.9)	(89.9)	(67.2)	(51.4)	(81.3)	(60.6)	(42.5)	(70.0)	(48.7)	(35.0)	(3.9)	(55.0)	45
Residence														
Urban	69.2	66.1	62.6	44.1	34.4	59.4	45.1	30.1	48.3	24.3	23.0	29.0	42.4	67
Rural	87.4	71.3	80.8	57.4	38.3	77.9	55.8	35.6	67.0	39.3	26.0	11.5	39.0	254
Region														
Apia Urban Area	69.2	66.1	62.6	44.1	34.4	59.4	45.1	30.1	48.3	24.3	23.0	29.0	42.4	67
North West Upolu	83.6	72.1	74.4	59.9	40.4	72.0	55.4	36.2	56.0	37.7	26.3	15.6	45.9	92
Rest of Upolu	89.0	70.9	82.4	56.7	42.0	81.2	55.6	41.3	74.6	47.6	31.3	10.0	31.1	86
Savaii	90.0	70.6	86.4	55.3	31.7	81.1	56.6	28.5	71.6	32.1	19.6	8.4	39.6	77
Mother's education														
Primary or less	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Secondary incomplete	86.5	71.9	81.8	60.5	42.5	75.7	56.2	36.4	65.3	37.2	27.1	12.5	40.7	199
Secondary complete	79.0	66.6	66.9	42.2	22.3	70.6	47.5	30.0	57.1	30.0	19.5	19.5	40.0	60
Vocational/ higher	77.9	67.4	71.3	50.9	39.5	72.1	51.5	34.8	62.1	37.9	29.0	19.8	39.8	52
Wealth quintile														
Lowest	80.7	65.6	76.5	43.7	26.3	69.0	44.5	24.8	64.5	30.8	20.0	17.2	35.3	57
Second	85.0	69.0	76.9	47.8	29.0	76.8	49.2	26.8	64.3	37.1	15.1	13.6	30.2	62
Middle	81.8	62.8	75.1	60.7	46.3	69.0	52.6	36.2	58.5	40.9	29.3	18.2	39.8	74
Fourth	86.9	77.2	81.9	62.2	43.6	81.8	65.4	43.3	62.5	31.4	31.2	12.0	45.5	72
Highest	83.0	76.9	73.7	55.5	38.9	72.6	53.9	38.9	67.1	40.6	29.5	14.9	47.4	56
Total	83.6	70.2	77.0	54.6	37.5	74.0	53.6	34.4	63.1	36.2	25.4	15.2	39.7	321

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] BCG, measles (at least an MMR-1) and three doses each of DPT and Polio vaccine

10.3 Trends in Vaccination Coverage

Table 10.4 shows the percentage of children age 18-59 months (at the time of the survey) who received specific vaccines by 18 months of age, and the percentage with a vaccination card, by current age of child. Data show that 20 percent of children age 18-59 months received all their vaccinations by 18 months of age. Children in the oldest cohort (42-59 months) were less likely to have received all their vaccinations (15 percent) than younger children age 30-41 months (20 percent) and 18-29 months (24 percent). This indicates that there has been a small increase in vaccination coverage among children in Samoa over the past five years. The same pattern is seen for each of the specific vaccines. The proportion of children with no vaccinations has changed very little over time.

Vaccination cards were shown to interviewers for 40 percent of children age 18-29 months compared with 24 percent of children age 42-59 months. The difference may partly result from the cards for older children having been lost or misplaced over the longer period of time.

Table 10.4 Vaccinations in first 18 months of life

Percentage of children age 18-59 months at the time of the survey who received specific vaccines by 18 months of age, and percentage with a vaccination card, by current age of child, Samoa 2009

Age in months	BCG at birth	Hep-B at birth	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Measles (MR/MMR) 1	Measles (MR/MMR) 2	All basic vacci-nations[1]	No vacci-nations	Percentage with a vaccination card seen	Number of children
18-29	83.6	70.2	75.7	54.3	37.2	72.4	53.0	34.1	55.7	25.0	24.3	16.7	39.7	321
30-41	82.7	67.5	75.8	48.6	29.4	76.1	48.7	27.3	55.4	21.9	20.1	16.0	29.9	312
42-59	81.3	64.1	72.2	43.8	27.5	69.9	45.0	26.6	46.1	11.9	15.2	18.2	24.2	418
Total	82.6	67.1	74.5	48.5	31.2	72.6	48.7	29.3	53.0	19.7	19.7	17.0	30.6	1,051

Note: Information was obtained from the vaccination card or if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given during the first 18 months of life was assumed to be the same as for children with a written record of vaccinations.
[1] BCG, measles (at least MMR-1) and three doses each of DPT and Polio vaccine

10.4 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is among the leading causes of childhood morbidity and mortality throughout the world and in Samoa. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the 2009 SDHS, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill in the two weeks preceding the survey with a cough accompanied by short, rapid breathing that the mother considered to be chest-related. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective in the sense that they are based on the mother's perception of illness and without validation by medical personnel.

Table 10.5 shows that only 2 percent of children under age 5 years are reported to have had a cough with short, rapid breathing in the two weeks before the survey that was not just due to a blocked or runny nose. There was little or no variation by background characteristics. Reported symptoms of ARI peak among children age 6-11 months (5 percent). Children whose mothers smoke cigarettes (4 percent), those living in the Savaii region and Apia Urban Area (3 percent each), children born to mothers with primary or less education, and children with mothers from the middle wealth quintile households (4 percent each) are slightly more likely to have symptoms of ARI than other children. About nine in ten children with symptoms (87 percent) were taken to a health facility or provider for treatment (data not shown separately).

Treatment with antibiotics can often ameliorate the symptoms of ARI and can save lives. In the SDHS, over half (54 percent) of children under age 5 who had ARI symptoms in the two weeks before the survey were reported by their mothers to have been given antibiotics for the illness (data not shown).

Table 10.5 Prevalence of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, according to background characteristics, Samoa 2009

Background characteristic	Percentage of children under five with symptoms of ARI[1]	Number of children
Age in months		
<6	1.5	185
6-11	4.6	176
12-23	3.0	332
24-35	2.0	314
36-47	2.1	294
48-59	1.7	292
Sex		
Male	2.4	795
Female	2.4	799
Mother's smoking status		
Smokes cigarettes/ tobacco	3.6	258
Does not smoke	2.2	1,333
Cooking fuel		
Electricity or gas	3.4	310
Kerosene	0.4	135
Wood/ straw/ coconut parts, and other fuels	2.4	1,144
No food cooked in household	*	5
Residence		
Urban	2.7	290
Rural	2.4	1,304
Region		
Apia Urban Area	2.7	290
North West Upolu	1.8	491
Rest of Upolu	2.0	431
Savaii	3.4	382
Mother's education		
Primary or less	3.6	54
Secondary incomplete	2.4	959
Secondary complete	2.4	354
Vocational/ higher	2.3	228
Wealth quintile		
Lowest	1.4	348
Second	2.2	307
Middle	3.7	335
Fourth	2.5	321
Highest	2.3	282
Total	2.4	1,594

Note: Total includes 1 case with missing information on mother's smoking status that is not shown separately. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) is considered a proxy for pneumonia.

10.5 FEVER

Table 10.6 shows the percentage of children under age 5 with fever during the two weeks preceding the survey and the percentage receiving various treatments. Fever is most common among children age 6-35 months (20 to 24 percent) and then decreases with age. Prevalence of fever is similar for both sexes and for urban and rural children. Regional differentials show that the proportion of children with fever is higher in the Savaii region (25 percent) and Apia Urban Area (21 percent) compared with children in the North West Upolu and Rest of Upolu regions (16 percent each). Fever prevalence among children does not show a clear relationship with mother's education or wealth.

Table 10.6 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children for whom treatment was sought from a health facility or provider, the percentage who took antibiotic drugs, by background characteristics, Samoa 2009

	Among children under age five		Children under age five with fever		
Background characteristic	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antibiotic drugs	Number of children
Age in months					
<6	14.3	185	(62.4)	(35.6)	26
6-11	23.6	176	(56.4)	(30.4)	41
12-23	20.3	332	66.0	37.3	67
24-35	21.0	314	71.7	41.0	66
36-47	18.9	294	55.2	36.3	56
48-59	16.6	292	(66.9)	(44.3)	49
Sex					
Male	19.0	795	63.2	36.8	151
Female	19.3	799	64.4	39.1	154
Residence					
Urban	20.9	290	55.2	35.6	61
Rural	18.8	1,304	65.9	38.6	245
Region					
Apia Urban Area	20.9	290	55.2	35.6	61
North West Upolu	16.3	491	62.6	34.7	80
Rest of Upolu	16.0	431	63.9	38.9	69
Savaii	25.2	382	70.2	41.5	96
Mother's education					
Primary or less	19.5	54	*	*	10
Secondary incomplete	18.6	959	64.1	41.8	179
Secondary complete	20.5	354	61.7	32.6	72
Vocational/ higher	19.3	228	(70.1)	(33.0)	44
Wealth quintile					
Lowest	18.8	348	61.2	34.0	65
Second	19.9	307	64.7	45.3	61
Middle	20.3	335	67.1	41.0	68
Fourth	19.3	321	56.4	34.2	62
Highest	17.3	282	(70.9)	(34.6)	49
Total	19.2	1,594	63.8	38.0	305

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Excludes traditional healer and overseas

Almost six in ten children with fever (64 percent) are taken to a health facility or provider for treatment. The proportion of children with fever taken to a health provider for treatment is higher in rural areas (66 percent), in the Savaii region (70 percent), among children whose mothers have vocational or higher than secondary education (70 percent), and among those in the wealthiest quintile (71 percent). Table 10.6 shows that over one-third of children with fever are given antibiotics (38 percent). One in four children with fever in the last two weeks were given panadol or paracetamol (data not shown separately).

Because of the need to treat fever quickly, it can be useful for parents to have antipyretic and other specific drugs at home. In Samoa, antipyretics, such as paracetamol or panadol, are readily available over the counter. However, the MOH policy requires that antibiotics be prescribed by trained health personnel after proper diagnosis. Consequently, it is not recommended that households stock antibiotics at home. Surprisingly, the SDHS data show that in 45 percent of the cases when children had a fever and were given an oral antibiotic (pills or syrup), the antibiotic was already available at the home (data not shown separately).

10.6 DIARRHOEAL DISEASE

10.6.1 Incidence and Treatment of Diarrhoea

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children, although the condition can be easily treated with oral rehydration therapy (ORT). Exposure to diarrhoea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. In interpreting the findings of the 2009 SDHS, it should be borne in mind that prevalence of diarrhoea varies seasonally.

Table 10.7 shows the percentage of children under age 5 with diarrhoea in the two weeks preceding the. The table shows that only 5 percent of children in Samoa had diarrhoea in the two weeks before the survey, and virtually none had diarrhoea with blood, a symptom of dysentery.

Diarrhoea prevalence increases sharply with age to peak at 12-23 months (8 percent); it then falls to 4 percent at age 36-47 months, after which it increases again to 6 percent for children 48-59 months. The peak age, 12-23 months, is when children usually are weaned from breastfeeding; introduction of liquids other than breast milk and other supplementary foods can facilitate the spread of disease-causing microbes. Differences in diarrhoea prevalence by background characteristics other than age are generally minimal. Interestingly, there are no significant differences according to source of drinking water. However, children from households with a non-improved or a shared toilet facility are slightly more likely to have diarrhoea than those from households with an improved, not shared toilet facility (8 percent versus 5 percent).

Table 10.7 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, Samoa 2009

Background characteristic	Diarrhoea in the two weeks preceding the survey: All diarrhoea	Diarrhoea with blood	Number of children
Age in months			
<6	0.7	0.0	185
6-11	4.0	1.0	176
12-23	7.7	0.3	332
24-35	5.2	0.0	314
36-47	3.7	0.0	294
48-59	5.8	0.8	292
Sex			
Male	5.4	0.4	795
Female	4.4	0.2	799
Source of drinking water[1]			
Improved	4.8	0.3	1,562
Not improved	(3.7)	(0.0)	29
Toilet facility[2]			
Improved, not shared	4.7	0.3	1,491
Non-improved or shared	7.7	0.0	99
Residence			
Urban	4.2	0.0	290
Rural	5.1	0.4	1,304
Region			
Apia Urban Area	4.2	0.0	290
North West Upolu	5.6	0.7	491
Rest of Upolu	5.3	0.2	431
Savaii	4.1	0.2	382
Mother's education			
Primary or less	3.4	0.0	54
Secondary incomplete	5.2	0.5	959
Secondary complete	4.3	0.0	354
Vocational/ higher	5.1	0.0	228
Wealth quintile			
Lowest	3.6	0.3	348
Second	6.9	0.4	307
Middle	5.0	0.3	335
Fourth	4.3	0.3	321
Highest	4.9	0.3	282
Total	4.9	0.3	1,594

Note: Total includes cases with missing information on source of drinking water and toilet facility. Figures in parentheses are based on 25-49 unweighted cases

[1] See Table 2.7 for definition of categories.

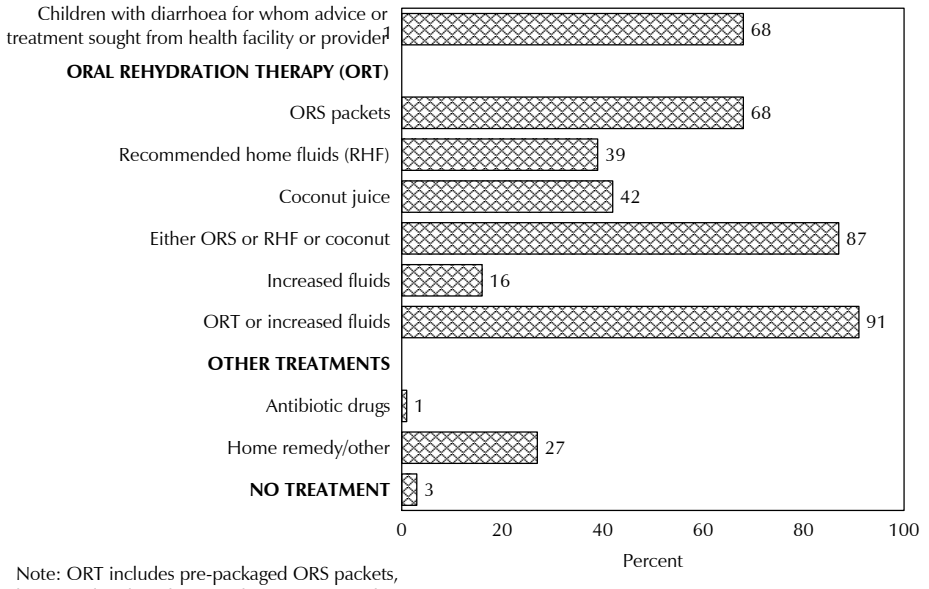
[2] See Table 2.8 for definition of categories.

In the 2009 SDHS, mothers of children who had diarrhoea in the preceding two weeks were asked about what was done to treat the illness. Figure 10.3 shows the percentage of children with diarrhoea who received specific treatments. Differentials in these indicators by background characteristics are not provided due to the small number of cases of children with diarrhoea.

The data indicate that more than two-thirds of the children who were ill with diarrhoea were taken to a health facility or provider (68 percent). Oral rehydration therapy or ORT, which in the case of Samoa includes giving oral rehydration solution (ORS) from a packet, or a Recommended Home Fluid (RHF) made of salt and sugar, or coconut juice, is a simple and effective response to diarrhoeal illness. Mothers reported that more than nine in ten children with diarrhoea (91 percent) were treated with some form of ORT or increased fluids. More specifically, ORS was given to 68 percent of children, recommended home fluids made with salt and sugar were given to 39 percent of children, and coconut juice was given to 42 percent of children.

A surprisingly high proportion of children with diarrhoea are treated with home remedies (27 percent); just 3 percent of children with diarrhoea did not receive any treatment at all.

Figure 10.3 Diarrhoea Treatment among Children Under Five



Note: ORT includes pre-packaged ORS packets, homemade salt and sugar solution (RHF), and coconut juice

[1] Excludes traditional healer and overseas

SDHS 2009

10.6.2 Feeding Practices

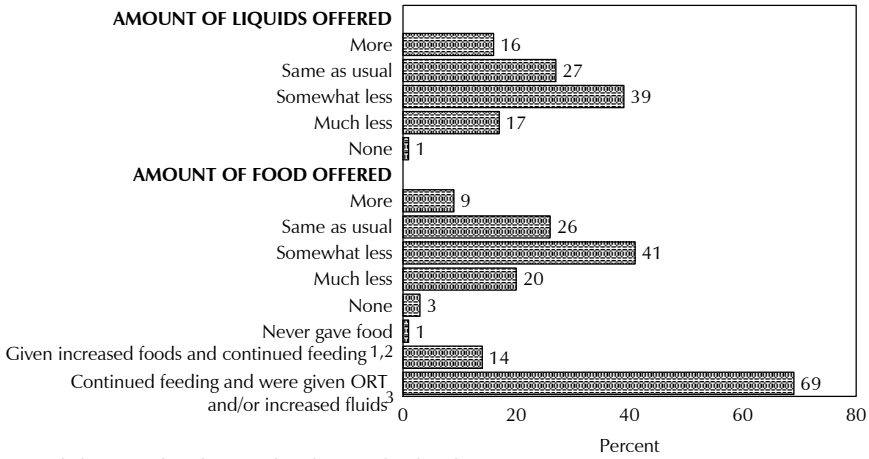
Mothers are encouraged to continue normally feeding children with diarrhoea and to increase the amount of fluids. These practices help to reduce dehydration and minimize the adverse consequences of diarrhoea on the child's nutritional status. Mothers interviewed in the 2009 SDHS were asked whether they gave the child less, the same amount, or more fluids and food than usual when their child had diarrhoea. Figure 10.4 shows, by feeding practices, the percentage of children under age 5 who had diarrhoea in the two weeks preceding the survey. Differentials in feeding practices are not provided due to the small number of cases..

Figure 10.4 shows that 16 percent of children with diarrhoea are given more to drink than usual, 27 percent are given the same amount as usual, and 57 percent are given less to drink than usual or nothing at all. It is particularly disconcerting to note that almost one in five children with diarrhoea (18 percent) are given much less or nothing to drink.

Food intake is curtailed even more than fluid intake during an episode of diarrhoea. Only 9 percent of children with diarrhoea are offered more to eat than usual, 26 percent are offered the same amount of food as usual, and 64 percent are given less food than usual or no food at all during diarrhoea. These patterns reflect a gap in practical knowledge among some mothers regarding the nutritional requirements of children during episodes of diarrhoeal illness. This indicates a need for further health education efforts to reduce the number of children becoming dehydrated or malnourished due to diarrhoea.

Overall, 14 percent of children with diarrhoea are given increased fluids and continued feeding, and 69 percent are given increased fluids, continued feeding, and ORT.

Figure 10.4 **Feeding Practices During Diarrheoa among Children Under Five**



Note: ORT includes pre-packaged ORS packets, homemade salt and sugar solution (RHF), and coconut juice

[1] Equivalent to the UNICEF/WHO indicator "Home management of diarrhea." MICS Indicator 34

[2] Continue feeding practices includes children who were given more, same as usual, or somewhat less food during the diarrhea episode

[3] Equivalent to UNICEF MICS Indicator 35.

SDHS 2009

10.7 KNOWLEDGE OF ORS PACKETS

As mentioned earlier, a simple and effective response to dehydration caused by diarrhoea is a prompt increase in the child's fluid intake through some form of ORT, which may include the use of a solution prepared from packets of ORS. To ascertain how widespread knowledge of ORS is in Samoa, mothers were asked whether they knew about ORS packets.

Table 10.8 shows that knowledge of ORS is low in Samoa, with only about six in ten (56 percent) mothers having heard about ORS packets or *vai masima* (Recommended Home Fluid). Knowledge of ORS or vai masima is higher among urban than rural mothers (67 percent compared with 54 percent). Mothers in Apia Urban Area (67 percent) are considerably more likely than mothers in other regions to have heard of ORS or vai masima (52 to 55 percent). ORS or vai masima knowledge among mothers increases steadily with increasing education and wealth. It ranges from 49 percent of mothers with primary or less education to 60 percent of mothers with vocational or secondary or higher education. Similarly, ORS or vai masima knowledge is found among 47 percent of mothers in the lowest wealth quintile compared with 65 percent of mothers in the highest wealth quintile.

Table 10.8 Knowledge of ORS packets or pre-packaged liquids

Percentage of mothers age 15-49 who gave birth in the five years preceding the survey who know about ORS packets or vai masima for treatment of diarrhoea by background characteristics, Samoa 2009

Background characteristic	Percentage of women who know about ORS packets or vai masima	Number of women
Age		
15-19	(43.4)	39
20-24	45.1	211
25-34	58.7	460
35-49	59.4	395
Residence		
Urban	66.9	190
Rural	53.5	916
Region		
Apia Urban Area	66.9	190
North West Upolu	55.4	342
Rest of Upolu	51.6	296
Savaii	53.1	277
Education		
Primary or less	(49.1)	39
Secondary incomplete	54.8	660
Secondary complete	56.7	251
Vocational/ higher	60.2	155
Wealth quintile		
Lowest	46.9	235
Second	52.0	220
Middle	55.3	234
Fourth	61.7	225
Highest	64.7	191
Total	55.8	1,105

Note: Figures in parentheses are based on 25-49 unweighted cases
ORS = Oral rehydration salts or vai masima

10.8 STOOL DISPOSAL

If human faeces are left uncontained, disease may spread by direct contact or by animal contact with the faeces. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 10.9 presents information on the disposal of the stools of children under age 5, by background characteristics.

The results show that in Samoa the most commonly used method of disposal of young children's stools is throwing them into the garbage (53 percent). Other methods of disposal include using a toilet or latrine (20 percent), putting or rinsing stools into the toilet or latrine (15 percent), putting or rinsing them into a drain or ditch (7 percent), or burying them (3 percent). Overall, just over one-third of children have their stools disposed of safely.

A closer look at the table shows marked differentials in faecal matter disposal. For example, older children (age 1 year or older) are more likely than younger children to have their stools disposed of safely. This can be explained by the fact that younger children, especially during the first year of life, use diapers that are commonly disposed of in the garbage, which is not considered a safe method of disposal. Surprisingly, urban children (35 percent) and children living in households with an improved toilet facility (38 percent) are slightly less likely to have safe faecal disposal than rural children (39 percent) and those in households with non-improved or shared toilet facilities (43 percent). The proportion of children whose stools are disposed of safely is 41 and 43 percent, respectively, among those in the Savaii and Rest of Upolu regions, compared with 33 and 35 percent, respectively, among children in the North West Upolu region and the Apia Urban Area. Safe faecal disposal shows no clear relationship to the mother's education or wealth quintile.

Table 10.9 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last faecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Samoa 2009

	Manner of disposal of children's stools										
Background characteristic	Child used toilet or latrine	Put/ rinsed into toilet or latrine	Buried	Put/ rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing	Total	Percentage of children whose stools are disposed of safely	Number of mothers
Age in months											
<6	5.3	7.1	3.8	9.6	71.7	0.7	0.0	1.8	100.0	16.2	180
6-11	5.7	11.0	2.3	8.4	71.3	0.0	0.7	0.6	100.0	19.0	168
12-23	13.9	17.1	3.9	9.3	55.3	0.0	0.4	0.0	100.0	34.9	266
24-35	28.2	15.1	1.4	5.7	48.2	0.8	0.0	0.5	100.0	44.8	200
36-47	37.8	17.1	6.3	3.3	32.5	0.0	0.7	2.4	100.0	61.2	135
48-59	42.4	20.7	1.7	5.0	25.2	0.0	0.8	4.1	100.0	64.9	128
Toilet facility											
Improved, not shared[1]	20.2	14.2	3.2	7.3	53.4	0.3	0.3	1.2	100.0	37.6	1,012
Non-improved or shared	21.0	18.6	3.3	7.7	44.4	0.0	1.8	3.2	100.0	42.9	61
Residence											
Urban	19.2	14.5	1.0	3.5	60.0	0.6	0.0	1.2	100.0	34.7	183
Rural	20.4	14.6	3.7	8.1	51.3	0.2	0.5	1.3	100.0	38.7	893
Region											
Apia Urban Area	19.2	14.5	1.0	3.5	60.0	0.6	0.0	1.2	100.0	34.7	183
North West Upolu	12.7	19.8	0.8	10.0	55.5	0.3	0.6	0.2	100.0	33.3	335
Rest of Upolu	30.1	10.8	2.5	9.2	44.7	0.0	0.4	2.4	100.0	43.3	288
Savaii	19.8	12.1	8.6	4.4	53.1	0.2	0.4	1.4	100.0	40.5	270
Mother's education											
Primary or less	(19.4)	(16.7)	(0.0)	(16.0)	(47.9)	(0.0)	(0.0)	(0.0)	100.0	(36.0)	39
Secondary incomplete	22.9	14.7	3.0	7.3	50.0	0.3	0.7	1.1	100.0	40.6	643
Secondary complete	13.6	14.6	5.1	8.4	57.4	0.0	0.0	1.0	100.0	33.2	242
Vocational/ higher	20.0	13.5	1.9	3.3	58.1	0.4	0.0	2.8	100.0	35.4	153
Wealth quintile											
Lowest	14.4	12.6	6.2	13.2	52.2	0.0	0.9	0.6	100.0	33.2	230
Second	23.8	16.4	3.5	5.7	50.1	0.6	0.0	0.0	100.0	43.7	214
Middle	19.1	17.9	1.3	5.5	53.5	0.3	1.0	1.4	100.0	38.2	224
Fourth	25.6	14.2	2.9	7.6	45.7	0.4	0.0	3.7	100.0	42.7	222
Highest	18.3	11.4	2.0	3.7	64.1	0.0	0.0	0.6	100.0	31.7	187
Total	20.2	14.6	3.2	7.3	52.8	0.3	0.4	1.3	100.0	38.0	1,076

Note: Total includes cases with missing information on toilet facilities. Figures in parentheses are based on 25-49 unweighted cases

[1] Non-shared facilities that are of the types that flush or pour flush into a septic tank/pit latrine; ventilated, improved pit (VIP) latrine; and pit latrine with a slab

NUTRITION OF CHILDREN AND ADULTS 11

The 2009 SDHS collected information from respondents to evaluate the nutritional status of infants, young children, and women. Information on breastfeeding and complementary feeding was collected, and the intake of micronutrients, including iron and vitamin A, was measured. Anthropometric measurements (height and weight), however, were not collected in this survey.

Adequate nutrition is critical to child development. The period from birth to two years of age is an important one for optimal growth, health, and development. Unfortunately, this period is often marked by growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhoea and acute respiratory infections (ARI). Optimal feeding practices reported in this chapter include early initiation of breastfeeding, exclusive breastfeeding during the first 6 months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at 6 months of age, frequent feeding of solid/semisolid foods, and feeding of diverse food groups to children between 6 and 23 months of age. A summary indicator that describes the quality of infant and young child (age 6-23 months) feeding practices is included.

A woman's nutritional status has important implications for her health as well as for the health of her children. Malnutrition in women results in reduced productivity, increased susceptibility to infections, slow recovery from illness, and heightened risks of adverse pregnancy outcomes. This chapter presents information on food and micronutrient intake among mothers, and information on the weekly consumption of fruits and vegetables among women and men age 15-49.

11.1 INITIATION OF BREASTFEEDING

Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 11.1 shows the percentage of all children born in the five years preceding the survey who were breastfed and, for the last-born children who were breastfed, the timing of initial breastfeeding, by background characteristics. Overall, 92 percent of children born in the past five years have been breastfed at some time. For last-born children who were breastfed, 88 percent started breastfeeding within one hour of birth and 97 percent started breastfeeding within the first 24 hours after delivery. There are no significant differentials in the percentage of children ever breastfed by background characteristics.

The results from the 2009 SDHS show that there is no difference in early initiation (within the first hour of birth) of breastfeeding by sex of child. Children in urban areas and in Apia Urban Area (76 percent each) are considerably less likely to receive breast milk during the first hour after birth than children in rural areas (90 percent) or children in other regions (86 percent in Savaii, 89 percent in North West Upolu, and 95 percent in the Rest of Upolu). The proportion of children who receive early breastfeeding is slightly lower when a health professional assists at delivery compared with cases assisted by a traditional birth attendant and cases where the delivery occurs in a health facility instead of at home.

Table 11.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and for the last children born in the five years preceding the survey who were ever breastfed, the percentage who started breastfeeding within one hour and within one day of birth, and the percentage who received a prelacteal feed, by background characteristics, Samoa 2009

Background characteristic	Breastfeeding among children born in past five years		Among last-born children ever breastfed:			
	Percentage of children ever breastfed	Number of children born in past five years	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	93.7	807	87.8	96.4	11.7	515
Female	91.1	806	87.4	96.6	12.6	516
Assistance at delivery						
Health professional[3]	92.3	1,304	87.8	97.4	12.7	846
Traditional birth attendant	93.4	265	90.7	96.0	9.5	165
Other/no one	(84.4)	31	*	*	*	15
Place of delivery						
Health facility (including overseas)	92.1	1,299	87.6	97.4	12.8	843
At home (including overseas)	93.5	290	90.6	95.8	9.1	179
Other	*	6	*	*	*	3
Residence						
Urban	93.2	290	76.1	97.0	13.5	180
Rural	92.3	1,323	90.1	96.4	11.9	851
Region						
Apia Urban Area	93.2	290	76.1	97.0	13.5	180
North West Upolu	92.4	497	88.8	95.3	11.5	319
Rest of Upolu	90.1	435	95.2	98.1	12.9	272
Savaii	94.5	391	86.3	96.0	11.3	260
Mother's education						
Primary or less	92.5	55	(94.0)	(97.3)	(11.1)	37
Secondary incomplete	93.2	973	87.0	96.1	10.4	624
Secondary complete	91.5	358	89.6	96.8	12.1	233
Vocational/ higher	90.6	228	85.5	97.4	20.3	139
Wealth quintile						
Lowest	92.9	355	88.4	95.1	9.0	220
Second	93.7	314	82.4	94.5	15.0	207
Middle	92.2	338	91.4	98.8	9.5	221
Fourth	91.9	323	90.3	96.6	12.7	209
Highest	91.2	283	84.9	97.5	15.6	176
Total	92.4	1,614	87.6	96.5	12.2	1,032

Note: Table is based on births in the past five years regardless of whether the children are living or dead at the time of interview. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes cases with missing information on assistance at and place of delivery

[1] Includes children who started breastfeeding within one hour of birth

[2] Children given something other than breast milk during the first three days of life

[3] Doctor, nurse/midwife, or nurse aide

The survey results indicate that about one in eight (12 percent) last-born babies who breastfed received a prelacteal feed, that is, they received something other than breast milk during the first three days of life. Children whose births were assisted by a health professional and children who are born in a health facility (13 percent each) are slightly more likely to receive a prelacteal feed than children whose births are assisted by a traditional birth attendant (10 percent) and children born at home (9 percent). The practice of giving the baby a prelacteal feed is slightly more common in the Apia Urban Area (14 percent) than in other regions. It is also practiced more commonly among children born to mothers with vocational or higher than secondary education (20 percent) and those in households that rank in the second (15 percent) and highest wealth quintiles (16 percent).

Compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the percentage of children ever breastfed in **Samoa** (92 percent) is slightly lower than the percentage reported in the **Marshall Islands**: 95 percent in 2007 (EPPSO et al., 2008) and **Nauru**: 95 percent in 2007 (NBS et al., 2009), and similar to that observed in the **Solomon Islands**: 93 percent in 2006-07 (SISO et al., 2009) and in **Tuvalu**: 91 percent in 2007 (TCSD et al., 2009).

The percentage of last-born children in the past five years who started breastfeeding within the first day of birth in Samoa (97 percent) is higher than the percentage observed in the **Marshall Islands** and in **the Solomon Islands (**96 percent each), in **Nauru (**90 percent), and in **Tuvalu** (only 25 percent)**.**

The proportion of last-born children in the past five years who received prelacteal feeds in **Samoa** (12 percent) is higher than in the **Solomon Islands** (7 percent) but lower than the proportion observed in **Nauru** (16 percent)**,** in the **Marshall Islands** (20 percent), and in **Tuvalu** (43 percent)**.**

11.2 Breastfeeding Status by Age

The United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) recommend that children be exclusively breastfed during the first 6 months of life and that they be given solid or semi-solid complementary foods in addition to continued breastfeeding from age 6 months until age 24 months or older when the child is fully weaned. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially from diarrhoeal diseases. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in low-resource settings, supplementary food is often nutritionally inferior.

Information on complementary feeding was obtained by asking mothers about the current breastfeeding status of all children under 5 years of age and—for the youngest child born in the three-year period before the survey and living with the mother—foods and liquids given to the child the day and night before the survey.

Table 11.2 shows the percent distribution of youngest children less than 3 years of age living with the mother, by breastfeeding status, and the percentage of all children under three years using a bottle with a nipple, according to age in months. The results presented in Table 11.2 and Figure 11.1 show that breastfeeding duration is long in Samoa. Ninety-four percent of children under age 6 months in Samoa are breastfed, and 72 percent of children at age 12-15 months are still breastfeeding. By age 20-23 months, 74 percent of children are still breastfeeding, and only 26 percent of children have been weaned.

Although breastfeeding extends for a long time in Samoa, exclusive breastfeeding has short duration; only six in ten children under 2 months of age (60 percent) and 2-3 months of age (62 percent) are exclusively breastfed; by age 4-5 months, just over one-third (36 percent) of children are still being exclusively breastfed. Overall, only about half (51 percent) of children under 6 months are

exclusively breastfed, which is far less than the 100 percent recommended. In addition to breast milk, 23 percent of children under 6 months of age are given complementary food (solid or mushy), 14 percent are given other (non-breast) milk, less than 2 percent are given non-milk liquids or juice, and 4 percent are given plain water. At age 6-9 months, 87 percent of Samoan children are still being breastfed and about three in four (76 percent) of breastfeeding children are receiving complementary foods in addition to breast milk. Similar patterns are observed for older children. For example, 84 percent of children age 9-11 months are still breastfeeding, and 77 percent of breastfeeding children are receiving complementary foods.

Compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the proportion of children exclusively breastfed at 6 months of age in 2009 in **Samoa** (51 percent) is lower than that reported in the **Solomon Islands (**74 percent in 2006-07) and in **Nauru** (67 percent in 2007) but higher than in **Tuvalu** (35 percent in 2007) and in the **Marshall Islands (**27 percent in 2007**).**

Table 11.2 Breastfeeding status by age

Percent distribution of youngest children under 3 years who are living with their mother, by breastfeeding status, and the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, Samoa 2009

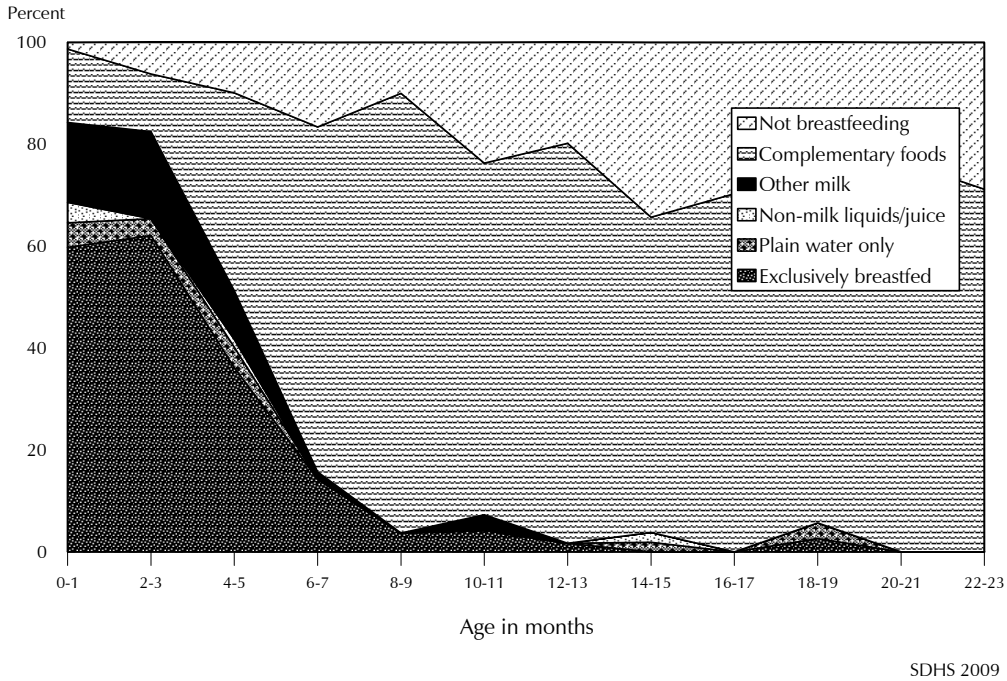
	Percent distribution of youngest children under three years living with their mother by breastfeeding status										
			Breastfeeding and consuming:								
Age in months	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/ juice	Other milk	Comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest child under three years	Percentage using a bottle with a nipple[1]	Number of children
0-1	1.3	59.8	4.8	4.0	15.7	14.4	100.0	98.7	51	16.8	52
2-3	6.3	62.1	3.3	0.0	17.1	11.3	100.0	93.7	58	26.6	61
4-5	10.0	36.2	4.0	1.5	9.6	38.8	100.0	90.0	70	29.2	72
6-8	16.7	11.1	0.0	0.0	1.1	71.1	100.0	83.3	82	29.1	86
9-11	16.3	4.8	0.0	0.0	1.8	77.2	100.0	83.7	86	24.8	89
12-17	28.6	0.4	0.6	0.7	0.0	69.6	100.0	71.4	160	31.2	182
18-23	29.0	1.0	1.2	0.0	0.0	68.8	100.0	71.0	105	24.9	150
24-35	53.4	0.0	0.0	0.0	0.0	46.6	100.0	46.6	200	25.6	314
0-3	3.9	61.0	4.0	1.9	16.4	12.8	100.0	96.1	109	22.1	113
0-4	5.5	54.9	5.2	2.2	15.9	16.2	100.0	94.5	138	25.2	144
0-5	6.3	51.3	4.0	1.7	13.7	22.9	100.0	93.7	180	24.8	185
6-9	13.5	9.3	0.0	0.0	0.7	76.4	100.0	86.5	119	27.2	124
12-15	27.9	0.7	1.0	1.1	0.0	69.2	100.0	72.1	98	34.8	113
12-23	28.8	0.7	0.8	0.4	0.0	69.3	100.0	71.2	266	28.4	332
20-23	26.1	0.0	0.0	0.0	0.0	73.9	100.0	73.9	65	22.6	93

Note: Breastfeeding status refers to a '24-hour' period (yesterday and last night). Children who are classified as *breastfeeding and consuming plain water only* consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Based on all children under three years

Use of bottles with nipples is common in Samoa; one-quarter of children under 6 months of age are fed using a bottle with a nipple. This presents a concern for children's health because, if not cleaned properly, bottles and nipples can harbour disease-causing bacteria that can cause contamination and illness in the child. The percentage of children who use a bottle with a nipple is lowest among children under 2 months of age (17 percent), and it doesn't vary much for older age groups (25 to 31 percent).

Figure 11.1 **Infant Feeding Practices by Age**



When compared with neighbouring countries, the proportion of children under 6 months of age fed with a bottle and nipple in 2009 in **Samoa** (25 percent) is markedly lower than in **Tuvalu** (42 percent in 2007) but higher than in the **Marshall Islands** (21 percent in 2007) and in **Nauru** (19 percent in 2007) and substantially higher than in the **Solomon Islands** (4 percent in 2006-07).

11.3 DURATION AND FREQUENCY OF BREASTFEEDING

Table 11.3 shows the median duration of breastfeeding by selected background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of children born in the three years preceding the survey who were being breastfed at the time of the survey.

The median duration of any breastfeeding in Samoa is long—22 months, although the median duration of exclusive breastfeeding is short—only 2 months. Differences in both of these durations by sex are small. Children in rural areas are breastfed longer than children in urban areas (23 months versus 15 months) for any breastfeeding and shorter (2 months versus 5 months) for exclusive breastfeeding).

More than nine in ten (92 percent) breastfeeding children under 6 months of age were breastfed at least six times in the 24 hours preceding the survey. On average, children are fed slightly more frequently during the night (about 6 times) than during the day (about 5 times). The frequency of breastfeeding varies only slightly by background characteristics.

Table 11.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under 6 months of age living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by selected background characteristics, Samoa 2009

	Median duration (months) of breastfeeding among children born in the past three years[1]			Frequency of breastfeeding among children under six months of age[2]			
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Predomi-nant breast-feeding[3]	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex							
Male	20.5	2.0	3.2	90.0	5.2	5.9	84
Female	22.4	2.7	2.9	93.5	5.0	6.4	72
Residence							
Urban	(14.9)	(5.1)	(5.1)	(93.4)	(5.7)	(7.2)	28
Rural	22.9	1.9	2.8	91.3	5.0	5.9	128
Total	21.9	2.3	3.0	91.6	5.1	6.1	156
Mean for all children	21.0	3.9	4.3	na	na	na	na

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey. Numbers in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding
[2] Excludes children without a valid answer on the number of times breastfed
[3] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

11.4 TYPES OF COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid foods to infants around the age of 6 months because by that age breast milk alone is no longer sufficient to maintain a child's optimal growth. To transition to eating the same food as the rest of the family, children from the age of 6 months forwards should be fed small quantities of solid and semi-solid foods throughout the day. During this transition period (age 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections caused by introduction of unhygienic feeding utensils and poor feeding practices. Cup feeding is recommended over bottle feeding when a child cannot suckle efficiently at the breast or if the child is receiving milk other than breast milk or formula.

Table 11.4 provides information on the types of foods given to the youngest children under 3 years of age, living with their mother, on the day and night preceding the interview, and according to breastfeeding status. Overall, 75 percent of breastfeeding children under age 3 received solid or semi-solid foods in the day or night preceding the interview. The most common complementary foods are meat, fish, poultry, and eggs; fruits and vegetables rich in vitamin A (63 percent each); foods made from grains (61 percent); foods made from roots and tubers (58 percent); and fruits and vegetables other than those rich in vitamin A (31 percent). Consumption of anything cooked with oil, fat, coconut cream, or butter generally begins at 4-5 months (19 percent), increasing to 58 to 60 percent at 18-35 months. A quarter of breastfeeding children under age 3 years consumed sugary foods.

Table 11.4 also shows that more than nine in ten (92 percent) non-breastfeeding children under age 3 received solid or semi-solid foods in the day and night preceding the interview, indicating that consumption of complementary foods is generally higher among non-breastfeeding children than among breastfeeding children (92 versus 75 percent). Eighty-three percent of non-breastfeeding children ate fruits and vegetables rich in vitamin A in the preceding day or night, 81 percent were given foods made from grains, and 80 percent consumed food made from roots and tubers. Additionally, about eight in ten (79 percent) children under 3 years of age were given meat, fish, poultry, or eggs the previous day or night; and four in ten (43 percent) ate fruits and vegetables other than those rich in vitamin A. Over half of non-breastfeeding children (51 percent) under 3 years consumed food made with oil, fat, coconut cream, or butter, while four in ten (41 percent) ate sugary foods.

Table 11.4 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under 3 years of age who are living with the mother, by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Samoa 2009

	Liquids			Solid or semi-solid foods											
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vegetables rich in vitamin A[4]	Other fruits and vegetables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry, and eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Food made with oil, fat, coconut cream or butter	Sugary foods	Number of children
BREASTFEEDING CHILDREN															
0-1	13.8	14.0	15.2	0.0	8.5	13.1	10.0	13.1	3.5	14.6	0.0	14.6	7.6	4.7	51
2-3	12.6	18.1	6.0	0.0	5.7	5.6	1.9	6.1	0.0	12.1	0.0	12.1	4.3	1.7	54
4-5	15.8	19.7	24.5	7.7	33.8	30.8	10.7	22.4	8.9	31.7	8.9	43.1	19.0	13.0	63
6-8	10.7	20.3	44.0	21.1	62.9	67.1	23.4	53.6	8.7	53.2	7.4	85.4	27.4	23.5	68
9-11	11.1	25.4	55.8	22.1	80.7	84.6	32.9	67.6	10.6	61.2	9.9	92.2	33.1	21.5	72
12-17	8.9	22.3	82.7	23.9	83.7	77.4	42.8	82.8	17.4	89.2	13.0	97.5	53.1	29.0	114
18-23	4.5	25.6	87.2	29.0	81.1	85.3	48.4	75.8	26.1	88.9	15.0	97.0	60.4	42.0	75
24-35	16.9	26.4	91.2	31.8	76.3	89.1	45.8	90.5	25.8	93.8	13.3	100.0	58.2	48.0	93
6-23	8.8	23.3	69.8	24.1	78.2	78.6	37.9	71.8	16.1	75.6	11.6	93.7	45.1	29.2	329
Total	11.6	22.1	57.8	19.3	60.5	62.8	30.5	58.4	14.3	62.7	9.5	75.0	37.4	25.8	591
NON-BREASTFEEDING CHILDREN															
6-23	33.8	46.2	79.1	32.9	81.4	85.1	43.1	79.5	16.3	77.6	19.8	92.6	45.9	41.3	104
12-23	28.8	42.6	84.1	30.7	84.4	89.4	47.0	85.3	19.3	81.8	20.1	97.3	49.2	44.6	76
24-35	17.2	25.5	92.7	32.7	86.2	88.6	46.9	87.6	21.5	88.6	18.5	97.8	61.8	42.7	107
Total	27.2	37.0	82.4	31.5	80.8	83.3	42.8	80.1	18.0	79.3	18.1	92.0	51.2	40.6	222

Note: Breastfeeding status and food consumed refer to a 24-hour" period (yesterday and last night)
[1] Other milk includes fresh, tinned, and powdered animal milk
[2] Doesn't include plain water
[3] Includes fortified baby food
[4] Includes pumpkin, carrots, squash, breadfruit (that are yellow or orange inside), Chinese cabbage, pele leaves, other dark green leafy vegetables, paw-paw, mango, orange, and ripe breadfruit

11.5 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods at age 6 months and increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding. Guidelines have been established with respect to IYCF practices for children age 6-23 months (PAHO/WHO, 2003; WHO, 2005).

Table 11.5 presents the results of the 2009 SDHS according to IYCF practices for breastfed and non-breastfed children living with their mother. The indicators focus on the percentage of children for whom feeding practices meet minimum standards with respect to—

- Food diversity (i.e., the number of food groups consumed)
- Feeding frequency (i.e., the number of times a child is fed)
- Consumption of breast milk or other milks or milk products

Breastfed children are considered fed in accordance with the minimum IYCF standards if they consume at least three food groups[1] and receive foods other than breast milk at least twice per day in the case of children age 6-8 months and at least three times per day in the case of children age 9-23 months. Non-breastfed children are considered to be fed in accordance with the minimum IYCF standards if they consume milk or milk products, are fed from four food groups (including milk products), and are fed at least four times per day.

Table 11.5 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices by breastfeeding status, number of food groups consumed, and number of times they were fed during the day and night preceding the survey; by background characteristics; Samoa 2009

	Among breastfed children 6-23 months, percentage fed:			Number of breast-fed children 6-23 months	Among all children 6-23 months, percentage fed:				Number of all children 6-23 months
Background characteristic	3+ food groups[1]	Minimum times or more[2]	Both 3+ food groups and minimum times or more		Breast milk or milk products[3]	3+ or 4+ food groups[4]	Minimum times or more[5]	With all 3 IYCF practices	
Age									
6-8	61.4	62.7	47.0	68	95.4	59.9	56.1	41.9	82
9-11	77.1	53.5	44.8	72	94.3	75.5	50.7	41.5	86
12-17	81.2	51.1	45.6	114	89.0	79.6	41.8	34.3	160
18-23	89.4	56.4	54.0	75	83.6	82.6	51.7	44.8	105
Sex									
Male	83.9	55.8	49.0	155	91.2	79.3	48.5	41.3	205
Female	72.9	54.7	46.4	174	88.8	72.6	48.8	38.3	229
Residence									
Urban	(74.6)	(68.1)	(58.2)	42	91.7	74.3	63.0	50.6	59
Rural	78.6	53.3	46.1	288	89.7	76.0	46.4	38.0	375
Region									
Apia Urban Area	(74.6)	(68.1)	(58.2)	42	91.7	74.3	63.0	50.6	59
North West Upolu	86.0	60.7	55.9	92	89.3	84.9	53.4	46.6	131
Rest of Upolu	77.7	46.5	41.5	109	90.3	74.4	37.8	32.7	139
Savaii	71.9	54.2	41.4	87	89.3	67.2	49.2	34.3	105
Mother's education									
Primary or less	*	*	*	10	*	*	*	*	14
Secondary incomplete	78.0	53.3	46.0	217	91.3	77.2	49.0	39.5	265
Secondary complete	80.3	64.6	53.9	65	87.6	75.6	49.6	41.3	95
Vocational/ higher	(71.3)	(48.3)	(45.1)	37	88.9	71.4	44.7	38.3	60
Wealth quintile									
Lowest	76.8	50.1	40.8	87	94.9	76.7	47.8	38.9	100
Second	77.7	63.2	52.5	57	83.7	71.9	51.1	40.0	79
Middle	80.4	59.5	54.0	86	91.2	81.4	56.5	45.5	105
Fourth	83.0	45.5	40.2	56	86.4	75.7	32.9	28.1	80
Highest	(70.1)	(59.2)	(51.9)	42	92.1	70.5	53.7	45.3	69
Total	78.1	55.2	47.6	329	89.9	75.8	48.7	39.7	433

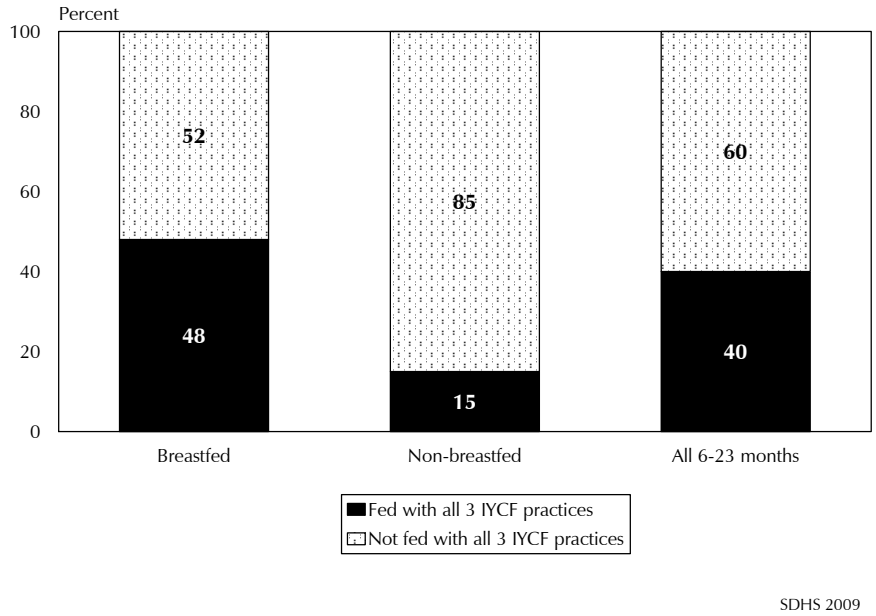
Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Food groups: (a) infant formula, milk other than breast milk, cheese, or yogurt or other milk products; (b) foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; (c) vitamin A-rich fruits and vegetables; (d) other fruits and vegetables; (e) eggs; f) meat, poultry, fish, and shellfish (and organ meats); (g) legumes and nuts;(h) foods made with oil, fat, or butter.
[2] At least twice a day for breastfed infants age 6-8 months and at least three times a day for breastfed children age 9-23 months
[3] Includes commercial infant formula, fresh, tinned, and powdered animal milk, and cheese, yogurt and other milk products
[4] 3+ food groups for breastfed children and 4+ food groups for non-breastfed children
[5] Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for non-breastfed children

[1] Food groups used in the assessment of minimum standard of feeding practices include: infant formula, milk other than breast milk, cheese or yogurt or other milk products; foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; fruits and vegetables rich in vitamin A; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); beans, peas, and nuts; and foods made with oil, fat, or butter.

Among breastfed children age 6-23 months, almost eight in ten (78 percent) were given foods from three or more food groups in the 24 hours preceding the survey, and more than half (55 percent) were fed the minimum number of times in the past 24 hours. About half of breastfed children age 6-23 months (48 percent) fall into both categories; that is, their feeding practices meet minimum standards with respect to food diversity and feeding frequency. The proportion of breastfed children age 6-23 months who receive the recommended variety of foods the minimum number of times a day increases with children's age, from 47 percent among children age 6-8 months to 54 percent among those age 18-23 months. There are slight variations in the proportion of breastfed children who meet both criteria by sex of child. However, the differentials by urban-rural residence and by region are larger. Urban children are more likely than rural children to be fed in accordance with the minimum IYCF standards (58 compared with 46 percent). The percentage of breastfed children who are fed from three or more food groups the minimum number of times a day is 56 percent in North West Upolu region and 58 percent in the Apia Urban Area, compared with 41 percent in the Savaii and 42 percent in the Rest of Upolu regions. There is no clear pattern in the proportion of breastfed children who meet the IYCF criteria by mother's level of education and household wealth quintile.

Among non-breastfed children age 6-23 months, 58 percent are given milk or milk products, 69 percent are given food from at least four food groups, and 28 percent are fed four or more times per day (data not shown separately). Figure 11.2 shows that only about one in seven (15 percent) of non-breastfed children are fed in accordance with all three IYCF practices. Appropriate feeding practices are more common for breastfed children than for non-breastfed children (48 and 15 percent, respectively).

Figure 11.2 Infant and Young Child Feeding Practices



The results in Table 11.5 and Figure 11.2 indicate that a majority of young children in Samoa are not being fed appropriately. Overall, feeding practices meet the minimum standards for only 40 percent of children age 6-23 months. The most common problem with feeding practices is inadequate number of feedings; less than half (49 percent) of all children are fed the minimum number of times. Approximately nine in ten (90 percent) of all children age 6-23 months receive breast milk or milk products, and three-quarters (76 percent) receive foods from the recommended number of food groups for their age.

Children age 18-23 months (45 percent) are the most likely to be fed according to all three IYCF practices, and those age 12-17 months (34 percent) are the least likely to be fed according to IYCF practices. There is very little difference in feeding practices between girls (38 percent) and boys (41 percent). Children living in rural areas are less likely than urban children to be fed appropriately (38 and 51 percent, respectively). Among regions, the percentage of children who are fed appropriately is highest in Apia Urban Area (51 percent) and lowest in the Rest of Upolu and Savaii (33 and 34 percent, respectively). The relationship between the proportion of children who are fed appropriately and mother's level of education and household wealth quintile does not show a clear pattern.

Compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the proportion of all children age 6-23 months who receive the recommended variety of foods the minimum number of times a day in **Samoa** (40 percent in 2009) is almost the same as in **Nauru** (38 percent in 2007) and in the **Solomon Islands (**37 percent in 2006-07), higher than in **Tuvalu** (33 percent in 2007)**,** but lower than in the **Marshall Islands (**55 percent in 2007).

11.6 Micronutrient Intake among Children

Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation. Table 11.6 shows indicators used to measure children's intake of several key micronutrients.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency can cause eye damage. Vitamin A deficiency can also increase the severity of infections such as measles and diarrhoeal diseases in children and slow recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, mangoes, papayas, carrots, pumpkins, yellow-orange sweet potatoes, and dark green, leafy vegetables. The liver can store an adequate amount of the vitamin for 4-6 months. Periodic dosing (usually every 6 months) with vitamin A supplements is one method of ensuring that children at risk do not develop vitamin A deficiency. There is currently no routine vitamin A supplementation of children in place in Samoa.

Iron is essential for cognitive development. Low iron intake can also contribute to anaemia. Iron requirements are greatest between the ages of 6 and 12 months, when growth is extremely rapid. The 2009 SDHS collected information on the consumption of foods rich in vitamin A and foods rich in iron.

Table 11.6 shows that more than nine in ten (92 percent) children age 6-35 months living with their mother consumed foods rich in vitamin A in the 24 hours preceding the survey, and more than eight in ten (81 percent) consumed foods rich in iron. There is a steady increase with age in the proportion of children who eat foods rich in vitamin A and iron, from 74 percent of children 6-8 months to 97 percent of those age 24-35 months for foods rich in vitamin A and from 53 percent of children 6-8 months to 91 percent of those age 24-35 months for foods rich in iron. Male children (82 percent) are slightly more likely to have consumed foods rich in iron than female children (80 percent). Children who are not breastfeeding are slightly more likely to consume foods rich in vitamin A (94 percent) and iron (84 percent) compared with their breastfeeding counterparts (91 and 80 percent, respectively), presumably because they are older than breastfeeding children. Children born to the youngest mothers (age 15-19 at birth) are somewhat less likely to consume vitamin A-rich foods or iron-rich foods (82 and 71 percent, respectively) compared with those born to older women. Consumption of foods rich in vitamin A or iron is just slightly higher among children in rural areas than among children in urban areas. Consumption of vitamin A-rich foods is higher among children in the Savaii and North West Upolu regions (95 and 94 percent, respectively) than those in the Apia Urban Area and Rest of Upolu (89 and 88 percent, respectively). Similarly, consumption of iron-rich foods is also highest in the Savaii and North West Upolu regions. Consumption of vitamin A or iron-rich foods among children age 6-35 months is not clearly related to mother's levels of education or wealth quintile.

Table 11.6 Micronutrient intake among children

Among youngest children age 6-35 months who are living with their mother, the percentages who consumed iron-rich foods in the day or night preceding the survey, and among all children 6-59 months, the percentages who were given iron supplements in the past seven days, and the percentages who were given de-worming medication in the six months preceding the survey, by background characteristics, Samoa 2009

	Among youngest children age 6-35 months living with the mother:			Among all children age 6-59 months:		
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage given iron supplements in past 7 days	Percentage given de-worming medication in past 6 months[3]	Number of children
Age in months						
6-8	74.0	53.1	82	3.3	3.5	86
9-11	86.7	64.2	86	5.9	4.4	89
12-17	95.2	86.2	160	5.2	5.8	182
18-23	95.0	88.2	105	10.3	5.0	150
24-35	96.9	91.0	200	5.8	6.9	314
36-47	na	na	na	10.5	10.0	294
48-59	na	na	na	10.4	7.8	292
Sex						
Male	91.8	82.0	304	7.6	6.5	696
Female	91.8	79.7	329	8.3	7.5	712
Breastfeeding status						
Breastfeeding	90.9	79.6	422	8.1	6.5	518
Not breastfeeding	94.1	84.0	206	7.9	6.5	810
Missing	*	*	5	7.8	14.7	80
Mother's age at birth						
15-19	(81.6)	(70.5)	24	(3.0)	(6.5)	29
20-29	92.6	81.7	283	5.0	7.2	596
30-39	91.6	79.8	252	9.4	6.5	598
40-49	93.0	84.0	74	13.9	8.2	185
Residence						
Urban	89.3	78.2	105	7.7	5.1	256
Rural	92.3	81.3	528	8.1	7.4	1,153
Region						
Apia Urban Area	89.3	78.2	105	7.7	5.1	256
North West Upolu	94.2	82.2	192	11.4	8.2	427
Rest of Upolu	87.9	78.7	180	4.3	5.9	383
Savaii	95.0	83.1	157	8.0	8.2	343
Mother's education						
Primary or less	*	*	21	(23.2)	(21.8)	46
Secondary incomplete	91.9	81.3	379	9.5	7.6	860
Secondary complete	92.8	79.2	138	4.4	4.9	308
Vocational/ higher	89.2	81.8	95	3.6	4.0	194
Wealth quintile						
Lowest	91.1	78.6	138	11.6	6.5	308
Second	95.5	87.2	114	8.7	9.8	275
Middle	92.3	83.5	139	7.9	6.0	306
Fourth	93.4	78.2	124	6.6	8.0	279
Highest	86.6	76.5	118	4.2	4.6	240
Total	91.8	80.8	633	8.0	7.0	1,408

Note: Information on vitamin A and iron supplements and de-worming medication is based on the mother's recall. Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, squash, carrots, breadfruit (that are yellow or orange inside), dark green leafy vegetables, mango, paw-paw, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat, (including organ meat), fish, poultry, and eggs
[3] De-worming for intestinal parasites is commonly done for helminths and for schistosomiasis.

The 2009 SDHS collected information on iron supplementation among children age 6-59 months. Mothers were asked if in the past seven days their child had taken any iron syrup. The Samoan translation used in the questionnaire for 'iron syrup' was '*vai faatupu toto'*. As shown in Table 11.6, less than one in ten (8 percent) of all children age 6-59 months received an iron supplement in the seven days preceding the survey. Older children, those born to mothers in their forties, children living in the North West Upolu region, those whose mothers have primary or less education, and children in the lowest wealth quintile are more likely to receive iron supplementation than other children. However, these results must be interpreted with caution. There may have been some confusion over the term *vai faatupu toto*. Although this term literally means 'iron syrup', in some instances it also refers to the children's multivitamin syrup distributed by community nurses. Given the confusion over the term *vai faatupu toto*, the fact that iron syrup is only available in private pharmacies in Apia, and the lack of routine iron supplementation in place for children in Samoa, it is highly unlikely that all children being reported as having taken iron syrup actually did. As a result, the reported 8 percent of children who took iron supplementation is very likely an over-reported figure.

Compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the proportion of children age 6-59 months who received an iron supplement in the seven days preceding the survey in **Samoa** (8 percent in 2009) is similar to that in **Tuvalu** (8 percent in 2007), higher than in the **Solomon Islands (**4 percent in 2006-07) and in **Nauru** (1 percent in 2007), and much lower than in the **Marshall Islands (**32 percent in 2007**).**

Because intestinal worms can contribute to both anaemia and vitamin A deficiency, the 2009 SDHS collected information on whether children age 6-59 months had been given de-worming medication in the six months preceding the survey. Routine de-worming medication is not required by a child care protocol in Samoa. The results, shown in Table 11.6, indicate that only 7 percent of children age 6-59 months received de-worming medication in the six months preceding the survey. The proportion of children receiving de-worming medication ranges from 5 percent in the Apia Urban Area region to 8 percent in the North West Upolu and Savaii regions. With the exception of 22 percent of the children born to mothers with primary or less education, there is little variation by other background characteristics in the proportion of children given de-worming drugs in the past six months. However, only a small number of children were born to mothers with primary or low education, making the comparison less meaningful.

11.7 Foods Consumed by Mothers

The quality and quantity of foods consumed by mothers has a direct impact on their health and that of their children, especially the health of breastfeeding children. The 2009 SDHS included questions on the types of foods consumed by mothers of children under age 3 during the day and night preceding the interview. Table 11.7 shows the foods most commonly consumed in the preceding day or night by mothers with a child less than 3 years living with them. These foods include vitamin A-rich fruits and vegetables (96 percent); meat, fish, shellfish, poultry, and eggs (86 percent); fruits and vegetables that are not rich in vitamin A (76 percent); and foods made from grains (74 percent). Furthermore, about one-third of mothers consumed foods made from roots and tubers (32 percent) and foods made from legumes (33 percent), while one in five (19 percent) ate other solid or semi-solid foods. Foods cooked with oil, fat, coconut cream, or butter are eaten by more than two-thirds of mothers (68 percent), and sugary foods are consumed by four in ten mothers (40 percent).

Differences in consumption of these food groups by background characteristics are not large, although the consumption of most food groups is higher among women in urban areas than among those in rural areas, except for the consumption of foods made of legumes, where the opposite is true. Consumption of foods cooked with fat, oil, coconut cream, or butter is highest among Apia Urban Area residents (78 percent) compared with women in the Savaii region (59 percent). With a few exceptions (vitamin A-rich fruits and vegetables, other solid and semisolid food, and foods made of oil, fat, coconut cream, or butter), the consumption of each food type increases with level of education. Consumption of protein-rich foods is particularly high among women with vocational or

higher than secondary education (91 percent). Similarly, the consumption of each food type increases with household wealth quintile, except for consumption of vitamin A-rich fruits and vegetables and legumes, which does not vary much by wealth.

The findings indicate that only 22 percent of mothers consumed milk in the 24 hours preceding the interview. Women in urban areas (36 percent) are almost twice as likely to drink milk as women in rural areas (19 percent). At the regional level, the percentage of women drinking milk is highest in the Apia Urban Area (36 percent) and lowest in the Savaii region (12 percent). Seventy-one percent of women drank tea or coffee, and 77 percent drank other liquids.

Table 11.7 Foods consumed by mothers in the day or night preceding the interview

Among mothers age 15-49 with a child under age 3 years living with them, the percentage who consumed specific types of foods in the day or night preceding the interview, by background characteristics, Samoa 2009

				Solid or semi-solid foods										
	Liquids													
Background characteristic	Milk	Tea/ coffee	Other liquids	Foods made from grains	Foods made from roots/ tubers	Foods made from legumes	Meat/ fish/ shellfish/ poultry/ eggs	Cheese/ yogurt	Vitamin A-rich fruits/ vege-tables[1]	Other fruits/ vege-tables	Other solid or semi-solid food	Foods made with oil, fat, coconut cream or butter	Sugary foods	Number of women
Age														
15-19	(20.3)	(65.5)	(77.8)	(69.9)	(24.7)	(23.8)	(85.7)	(19.6)	(97.6)	(72.7)	(14.8)	(70.9)	(33.1)	38
20-29	20.8	72.3	76.6	74.3	33.0	33.6	84.0	21.1	94.5	74.6	17.0	65.2	43.2	385
30-39	23.4	73.6	76.2	73.0	34.2	34.0	88.9	26.1	96.9	79.6	21.0	70.7	39.5	305
40-49	21.1	61.8	79.4	73.9	24.6	29.6	81.0	20.7	95.6	73.8	19.0	65.0	31.0	86
Residence														
Urban	36.0	83.9	79.1	88.4	42.8	30.1	88.4	29.5	96.5	79.1	28.1	78.4	48.5	138
Rural	18.9	68.8	76.3	70.6	30.0	33.5	85.0	21.5	95.5	75.7	16.6	65.3	38.3	675
Region														
Apia Urban Area	36.0	83.9	79.1	88.4	42.8	30.1	88.4	29.5	96.5	79.1	28.1	78.4	48.5	138
North West Upolu	19.0	72.1	76.8	75.9	35.7	40.1	86.6	32.3	96.9	83.6	20.6	70.6	49.7	254
Rest of Upolu	24.8	69.8	73.8	71.2	28.5	24.3	84.8	17.0	93.5	69.6	15.4	64.5	31.6	226
Savaii	11.9	63.3	78.6	63.0	24.5	35.5	83.1	12.9	95.9	72.7	13.0	59.3	31.4	196
Education														
Primary or less	(17.0)	(66.0)	(69.5)	(65.7)	(22.9)	(28.3)	(86.6)	(11.2)	(100.0)	(75.6)	(19.6)	(76.7)	(29.5)	28
Secondary incomplete	20.0	69.8	76.6	69.9	31.5	33.0	84.4	21.5	95.3	74.1	16.9	66.5	36.4	474
Secondary complete	21.8	72.4	76.4	78.9	32.8	31.4	84.5	23.1	96.7	78.7	22.9	69.5	45.3	183
Vocational/ higher	29.4	77.0	79.7	81.3	36.1	35.5	91.4	30.5	94.6	81.2	18.4	66.3	48.6	127
Wealth quintile														
Lowest	17.6	64.7	75.0	58.5	25.5	34.3	83.2	18.6	95.6	73.1	14.2	63.9	33.7	176
Second	14.5	65.0	85.2	77.0	29.0	31.1	85.2	19.3	97.9	77.6	15.7	67.0	39.1	145
Middle	20.9	76.7	70.7	74.1	31.0	32.3	85.7	21.2	94.0	71.6	19.0	67.4	43.6	168
Fourth	25.4	72.2	80.1	78.0	36.0	31.3	86.9	21.2	95.7	80.2	18.2	69.0	36.2	165
Highest	30.3	78.2	74.2	82.2	39.8	35.3	87.1	34.4	95.4	79.6	26.0	70.6	48.3	158
Total	21.8	71.4	76.8	73.6	32.2	32.9	85.6	22.9	95.7	76.3	18.6	67.5	40.1	813

Note: Foods consumed in the past "24-hour" period (yesterday and last night). Numbers in parentheses are based on 25-49 unweighted cases.
[1] Includes pumpkin, carrots, squash and breadfruit (that are yellow or orange inside), Chinese cabbage, pele leaves, other dark green leafy vegetables, paw-paw, mango, orange, and ripe breadfruit.

11.8 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for them and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects the mother and infant against anaemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are

attributable to iron deficiency anaemia. Anaemia also results in an increased risk of premature delivery and low birth weight.

Table 11.8 presents a number of measures that are useful in assessing the extent to which women are receiving adequate intake of foods rich in vitamin A and iron, and the proportions who take iron and de-worming medications during pregnancy. The first two columns show the percentage of women with children under 3 years who reported that they consumed foods rich in vitamin A and iron during the 24-hour period before the interview. In Samoa, the great majority of mothers with young children appear to be consuming on a daily basis foods that are rich in vitamin A (98 percent) and iron (86 percent). There are no major variations in the percentage of mothers who consume vitamin A and iron-rich foods by background characteristics.

Table 11.8 Micronutrient intake among mothers

Among women age 15-49 with a child under age 3 years living with her, the percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey, and among mothers age 15-49 who during the pregnancy of the last child born in the 5 years prior to the survey, the percentage who suffered from night blindness, the percentage who took iron tablets for specific numbers of days, and the percentage who took de-worming medication, by background characteristics, Samoa 2009

	Among women with a child under three years living with her			Among women with a child born in the past five years								
				Percentage who suffered night blindness during pregnancy of last birth		Number of days women took iron tablets during pregnancy of last birth					Percentage of women who took de-worming medication during pregnancy of last birth[4]	
Background characteristic	Percentage who consumed vitamin-A rich foods[1]	Percentage who consumed iron-rich foods[2]	Number of women	Night blind-ness reported	Night blind-ness adjusted[3]	None	<60	60-89	90+	Don't know/ missing		Number of women
Age												
15-19	(97.6)	(85.7)	38	(5.2)	(2.3)	(43.4)	(50.6)	(0.0)	(4.6)	(1.4)	(2.3)	39
20-29	97.7	84.0	385	4.4	0.8	47.6	38.7	2.7	2.3	8.7	4.0	457
30-39	98.9	88.9	305	4.6	1.4	36.1	47.8	2.9	3.1	10.1	5.7	446
40-49	96.1	81.0	86	8.0	2.7	33.5	46.6	2.4	7.0	10.5	7.2	164
Residence												
Urban	98.4	88.4	138	5.5	1.6	43.4	37.7	1.3	2.5	15.1	2.5	190
Rural	97.9	85.0	675	4.9	1.4	40.2	45.3	2.9	3.6	8.1	5.6	916
Region												
Apia Urban Area	98.4	88.4	138	5.5	1.6	43.4	37.7	1.3	2.5	15.1	2.5	190
North West Upolu	98.8	86.6	254	6.2	2.0	41.7	45.6	3.7	4.3	4.6	4.7	342
Rest of Upolu	96.0	84.8	226	2.6	1.2	41.0	44.9	1.9	3.5	8.7	4.5	296
Savaii	99.0	83.1	196	5.8	0.7	37.4	45.2	2.9	2.8	11.6	8.0	277
Education												
Primary or less	(100.0)	(86.6)	28	(9.0)	(5.4)	(49.8)	(41.7)	(0.0)	(2.5)	(6.0)	(4.4)	39
Secondary incomplete	97.5	84.4	474	4.8	1.2	39.5	45.6	2.2	3.1	9.6	6.3	660
Secondary complete	99.4	84.5	183	6.1	2.2	42.3	44.5	3.4	3.3	6.5	3.2	251
Vocational/ higher	97.4	91.4	127	3.5	0.0	41.3	36.9	3.7	5.1	13.0	3.4	155
Wealth quintile												
Lowest	97.9	83.2	176	7.1	2.7	43.8	44.6	0.3	3.7	7.7	6.4	235
Second	98.5	85.2	145	4.1	1.9	41.0	46.0	3.1	0.8	9.2	4.6	220
Middle	96.8	85.7	168	4.8	0.5	37.0	45.9	3.3	3.9	9.8	4.3	234
Fourth	98.8	86.9	165	5.2	1.0	38.8	42.8	3.7	3.6	11.0	6.0	225
Highest	98.1	87.1	158	3.7	0.6	43.5	39.9	2.8	5.3	8.6	4.0	191
Total	98.0	85.6	813	5.0	1.4	40.7	44.0	2.6	3.4	9.3	5.1	1,105

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes meat (fresh, frozen, smoked or canned - including organ meats), fish, poultry, eggs, pumpkin, carrots, squash, breadfruit (that are yellow or orange inside), Chinese cabbage, pele leaves, other dark green leafy vegetables, paw-paw, mango, orange, and ripe breadfruit.
[2] Includes meat (fresh, frozen, smoked or canned - including organ meats), fish, poultry, eggs
[3] Women who reported night blindness but did not report difficulty with vision during the day
[4] De-worming for intestinal parasites is commonly done for helminths and for schistosomiasis

A mother's nutritional status during pregnancy is important both for the child's intrauterine development and for protection against maternal morbidity and mortality. Night blindness is an indicator of vitamin A deficiency that pregnant women are especially prone to experience. Table 11.8 shows that 5 percent of women with a child born in the past five years reported night blindness during pregnancy for the last birth. When the results were adjusted for blindness *not attributed to vitamin A deficiency during pregnancy*, only 1 percent of women experienced night blindness during their last pregnancy. There are no major variations in the adjusted percentage of women who reported night blindness by background characteristics.

Pregnant women are among the groups in greatest need of iron and are most likely to benefit from iron supplements. Iron requirements for pregnant women are approximately double those of non-pregnant women because of increased blood volume during pregnancy and blood loss during delivery. In Samoa, the health policy requires that only pregnant women who are anaemic (Hb < 11.0g/dl)[2] be provided with iron supplements. Table 11.8 presents data on the number of days that pregnant women in Samoa took iron supplementation in the form of tablets or syrup during the pregnancy leading to the most recent birth in the five years preceding the survey. Half of women took some form of iron supplementation during the pregnancy of their most recent birth, and among them, 44 percent reported taking supplements for less than 60 days. Only 3 percent of pregnant women take iron supplements for 90 days or more. Older women, women in the Savaii region, and women from the third and fourth wealth quintiles are more likely to have taken iron supplements during pregnancy than other women. The percentage of women who did not take any iron during pregnancy does not show a clear pattern by level of education or wealth quintile.

Compared with estimates from recent Demographic and Health Surveys conducted in South Pacific countries, the proportion of women who did not take iron tablets during pregnancy in **Samoa** (41 percent in 2009) is lower than in **Nauru** (61 percent in 2007), but higher than in the **Marshall Islands (**29 percent in 2007), and substantially higher than in the **Solomon Islands (**7 percent in 2006-07) and in **Tuvalu** (8 percent in 2007).

Only 5 percent of mothers said they took de-worming medication during their most recent pregnancy. The proportion is highest among women age 40-49 and those living in Savaii (7 and 8 percent, respectively).

11.9 Consumption of Fruits and Vegetables by Women and Men

The Ministry of Health is actively promoting healthy eating and a healthy lifestyle through nutrition promotion programmes, vegetable gardens, and other projects aiming to change the eating habits of Samoan people and to combat health problems associated with an increase in non-communicable diseases.

The Ministry of Health recommends eating at least 5 servings of fruits and vegetables on a daily basis, or at least 35 servings a week.

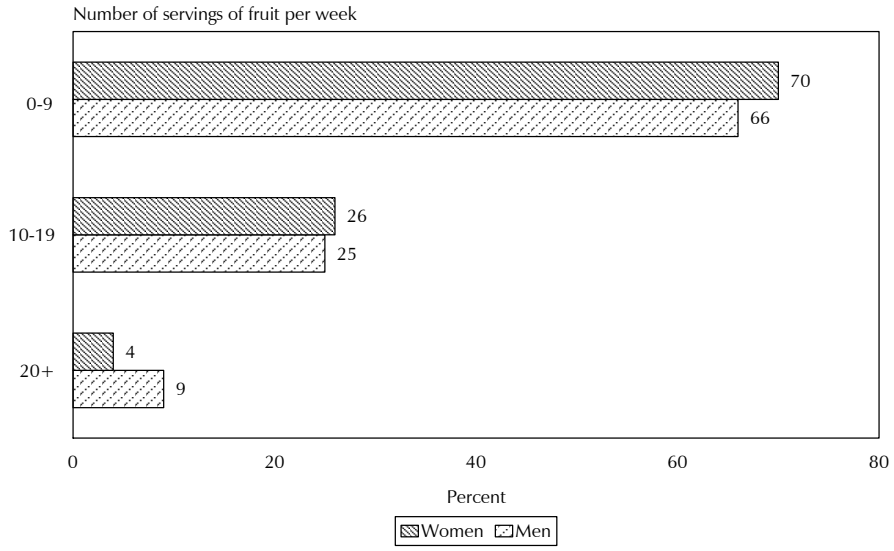
All women and men age 15-49 in the 2009 SDHS were asked: *How many servings of fruits/vegetables do you usually have in a week*? One serving of fruit was broadly defined to the respondents as 1/2 cup of fruits, while one serving of vegetables was defined as 1/2 cup of cooked vegetables or 1 cup of green salad.

[2] Government of Samoa, 2001. *Obstetric Care Protocols. Part of the Safe Motherhood Initiative* Apia, Samoa: World Health Organization.

Figure 11.3 shows the number of servings of fruit consumed weekly by women and men age 15-49. Data show that that the majority of women and men report low consumption of fruits; seven in ten women (70 percent) and two-thirds of men (66 percent) consume fewer than 10 servings of fruits a week; about one in four women and men typically have 10 to 19 servings of fruits a week. Only 9 percent of women and 4 percent of men consume 20 or more servings per week.

There are few differences in consumption of fruits by background characteristics of the respondents, except by region for men. Men in the Rest of Upolu region (20 percent) are more likely than other respondents to eat 20 or more servings of fruits per week (data not shown).

Figure 11.3 **Number of Servings of Fruit Consumed per Week by Women and Men Age 15-49**

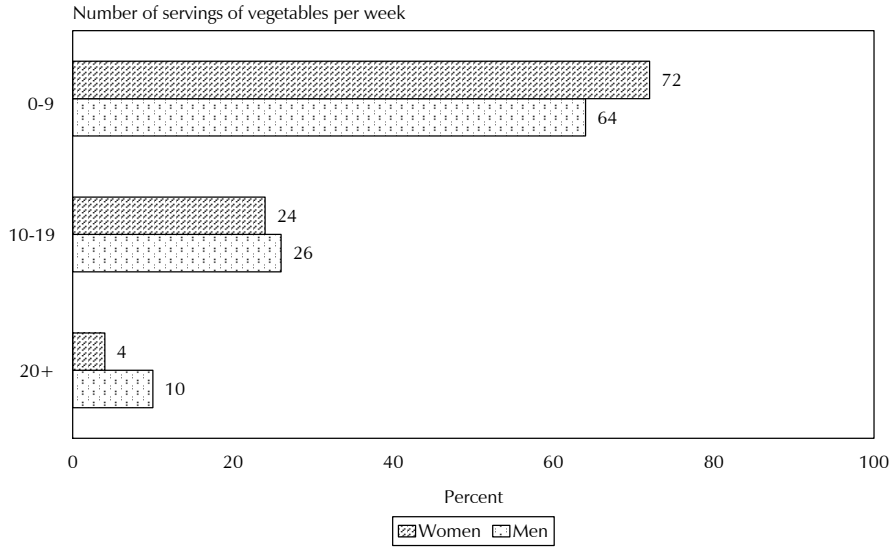


Note: 1 fruit serving = 1/2 cup of fruit

SDHS 2009

Figure 11.4 shows the number of servings of vegetables consumed weekly by women and men age 15-49. Reported consumption of vegetables per week is also low in Samoa. Seven-two percent of women and 64 percent of men consume less than 10 servings of vegetables a week, and about one in four consumes 10 to 19 servings a week. Overall, only 4 percent of women and 10 percent of men consume more than 20 servings of vegetables per week. There is little difference in consumption of vegetables by background characteristics for women. However, men in their mid- to-late thirties and forties, those residing in the Rest of Upolu region, those with secondary complete education, and those from the lowest wealth quintile are more likely to eat 20 or more servings of vegetables per week than other men (data not shown).

Figure 11.4 Number of Servings of Vegetables Consumed per Week by Women and Men Age 15-49

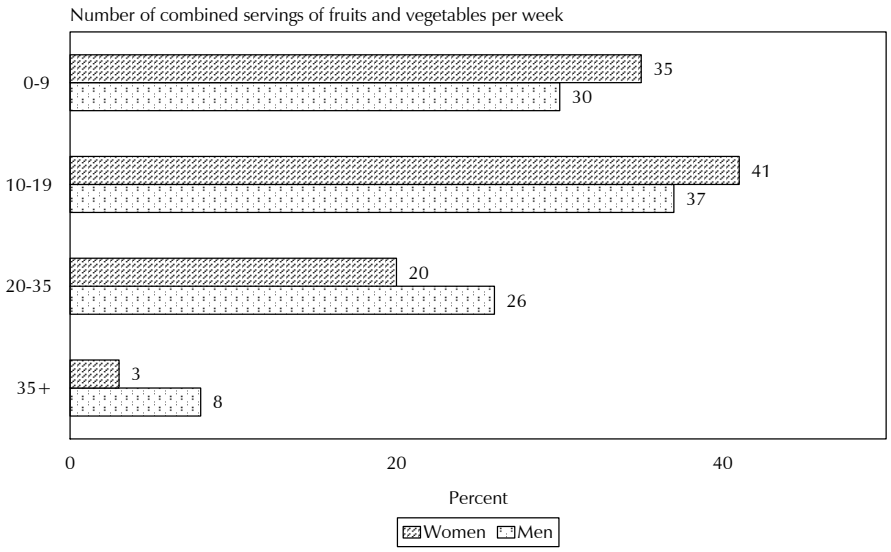


Note: 1 vegetable serving = 1/2 cup of cooked vegetables or 1 cup of green salad

SDHS 2009

Figure 11.5 shows the number of combined servings of fruits and vegetables consumed weekly by women and men age 15-49. About one-third of women and three in ten men consume fewer than 10 servings of vegetables a week; about four in ten women and men consume 10 to 19 servings a week; and one in five women and one in four men consume 20 to 35 servings of fruits and vegetables per week. Overall, only 3 percent of women and 8 percent of men consume more than the recommended 35 servings of fruits and vegetables per week. Among women, the consumption of recommended servings of fruits and vegetables per week is slightly higher among those age 35 or older, previously married women, those residing in urban areas, women with higher education, and those in the highest wealth quintile. Among men, it is highest for the age group 35-39, currently married men, men residing in the Rest of Upolu, and those with secondary complete education (data not shown).

Figure 11.5 Number of Combined Servings of Fruits and Vegetables Consumed per Week by Women and Men Age 15-49



Note: 1 fruit serving = 1/2 cup of fruit
1 vegetable serving = 1/2 cup of cooked vegetables or 1 cup of green salad

SDHS 2009

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

12

Acquired Immune Deficiency Syndrome (AIDS) was first recognised internationally in 1981, and the first case was diagnosed in Samoa in 1990. AIDS is caused by the human immunodeficiency virus (HIV), which compromises the body's immune system. People with HIV infection are more prone to opportunistic infections, and these infections, if left untreated, can ultimately lead to death.

The government of Samoa has adopted a multi-sectoral approach to ensure a comprehensive and unified response to HIV/AIDS. Collaborative national efforts have been guided by the 2001 HIV/AIDS National Plan of Action (The Samoa National AIDS Coordinating Council, 2001). This response will be further enhanced by the new HIV/AIDS National Policy and Plan of Action, 2009, once endorsed. The new national policy and action plan emphasise the need to collectively coordinate sectoral responses to minimise the effects of HIV in Samoa and to address weaknesses identified by the previous policy and plan.

Currently, the national response involves participation of entities at the local and national level, including the various government ministries, such as the Ministry of Women, Social, and Community Development; the non-governmental organisations (NGOs), such as the Samoa AIDS Foundation (SAF), the Samoa Family Health Association (SFHA), the civil society organisations (CSOs), the Samoa Red Cross Society (SRCS); the private sector; and the research and academic institutions.

These entities coordinate their responses, either under the oversight of the National AIDS Council (NAC) or through the Technical AIDS Committee (TAC), where issues pertaining to HIV prevention, treatment, and care are discussed. These two important bodies were formulated in the early 1990s when the first HIV case in Samoa was detected. Simultaneously, strategic directions and effective decision making are deliberated by these committees to enhance services provided by all sector partners and to find ways to strengthen responses to improve the health of the Samoan people.

Samoa is considered a low-HIV- prevalence country. The main route of transmission is via heterosexual contact between men and women, with some subsequent mother to child transmission associated as a result of this contact. Transmission via male to male sexual contact has also been identified. Injecting drug use remains negligible in Samoa, as in many other Pacific Island countries. This low prevalence, combined with standard precautions in health care settings, means that blood exposure is not an important mode of transmission in Samoa. Results from the 2008 Second Generation Surveillance Survey (MOH, 2008d) confirm that the prevalence of HIV in Samoa is very low, with 19 cases diagnosed and a cumulative incidence of 10.4 cases per population of 100,000 in 2008. The ratio of male to female infections is 2:1. Three cases of transmission from mother to child have been reported in Samoa. In 2009, a further three HIV cases were confirmed, increasing the total number of HIV cases in Samoa to 22. Of these cases, 14 persons are still alive (3 cases are paediatric), while 8 persons have died.

Various factors may have worked in favour of containing HIV prevalence in Samoa. A relatively high level of health promotion and protection programs and services offered by both the Samoan government and NGOs may have contributed to this containment. Another factor that may minimise the viral load and risk of infection in people living with HIV/AIDS is that the anti-retroviral therapy (ART) and other treatments for opportunistic infections are offered for free. Voluntary and confidential counselling and testing (VCCT) sites are available to encourage people to have an HIV test and to learn about their HIV status, thus improving their own chances of living longer and healthier lives and preventing further infection of others. The Global Fund to Fight AIDS, Tuberculosis, and Malaria has supported refurbishment of five additional VCCT sites around the

country, increasing access for persons presenting with symptoms of sexually transmitted infections (STIs) and/or risk of HIV. Other factors that may have contributed to low HIV prevalence in Samoa include the universal screening of blood products, standard precautions in health care settings, a low rate of injection drug use in the community, almost universal male circumcision of boys at about age 5 years, and possibly the relative geographic isolation of Samoa.

Challenges do nevertheless exist. The Second Generation Surveillance (SGS) surveys in Samoa have identified an extremely high prevalence of sexually transmitted infections (STIs) such as chlamydia, especially in young people under age 25. Rates of teenage pregnancy are also relatively high (see Chapter 4). Both of these factors indicate high levels of unprotected sex, especially in young people. Thus, if and where HIV is introduced to the population, there is potential for rapid and extensive spread.

Condom use rates in Samoa are generally low, mostly due to lack of awareness and access, and widespread acceptance of condoms. Religious leaders and other community gatekeepers are often not supportive of sex education programmes for young people and HIV prevention programmes that include condom promotion. Stigma and discrimination against people living with HIV/AIDS and against high-risk population groups, such as men who have sex with men, transgendered individuals (fafafine), and female sex workers, is high in the Samoan communities. In addition, there is often general fear about HIV/AIDS, as well as specific misconceptions about HIV/AIDS and how the infection is spread. These factors act as barriers, both to providing preventive services to people at high risk and to providing services to people who go for testing at VCCT sites, potentially leading HIV-infected individuals to infect others unknowingly.

The 2009 Samoa DHS can assist by providing useful population data on knowledge, attitudes, and behaviours about HIV/AIDS and associated risks. The SDHS collected a variety of information on HIV/AIDS-related knowledge, including social stigmatisation, misconceptions about HIV transmission, levels of exposure to messages via different media, and other findings**.** The principal objective of this chapter is to establish the level of relevant knowledge, perceptions, and behaviours at the national level and within geographic and socioeconomic sub-populations. Such information should go a long way toward better targeting of interventions for effective prevention, treatment, care, and support for those groups most in need of information and most at risk of HIV in Samoa.

12.1 KNOWLEDGE OF AIDS

Respondents to the 2009 SDHS were asked whether they had heard of AIDS. Those who reported having heard of AIDS were asked a series of questions about whether AIDS can be avoided and how. Table 12.1 shows the percent distribution of women and men, age 15-49, who have heard of AIDS, by background characteristics. Eighty-five percent of women and 87 percent of men have heard of AIDS, indicating that awareness of AIDS in Samoa is quite high. Knowledge of HIV/AIDS is somewhat less among women (82 percent) and men (81 percent) age 15-24 when compared with older respondents (86-93 percent). There are no major variations in the knowledge of HIV/AIDS by women's marital status, while among men, those who have never married (83 percent) have a lower level of knowledge than men who are currently married (91 percent) or previously married (96 percent). Among women, knowledge of HIV/AIDS ranges from 81 percent of women in the Rest of Upolu to 87 percent of women in the Apia Urban Area. Among men, it is lowest in the Rest of Upolu (79 percent) and highest in the North West Upolu region (91 percent). Awareness of AIDS increases with level of education. Ninety-five percent of women and 93 percent of men with vocational or higher than secondary education have heard about AIDS, compared with 63 percent of women and 77 percent of men with primary or less education. Similarly, women and men in the higher wealth quintiles are more likely to have heard of AIDS than are those in the lowest wealth quintiles.

Table 12.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Samoa 2009

Background characteristic	Women		Men	
	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men
Age				
15-24	81.8	1,033	80.7	478
15-19	80.0	560	74.1	269
20-24	83.8	474	89.3	209
25-29	86.0	375	93.3	168
30-39	85.6	666	92.0	314
40-49	87.3	583	88.9	260
Marital status				
Never married	83.5	971	82.8	619
Married/living together	85.0	1,554	91.4	573
Divorced/separated/widowed	86.3	132	(95.9)	28
Residence				
Urban	87.4	548	87.2	211
Rural	83.8	2,109	87.1	1,009
Region				
Apia Urban Area	87.4	548	87.2	211
North West Upolu	85.2	907	90.8	439
Rest of Upolu	80.8	597	78.8	279
Savaii	84.6	605	89.4	291
Education				
Primary or less	63.3	132	77.0	158
Secondary incomplete	81.9	1,598	86.1	670
Secondary complete	89.7	519	93.3	187
Vocational/higher	95.2	408	92.6	206
Wealth quintile				
Lowest	77.8	472	84.0	209
Second	83.2	516	83.4	226
Middle	82.6	557	91.4	274
Fourth	85.6	555	86.9	264
Highest	92.4	558	88.7	248
Total 15-49	84.5	2,657	87.1	1,220
50-54	na	na	82.4	87
Total 15-54	na	na	86.8	1,307

Note: Numbers in parentheses are based on 25-49 unweighted cases
na = Not applicable

12.2 KNOWLEDGE OF HIV PREVENTION METHODS

In Samoa, HIV infection in adults is mainly transmitted by heterosexual contact between a partner who is HIV positive and a partner who is HIV negative. Consequently, HIV prevention programmes focus their messages and efforts on three important aspects of behaviour: using condoms, limiting the number of sexual partners or staying faithful to one partner, and delaying sexual debut for young persons (abstinence).

To ascertain whether programmes have effectively communicated these messages, the 2009 SDHS respondents were specifically asked if people can reduce their chances of getting the AIDS virus by using a condom every time they have sex, by having just one HIV-negative sexual partner who has no other sexual partners, and by not having sexual intercourse at all. Table 12.2 shows that

58 percent of women and 66 percent of men age 15-49 know that consistent use of condoms is a means of preventing the spread of HIV. Furthermore, 77 percent of women and 84 percent of men know that limiting sexual intercourse to one HIV-negative and faithful partner can reduce the chances of contracting HIV infection. The proportion of men who said that people can reduce the risk of getting the AIDS virus by using condoms and limiting sex to one HIV-negative partner is higher (64 percent) than that of women (56 percent). Fifty-two percent of women and 63 percent of men age 15-49 know that abstinence is a way to reduce the risk of getting HIV. Thus, knowledge is higher among men than women for each of the three specified prevention methods.

Table 12.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Samoa 2009

	Percentage of women who say HIV can be prevented by					Percentage of men who say HIV can be prevented by				
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms, and limiting sexual intercourse to one uninfected partner[1,2]	Abstaining from sexual intercourse	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms, and limiting sexual intercourse to one uninfected partner[1,2]	Abstaining from sexual intercourse	Number of men
Age										
15-24	53.0	72.2	49.3	45.8	1,033	56.3	76.0	54.5	53.7	478
15-19	47.5	68.0	43.4	40.0	560	48.5	69.0	46.5	46.1	269
20-24	59.4	77.2	56.2	52.6	474	66.4	84.9	64.7	63.6	209
25-29	59.8	80.4	58.2	54.0	375	73.6	91.7	72.5	65.6	168
30-39	61.7	79.1	60.2	54.2	666	73.3	90.1	71.9	68.9	314
40-49	61.5	82.0	59.8	60.2	583	68.9	86.0	68.2	69.4	260
Marital status										
Never married	51.5	72.5	47.3	47.3	971	58.8	77.9	56.8	54.4	619
Married/living together	61.4	79.7	60.1	55.0	1,554	72.7	89.8	71.9	71.1	573
Divorced/separated/ widowed	65.7	82.8	63.6	55.5	132	(76.2)	(95.9)	(76.2)	(69.9)	28
Residence										
Urban	53.9	81.6	50.9	51.4	548	59.1	83.5	57.7	53.3	211
Rural	59.1	76.1	56.8	52.4	2,109	67.1	84.0	65.8	64.5	1,009
Region										
Apia Urban Area	53.9	81.6	50.9	51.4	548	59.1	83.5	57.7	53.3	211
North West Upolu	65.8	79.5	63.3	58.7	907	65.9	89.1	64.5	63.6	439
Rest of Upolu	49.5	68.0	46.8	51.0	597	66.9	72.0	64.7	65.3	279
Savaii	58.4	78.9	56.9	44.4	605	69.2	87.9	68.7	65.2	291
Education										
Primary or less	39.6	56.6	37.0	40.2	132	51.5	68.3	48.6	50.4	158
Secondary incomplete	55.9	73.8	53.7	49.0	1,598	64.7	83.9	63.7	61.8	670
Secondary complete	62.4	84.0	60.4	57.2	519	74.8	88.9	72.5	70.6	187
Vocational/higher	66.5	88.5	62.7	62.5	408	71.9	91.5	71.2	67.2	206
Wealth quintile										
Lowest	55.3	67.9	52.1	42.9	472	58.7	82.1	58.7	63.0	209
Second	57.8	77.0	56.0	51.7	516	59.3	79.3	57.4	55.1	226
Middle	58.3	77.5	56.7	53.3	557	70.5	86.5	68.5	67.7	274
Fourth	58.1	77.3	55.5	53.6	555	70.3	85.9	70.3	65.7	264
Highest	60.0	85.0	57.0	58.1	558	67.3	84.7	64.6	60.1	248
Total 15-49	58.0	77.2	55.6	52.2	2,657	65.7	83.9	64.4	62.6	1,220
50-54	na	na	na	na	na	53.0	80.2	53.0	65.5	87
Total men 15-54	na	na	na	na	na	64.9	83.7	63.6	62.8	1,307

Note: Numbers in parentheses are based on 25-49 unweighted cases
na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Among both women and men, knowledge of each of the HIV prevention methods is lowest for the youngest age group (age15-19). Awareness of HIV prevention methods by marital status shows that women and men who have never married are the least likely to report knowledge of ways to prevent the transmission of HIV. Among women, knowledge of condoms and abstinence is somewhat higher among rural than urban women, while knowledge about limiting sexual intercourse to one uninfected partner is higher among urban than rural women. Among men, the knowledge of each of the methods is higher for rural than for urban men for each of the specified methods. Knowledge of HIV prevention methods among women is lowest among those residing in the Rest of Upolu region, while for men the pattern of variation by region is not uniform. Respondents with secondary complete or higher education are the most likely to have knowledge of HIV prevention methods compared with those having less education. Among women, those in the highest wealth quintile have the highest level of awareness of HIV prevention methods, and women in the lowest quintile have the lowest level of awareness. For men, there is clear variation in the relationship of knowledge about HIV prevention methods and wealth.

12.3 Beliefs about AIDS

In addition to knowing about effective ways to avoid contracting HIV infection, it is also useful to be able to identify incorrect beliefs about AIDS to eliminate misconceptions. Misconceptions about AIDS and HIV transmission are among the factors that result in discrimination and stigmatisation. The 2009 SDHS included questions on common misconceptions about HIV/AIDS. Misconceptions about AIDS in Samoa include the idea that HIV-positive people always appear ill, the belief that the virus cannot be transmitted by sharing a needle or syringe that has already been used, and the belief that it can be transmitted by mosquito bites, by sharing food or saliva with someone who is HIV positive, and by witchcraft and other supernatural means. Some believe that HIV can be transmitted only by gay men and only by drag queens (faafafines). Respondents were asked about these misconceptions, and the results are presented in Tables 12.3.1 and 12.3.2 for women and men, respectively.

The results in Tables 12.3.1 and 12.3.2 indicate that only about four in ten women (42 percent) and six in ten men (61 percent) know that a healthy-looking person can have the AIDS virus. Over two-thirds of respondents are aware that the AIDS virus cannot be transmitted through mosquito bites. Overall, about three-quarters of women (75 percent) and eight in ten men (78 percent) correctly believe that the AIDS virus can be transmitted by sharing a needle or syringe that has already been used, or that HIV infection cannot be transmitted only from gay men and/or drag queens (72 percent of women and 79 percent of men). About half of women (49 percent) and men (55 percent) correctly believe that HIV cannot be transmitted by supernatural means. About one in three women (33 percent) and about four in ten men (39 percent) know that the AIDS virus cannot be contracted by sharing food with a person who has AIDS. Only about one-quarter of women (23 percent) and men (24 percent) know that the AIDS virus cannot be transmitted through mosquito bites, and about three in ten (27 percent of women and 32 percent of men) know that HIV cannot be transmitted by the saliva of a person who has HIV or AIDS.

Tables 12.3.1 and 12.3.2 provide an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge is defined as (1) knowing that both condom use and limiting sexual partners to one HIV-negative person are HIV/AIDS prevention methods, (2) being aware that a healthy-looking person can have HIV, and (3) rejecting the two most common local misconceptions. As seen from the 2009 SDHS results, the two most common local misconceptions in Samoa are that the AIDS virus can be transmitted through mosquito bites and it can be transmitted by the saliva of a person who has HIV or AIDS. Only a very small proportion of the SDHS respondents, 4 percent of women and 7 percent of men age 15-49, have comprehensive knowledge of HIV/AIDS prevention and transmission.

Comprehensive knowledge about AIDS is lowest among the youngest respondents, age 15-19, those living in rural areas, and respondents residing in the Rest of Upolu and the Savaii regions.

Table 12.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and that a person can get the AIDS virus by sharing a needle or syringe that has already been used, and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Samoa 2009

	Percentage of respondents who say that:									
Background characteristic	A healthy-looking person can have the AIDS virus	A person can get the AIDS virus by sharing a needle or syringe that has already been used	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS	A person cannot get the AIDS virus from the saliva of a person who has HIV or AIDS	HIV cannot be get only by gay men and/or faafafines (drag queens)	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of women
Age										
15-24	38.7	70.9	22.3	44.5	33.1	25.7	68.9	4.4	3.0	1,033
15-19	36.1	67.7	22.0	44.5	32.7	27.5	65.4	3.8	2.0	560
20-24	41.8	74.8	22.6	44.5	33.7	23.5	73.0	5.3	4.1	474
25-29	43.9	78.6	24.0	53.7	32.7	27.5	74.9	6.7	5.0	375
30-39	45.3	76.4	24.5	51.4	30.8	26.8	74.1	7.0	4.7	666
40-49	43.0	79.9	23.8	49.9	36.1	28.4	74.4	5.4	4.0	583
Marital status										
Never married	42.0	71.7	23.3	47.3	34.9	27.1	69.5	5.0	3.2	971
Married/living together	42.4	77.3	23.4	50.0	32.4	26.6	73.8	5.9	4.4	1,554
Divorced/separated/ widowed	38.3	80.0	24.4	44.5	29.1	27.9	74.0	6.5	3.8	132
Residence										
Urban	44.8	79.7	28.6	56.9	46.8	34.7	81.1	8.1	5.6	548
Rural	41.3	74.2	22.1	46.6	29.6	24.8	69.9	5.0	3.5	2,109
Region										
Apia Urban Area	44.8	79.7	28.6	56.9	46.8	34.7	81.1	8.1	5.6	548
North West Upolu	49.6	77.8	17.5	44.1	29.8	18.9	68.1	5.5	4.5	907
Rest of Upolu	31.3	66.3	21.7	46.6	25.3	34.1	64.5	3.9	2.5	597
Savaii	38.8	76.8	29.2	50.4	33.5	24.4	78.0	5.2	3.0	605
Education										
Primary or less	24.6	54.1	14.9	32.2	20.8	19.2	49.5	2.4	2.4	132
Secondary incomplete	38.5	72.4	21.1	45.4	28.2	24.8	68.9	4.3	2.6	1,598
Secondary complete	48.0	81.4	24.3	53.3	36.3	25.8	77.6	5.9	4.7	519
Vocational/higher	53.9	86.2	34.1	61.4	52.6	38.6	85.8	11.6	8.5	408
Wealth quintile										
Lowest	36.1	67.2	21.4	45.4	27.4	23.7	65.5	4.2	3.0	472
Second	45.5	73.0	19.3	39.8	25.2	20.5	67.8	4.6	3.3	516
Middle	40.8	76.6	22.0	49.0	32.4	25.9	71.0	5.0	3.9	557
Fourth	39.2	75.5	23.0	47.4	33.7	27.8	72.9	5.2	3.2	555
Highest	47.9	83.1	30.8	60.8	45.5	35.3	82.6	8.8	6.0	558
Total 15-49	42.0	75.4	23.4	48.7	33.1	26.8	72.2	5.6	3.9	2,657

[1] Two most common local misconceptions: 'AIDS can be transmitted by mosquito bites' and 'A person can get AIDS from the saliva of a person who has HIV/AIDS'

[2] Comprehensive knowledge means knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Education and wealth status are directly related to correct knowledge about common misconceptions about AIDS and comprehensive knowledge of HIV/AIDS prevention and transmission. Among men, for example, 13 percent of men with vocational or higher than secondary education have comprehensive knowledge about prevention and transmission of HIV/AIDS, compared with just 2 percent of men with less than primary education. Similarly, among women, the level of comprehensive knowledge is 9 percent among women with vocational or higher than secondary education compared with 2 percent among women with primary or less education. Looking at wealth status, 3 percent of women in the lowest two quintiles have comprehensive knowledge about AIDS compared with 6 percent of women in the highest wealth quintile. Similar patterns are observed among men.

Table 12.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and that a person can get the AIDS virus by sharing a needle or syringe that has already been used, and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Samoa 2009

	Percentage of respondents who say that:									
Background characteristic	A healthy-looking person can have the AIDS virus	A person can get the AIDS virus by sharing a needle or syringe that has already been used	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS	A person cannot get the AIDS virus from the saliva of a person who has HIV or AIDS	HIV cannot be get only by gay men and/or faafafines (drag queens)	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local miscon-ceptions[1]	Percentage with a compre-hensive knowledge about AIDS[2]	Number of men
Age										
15-24	54.2	68.3	21.7	50.8	35.1	28.8	72.1	6.6	5.8	478
15-19	49.6	59.3	20.1	45.1	28.6	23.6	64.0	5.4	4.6	269
20-24	60.1	80.0	23.8	58.1	43.4	35.5	82.5	8.3	7.4	209
25-29	66.1	85.1	25.0	60.6	40.1	38.3	85.5	8.5	6.1	168
30-39	65.6	83.7	26.6	59.7	44.4	36.1	84.5	12.3	9.7	314
40-49	64.1	81.9	23.5	54.9	38.0	26.3	82.6	7.7	6.9	260
Marital status										
Never married	54.4	70.6	22.5	51.6	36.7	30.5	73.6	7.5	6.1	619
Married/living together	67.1	84.6	24.9	59.6	41.1	32.4	85.0	9.7	8.4	573
Divorced/separated/ widowed	(78.0)	(84.3)	(29.7)	(49.6)	(40.2)	(33.9)	(92.6)	(9.6)	(3.2)	28
Residence										
Urban	52.4	83.1	28.6	70.4	52.2	43.9	80.6	10.1	8.4	211
Rural	62.7	76.3	22.8	52.1	36.0	28.9	79.1	8.2	6.8	1,009
Region										
Apia Urban Area	52.4	83.1	28.6	70.4	52.2	43.9	80.6	10.1	8.4	211
North West Upolu	70.6	74.0	28.8	53.6	41.3	34.0	84.8	12.4	10.0	439
Rest of Upolu	51.3	72.1	15.9	49.7	25.0	23.1	70.0	5.2	4.2	279
Savaii	61.6	83.7	20.2	52.3	38.6	26.5	79.3	4.9	4.6	291
Education										
Primary or less	50.0	67.3	18.7	44.7	24.8	16.6	66.4	2.7	1.9	158
Secondary incomplete	58.7	75.2	20.8	52.8	33.9	26.9	77.7	6.6	5.3	670
Secondary complete	64.9	86.1	28.1	63.7	48.6	42.2	85.7	12.7	10.9	187
Vocational/higher	72.8	85.0	33.4	64.0	56.7	48.0	89.1	15.7	13.4	206
Wealth quintile										
Lowest	60.8	71.6	17.9	50.7	31.3	26.0	76.9	5.1	4.6	209
Second	53.9	68.3	17.4	51.4	32.0	26.3	77.9	3.8	2.7	226
Middle	62.4	83.9	28.5	56.0	40.3	28.5	80.1	9.6	8.0	274
Fourth	63.6	80.0	25.3	55.7	37.4	31.7	79.4	10.0	7.8	264
Highest	62.9	81.0	27.7	61.5	51.1	43.8	82.2	13.0	11.4	248
Total 15-49	60.9	77.5	23.8	55.3	38.8	31.5	79.4	8.6	7.1	1,220
50-54	54.9	77.4	27.4	49.2	29.8	25.8	67.5	9.3	6.2	87
Total men 15-54	60.5	77.5	24.0	54.9	38.2	31.1	78.6	8.6	7.0	1,307

Note: Numbers in parentheses are based on 25-49 unweighted cases

[1] Two most common local misconceptions: 'AIDS can be transmitted by mosquito bites' and 'A person can get AIDS from the saliva of a person who has HIV/AIDS'

[2] Comprehensive knowledge means knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

12.4 KNOWLEDGE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

Increasing the level of general knowledge of transmission of HIV from mother to child and reducing the risk of transmission using antiretroviral drugs is critical to the prevention of mother-to-child transmission (MTCT) of HIV. To assess MTCT knowledge, respondents in the 2009 SDHS were asked if the virus that causes AIDS can be transmitted from a mother to her baby during pregnancy, delivery, or breastfeeding and whether they know of any special drugs a mother with HIV can take to reduce the risk of transmission to the baby.

Table 12.4 shows that women are slightly more likely than men to know of the risk of mother-to-child transmission of HIV through breastfeeding (76 and 70 percent, respectively). About one in three women (31 percent) and men (34 percent) know that the risk of mother-to-child transmission of HIV can be reduced by the mother taking special drugs during pregnancy.

Table 12.4 Knowledge of prevention of mother to child transmission of HIV

Percentage of women and men who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother to child transmission (MTCT) of HIV can be reduced by mother taking special drugs during pregnancy, by background characteristics, Samoa 2009

	Percentage of women who know that:				Percentage of men who know that:			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	68.6	29.0	27.9	1,033	56.8	31.0	22.1	478
15-19	62.5	27.0	25.4	560	50.2	28.2	19.7	269
20-24	75.9	31.4	30.9	474	65.4	34.6	25.3	209
25-29	80.5	34.0	33.5	375	82.7	37.3	31.9	168
30-39	78.6	31.6	30.8	666	78.6	38.2	30.8	314
40-49	82.2	33.7	32.7	583	76.3	34.0	27.6	260
Marital status								
Never married	70.1	28.4	27.3	971	61.1	33.4	24.9	619
Married/living together	79.0	33.1	32.3	1,554	79.6	35.0	28.8	573
Divorced/separated/ widowed	80.7	33.6	32.1	132	(76.6)	(43.5)	(29.6)	28
Pregnancy status								
Pregnant	79.4	38.0	38.0	175	na	na	na	na
Not pregnant or not sure	75.5	30.9	29.9	2,482	na	na	na	na
Residence								
Urban	76.9	22.9	21.9	548	71.9	18.1	17.1	211
Rural	75.5	33.6	32.7	2,109	69.8	37.8	28.9	1,009
Region								
Apia Urban Area	76.9	22.9	21.9	548	71.9	18.1	17.1	211
North West Upolu	77.6	38.5	37.6	907	66.8	43.1	28.8	439
Rest of Upolu	72.9	22.2	20.8	597	71.1	31.1	30.1	279
Savaii	74.9	37.6	37.1	605	73.1	36.1	27.9	291
Education								
Primary or less	55.2	20.7	20.7	132	62.4	28.0	24.4	158
Secondary incomplete	72.1	30.1	29.1	1,598	68.7	32.8	25.2	670
Secondary complete	82.2	33.7	32.7	519	75.5	41.9	32.2	187
Vocational/higher	88.6	36.9	36.1	408	76.0	37.7	29.5	206
Wealth quintile								
Lowest	71.5	34.0	33.8	472	66.3	30.5	21.9	209
Second	73.9	32.9	31.7	516	65.7	34.4	24.4	226
Middle	73.6	29.7	28.2	557	75.5	35.4	29.3	274
Fourth	76.6	29.1	28.2	555	70.3	39.7	33.0	264
Highest	82.6	31.9	31.0	558	71.4	30.7	24.0	248
Total 15-49	75.8	31.4	30.5	2,657	70.1	34.4	26.9	1,220
50-54	na	na	na	na	69.1	30.1	26.7	87
Total men 15-54	na	na	na	na	70.1	34.1	26.8	1,307

Note: Numbers in parentheses are based on 25-49 unweighted cases
na = Not applicable

Overall, 31 percent of women and 27 percent of men know that HIV can be transmitted through breastfeeding and that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy. Knowledge that HIV can be transmitted by breastfeeding and that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy is lowest among respondents age 15-19 (25 percent of women and 20 percent of men) and those who have never married (27 percent of women and 25 percent of men). Pregnant women are more knowledgeable about MTCT transmission and prevention (38 percent) than non-pregnant women (30 percent). A larger proportion of women (33 percent) and men (29 percent) in rural areas than in urban areas (22 percent of women and 17 percent of men) know that HIV can be transmitted by breastfeeding and that the use of special drugs reduces the risk of MTCT. By region, this knowledge among women ranges from 21 percent in the Rest of Upolu to 38 percent in North West Upolu. Among men, this knowledge ranges from 17 percent in the Apia Urban Area to 30 percent in the Rest of Upolu. As seen earlier, respondents' socioeconomic status, as measured by level of education and wealth quintile, has a positive correlation with knowledge of MTCT. The relationship between MTCT knowledge and education and wealth is more linear and consistent among women than among men.

12.5 Stigma Associated with AIDS and Attitudes Related to HIV/AIDS

Widespread stigma and discrimination in a population can adversely affect people's willingness to be tested for HIV as well as their adherence to antiretroviral therapy. Reduction of stigma and discrimination in a population is, thus, an important impetus to the success of programmes targeting HIV/AIDS prevention and control.

To assess the level of stigma, SDHS respondents who had heard of AIDS were asked if they would be willing to care for a family member infected with the AIDS virus in their home, if they would buy fresh vegetables from a shopkeeper who has the AIDS virus, if they thought a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and if they would not want to keep the secret that a family member has the AIDS virus. Tables 12.5.1 and 12.5.2 show the results for women and men, respectively.

Both women and men tended to express more positive attitudes about caring for a family member with the AIDS virus in the respondent's home and not wanting to keep the secret that a relative has an HIV-positive status. Attitudes were less positive about buying vegetables from a shopkeeper with AIDS or allowing a well, HIV-positive female teacher to continue teaching. Sixty-five percent of women and 77 percent of men would be willing to care in their home for a family member sick with AIDS. Furthermore, it is encouraging to see that more than eight in ten women (84 percent) and nine in ten men (90 percent) would not want to keep secret the factthat a family member has an HIV infection. These results indicate that individuals are generally supportive about providing a caring environment for their family members if they were to become infected with the HIV.

Respondents in the youngest age group (15-19 years) and those who never married are somewhat less likely to say that they would be willing to care for a family member with AIDS in their home compared with other respondents. There are no differences by urban-rural residence for women. Among men, rural men are more willing than urban men to care for a family member with the AIDS virus in their home (78 percent compared with 71 percent). Among regions, respondents in the Rest of Upolu region are the least likely to say they would take care of a family member with AIDS in their home (60 percent of women and 69 percent of men), while women in North West Upolu (68 percent) and men in the Savaii region (89 percent) are the most likely. The percentage of women who are willing to care for a family member with the AIDS virus in their home increases steadily with their education and wealth. Among men, the same pattern is observed for education, although it is less pronounced than among women, and the pattern observed for wealth is mixed.

Table 12.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, Samoa 2009

Background characteristic	Percentage of women who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing acceptance attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	62.9	15.4	5.2	81.6	1.2	845
15-19	58.2	15.8	6.0	78.9	1.0	448
20-24	68.2	14.9	4.3	84.8	1.5	397
25-29	67.4	14.1	3.8	85.6	1.8	323
30-39	65.5	18.6	7.8	83.8	2.6	570
40-49	66.7	15.8	7.1	87.4	3.0	509
Marital status						
Never married	62.2	16.3	5.6	82.6	1.2	811
Married/living together	66.5	15.9	6.4	84.7	2.5	1,321
Divorced/separated/ widowed	68.1	16.6	6.2	86.2	3.6	114
Residence						
Urban	66.3	22.5	10.4	77.9	4.4	479
Rural	64.7	14.4	4.9	85.7	1.4	1,767
Region						
Apia Urban Area	66.3	22.5	10.4	77.9	4.4	479
North West Upolu	67.9	15.8	6.2	86.7	2.0	773
Rest of Upolu	59.6	12.2	4.6	82.3	1.1	483
Savaii	64.8	14.3	3.2	87.4	0.9	512
Education						
Primary or less	55.4	12.8	1.2	82.5	0.0	84
Secondary incomplete	62.1	13.5	4.2	82.7	1.2	1,308
Secondary complete	66.5	18.0	6.2	86.7	2.5	465
Vocational/higher	75.3	23.2	13.4	85.7	5.0	388
Wealth quintile						
Lowest	57.5	12.5	3.5	81.7	0.7	367
Second	64.4	12.7	3.1	84.5	0.8	429
Middle	65.8	17.2	4.5	84.7	1.0	460
Fourth	65.0	16.5	6.8	85.7	2.9	475
Highest	70.4	20.2	11.2	83.3	4.3	515
Total 15-49	65.1	16.1	6.1	84.1	2.1	2,246

Similar patterns are observed in the variation of the percentage of women and men who would not want to keep secret the HIV-positive status of a family member. Younger respondents age 15-19, the never-married respondents, and those residing in urban areas and in Apia Urban Area are less likely than other respondents to not want to keep secret the fact that a family member is HIV-positive. Among women, the proportion increases somewhat with an increase in education, while among men the proportion tends to decrease with an increase in education. There is no clear relationship between the percentage of respondents who would not want the HIV-status of a family member to be kept a secret and their wealth.

Empowering persons living with AIDS is also a critical programme area. Only 16 percent of women and 27 percent of men said that they would buy vegetables from a shopkeeper with AIDS. Among both women and men, the percentage is higher among individuals age 30 or older than among younger respondents. Marital status does not seem to have an impact on women's response to this question, and never-married men seem to be less likely to want to buy fresh vegetables from a shopkeeper who has the AIDS virus. Urban women are more likely than rural women to want to buy fresh vegetables from a shopkeeper who has the AIDS virus (23 percent versus 14 percent), while the opposite is true for men: 24 percent of men in urban areas versus 28 percent of men in rural areas say that they would buy fresh vegetables from a shopkeeper who has the AIDS virus. Among regions, for women the percentage ranges from a low of 12 percent in the Rest of Upolu to 23 percent in the Apia Urban Area, and for men it ranges from 19 percent in North West Upolu to 46 percent in the Savaii region. For women and men, the percentage who say that they would buy vegetables from a shopkeeper who is HIV-positive increases with education. For women it also increases with wealth, while for men the relationship is not clear.

Table 12.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Samoa 2009

	Percentage of men who:					
Background characteristic	Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing acceptance attitudes on all four indicators	Number of men who have heard of AIDS
Age						
15-24	76.6	20.9	6.2	86.7	2.2	386
15-19	73.7	21.2	8.3	85.1	2.4	200
20-24	79.8	20.6	3.9	88.4	2.0	186
25-29	79.9	26.5	9.2	89.1	4.6	157
30-39	75.0	31.8	8.6	93.2	4.1	289
40-49	77.6	32.4	4.9	91.7	3.5	231
Marital status						
Never married	76.1	23.1	7.8	87.9	2.8	513
Married/living together	77.2	31.1	6.1	91.8	3.6	524
Divorced/separated/ widowed	(86.2)	(30.7)	(8.9)	(93.0)	(8.9)	27
Residence						
Urban	71.2	23.9	6.7	79.3	2.3	184
Rural	78.1	27.9	7.0	92.1	3.6	879
Region						
Apia Urban Area	71.2	23.9	6.7	79.3	2.3	184
North West Upolu	76.2	18.6	6.7	94.8	2.7	399
Rest of Upolu	69.0	23.8	2.2	92.1	0.9	219
Savaii	88.6	45.5	11.7	88.1	7.1	261
Education						
Primary or less	72.9	24.8	1.9	94.3	1.9	122
Secondary incomplete	77.0	25.5	6.4	89.9	3.2	577
Secondary complete	76.0	30.2	8.1	89.6	2.9	174
Vocational/higher	79.9	31.3	11.1	87.6	5.1	190
Wealth quintile						
Lowest	80.1	27.8	7.5	89.6	2.2	175
Second	79.2	22.1	6.6	91.0	4.0	188
Middle	73.2	31.2	5.4	90.8	3.0	250
Fourth	75.8	25.0	5.5	88.1	3.8	230
Highest	77.7	28.8	10.3	90.1	3.7	220
Total 15-49	76.9	27.2	7.0	89.9	3.3	1,063
50-54	77.3	22.1	4.2	94.9	4.2	71
Total men 15-54	76.9	26.9	6.8	90.2	3.4	1,134

Note: Numbers in parentheses are based on 25-49 unweighted cases

In Samoa, only 6 percent of women and 7 percent of men said that a female HIV-positive teacher who is not sick should be allowed to continue teaching. The percentage that expressed accepting attitudes on all four measures is just 2 percent for women and 3 percent for men age 15-49.

In addition to the questions just discussed, the SDHS respondents who had heard of AIDS were asked other questions to help further identify and measure attitudes towards people living with HIV.

Figure 12.1 shows that more than eight in ten women say that they would not share a meal with a person who has HIV (82 percent) and that all newcomers to Samoa should be required to take a test for HIV (85 percent). More than seven in ten women (73 percent) believe that it should be a criminal offence to knowingly pass HIV onto someone else, while about six in ten women say that they think the names of all persons with HIV should be displayed in public places for everyone to see. Finally, about four in ten women believe that people with HIV or AIDS should be ashamed of themselves (41 percent) and that they should be blamed for bringing the diseases to the community (43 percent).

The corresponding percentages are even higher among men. Figure 12.2 shows that about nine in ten men (88 percent) believe that it should be a criminal offence to knowingly pass HIV onto someone else, and more than nine in ten (96 percent) believe that all newcomers to Samoa should be required to take an HIV test. Seven in ten or more men say that they that they think the names of all persons with HIV should be displayed in public places for everyone to see (76 percent), that they would not share a meal with a person who has HIV (73 percent), and that people with HIV or AIDS should be ashamed of themselves (70 percent). Finally, close to six in ten men (57 percent) believe that people with HIV or AIDS should be blamed for bringing the diseases to the community.

Figures 12.1 and 12.2 show that stigma and negative attitudes towards people living with HIV are quite widespread in Samoa and that HIV/AIDS programmes need to work hard to address the misconceptions and the stigma. There is a great need as well as an opportunity to significantly increase accepting attitudes towards people living with HIV and to dispel various myths, misconceptions, and stigmatising beliefs and attitudes towards people living with HIV.

Figure 12.1 **Attitudes Towards People Living with HIV/AIDS among Women Age 15-49 Who Have Heard of HIV/AIDS**

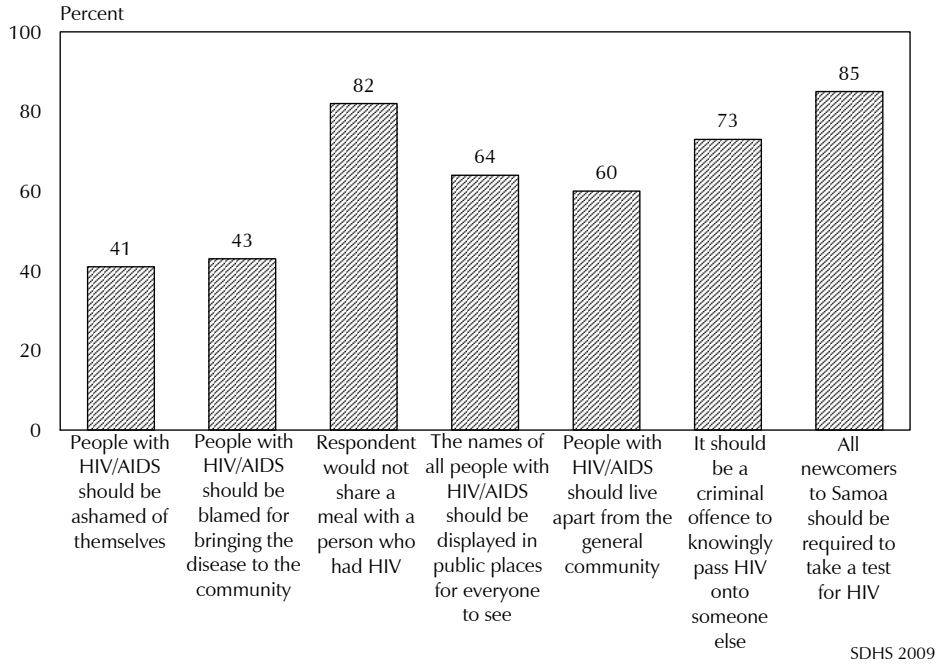
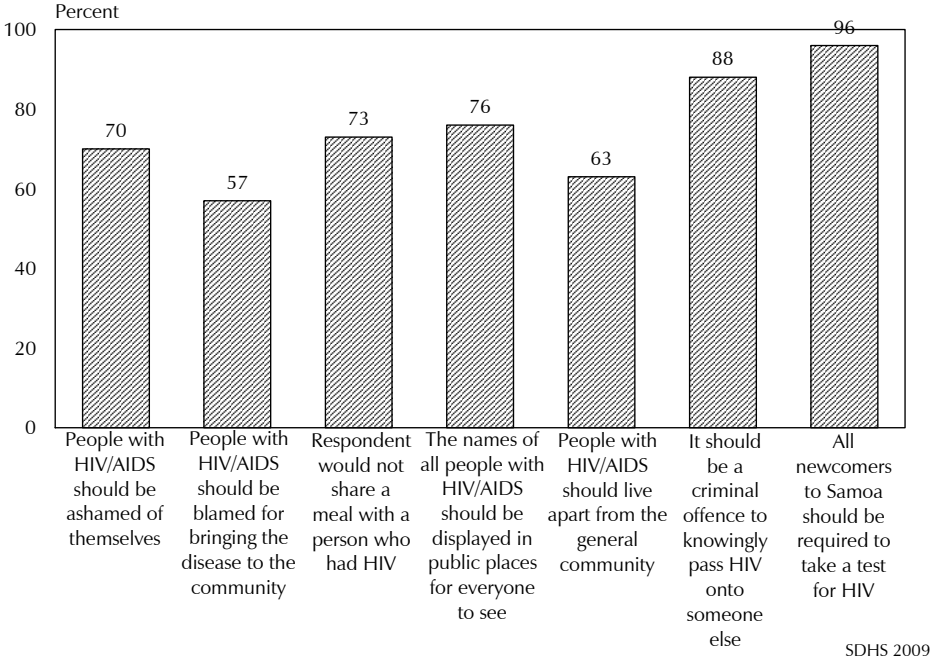


Figure 12.2 **Attitudes Towards People Living with HIV/AIDS among Men Age 15-49 Who Have Heard of HIV/AIDS**



12.6 ATTITUDES TOWARDS NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are of little use if people feel powerless to negotiate safer sex practices with their partners. In an effort to assess the ability of women to negotiate safer sex with a spouse who has a sexually transmitted illness (STI), women and men were asked if they thought that a wife is justified in refusing to have sexual intercourse with her husband or in asking that he use condoms, if she knows he has an STI.

Table 12.6 shows that a relatively low percentage of respondents (17 percent of women and 32 percent of men) agree that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has an STI. The data show that younger respondents age 15-24 (11 percent of women and 26 percent of men), never-married respondents (12 percent of women and 28 percent of men), women in rural areas (14 percent) and men in urban areas (24 percent) are less likely than their counterparts to believe that a woman is justified in refusing to have sexual intercourse with a man if he has an STI. In terms of regional variations, 10 percent of women in the Savaii are supportive of a woman refusing to have sexual intercourse with her husband if she knows he has an STI, compared with 30 percent of women in the Apia Urban Area. On the other hand, men in the Apia Urban Area (24 percent) are the least supportive of a woman refusing to have sexual intercourse if the husband has a sexually transmitted disease, while men in the Rest of Upolu are the most likely to be supportive (39 percent). Respondents with more education and those in wealthier households are more supportive of women negotiating safer sex than are those with less or no education and those in the lower wealth quintiles.

Table 12.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him, by background characteristics, Samoa 2009

Background characteristic	Woman is justified in: Refusing to have sexual intercourse	Woman is justified in: Number of women	Woman is justified in: Refusing to have sexual intercourse	Woman is justified in: Number of men
Age				
15-24	10.6	1,033	26.4	478
15-19	7.7	560	18.9	269
20-24	14.1	474	36.2	209
25-29	17.5	375	32.0	168
30-39	20.7	666	41.7	314
40-49	23.8	583	28.1	260
Marital status				
Never married	11.7	971	27.5	619
Married/living together	19.8	1,554	34.9	573
Divorced/separated/widowed	22.4	132	(50.6)	28
Residence				
Urban	29.7	548	24.2	211
Rural	13.7	2,109	33.0	1,009
Region				
Apia Urban Area	29.7	548	24.2	211
North West Upolu	15.1	907	29.2	439
Rest of Upolu	15.5	597	39.3	279
Savaii	9.8	605	32.8	291
Education				
Primary or less	8.5	132	22.8	158
Secondary incomplete	15.4	1,598	29.0	670
Secondary complete	16.7	519	37.6	187
Vocational/higher	26.4	408	40.8	206
Wealth quintile				
Lowest	14.3	472	32.3	209
Second	14.3	516	32.0	226
Middle	15.2	557	32.1	274
Fourth	17.7	555	28.8	264
Highest	22.8	558	32.6	248
Total 15-49	17.0	2,657	31.5	1,220
50-54	na	na	28.4	87
Total men 15-54	na	na	31.3	1,307

Note: Numbers in parentheses are based on 25-49 unweighted cases
na = Not applicable

12.7 COVERAGE OF PRIOR HIV TESTING

For persons who are HIV negative, knowledge of their HIV status helps them to make specific decisions that will reduce their risk of getting HIV, lead to safer sex practices, and enable them to remain disease free. For those who are HIV positive, knowledge of their HIV status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future. In the 2009 SDHS, respondents were asked whether they had ever been tested for HIV. If they had, they were asked when they were most recently tested, whether they had received the results of their last test, and where they had been tested. If they had never been tested, they were asked if they knew a place where they could go to be tested.

Tables 12.7.1 and 12.7.2 show that 40 percent of women and 49 percent of men age 15-49 know where to get an HIV test. However, the proportions ever tested are much smaller; only 4 percent of women and men age 15-49 have ever been tested for HIV, and of those who were tested, only 2 percent of women and 3 percent of men received the results of their test. The proportions who received the results of their most recent test are even smaller, less than 1 percent of women and men received the results of the last HIV test taken in the past 12 months. Because the percentages are so small, there are no major variations in the proportion of respondents ever tested for HIV by background characteristics.

Table 12.7.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Samoa 2009

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and whether they received the results of the last test: Ever tested and received results	Ever tested and did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
Age								
15-24	30.7	1.5	1.2	97.3	100.0	2.7	0.3	1,033
15-19	24.9	0.9	0.6	98.5	100.0	1.5	0.4	560
20-24	37.4	2.1	2.0	96.0	100.0	4.0	0.3	474
25-29	47.5	3.9	0.6	95.5	100.0	4.5	0.8	375
30-39	43.1	3.0	1.5	95.5	100.0	4.5	0.7	666
40-49	48.8	2.6	0.8	96.6	100.0	3.4	0.9	583
Marital status								
Never married	31.4	1.7	0.6	97.7	100.0	2.3	0.5	971
Married/living together	44.9	2.6	1.4	96.0	100.0	4.0	0.6	1,554
Divorced/separated/ widowed	48.5	5.5	1.9	92.6	100.0	7.4	2.3	132
Residence								
Urban	50.0	4.2	0.9	94.9	100.0	5.1	1.0	548
Rural	37.6	2.0	1.2	96.9	100.0	3.1	0.5	2,109
Region								
Apia Urban Area	50.0	4.2	0.9	94.9	100.0	5.1	1.0	548
North West Upolu	39.1	2.7	1.6	95.7	100.0	4.3	0.6	907
Rest of Upolu	32.4	1.6	1.2	97.2	100.0	2.8	0.9	597
Savaii	40.5	1.2	0.5	98.3	100.0	1.7	0.1	605
Education								
Primary or less	27.6	1.3	1.7	97.0	100.0	3.0	0.8	132
Secondary incomplete	35.8	1.7	1.2	97.1	100.0	2.9	0.3	1,598
Secondary complete	46.3	3.3	1.0	95.7	100.0	4.3	1.3	519
Vocational/higher	53.4	4.6	0.6	94.8	100.0	5.2	1.0	408
Wealth quintile								
Lowest	32.4	1.6	1.2	97.2	100.0	2.8	0.2	472
Second	36.9	1.2	1.5	97.3	100.0	2.7	0.3	516
Middle	40.8	1.8	1.1	97.1	100.0	2.9	0.6	557
Fourth	40.8	2.2	1.0	96.7	100.0	3.3	0.7	555
Highest	48.4	5.1	0.8	94.1	100.0	5.9	1.3	558
Total 15-49	40.1	2.4	1.1	96.5	100.0	3.5	0.6	2,657

[1] Includes 'don't know/missing'

Table 12.7.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Samoa 2009

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and whether they received the results of the last test: Ever tested and received results	Ever tested and did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of men
Age								
15-24	41.5	1.4	0.8	97.8	100.0	2.2	0.7	478
15-19	32.9	0.7	0.9	98.4	100.0	1.6	0.7	269
20-24	52.7	2.2	0.7	97.2	100.0	2.8	0.6	209
25-29	52.0	4.1	0.7	95.2	100.0	4.8	1.1	168
30-39	56.1	4.6	0.9	94.5	100.0	5.5	0.3	314
40-49	54.4	2.9	0.0	97.1	100.0	2.9	0.4	260
Marital status								
Never married	43.6	2.7	0.7	96.6	100.0	3.4	0.7	619
Married/living together	55.2	3.0	0.6	96.4	100.0	3.6	0.3	573
Divorced/separated/ widowed	(60.9)	(5.8)	(0.0)	(94.2)	100.0	(5.8)	(3.6)	28
Residence								
Urban	43.3	1.1	0.0	98.9	100.0	1.1	0.0	211
Rural	50.7	3.3	0.8	95.9	100.0	4.1	0.7	1,009
Region								
Apia Urban Area	43.3	1.1	0.0	98.9	100.0	1.1	0.0	211
North West Upolu	66.9	2.3	0.5	97.2	100.0	2.8	0.6	439
Rest of Upolu	32.3	4.9	0.0	95.1	100.0	4.9	1.1	279
Savaii	44.0	3.3	1.9	94.8	100.0	5.2	0.4	291
Education								
Primary or less	35.4	0.9	0.8	98.2	100.0	1.8	0.0	158
Secondary incomplete	47.5	2.7	0.3	97.0	100.0	3.0	0.9	670
Secondary complete	57.0	3.1	1.8	95.1	100.0	4.9	0.0	187
Vocational/higher	59.8	4.9	0.5	94.6	100.0	5.4	0.5	206
Wealth quintile								
Lowest	42.4	2.9	0.5	96.5	100.0	3.5	0.0	209
Second	45.0	1.8	0.4	97.8	100.0	2.2	0.0	226
Middle	49.9	4.4	0.0	95.6	100.0	4.4	0.9	274
Fourth	53.7	2.7	0.9	96.4	100.0	3.6	1.4	264
Highest	54.4	2.5	1.4	96.1	100.0	3.9	0.3	248
Total 15-49	49.4	2.9	0.6	96.4	100.0	3.6	0.6	1,220
50-54	49.4	2.8	0.0	97.2	100.0	2.8	0.0	87
Total men 15-54	49.4	2.9	0.6	96.5	100.0	3.5	0.5	1,307

Note: Numbers in parentheses are based on 25-49 unweighted cases
[1] Includes 'don't know/missing'

12.7.1 HIV Testing during Antenatal Care

One of the tragic consequences of HIV in women is the transmission of the virus from mother to child. This can occur during pregnancy, at the time of delivery, or through breastfeeding. Worldwide, the effects of mother-to-child transmission of HIV are staggering. As part of the strategy for the prevention of mother-to-child transmission of HIV, women are counselled about HIV/AIDS during antenatal care visits and offered an HIV test. In the 2009 SDHS, women age 15-49 who gave birth in the two years preceding the survey were asked whether they received counselling during ANC

visits for their most recent birth, whether they were offered and accepted a test for HIV as part of their antenatal care, and if tested, whether they received the test results.

Table 12.8 shows that, among women who gave birth in the two years preceding the survey, 32 percent received HIV counselling during antenatal care for their most recent birth, yet only 2 percent of these women were offered and accepted an HIV test and received the results of the test. Younger women under age 30, those living in urban areas, women living in the Rest of Upolu region, those with secondary incomplete education are somewhat less likely than other women to have received counselling during antenatal care for their most recent birth in the preceding 2 years.

Overall, just 2 percent of women who gave birth in the two years preceding the survey were counselled, were offered and voluntarily accepted an HIV test, and received the test results, with little variation by background characteristics.

Table 12.8 Pregnant women counselled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counselling during antenatal care for their most recent birth, and percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, Samoa 2009

Background characteristic	Percentage who received HIV counselling during antenatal care[1]	Percentage who were offered and accepted an HIV test during antenatal care and who[2]:		Percentage who were counselled, were offered and accepted an HIV test, and who received results[2]	Number of women who gave birth in the past two years[3]
		Received results	Did not receive results		
Age					
15-24	28.7	0.9	3.1	0.9	193
15-19	(23.0)	(2.8)	(0.0)	(2.8)	36
20-24	30.0	0.5	3.8	0.5	157
25-29	28.4	1.1	1.5	0.4	157
30-39	35.3	2.2	1.9	1.9	231
40-49	36.4	3.1	0.0	3.1	56
Residence					
Urban	29.1	3.5	1.6	1.7	97
Rural	32.1	1.3	2.1	1.3	539
Region					
Apia Urban Area	29.1	3.5	1.6	1.7	97
North West Upolu	41.9	2.0	4.5	2.0	201
Rest of Upolu	25.9	1.1	0.7	1.1	189
Savaii	26.8	0.6	0.5	0.6	150
Education					
Primary or less	*	*	*	*	22
Secondary incomplete	30.0	0.8	2.7	0.8	376
Secondary complete	35.1	3.7	0.8	2.4	144
Vocational/higher	36.9	1.1	0.0	1.1	94
Wealth index					
Poorest	27.4	1.9	1.9	1.9	149
Poorer	34.5	1.0	4.3	0.5	116
Middle	34.2	0.9	1.6	0.9	136
Richer	29.1	2.3	2.2	2.3	124
Richest	34.3	2.0	0.0	0.9	112
Total 15-49	31.7	1.6	2.0	1.3	636

Note: Numbers in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] In this context, "counselled" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus
[2] Only women who were offered the test are included here; women who were either required or asked for the test are excluded from the numerator of this measure
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years

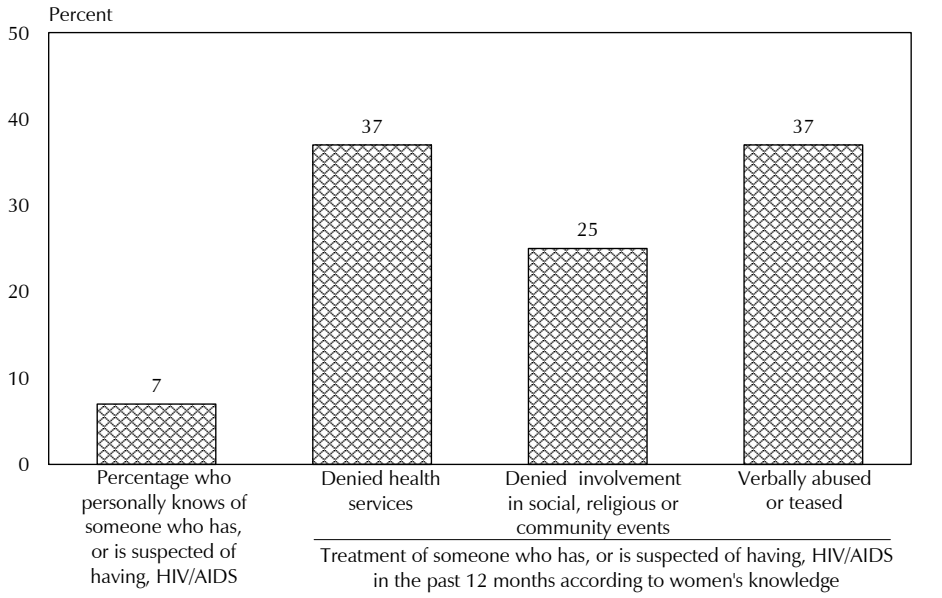
12.8 TREATMENT OF INDIVIDUALS WITH HIV/AIDS

Women and men in the 2009 SDHS were asked if they personally know of someone who has or is suspected of having HIV/AIDS. If the respondents said yes, they were further asked about specific treatments that the infected individuals had been subjected to in the preceding 12 months. Results are shown in Figures 12.3 and 12.4.

Data show that 7 percent each of women and men personally know of someone who has or is suspected of having HIV/AIDS. Among women who know someone who is or might be HIV-positive, 37 percent reported that the infected person was denied health services over the preceding 12 months, 25 percent were denied involvement in social, religious, or community events, and 37 percent were verbally abused or teased. Men report somewhat lower rates. Twenty-five percent of men who know someone who is or might be HIV-positive reported that the infected person was denied health services over the preceding 12 months, 23 percent said that they were verbally abused or teased, and 17 percent said that the HIV-positive people were denied involvement in social, religious, or community events.

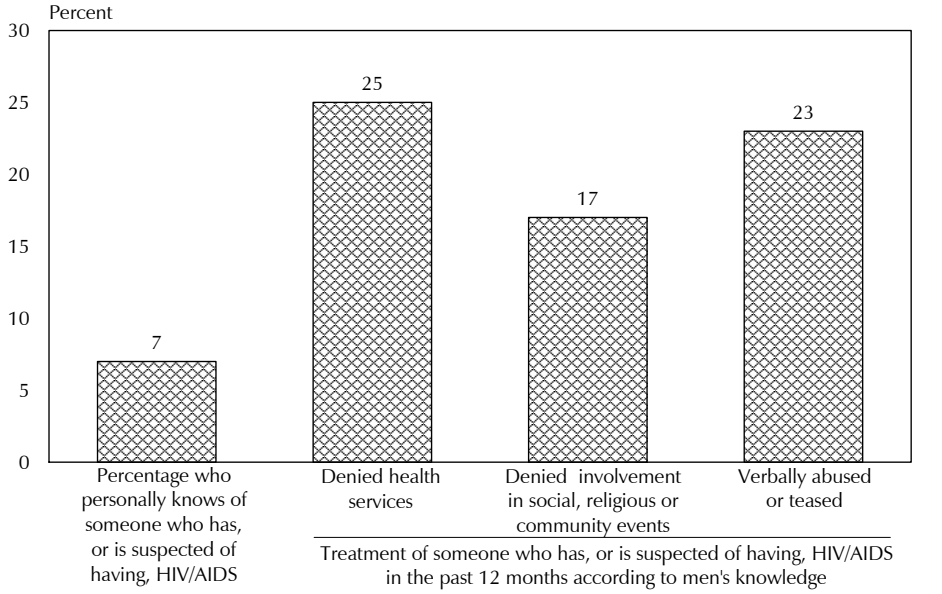
Even though the percentage of women and men who personally know of someone who has or is suspected of having HIV or AIDS is relatively high, these findings indicate that the people living with HIV are treated poorly and often discriminated against in Samoa.

Figure 12.3 **Treatment of Individuals with HIV/AIDS: Women Age 15-49**



SDHS 2009

Figure 12.4 **Treatment of Individuals with HIV/AIDS: Men Age 15-49**



SDHS 2009

12.9 PREVALENCE OF MEDICAL INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices, such as reuse of injection equipment. To measure the potential risk of transmission of HIV associated with medical injections, respondents in the 2009 SDHS were asked if they had received an injection in the past 12 months. It should be noted that medical injections can be self-administered (e.g., insulin for diabetes). These injections were not included in the calculation.

Table 12.9 shows that 9 percent of women and 14 percent of men age 15-49 received a medical injection in the past 12 months. The average number of injections was less than 1 among women and men. The likelihood of receiving an injection in the past 12 months is slightly higher among urban than rural women (10 percent versus 8 percent), and for men it is more than twice as high among rural men (16 percent) as it is among urban men (7 percent). There are no major variations by region for women (7-10 percent), while for men the percentage who received a medical injection ranges from 7 percent each in Apia Urban Area and North West Upolu to 27 percent for men in the Rest of Upolu. There is no clear pattern by education or wealth in the relationship between the proportion of women and men who received a medical injection in the past 12 months. However, it must be noted that the percentage of men who received a medical injection in the preceding 12 months is notably higher among men in the lowest wealth quintile (19 percent) than among those in the other wealth quintiles (13-14 percent).

Table 12.9 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months and the average number of medical injections per person in the past 12 months, by background characteristics, Samoa 2009

Background characteristic	Women: Percentage who received a medical injection in the past 12 months	Women: Average number of medical injections per person in the past 12 months	Women: Number of women	Men: Percentage who received a medical injection in the past 12 months	Men: Average number of medical injections per person in the past 12 months	Men: Number of men
Age						
15-24	7.5	0.2	1,033	14.1	0.3	478
15-19	6.7	0.2	560	13.4	0.3	269
20-24	8.6	0.2	474	14.9	0.4	209
25-29	10.7	0.2	375	11.7	0.3	168
30-39	10.2	0.3	666	12.7	0.4	314
40-49	7.8	0.2	583	17.7	0.5	260
Residence						
Urban	10.3	0.3	548	6.5	0.2	211
Rural	8.3	0.2	2,109	15.8	0.4	1,009
Region						
Apia Urban Area	10.3	0.3	548	6.5	0.2	211
North West Upolu	7.2	0.3	907	6.5	0.1	439
Rest of Upolu	8.1	0.2	597	27.1	0.6	279
Savaii	10.1	0.3	605	18.9	0.6	291
Education						
Primary or less	8.5	0.4	132	13.4	0.4	158
Secondary incomplete	8.6	0.3	1,598	15.3	0.4	670
Secondary complete	7.8	0.2	519	11.5	0.2	187
Vocational/higher	10.2	0.2	408	13.5	0.2	206
Wealth quintile						
Lowest	7.5	0.1	472	18.6	0.5	209
Second	9.8	0.3	516	14.0	0.2	226
Middle	7.3	0.2	557	12.9	0.4	274
Fourth	8.0	0.2	555	13.0	0.4	264
Highest	10.8	0.4	558	13.2	0.4	248
Total 15-49	8.7	0.3	2,657	14.2	0.4	1,220
Total men 15-54	na	na	na	14.3	0.4	1,307

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or any other health worker.
na = Not applicable

12.10 HIV/AIDS-RELATED KNOWLEDGE AMONG YOUTH

This section addresses knowledge of HIV/AIDS issues among youth age 15-24. Young respondents were asked the same set of questions on beliefs about HIV transmission as other respondents. Information on the overall level of knowledge of major methods of avoiding HIV and on rejection of major misconceptions was shown previously in Tables 12.2, 12.3.1, and 12.3.2. These results indicate the general level of awareness of HIV prevention methods among young people.

Table 12.10 shows the level of the composite indicator, comprehensive knowledge about AIDS,[1] and knowledge of a source of condoms among young men, by background characteristics. The results show that only a small percentage, 3 percent of young women and 6 percent of young men have comprehensive knowledge of AIDS. Comprehensive knowledge does not vary significantly by background characteristics.

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one HIV-negative, faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV/AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 12.2, 12.3.1, and 12.3.2.

Table 12.10 Comprehensive knowledge about AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Samoa 2009

	Women 15-24		Men 15-24		
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of men
Age					
15-19	2.0	560	4.6	39.4	269
15-17	2.3	354	3.2	26.3	163
18-19	1.4	205	6.7	59.4	106
20-24	4.1	474	7.4	54.6	209
20-22	3.6	300	7.2	50.9	123
23-24	5.1	173	7.6	60.1	85
Marital status					
Never married	3.1	779	5.6	44.1	428
Ever married	2.5	254	(7.7)	(63.0)	50
Residence					
Urban	5.3	240	9.1	33.0	96
Rural	2.2	793	4.9	49.3	382
Region					
Apia Urban Area	5.3	240	9.1	33.0	96
North West Upolu	2.7	387	6.4	49.5	184
Rest of Upolu	3.0	215	3.6	46.8	101
Savaii	0.4	190	3.6	51.7	96
Education					
Primary or less	(3.8)	31	(2.1)	(30.0)	48
Secondary incomplete	2.1	620	3.2	40.2	282
Secondary complete	2.7	196	12.0	60.3	66
Vocational/higher	5.9	186	12.0	64.0	81
Wealth quintile					
Lowest	3.3	181	3.2	41.1	83
Second	1.8	183	3.7	38.9	72
Middle	3.2	230	4.9	44.9	119
Fourth	2.9	216	7.7	48.2	111
Highest	3.4	223	8.6	54.8	93
Total	3.0	1,033	5.8	46.0	478

Note: Numbers in parentheses are based on 25-49 unweighted cases

[1] Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 12.2, 12.3.1, and 12.3.2

[2] For this table, the following responses are not considered sources for condoms: friends, family members, and home

Condom use plays an important role in the prevention of STIs and HIV transmission and also in the prevention of unwanted pregnancies. Young adults are often at a high risk of contracting STIs because they are more likely to be experimenting with sex before marriage. Knowledge of a source of condoms helps young people to obtain and use condoms. Table 12.10 shows that 46 percent of young men know at least one source of condoms. Knowledge of a condom source generally increases with age and is higher among the ever-married young men (63 percent) than among those who never married (44 percent). Knowledge of a condom source is much higher among men in rural areas (49 percent) than among men in urban areas (33 percent), and it ranges from 33 percent of men in the Apia Urban Area to 50 percent of men in the North West Upolu region and 52 percent of men in the Savaii region. Knowledge of a source of condoms generally increases with an increase in education and wealth.

12.11 Exposure to Messages about HIV/AIDS

A wide variety of information, education, and communication (IEC) sources on HIV/AIDS are available in Samoa. The 2009 SDHS respondents were asked if they had ever seen, read, or heard HIV/AIDS messages on various printed and electronic media. Findings are shown in Figures 12.5 and 12.6.

Data show that the most widely accessed sources of information on HIV/AIDS were the television (seen by 74 percent of women and 77 percent of men) and the radio (heard by 68 percent each of women and men). HIV/AIDS messages on billboards and posters were seen by about half of both women (49 percent) and men (52 percent), and over a third of respondents (37 percent of women and 39 percent of men) had seen a newspaper or magazine article on HIV/AIDS. Around three in ten (28 percent of women and 32 percent of men) had seen an HIV/AIDS message on an educational leaflet or brochure. Word of mouth from family or friends (heard by 41 percent of women and 43 percent of men) was also a common route for receiving information on HIV/AIDS. Receiving education on HIV/AIDS by peer educators (around three in ten respondents), at a community outreach event (less than one-quarter of both women and men), or by an outreach worker (one-fifth of women and one quarter of men) were reported less commonly as sources for receiving HIV/AIDS messages. The Internet was a lesser used source of information for HIV/AIDS, reported by only 10 percent of women and 7 percent of men.

Living in urban areas and being more highly educated are related to an increased exposure of women to HIV/AIDS messages. However, the pattern is not so clear among men. A higher education was associated with an increased exposure to HIV/AIDS messages via various sources of media, but urban-rural residence showed a mixed pattern of results. As might be expected, exposure to HIV/AIDS messages tends to be highest among respondents in the highest wealth quintile (data not shown separately).

Figure 12.5 Exposure to Messages about HIV/AIDS: Women

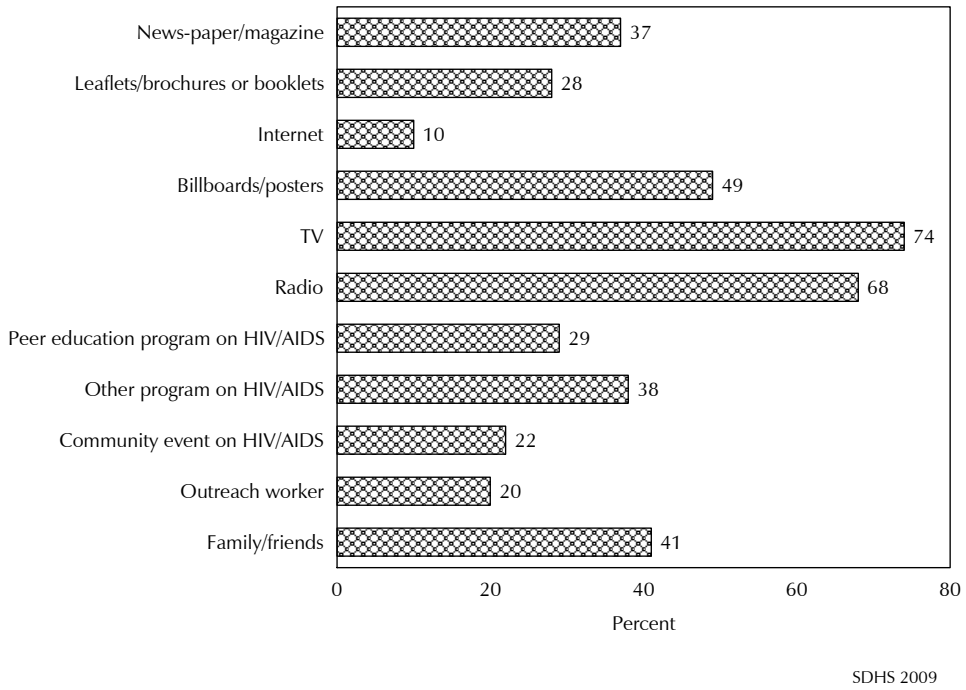
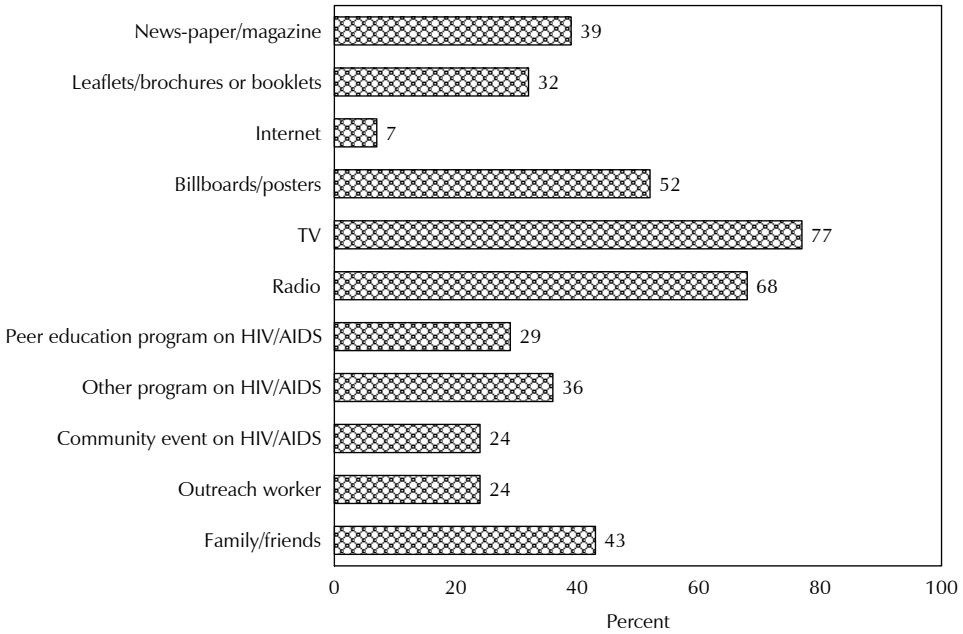


Figure 12.6 Exposure to Messages about HIV/AIDS: Men



SDHS 2009

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES 13

The 2009 Samoa Demographic and Health Survey (SDHS) collected information on the general background characteristics of respondents (age, education, wealth quintile, and employment status) and also information specific to women's empowerment such as the receipt of cash earnings, the magnitude of a woman's earnings relative to those of her husband, and the woman's degree of control over her own earnings and those of her spouse.[1]

The 2009 SDHS also collected information on women's participation in household decision-making, the circumstances under which the respondent thinks that a woman is justified in refusing to have sexual intercourse with her husband, and the respondent's attitude towards wife beating. This report uses the three indices of women's empowerment developed by DHS to measure women's and men's responses to the questions. The first index is based on the number of household decisions in which the woman participates. The second index is based on the respondent's opinion regarding reasons that may justify wife beating. The third index is based on the respondent's opinion of the circumstances under which a wife is justified in refusing to have sexual intercourse with her husband. The ranking of women on these three indices is then related to select demographic and health outcomes, including use of contraception, ideal family size, and the use of reproductive health care services during pregnancy, childbirth, and the postnatal period.

13.1 EMPLOYMENT AND FORMS OF EARNINGS

Employment can be a source of empowerment for both women and men. It is particularly so for women if it puts them in control of the household income. In the 2009 SDHS, respondents were asked whether they were employed at the time of the survey and, if not, whether they were employed in the 12 months preceding the survey. Questions were also asked regarding type of earnings received: cash, in-kind, or both.

Table 13.1 shows that women in Samoa are less likely to be currently employed than men. Thirty-two percent of currently married women age 15-49 were employed at the time of the survey or within the 12 months preceding the survey compared with 68 percent of men. The differences by age are small; however, women in their early twenties and men in their thirties are more likely to be employed than are respondents from other age groups.

Although women are less likely to be currently employed, they are slightly more likely than men to be paid in cash only or cash and in-kind. Among currently married respondents employed in the past 12 months, 87 percent of women and 83 percent of men received earnings in cash or cash and in-kind. One in eight currently married women and one in six currently married men employed in the past 12 months were not paid. Among women, the proportion not paid generally increases with age. Among men, however, the trend is reversed. The proportion not paid decreases with age, from 18 percent in the 25-29 age group to 11 percent among men age 40-44, and then sharply increases to 23 percent among men age 45-49.

[1] The questions were phrased in terms of 'husband/partner' (for women) and 'wife/partner' (for men), referring to marital partners; however, in this report, the word 'partner' has been dropped to simplify the text and tables.

Table 13.1 Employment and cash earnings of currently married women

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Samoa 2009

	Currently married respondents:		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings						
Age	Percentage employed	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Missing	Total	Number of respondents
				WOMEN					
15-19	(19.1)	39	*	*	*	*	*	100.0	8
20-24	40.2	196	91.8	2.8	0.0	5.4	0.0	100.0	79
25-29	31.8	272	90.5	2.0	0.0	7.5	0.0	100.0	87
30-34	29.3	246	92.4	0.0	0.0	4.2	3.4	100.0	72
35-39	32.6	305	84.5	1.1	0.0	13.4	1.0	100.0	100
40-44	30.0	243	76.0	4.0	0.0	18.6	1.3	100.0	73
45-49	31.3	252	75.0	1.1	2.9	19.7	1.2	100.0	79
Total	32.0	1,554	84.9	2.0	0.5	11.6	1.1	100.0	496
				MEN					
15-19	*	2	*	*	*	*	*	100.0	1
20-24	(75.0)	45	(72.8)	(2.7)	(6.0)	(18.5)	(0.0)	100.0	34
25-29	65.7	77	76.0	6.2	0.0	17.8	0.0	100.0	50
30-34	72.0	106	78.6	5.6	1.2	14.6	0.0	100.0	76
35-39	73.8	119	85.0	4.7	0.0	10.4	0.0	100.0	87
40-44	59.3	124	84.1	5.3	0.0	10.6	0.0	100.0	73
45-49	66.7	101	63.6	8.3	5.6	22.6	0.0	100.0	67
Total 15-49	68.0	573	77.4	5.6	2.0	15.0	0.0	100.0	390
50-54	61.0	78	(55.5)	(6.6)	(4.5)	(33.4)	(0.0)	100.0	48
Total men 15-54	67.1	651	75.0	5.7	2.3	17.0	0.0	100.0	437

Note: Numbers in parentheses are based on 25-49 unweighted cases; an asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed.

13.2 CONTROL OVER WOMEN'S AND MEN'S EARNINGS

Currently married women who were employed and received cash for their work were asked who the main decision-maker is in the family regarding use of their earnings. They were also asked the relative magnitude of their earnings compared with those of their husband. Women whose husbands were employed for cash were asked who usually decides how his earnings are to be used. Men were also asked who mainly decides how their earnings are to be used. These pieces of information provide insight into women's level of empowerment in the family and the extent of their control over decision-making regarding the use of household income. It is expected that employment and cash earnings are more likely to empower women if they control their own earnings and perceive their earnings as important relative to those of the husband and to the welfare of the household.

Table 13.2.1 shows the results from questions asked about currently married women's control over their cash earnings and the relative magnitude of their earnings relative to those of their husband. Forty percent of married women who are employed say that they mainly control their cash earnings, and an additional 40 percent say that they and their husband jointly decide how the woman's earnings are used, while 15 percent say that their husband mainly controls the woman's cash earnings. Younger women are markedly more likely than older women to control their own cash earnings. Currently married women with no children or with four or fewer children are also more likely to decide themselves how their cash earnings are used. Women with five or more children are more likely to jointly decide how their earnings are used (48 percent).

Overall, there is no difference between urban and rural women (40 percent each) who say that they and their husband jointly decide how her earnings are to be used. However, urban women are slightly less likely than rural women to control their own cash income (36 and 42 percent, respectively). Urban women (20 percent) are also more likely to have their earnings controlled by their husbands than rural women (14 percent).

Table 13.2.1 Control over women's cash earnings and relative magnitude of women's earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, Samoa 2009

	Person who decides how the wife's cash earnings are used:						Women's cash earnings compared with husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband/ partner has no earnings	Don't know/ missing	Total	Number of women
Age													
15-19	*	*	*	*	*	100.0	*	*	*	*	*	100.0	6
20-24	52.9	25.3	15.4	2.4	4.0	100.0	47.5	21.9	18.9	6.3	5.4	100.0	74
25-29	43.2	35.4	17.7	0.0	3.7	100.0	46.1	30.2	17.5	1.2	5.0	100.0	80
30-34	44.0	36.4	14.8	0.0	4.9	100.0	55.0	22.3	17.8	0.0	4.9	100.0	67
35-39	39.6	43.8	14.1	0.0	2.4	100.0	46.1	26.8	16.4	3.9	6.8	100.0	85
40-44	33.6	51.8	12.0	0.0	2.7	100.0	51.8	20.1	17.7	2.9	7.6	100.0	58
45-49	27.4	50.4	14.5	0.0	7.7	100.0	41.1	20.3	23.3	7.5	7.7	100.0	60
Number of living children													
0	(41.8)	(33.5)	(20.1)	(2.3)	(2.4)	100.0	(48.4)	(16.9)	(21.9)	(5.9)	(7.0)	100.0	46
1-2	42.5	36.8	15.8	0.5	4.4	100.0	49.9	24.5	17.9	3.4	4.4	100.0	158
3-4	43.2	40.2	13.0	0.0	3.6	100.0	54.0	23.6	16.2	2.1	4.0	100.0	133
5+	32.2	47.8	15.1	0.0	5.0	100.0	36.6	26.3	21.3	4.6	11.3	100.0	95
Residence													
Urban	36.2	39.5	19.8	0.0	4.5	100.0	45.0	22.6	21.4	2.7	8.2	100.0	108
Rural	41.8	40.0	13.7	0.6	3.9	100.0	49.1	24.2	17.6	3.8	5.4	100.0	323
Region													
Apia Urban Area	36.2	39.5	19.8	0.0	4.5	100.0	45.0	22.6	21.4	2.7	8.2	100.0	108
North West Upolu	40.1	39.2	18.8	0.0	1.9	100.0	46.2	25.2	19.7	6.4	2.5	100.0	148
Rest of Upolu	44.3	38.8	9.4	1.0	6.5	100.0	45.1	27.5	17.1	2.4	7.9	100.0	77
Savaii	42.3	42.2	9.5	1.0	4.9	100.0	56.6	20.1	14.7	0.9	7.7	100.0	98
Education													
Primary or less	*	*	*	*	*	100.0	*	*	*	*	*	100.0	16
Secondary incomplete	37.1	43.7	14.7	0.9	3.5	100.0	45.5	26.1	19.1	4.7	4.6	100.0	197
Secondary complete	48.2	28.2	19.6	0.0	4.0	100.0	53.9	19.2	16.8	3.0	7.1	100.0	102
Vocational/higher	41.7	41.5	11.2	0.0	5.6	100.0	47.2	25.1	17.7	2.4	7.6	100.0	116
Wealth quintile													
Lowest	35.0	46.9	11.7	3.1	3.3	100.0	40.4	29.4	19.1	4.4	6.6	100.0	57
Second	42.5	36.4	19.6	0.0	1.5	100.0	45.8	27.5	22.4	2.8	1.5	100.0	77
Middle	36.4	43.8	16.1	0.0	3.7	100.0	54.7	21.1	12.8	4.2	7.2	100.0	86
Fourth	44.4	40.7	11.0	0.0	3.9	100.0	46.0	21.4	22.6	3.9	6.2	100.0	95
Highest	41.3	35.3	16.9	0.0	6.5	100.0	50.2	22.5	16.7	2.7	7.9	100.0	117
Total	40.4	39.9	15.3	0.4	4.1	100.0	48.1	23.8	18.5	3.5	6.1	100.0	431

Note: Numbers in parentheses are based on 25-49 unweighted cases; an asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed

Women's control over their cash earnings is highest among women in the Rest of Upolu region (44 percent), followed by women in the Savaii and North West Upolu regions (42 and 40 percent, respectively)—and lowest among women in the Apia Urban Area (36 percent). Education and household wealth status do not show a clear association with women's control over their own earnings. Nevertheless, 37 percent of women with secondary incomplete education and 35 percent of women in the lowest wealth quintile are the sole deciders of how their cash earnings are used, compared with 48 percent of women with secondary complete education and 41 percent of women in the highest wealth quintile.

Twenty-four percent of currently married, employed women in Samoa say that they earn less than their husband, 19 percent say that they earn about the same amount, and 4 percent say that their husband has no earnings. Remarkably, nearly half (48 percent) of married, employed women say that they earn more than their husband. Thus, more than seven in ten currently married, employed women earn at least as much as their husband. Employed women in rural areas are only slightly more likely than employed women in urban areas to earn more than their husbands. Overall, women in their early thirties, those with three or four living children, women in the Savaii region, those with secondary complete education, and those in the middle wealth quintile are more likely to earn more than their husbands.

Currently married men age 15-49 who receive cash earnings and currently married women age 15-49 whose husbands receive cash earnings were asked who decides how the husband's cash earnings are spent. Table 13.2.2 shows that 26 percent of men and 37 percent of women say that the wife mainly decides how the husband's earnings are used. Slightly less than half of the couples (45 percent of men and 46 percent of women) say the husband and wife decide jointly how the man's cash earnings are used. Younger couples are less likely to share control over the husband's earnings than older couples. Urban couples are more likely than rural couples to say that decisions about how the husband's cash earnings are spent are made jointly by the husband and wife; this is especially true for men (59 percent of urban men and 41 percent of rural men).

Men in the Savaii region are twice as likely to make decisions themselves on how to use their cash earnings as men in the Apia Urban Area (36 and 15 percent, respectively). Seventeen percent of women in the Apia Urban Area whose husbands receive cash earnings reported that their husbands usually have sole authority over the use of their earnings compared with 13 percent of women in Savaii.

Men in the Apia Urban Area (59 percent), men with secondary complete education (53 percent), and those in the higher wealth quintiles (56 percent) are more likely to make decisions jointly about the use of the man's cash earnings. Among women, older women, those with no living children, and those with five or more children are most likely to make decisions jointly about the use of the man's cash earnings, with little difference by region, education, or wealth.

Table 13.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women 15-49 whose husbands receive cash earnings, by person who decides how men's cash earnings are used, according to background characteristics, Samoa 2009

	Men							Women						
	Person who decides how husband's cash earnings are used:							Person who decides how husband's cash earnings are used:						
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of men	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women
Age														
15-19	*	*	*	*	*	100.0	0	(38.6)	(45.8)	(15.5)	(0.0)	(0.0)	100.0	39
20-24	(20.2)	(37.3)	(38.8)	(3.7)	(0.0)	100.0	26	39.1	40.1	18.1	1.0	1.6	100.0	190
25-29	(27.5)	(36.1)	(36.4)	(0.0)	(0.0)	100.0	41	40.2	44.0	14.0	0.3	1.5	100.0	270
30-34	19.2	37.1	43.7	0.0	0.0	100.0	64	39.5	46.5	11.9	0.0	2.1	100.0	244
35-39	33.0	45.7	21.4	0.0	0.0	100.0	78	38.5	45.6	14.2	0.3	1.4	100.0	302
40-44	21.4	57.5	19.7	0.0	1.4	100.0	66	32.3	47.4	17.8	0.5	2.1	100.0	240
45-49	(34.2)	(46.3)	(18.3)	(0.0)	(1.2)	100.0	48	32.5	48.9	16.6	0.0	2.1	100.0	247
Number of living children														
0	(17.6)	(51.7)	(27.5)	(0.0)	(3.2)	100.0	30	30.0	51.2	14.4	0.9	3.4	100.0	117
1-2	26.8	39.9	32.5	0.8	0.0	100.0	118	40.4	41.9	16.1	0.6	1.1	100.0	474
3-4	25.8	44.6	29.6	0.0	0.0	100.0	106	37.9	45.6	14.4	0.2	1.9	100.0	494
5+	30.2	49.5	19.5	0.0	0.8	100.0	70	34.5	48.1	15.6	0.0	1.8	100.0	448
Residence														
Urban	23.0	59.2	15.3	0.0	2.5	100.0	61	34.6	46.8	17.3	0.0	1.3	100.0	266
Rural	27.2	41.2	31.3	0.4	0.0	100.0	263	37.6	45.3	14.9	0.4	1.8	100.0	1,267
Region														
Apia Urban Area	23.0	59.2	15.3	0.0	2.5	100.0	61	34.6	46.8	17.3	0.0	1.3	100.0	266
North West Upolu	18.3	53.5	28.2	0.0	0.0	100.0	127	38.9	43.9	15.9	0.0	1.3	100.0	494
Rest of Upolu	43.8	22.4	32.6	1.2	0.0	100.0	77	35.6	46.6	15.3	0.0	2.5	100.0	376
Savaii	(24.5)	(39.4)	(36.2)	(0.0)	(0.0)	100.0	59	37.9	45.9	13.2	1.2	1.8	100.0	397
Education														
Primary or less	(32.6)	(37.8)	(27.7)	(0.0)	(1.8)	100.0	31	35.5	45.7	17.4	0.0	1.3	100.0	83
Secondary incomplete	26.6	43.0	30.4	0.0	0.0	100.0	158	36.2	47.4	15.0	0.3	1.1	100.0	939
Secondary complete	25.3	53.2	20.0	0.0	1.5	100.0	62	40.9	41.6	14.6	0.3	2.7	100.0	317
Vocational/higher	24.0	43.6	31.0	1.3	0.0	100.0	72	35.7	43.7	16.9	0.4	3.4	100.0	194
Wealth quintile														
Lowest	36.4	34.5	28.1	0.0	1.1	100.0	53	39.4	47.5	11.2	0.6	1.3	100.0	296
Second	28.6	51.2	20.3	0.0	0.0	100.0	50	39.0	42.5	17.5	0.3	0.7	100.0	308
Middle	28.1	42.7	29.2	0.0	0.0	100.0	60	37.2	46.2	14.8	0.3	1.6	100.0	320
Fourth	28.6	37.5	34.0	0.0	0.0	100.0	84	34.0	47.1	16.4	0.3	2.2	100.0	318
Highest	14.5	56.3	26.8	1.2	1.2	100.0	78	36.0	44.8	16.3	0.0	2.8	100.0	292
Total 15-49	26.4	44.6	28.3	0.3	0.5	100.0	323	37.1	45.6	15.3	0.3	1.7	100.0	1,533
50-54	(27.9)	(59.3)	(12.9)	(0.0)	(0.0)	100.0	30	na	na	na	na	na	na	na
Total men 15-54	26.5	45.8	27.0	0.3	0.4	100.0	353	na	na	na	na	na	na	na

Note: Numbers in parentheses are based on 25-49 unweighted cases; an asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed.
na = Not Applicable

Table 13.3 shows the percent distribution of currently married women age 15-49 who received cash earnings in the past 12 months by the person who decides how their cash earnings are used. It also shows the percent distribution of currently married women age 15-49 whose husbands received cash earnings in the past 12 months by the person who decides how the husband's cash earnings are used, according to the relative magnitude of the earnings of the women and their husbands.

Half of women who earn more than their husband decide how their cash earnings and those of their husband are used compared with approximately one-third of women whose cash earnings are the same or less than their husband. Women who say they earn about the same amount as their husband are more likely to make joint decisions with their husband about how their cash earnings (51 percent) and those of their husband (57 percent) are used.

Table 13.3 Women's control over her own earnings and over those of her husband

Percent distributions of currently married women age 15-49 with cash earnings in the past 12 months by person who decides how the woman's cash earnings are used and of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between woman's and husband's cash earnings, Samoa 2009

	Person who decides how the wife's cash earnings are used[1]:							Person who decides how husband's cash earnings are used[2]:						
Women's earnings relative to husband's earnings	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women
More than husband	50.3	33.1	16.2	0.4	0.0	100.0	207	50.7	32.6	16.2	0.4	0.0	100.0	207
Less than husband	35.6	45.9	18.5	0.0	0.0	100.0	103	30.1	46.5	23.4	0.0	0.0	100.0	101
Same as husband	33.7	50.5	15.9	0.0	0.0	100.0	80	36.2	56.9	6.9	0.0	0.0	100.0	80
Husband has no cash earnings or did not work	*	*	*	*	*	100.0	15	na	na	na	na	na	0.0	0
Woman worked but has no cash earnings	na	na	na	na	na	0.0	0	33.4	56.3	8.8	0.0	1.5	100.0	65
Woman did not work in past 12 months	na	na	na	na	na	0.0	0	35.8	46.6	15.7	0.3	1.6	100.0	1,054
Don't know/missing	(13.9)	(15.5)	(0.0)	(3.9)	(66.7)	100.0	26	(17.8)	(41.8)	(3.2)	(3.9)	(33.3)	100.0	26
Total[1,2]	40.4	39.9	15.3	0.4	4.1	100.0	431	37.1	45.6	15.3	0.3	1.7	100.0	1,533

Note: Numbers in parentheses are based on 25-49 unweighted cases; an asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed.
na = Not Applicable
[1] Total excludes cases where the woman has no cash earnings or did not work in the past 12 months but includes cases where a woman does not know whether she earned more or less than her husband.
[2] Total excludes cases where the woman's husband has no cash earnings

13.3 WOMEN'S PARTICIPATION IN HOUSEHOLD DECISION-MAKING

The ability to make decisions about one's own life is important to women's empowerment. In addition to information on women's control over cash earnings, the 2009 SDHS collected information from both women and men on other measures of women's empowerment. Respondents were asked about women's role in household decision-making, acceptance of wife beating, and their opinions about whether a wife can deny sex to her husband for a specific reason. Such information provides insight into women's control over their environment and their attitudes towards gender roles, both of which are relevant to understanding women's ability to make independent decisions about their own health care and that of their children.

To assess women's decision-making autonomy, information was collected on their participation in four types of household decisions: making health care decisions, making large household purchases, making household purchases for daily needs, and visiting family or relatives. Having a final say in the decision-making process is the highest degree of autonomy. Women are considered to participate in a decision if they usually make that decision alone or jointly with their husband. Table 13.4.1 shows the percent distribution of currently married women age 15-49 by the person in the household who usually makes decisions about the four types of issues affecting them.

Women in Samoa are usually involved in all four specific decisions, although the extent of their involvement depends on the issue being decided. Thirty-nine percent of women say they alone make decisions about their own health, and 37 percent make decisions about the purchase of daily household items; however, slightly more than half of women usually make these decisions jointly with their husbands. Decisions about the major household purchases, and visits to the wife's family or relatives are usually made jointly by the husband and wife (71 and 75 percent, respectively)

Table 13.4.1 Women's participation in decision making

Percent distribution of currently married women age 15-49 by person who usually makes decisions about four kinds of issues, Samoa 2009

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	38.9	51.4	8.1	0.1	0.1	1.4	100.0	1,554
Major household purchases	12.5	70.5	12.6	2.7	0.2	1.4	100.0	1,554
Purchases of daily household needs	37.4	50.5	9.8	0.7	0.2	1.4	100.0	1,554
Visits to her family or relatives	12.5	75.2	10.0	0.4	0.3	1.5	100.0	1,554

In the 2009 SDHS, men were asked whether the wife, the husband, or both equally should have the greater say in five specific decisions—making major household purchases, making daily household purchases, deciding when to visit the wife's family or relatives, deciding what to do with the money the wife earns, and deciding how many children to have. Table 13.4.2 shows the percent distribution of currently married men age 15-49 by the person they think should have the greater say in making decisions about these five types of issues.

Table 13.4.2 shows that for most decisions, the majority of currently married men age 15-49 think that the husband and wife should have equal say in making decisions. This is especially true for decisions about the number of children to have (91 percent) and visits to the wife's family or relatives (76 percent). Forty-three percent of married men say that the wife should have the greater say in making decisions about small household purchases, and 46 percent think that the husband and wife should have equal say. On the other hand, only 4 percent of married men say that the wife should have the greater say in making decisions about major household purchases, while 27 percent of men think that the husband should have the greater say and 68 percent think the husband and wife should have equal say.

Table 13.4.2 Women's participation in decision making according to men

Percent distribution of currently married men 15-49 by person who they think should have a greater say in making decisions about five kinds of issues, Samoa 2009

Decision	Wife	Wife and husband equally	Husband	Don't know/ depends	Missing	Total	Number of men
Major household purchases	4.4	68.4	26.7	0.1	0.4	100.0	573
Purchases of daily household needs	43.2	46.2	9.7	0.5	0.4	100.0	573
Visits to wife's family or relatives	4.7	75.7	18.0	1.3	0.4	100.0	573
What to do with the money wife earns	18.5	67.2	12.9	1.1	0.4	100.0	573
How many children to have	2.9	90.8	5.7	0.3	0.4	100.0	573

Table 13.5.1 shows the percentage of married women who participate in the four decisions specified for female respondents, according to background characteristics. As noted above, a woman is considered to participate in a decision if she says she usually makes the decision alone or jointly with her husband.

Ninety percent of currently married women age 15-49 say they make decisions about their own health care, either by themselves or jointly with their husbands, and 83 percent of women say they participate in decisions about major household purchases. Eighty-eight percent of married women say they participate in decisions about daily household needs, and the same proportion say they participate in decisions about visits to their own family or relatives. Overall, 73 percent of currently married women participate in all four decisions, and less than 5 percent do not participate in any of the four decisions.

Table 13.5.1 Women's participation in decision making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Samoa 2009

Background characteristic	Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	Percentage who participate in all four decisions	Percentage who participate in none of the four decisions	Number of women
Age							
15-19	(85.2)	(81.7)	(82.3)	(83.1)	(71.7)	(6.9)	39
20-24	89.4	76.9	84.9	86.2	70.0	5.1	196
25-29	89.8	80.9	84.4	88.0	70.3	5.2	272
30-34	92.8	85.8	89.7	89.8	77.7	3.5	246
35-39	87.9	83.9	87.4	85.0	69.3	6.0	305
40-44	91.3	82.7	88.0	87.8	73.0	4.9	243
45-49	92.2	87.1	93.3	90.2	80.9	3.6	252
Employment (past 12 months)							
Not employed	90.8	84.4	88.4	89.2	75.1	4.4	1,056
Employed for cash	89.0	80.6	87.5	84.5	70.1	5.3	431
Employed not for cash	94.1	81.3	83.5	86.4	70.3	5.9	60
Number of living children							
0	82.9	74.3	83.2	83.9	67.9	10.1	120
1-2	91.5	83.7	86.9	87.9	74.0	4.3	482
3-4	90.1	81.0	86.7	86.1	69.9	5.0	498
5+	91.4	87.0	91.4	90.2	78.1	3.8	453
Residence							
Urban	92.2	88.4	93.2	92.7	80.8	3.1	271
Rural	90.0	82.0	86.7	86.6	71.9	5.2	1,283
Region							
Apia Urban Area	92.2	88.4	93.2	92.7	80.8	3.1	271
North West Upolu	88.2	80.9	87.5	86.2	74.3	7.8	505
Rest of Upolu	89.4	79.9	87.8	85.4	70.6	4.6	378
Savaii	92.7	85.2	84.9	88.3	70.0	2.4	400
Education							
Primary or less	85.8	75.2	89.0	84.4	62.4	4.9	85
Secondary incomplete	90.9	83.2	87.5	88.6	73.6	4.2	951
Secondary complete	89.3	86.2	87.3	86.9	75.0	5.7	321
Vocational/higher	91.3	80.6	90.0	86.0	74.8	6.3	197
Wealth quintile							
Lowest	92.5	86.2	89.7	90.3	78.0	3.6	301
Second	89.9	81.4	86.7	88.3	71.2	4.7	312
Middle	91.3	83.4	89.0	87.8	73.2	3.2	323
Fourth	89.5	82.4	87.4	87.0	72.7	6.0	323
Highest	88.5	82.1	86.5	85.0	72.0	6.6	295
Total	90.3	83.1	87.9	87.7	73.4	4.8	1,554

Note: Total includes cases with missing information on employment. Figures in parentheses are based on 25-49 unweighted cases.

Older women are more likely than younger women to participate in all four kinds of decisions. Surprisingly, unemployed women are slightly more likely to participate in all four decisions (75 percent) than women who are currently employed (70 percent). Women with five or more children are more likely to participate in all four decisions (78 percent) than women with no children (68 percent).

Urban women are more likely than rural women to participate in each of the four decisions. Women in the Apia Urban Area are most likely to participate in all four decisions while women in the Savaii and Rest of Upolu regions are the least likely to participate in all four decisions.

Except for the daily household purchases, women with primary or less education are less likely to participate in making each of the specified decisions, and in making all four decisions, than women with more education. For example, 62 percent of women with primary or less education participate in all four decisions compared with 74-75 percent of women with secondary or higher education. Interestingly, women in the lowest wealth quintile (78 percent) are more likely to participate in making all four decisions than those in the highest wealth quintile (72 percent).

Table 13.5.2 shows the percentage of currently married men age 15-49 who think the wife should have the greater say or equal say with her husband on five specific kinds of decisions. Sixty-one percent of men think that the wife should participate, either alone or equally with her husband, in all five decisions. Only a small fraction of married men, less than 3 percent, think that the wife should participate in none of the five decisions, either alone or jointly with her husband.

Table 13.5.2 Men's attitude toward wives' participation in decision making

Percentage of currently married men age 15-49 who think a wife should have the greater say alone or equal say with her husband on five specific kinds of decisions, by background characteristics, Samoa 2009

Background characteristic	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	What to do with the money the wife earns	How many children to have	All five decisions	None of the five decisions	Number of men
Age								
15-19	*	*	*	*	*	*	*	2
20-24	(68.8)	(92.1)	(88.7)	(84.7)	(98.3)	(56.7)	(0.0)	45
25-29	76.1	87.1	73.6	85.6	89.2	62.1	4.1	77
30-34	70.7	90.9	80.4	85.2	94.4	57.6	1.4	106
35-39	76.1	88.9	79.4	86.5	95.4	64.2	2.4	119
40-44	73.6	88.8	81.2	88.1	94.1	60.2	2.4	124
45-49	68.8	89.5	81.6	82.5	91.5	59.1	4.4	101
Employment (past 12 months)								
Not employed	80.1	94.3	86.0	86.1	95.3	69.4	0.9	183
Employed for cash	68.5	87.3	79.2	87.2	94.4	56.8	2.9	323
Employed not for cash	73.3	85.7	70.5	77.1	85.8	53.4	5.6	66
Number of living children								
0	75.7	91.7	78.8	91.8	95.9	62.0	0.0	61
1-2	74.9	93.1	82.7	85.4	92.4	61.2	2.2	194
3-4	72.8	87.8	79.8	87.5	94.7	60.4	2.2	184
5+	68.3	85.1	78.5	80.9	93.0	58.9	4.8	134
Residence								
Urban	72.1	86.0	85.9	89.5	97.6	64.3	1.2	94
Rural	72.9	90.1	79.3	85.0	92.9	59.7	2.8	479
Region								
Apia Urban Area	72.1	86.0	85.9	89.5	97.6	64.3	1.2	94
North West Upolu	70.3	89.3	82.1	89.2	94.2	63.0	3.9	195
Rest of Upolu	73.6	92.6	78.9	87.2	95.7	59.6	1.4	145
Savaii	76.0	88.5	75.8	76.7	88.2	55.3	2.7	140
Education								
Primary or less	74.2	91.2	71.2	83.1	92.3	57.0	2.5	79
Secondary incomplete	71.3	87.2	78.4	84.2	92.0	58.9	3.7	309
Secondary complete	70.7	91.9	85.2	90.2	96.1	61.8	0.0	92
Vocational/higher	78.6	92.7	89.8	88.3	97.9	67.2	1.5	93
Wealth quintile								
Lowest	65.6	81.3	69.3	77.3	85.4	52.4	6.4	111
Second	86.7	94.0	83.8	86.3	96.4	68.4	0.8	100
Middle	76.4	91.4	80.1	84.6	95.4	65.0	1.8	118
Fourth	62.7	89.0	82.2	92.7	95.1	55.5	2.5	125
Highest	74.9	91.5	86.2	86.8	95.9	62.2	1.3	119
Total 15-49	72.8	89.4	80.4	85.7	93.7	60.5	2.6	573
50-54	79.8	91.8	85.2	87.0	92.2	65.6	2.2	78
Total men 15-54	73.6	89.7	81.0	85.9	93.5	61.1	2.5	651

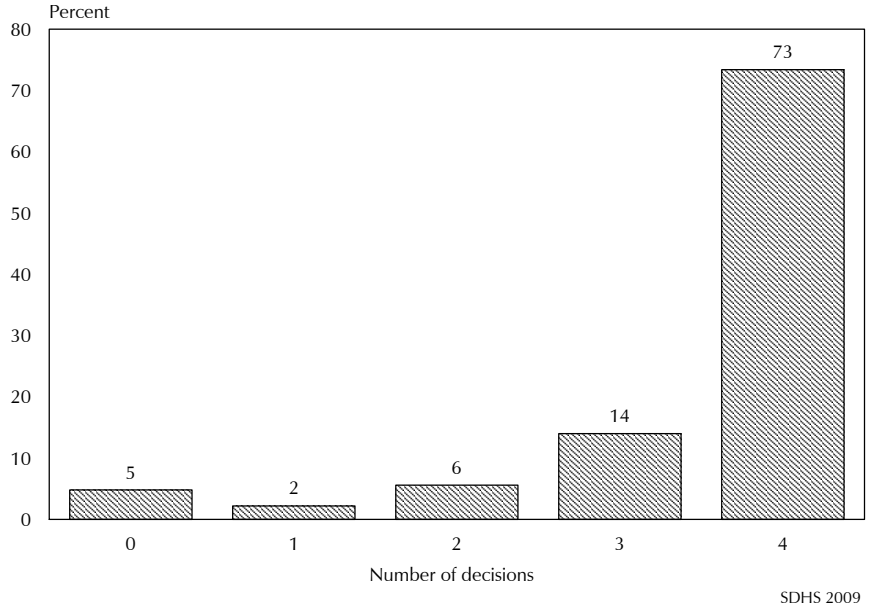
Note: Total includes cases with missing information on employment. Numbers in parentheses are based on 25-49 unweighted cases; an asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed

With regard to the specific types of decisions, a majority of men (94 percent) think that the spouse should have a say in the number of children to have. About nine in ten men (89 percent) think that the wife should participate in decisions about making purchases for daily household needs, and 86 percent think the wife should participate in decisions about what to do with the money she earns. While 80 percent of the men think their wives should participate in decisions about visits to her family or relatives, just 73 percent think their wives should participate in decisions about major household purchases.

Men age 35-39, those not currently employed, men in the Apia Urban Area and North West Upolu regions, men with higher education, and those who are in the second or middle wealth quintiles are more likely than other men to think that a wife should have an equal or greater say than her husband for all five decisions.

Figure 13.1 shows the distribution of currently married women by the number of decisions in which they participate, either alone or jointly with their husband. Only 5 percent of women do not participate in any of the four types of decisions, 2 percent have a say in at least one decision, 7 percent participate in at least two decisions, 14 percent participate in at least three decisions, and 73 percent participate in all four decisions.

Figure 13.1 **Number of Household Decisions in Which Currently Married Women Participate**



13.4 ATTITUDES TOWARDS WIFE BEATING

Another measure of women's empowerment derives from the idea that gender equity is essential to empowerment. Responses that indicate a view that the beating of wives by husbands is justified reflect a low status of women. They signify acceptance of norms that give men the right to use force against women, which is a violation of women's human rights. Violence against women has serious consequences for their mental and physical well-being, including their reproductive and sexual health (Heise et al., 1999).

The 2009 SDHS gathered information on women's and men's attitudes toward wife beating, a proxy for women's status. Respondents who believe that a husband is justified in hitting or beating his wife for any of the specified reasons may believe women to be low in status both absolutely and relative to men. Such a perception could act as a barrier for women in accessing health care for themselves and their children, and could affect women's attitudes towards contraceptive use as well as their general well-being. Respondents were asked whether a husband is justified in beating his wife under a series of circumstances: wife burns the food, wife argues with him, wife goes out without telling him, wife neglects the children, and wife refuses to have sex with him. Table 13.6.1 summarizes women's attitudes towards wife beating in these five specific circumstances. Table 13.6.2 summarizes men's attitudes.

Table 13.6.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Samoa 2009

	Husband is justified in hitting or beating his wife if she:						
Background characteristic	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of women
Age							
15-19	12.7	14.5	24.0	45.6	11.2	57.8	560
20-24	12.9	18.9	26.5	48.8	16.3	59.8	474
25-29	16.2	22.1	29.3	49.2	20.7	61.9	375
30-34	14.0	19.6	33.9	54.7	16.5	63.5	308
35-39	14.1	19.6	33.3	44.7	21.1	61.2	358
40-44	15.3	17.1	36.0	48.9	20.9	62.1	284
45-49	12.3	19.0	29.6	47.5	17.6	61.8	299
Employment (past 12 months)							
Not employed	13.8	18.1	30.2	50.2	17.1	63.0	1,877
Employed for cash	14.3	18.6	27.9	43.6	17.2	55.2	695
Employed not for cash	9.8	24.7	31.5	40.5	19.1	55.6	75
Number of living children							
0	14.4	17.1	26.3	47.2	13.3	58.9	967
1-2	12.0	18.5	26.6	46.7	18.3	58.5	662
3-4	13.8	19.8	34.0	47.7	19.6	62.4	545
5+	15.2	19.4	35.0	52.8	20.7	65.7	483
Marital status							
Never married	13.6	16.5	25.0	46.8	13.1	57.5	971
Married or living together	14.4	19.9	32.7	49.6	19.8	63.2	1,554
Divorced/separated/widowed	7.9	16.2	25.3	41.9	16.4	55.4	132
Residence							
Urban	7.9	12.6	16.7	26.3	10.8	37.4	548
Rural	15.3	20.0	32.9	53.9	18.8	66.8	2,109
Region							
Apia Urban Area	7.9	12.6	16.7	26.3	10.8	37.4	548
North West Upolu	15.7	21.3	33.6	59.5	22.5	70.4	907
Rest of Upolu	18.4	19.4	34.2	45.5	16.2	60.4	597
Savaii	11.7	18.6	30.4	53.7	15.9	67.8	605
Education							
Primary or less	16.8	26.0	37.6	52.8	16.9	68.8	132
Secondary incomplete	14.0	18.4	31.3	50.2	18.8	63.5	1,598
Secondary complete	13.6	18.8	27.7	47.8	16.4	60.3	519
Vocational/higher	12.2	15.6	22.2	39.3	11.6	48.0	408
Wealth quintile							
Lowest	14.6	17.8	30.5	52.0	17.9	64.6	472
Second	11.6	19.8	31.9	51.7	21.3	65.1	516
Middle	15.6	19.4	30.6	48.8	16.0	63.1	557
Fourth	12.3	18.4	29.1	48.9	14.6	60.1	555
Highest	14.8	16.7	25.8	40.2	16.5	51.9	558
Total	13.8	18.4	29.5	48.2	17.2	60.8	2,657

Note: Total includes cases with missing information on employment

Approximately six in ten women (61 percent) think that a husband is justified in beating his wife for at least one of the five specified reasons. One in seven women (14 percent) think that wife beating is justified if the wife burns the food; and one in six women think that beating is justified if the wife refuses to have sexual intercourse with her husband (17 percent), or if she argues with him (18 percent). Three in ten women say wife beating is justified if the wife goes out without telling him, and nearly half (48 percent) think that beating is justified if the wife neglects the children.

Overall, women in their early thirties, rural women, those with primary or less education, and women in the lower wealth quintiles are more likely than other women to agree with at least one reason for wife beating. In addition, women who are not employed and those with five or more children are more likely than other women to agree with at least one of the reasons for wife beating. Women living in the North West Upolu and Savaii regions (70 and 68 percent, respectively) are the most likely to agree with at least one specified reason for wife beating.

Urban women, those living in the Greater Accra region, women with higher education, and those in the highest wealth quintile are the least likely to agree with at least one specified reason that justifies wife beating.

Interestingly, Table 13.6.2 shows that men are less likely (46 percent) than women (61 percent) to think that a husband is justified in beating his wife for any of the specified reasons. Only 5 percent of men age 15-49 think that a husband is justified in beating the wife if she refuses to have sex with him, compared with 17 percent of women. Approximately one in ten men agree that wife beating is justified if she burns the food (8 percent) or if she argues with him (13 percent). Seventeen percent of men think that a husband is justified in beating the wife if she goes out without telling him, and 41 percent think that beating is justified if the wife neglects the children.

Men show some differences in the percentages who think wife beating is justified for any of the specified reasons. Younger men, unemployed men, never married men, those with no children, and men in rural areas are more likely to agree with at least one of the reasons for wife beating than other men. As with women, male respondents who reside in the North West Upolu and Savaii regions are most likely to agree with at least one of the reasons for wife beating. Acceptance of wife beating is lowest among the most educated men and those in the highest wealth quintile.

Table 13.6.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Samoa 2009

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of men
Age							
15-19	8.5	16.2	17.1	43.9	6.1	49.6	269
20-24	7.1	14.3	20.4	43.9	3.1	49.1	209
25-29	8.7	13.2	19.9	43.7	6.3	50.5	168
30-34	5.0	12.4	17.7	33.0	1.8	35.2	161
35-39	8.7	11.3	17.1	40.8	5.5	45.7	153
40-44	7.9	11.6	14.6	38.9	4.3	44.6	147
45-49	5.3	5.5	12.0	35.2	4.3	39.7	112
Employment (past 12 months)							
Not employed	7.7	13.2	20.3	44.7	4.1	48.7	582
Employed for cash	8.0	12.8	15.5	36.8	4.5	43.3	510
Employed not for cash	4.7	11.2	11.3	37.6	7.3	42.5	127
Number of living children							
0	8.5	14.8	18.8	43.5	5.0	49.0	682
1-2	5.9	11.3	15.2	33.7	2.7	38.6	214
3-4	7.0	11.2	15.8	39.1	6.2	44.9	189
5+	5.7	7.8	15.5	39.4	2.9	41.8	136
Marital status							
Never married	8.2	15.2	18.8	44.2	5.0	50.2	619
Married or living together	6.7	10.7	16.2	37.5	4.2	41.7	573
Divorced/separated/widowed	(7.0)	(5.0)	(8.6)	(26.2)	(3.6)	(31.2)	28
Residence							
Urban	9.6	5.4	8.1	27.7	7.3	33.7	211
Rural	7.1	14.4	19.3	43.3	4.0	48.3	1,009
Region							
Apia Urban Area	9.6	5.4	8.1	27.7	7.3	33.7	211
North West Upolu	5.7	13.0	19.9	46.6	2.9	50.1	439
Rest of Upolu	3.9	15.6	12.6	39.7	6.6	45.0	279
Savaii	12.1	15.1	24.7	41.9	3.2	48.6	291
Education							
Primary or less	11.8	16.6	28.3	45.7	7.7	52.0	158
Secondary incomplete	7.8	14.4	17.6	42.0	4.5	47.5	670
Secondary complete	5.8	8.8	12.4	35.4	4.0	40.7	187
Vocational/higher	4.8	8.4	12.5	36.9	3.0	39.6	206
Wealth quintile							
Lowest	11.5	15.3	23.0	47.3	3.4	53.3	209
Second	12.2	12.5	18.1	41.7	7.4	47.5	226
Middle	5.0	12.3	15.1	38.9	4.3	42.7	274
Fourth	4.4	15.5	19.5	44.3	3.6	48.1	264
Highest	5.9	8.8	12.1	32.0	4.4	38.5	248
Total 15-49	7.5	12.8	17.4	40.6	4.6	45.7	1,220
50-54	6.6	12.2	17.7	30.8	5.2	39.5	87
Total men 15-54	7.4	12.8	17.4	40.0	4.6	45.3	1,307

Note: Total includes cases with missing information on employment. Numbers in parentheses are based on 25-49 unweighted cases

13.5 ATTITUDES TOWARDS REFUSING SEX WITH HUSBAND

Beliefs about whether and when a woman can refuse to have sex with her husband reflect issues of gender equity regarding sexual rights and bodily integrity. Besides yielding an important measure of empowerment, information about women's and men's attitudes towards women's sexual rights is useful for improving and monitoring reproductive health programmes that depend on women's willingness and ability to control their own sexual lives.

The extent of control that women have over when and with whom they have sex has important implications for outcomes such as transmission of HIV and other sexually transmitted

infections. To measure beliefs about sexual empowerment, female and male respondents in the SDHS were asked whether they think it is justifiable for a wife to refuse sexual intercourse with her husband when she knows her husband has a sexually transmitted infection.

Table 13.7.1 shows that 17 percent of women agree that a woman can refuse to have sexual intercourse with her husband if she knows her husband has a sexually transmitted infection. However, the majority of women disagree with this statement (83 percent).

Table 13.7.1 Attitude toward refusing sexual intercourse with husband

Percentage of all women and men age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, Samoa 2009

	Women			Men		
	Wife is justified in refusing intercourse with her husband if she knows husband has a sexually transmitted disease			Wife is justified in refusing intercourse with her husband if she knows husband has a sexually transmitted disease		
Background characteristic	Percentage agree	Percentage disagree	Number of women	Percentage agree	Percentage disagree	Number of men
Age						
15-19	7.7	92.3	560	18.9	81.1	269
20-24	14.1	85.9	474	36.2	63.8	209
25-29	17.5	82.5	375	32.0	68.0	168
30-34	22.8	77.2	308	44.5	55.5	161
35-39	18.9	81.1	358	38.8	61.2	153
40-44	23.5	76.5	284	30.1	69.9	147
45-49	24.0	76.0	299	25.6	74.4	112
Employment (past 12 months)						
Not employed	13.2	86.8	1,877	26.9	73.1	582
Employed for cash	26.4	73.6	695	35.6	64.4	510
Employed not for cash	22.5	77.5	75	35.6	64.4	127
Marital status						
Never married	11.7	88.3	971	27.5	72.5	619
Married or living together	19.8	80.2	1,554	34.9	65.1	573
Divorced/separated/widowed	22.4	77.6	132	(50.6)	(49.4)	28
Number of living children						
0	12.0	88.0	967	28.2	71.8	682
1-2	18.6	81.4	662	36.3	63.7	214
3-4	21.5	78.5	545	37.3	62.7	189
5+	19.7	80.3	483	32.4	67.6	136
Residence						
Urban	29.7	70.3	548	24.2	75.8	211
Rural	13.7	86.3	2,109	33.0	67.0	1,009
Region						
Apia Urban Area	29.7	70.3	548	24.2	75.8	211
North West Upolu	15.1	84.9	907	29.2	70.8	439
Rest of Upolu	15.5	84.5	597	39.3	60.7	279
Savaii	9.8	90.2	605	32.8	67.2	291
Education						
Primary or less	8.5	91.5	132	22.8	77.2	158
Secondary incomplete	15.4	84.6	1,598	29.0	71.0	670
Secondary complete	16.7	83.3	519	37.6	62.4	187
Vocational/higher	26.4	73.6	408	40.8	59.2	206
Wealth quintile						
Lowest	14.3	85.7	472	32.3	67.7	209
Second	14.3	85.7	516	32.0	68.0	226
Middle	15.2	84.8	557	32.1	67.9	274
Fourth	17.7	82.3	555	28.8	71.2	264
Highest	22.8	77.2	558	32.6	67.4	248
Total 15-49	17.0	83.0	2,657	31.5	68.5	1,220
50-54	na	na	na	28.4	71.6	87
Total men 15-54	na	na	na	31.3	68.7	1,307

Note: Total includes cases with missing information on employment. Numbers in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Women who are employed for cash, those who live in urban areas, and those who live in the Apia urban area are most likely to agree that a wife is justified in refusing sexual intercourse with her husband if she knows he has a sexually transmitted infection. Older women, those who are divorced or separated, and those with three or four children are more likely to agree with a specified reason for a wife refusing to have sex with her husband. Similarly, a higher proportion of women with higher education and those in the highest wealth quintile agree with the statement.

Table 13.7.2 shows the percentage of men who think that a wife is justified in refusing to have sexual intercourse with her husband in the same circumstances: knowing that her husband has a sexually transmitted disease. The results indicate that the proportion of men who think that a woman is justified in refusing sexual intercourse with her husband if she knows he has a sexually transmitted infection is nearly twice as high as the proportion of women (32 and 17 percent, respectively). Men in their thirties, employed men, divorced or separated men, men in rural areas, those living in the Rest of Upolu and Savaii regions, men with higher education, and men with one or two or three or four children are more likely than other men to agree with the specified reason for a woman to refuse to have sexual intercourse with her husband.

In the 2009 SDHS, male respondents were also asked if they thought that a husband has the right to take specific actions when his wife refuses to have sexual intercourse with him. The actions include the following: get angry and reprimand her, refuse financial support, use force to have sex, and have sex with another woman. Table 13.7.2 shows the percentage of men age 15-49 in the light of these discussions. Overall, 94 percent of men rejected all four of the specified actions. Only 1 percent of men think that it is acceptable for a husband to get angry and reprimand his wife if she refuses to have sex with him or think that it is alright for a husband to refuse financial support if his wife refuses to have sexual intercourse; 2 percent think that a husband has the right to use force to have sexual intercourse with his wife; and 3 percent think that it is acceptable for a husband to have sex with another woman if his wife refuses to have sex with him. Differences by background characteristics are minimal. There are no men who agree with all the specified actions of the husband when the wife refuses to have sex with him.

Table 13.7.2 Men's attitude toward a husband's rights when his wife refuses to have sexual intercourse

Percentage of men age 15-49 who consider that a husband has the right to certain behaviours when a woman refuses to have sex with him when he wants her to, by background characteristics, Samoa 2009

Background characteristic	When a woman refuses to have sex with her husband, he has the right to: Get angry and reprimand her	Refuse her financial support	Use force to have sex	Have sex with another woman	Percentage who agree with none of the specified reasons	Number of men
Age						
15-19	1.5	2.3	3.0	3.1	91.9	269
20-24	1.0	1.9	1.7	5.7	91.1	209
25-29	3.4	1.3	3.1	2.5	91.0	168
30-34	0.0	0.0	0.0	2.5	97.5	161
35-39	0.8	0.7	0.6	0.6	97.4	153
40-44	0.8	1.6	0.5	1.6	96.3	147
45-49	1.2	0.0	2.0	3.0	95.8	112
Employment (past 12 months)						
Not employed	1.2	1.6	0.9	3.2	94.3	582
Employed for cash	1.5	0.8	2.2	2.0	94.4	510
Employed not for cash	0.9	1.7	3.2	4.9	90.4	127
Marital status						
Never married	1.6	2.2	2.3	3.8	91.6	619
Married or living together	1.0	0.4	0.9	1.7	96.6	573
Divorced/separated/widowed	(0.0)	(0.0)	(3.6)	(4.2)	(92.2)	28
Number of living children						
0	1.6	2.0	2.1	3.6	92.1	682
1-2	1.0	0.0	1.4	1.8	95.8	214
3-4	0.7	0.0	0.7	1.1	98.2	189
5+	0.9	1.6	1.4	3.4	94.4	136
Residence						
Urban	0.8	0.8	0.3	0.5	98.1	211
Rural	1.4	1.4	2.0	3.3	93.1	1,009
Region						
Apia Urban Area	0.8	0.8	0.3	0.5	98.1	211
North West Upolu	0.7	0.5	0.4	1.4	97.4	439
Rest of Upolu	1.2	1.7	4.2	6.1	89.0	279
Savaii	2.5	2.5	2.2	3.6	90.4	291
Education						
Primary or less	2.1	0.8	4.4	3.5	92.0	158
Secondary incomplete	1.4	1.6	1.7	2.4	93.6	670
Secondary complete	0.6	0.8	0.9	3.4	95.2	187
Vocational/higher	0.9	1.2	0.3	3.4	95.4	206
Wealth quintile						
Lowest	1.0	1.1	2.3	1.2	95.9	209
Second	2.2	0.0	1.8	4.0	92.1	226
Middle	1.1	0.9	3.1	2.1	93.7	274
Fourth	1.2	2.8	0.0	4.7	93.1	264
Highest	0.9	1.5	1.4	2.0	95.2	248
Total 15-49	1.3	1.3	1.7	2.9	93.9	1,220
50-54	0.0	1.3	0.0	2.8	95.9	87
Total men 15-54	1.2	1.3	1.6	2.9	94.1	1,307

Note: Total includes cases with missing information on employment. Numbers in parentheses are based on 25-49 unweighted cases

13.6 WOMEN'S EMPOWERMENT INDICATORS

The three sets of empowerment indicators, namely women's participation in making household decisions, their attitude towards wife beating, and their attitude towards a wife's right to refuse sexual intercourse with her husband, can be summarized in three separate indices. All three indices are based on women's responses.

The first index shows the number of decisions in which women participate alone or jointly with their husband/partner (see Table 13.5.1 for the list of decisions). This index ranges in value from 0 to 4 and is positively related to women's empowerment. It reflects the degree of decision-making control that women are able to exercise in areas that affect their lives and environments.

The second index is the number of reasons for which the respondent thinks that a husband is justified in beating his wife (see Table 13.6.1 for the list of reasons). This index ranges in value from 0 to 5. A low score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem and higher status of women.

The final index reflects whether the respondent thinks that a woman is justified in refusing sexual intercourse with her husband or partner if she knows that he has a sexually transmitted infection (STI) (see Table 13.7.1). This index ranges in value from 0 to 1 and positively relates to women's sense of self-esteem and empowerment. It reflects perceptions of sexual roles and women's rights over their bodies.

Table 13.8 shows these three indicators of women's empowerment and how they relate to each other. It shows the percentage of married women age 15-49 who participate in all decision-making, the percentage of women who disagree with all the specified reasons for justifying wife beating, and the percentage of women who agree with the specified reasons for a wife refusing to have sexual intercourse with her husband, by the value on each of the indicators. In general, the expectation is that women who participate in making household decisions are more likely to have gender-egalitarian beliefs.

The findings on women's empowerment indicate that women who participate in one or two of the specified household decisions are the least likely to disagree with all the reasons for justifying wife beating (26 percent) compared with women who participate in none or in three or four decisions (37 and 38 percent, respectively). However, women who participate in three or four of the specified household decisions are more likely to justify their right to refuse sexual intercourse with their husband if he has an STI. Women who do not support wife beating for any reason at all are most likely to participate in all the decision-making in the household (80 percent) and most likely to agree with a women's right to refuse sexual intercourse with the husband (21 percent). Although the differences are small, women who agree with the reason to refuse sexual intercourse with the husband are more likely to participate in all four decisions (76 percent), and disagree with all the reasons for wife beating (48 percent), compared with women who do not agree with the reason given for refusing sexual intercourse with their husband (73 and 37 percent, respectively).

Table 13.8 Indicators of women's empowerment

Percentage of women age 15-49 who participate in all decision making, percentage who disagree with all reasons for justifying wife-beating, and percentage who agree with the reason for refusing sexual intercourse with husband, by value on each of the indicators of women's empowerment, Samoa 2009

Empowerment indicator	Currently married women: Percentage who participate in all decision making[1]	Currently married women: Number of women	Percentage who disagree with all the reasons justifying wife beating	Percentage who agree with the given reason for refusing sexual intercourse with husband	Number of women
Number of decisions in which women participate[1]					
0	na	na	37.3	8.7	75
1-2	na	na	25.7	15.2	121
3-4	na	na	37.7	20.8	1,358
Number of reasons for which wife beating is justified[2]					
0	79.7	571	na	20.8	1,043
1-2	71.2	668	na	15.6	1,116
3-4	68.9	260	na	12.5	422
5	57.1	54	na	9.7	76
Number of reasons given for wife refusing to have sexual intercourse with husband[3]					
0	72.8	1,246	37.4	na	2,206
1	76.0	308	48.1	na	451

[1] Restricted to currently married women. See Table 15.5.1 for the list of decisions.
[2] See Table 15.6.1 for the list of reasons
[3] See Table 15.7.1 for the list of reasons
na = Not applicable

13.7 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A woman's desire and ability to control her fertility and her choice of contraceptive method are in part affected by her status in the household and her own sense of empowerment. A woman who feels that she is unable to control her life may be less likely to feel that she can make and carry out decisions about her fertility. She may also feel the need to choose methods that are less obvious or that do not depend on her husband's cooperation. Table 13.9 shows the distribution of currently married women by contraceptive method used, according to the three empowerment indicators.

The findings suggest that there is a positive relationship between use of contraception and participation in household decision-making. For example, current use of contraceptive methods increases from 16 percent among women who participate in none of the household decisions to 29 percent each among women who participate in one or two or three or more household decisions. Further, women who participate in three or four of the specified household decision are most likely to use temporary modern female methods (21 percent) compared with women who participate in fewer or no decisions (14-17 percent).

Although, there is no difference in use of any contraception between women who think that wife beating is justified for all five specified reasons and women who do not believe in any justification (both 29 percent), there are some differences in use of any modern methods. For example, women who think that wife beating is justified for none of the specified reasons are slightly more likely to use any modern method of contraception than women who agree with all of the specified reasons (27 percent and 23 percent, respectively). Similarly, female sterilization is slightly higher for the first group of women (8 percent) compared with the latter group (5 percent).

Table 13.9 Current use of contraception by women's status

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Samoa 2009

			Modern methods						
Empowerment indicator	Any method	Any modern method	Female sterilization	Temporary modern female methods[1]	Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[2]									
0	15.9	15.9	2.2	13.6	0.0	0.0	84.1	100.0	75
1-2	28.6	22.5	5.7	16.8	0.0	6.1	71.4	100.0	121
3-4	29.4	27.7	7.0	20.5	0.2	1.7	70.6	100.0	1,358
Number of reasons for which wife beating is justified[3]									
0	28.5	27.3	8.0	19.0	0.3	1.2	71.5	100.0	571
1-2	28.5	26.4	5.5	20.9	0.0	2.1	71.5	100.0	668
3-4	29.5	27.1	6.9	19.7	0.4	2.5	70.5	100.0	260
5	28.7	22.8	4.9	17.8	0.0	5.9	71.3	100.0	54
Number of reasons given for wife refusing to have sexual intercourse with husband[4]									
0	27.9	26.2	6.0	20.2	0.0	1.7	72.1	100.0	1,246
1	31.7	28.6	9.5	18.4	0.7	3.1	68.3	100.0	308
Total	28.7	26.7	6.7	19.9	0.2	2.0	71.3	100.0	1,554

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhoea method
[2] See Table 15.5.1 for the list of decisions.
[3] See Table 15.6.1 for the list of reasons
[4] See Table 15.7.1 for the list of reasons

The association between contraceptive use and a woman's right to refuse sexual intercourse with her husband is not clearly evident from the data because only one reason was specified in Samoa (if a husband has an STI) instead of the three standard reasons. Nevertheless, the data show some trends. For example, women who agree that a wife can refuse sexual intercourse with her husband if he has an STI are somewhat more likely to use any contraception (32 percent) and any modern contraception (29 percent) than women who disagree with the specified reason (28 and 26 percent respectively).

13.8 Ideal Family Size and Unmet Need by Women's Status

The ability of women to make household decisions has important implications for their fertility preferences and the practice of family planning. Increases in women's status and empowerment are recognized as important in efforts to reduce fertility.

Table 13.10 shows how women's ideal family size and unmet need for family planning are related to women's status indicators. The findings indicate that there is only a slight positive association between ideal family size and one of the three empowerment indicators. Ideal family size is slightly higher among women who think that wife beating is justified for all five specified reasons (3.5 children) compared with women who do not believe in any justification (3.2 children). However, there are no expected relationships between ideal family size and participation in household decision-making or a woman's right to refuse sexual intercourse with her husband, which indicates that not all women's empowerment indicators yield the expected negative relationship.

Looking at the relationship between unmet need and women's empowerment indicators, the findings show that unmet need for family planning is consistently lower for women scoring higher on the empowerment indicators: women who participate in three to four household decision-making processes (44 percent); women who believe wife beating is never justified (45 percent); and women who believe that a woman can refuse to have sexual intercourse with her husband when he has an STI (42 percent).

Table 13.10 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Samoa 2009

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of currently married women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	3.7	71	32.6	28.2	60.8	75
1-2	4.0	114	22.9	26.6	49.4	121
3-4	4.2	1,311	19.2	25.2	44.4	1,358
Number of reasons for which wife beating is justified[4]						
0	3.2	1,006	20.2	24.4	44.6	571
1-2	3.4	1,065	21.5	24.5	46.0	668
3-4	3.5	414	14.7	30.5	45.2	260
5	3.5	76	28.7	23.5	52.2	54
Number of reasons given for wife refusing to have sexual intercourse with husband[5]						
0	3.2	2,119	20.8	25.6	46.4	1,246
1	4.0	442	17.3	24.7	42.0	308
Total	3.3	2,562	20.1	25.4	45.6	1,554

[1] Mean excludes respondents who gave non-numeric responses.
[2] See table 7.3.1 for the definition of unmet need for family planning
[3] Restricted to currently married women. See Table 15.5.1 for the list of decisions.
[4] See Table 15.6.1 for the list of reasons
[5] See Table 15.7.1 for the list of reasons

13.9 Reproductive Health Care and Women's Empowerment Status

Table 13.11 examines whether women's use of antenatal, delivery, and postnatal care services from health professionals varies by level of empowerment as measured by the three indicators of women's empowerment.

Table 13.11 shows that mothers who participate in three or four household decisions have better access to maternal health services than mothers who participate in one or two household decisions. Women who agree with none of the reasons justifying wife beating are the most likely to have received assistance at delivery (85 percent) and postnatal care soon after delivery (62 percent), compared with women who think that wife beating is justified for all five reasons (80 and 52 percent, respectively). Similarly, women who have more gender-egalitarian views regarding sexual behaviour within a marriage are slightly more likely to receive postnatal care soon after delivery (63 percent) than women who disagree with the reason for a wife to refuse sex with her husband (58 percent).

Almost all Samoan women (93 percent) received antenatal care from a health professional with little variation by women's status, indicating that Samoan women have equal access for antenatal care from a trained health provider regardless of their own sense of empowerment.

In Samoa, where health care is widespread, women's empowerment may not affect their access to reproductive health services; in other societies, however, increased empowerment of women is likely to increase their ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood.

Table 13.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, Samoa 2009

Empowerment indicator	Received antenatal care from health personnel	Received delivery assistance from health personnel	Received postnatal care from health personnel within the first two days since delivery[1]	Number of women with a child born in the past five years
Number of decisions in which women participate[2]				
0	(95.7)	(90.3)	(47.4)	44
1-2	90.4	71.7	40.2	74
3-4	93.6	82.2	61.1	827
Number of reasons for which wife beating is justified[3]				
0	92.2	84.5	61.5	408
1-2	93.6	79.7	57.8	482
3-4	92.4	83.1	57.8	168
5	96.0	80.2	51.6	47
Number of reasons given for wife refusing to have sexual intercourse with husband[4]				
0	92.8	82.3	58.0	908
1	93.9	80.6	62.9	198
Total	93.0	82.0	58.9	1,105

Note: 'Health personnel' includes doctor, nurse/midwife, or nurse aide. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes deliveries in a health facility and not in a health facility
[2] Restricted to currently married women. See Table 15.5.1 for the list of decisions.
[3] See Table 15.6.1 for the list of reasons
[4] See Table 15.7.1 for the list of reasons

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SAMPLE DESIGN FOR THE 2009 SDHS *Appendix A*

The 2009 SDHS survey is designed to allow reliable estimation of key demographic and health indicators such as fertility, contraceptive prevalence, and infant and child mortality.

The major domains distinguished in the tabulation of important characteristics for the eligible female population are:

- Samoa as a whole
- Each of the four regions in Samoa: (1) Apia urban area, (2) North West Upolu, (3) Rest of Upolu, and (4) Savaii
- Urban and rural areas of Samoa (each as a separate domain).

The population covered in the 2009 SDHS is the universe of all women age 15-49 in Samoa in a sample of 2,247 selected households. Every other household selected for the women's sample was also eligible for the men's sample (men age 15-54).

The primary sampling unit (PSU) for the 2009 SDHS was the cluster. As mentioned in Chapter 1, the 2009 SDHS sample was selected in two stages. The first stage involved selecting clusters from the master sample frame (the 2006 Population and Housing Census). In the second stage, all households in each selected cluster were listed. Households were then systematically selected from each cluster for participation in the survey. The design did not allow for replacement of clusters or households.

The sample was designed to include 10 percent of the households in rural areas and 12 percent of the households in urban areas. The sample was designed to permit detailed analysis of most indicators for the national level, for urban and rural areas separately, and for each of the four regions (Apia urban area, North West Upolu, the rest of Upolu, and Savaii). Overall, a total of 296 primary sampling units or clusters were selected, 104 in urban areas and 192 in rural areas. Because Samoan households do not move frequently, a fresh household listing was not deemed to be necessary. Instead, a listing from November 2006 was used. In the urban clusters, 5 households were selected per cluster, whereas in the rural clusters, 10 households were selected per cluster. The number of clusters in each of the 4 geographical regions was calculated by dividing the total allocated number of households by the sample take of 5 for Apia urban area (the number of households for urban EAs) and 10 for other regions (the number of households for rural EAs). In each region EAs were stratified by urban location first and then by rural location. Clusters were selected systematically, with probability proportional to size.

The 2009 SDHS fieldwork was carried out from 10 August to 5 September 2009. As mentioned, overall, a total of 2,247 households were selected, of which 2,066 were found occupied at the time of the fieldwork. A total of 1,947 households were successfully interviewed, yielding a household response rate of 94 percent (Table A.1). A total of 3,033 women were identified as eligible for the individual interview, of whom 2,657 were interviewed, for an individual women's response rate of 88 percent, and an overall response rate—the product of the household and individual response rates—of 83 percent for the entire country. The overall response rate for women is higher in rural areas (84 percent) than in urban areas (79 percent). By region, the overall response rates for women range from 79 percent for the Rest of Upolu and the Apia urban area to 86 percent in North West Upolu.

Table A.1 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women, and overall response rates, according to urban-rural residence and region (unweighted), Samoa 2009

	Residence		Region				
Result	Urban	Rural	Apia urban area	North West Upolu	Rest of Upolu	Savaii	Total
Selected households							
Completed (C)	84.2	87.3	84.2	83.8	88.9	90.2	86.6
Household present but no competent respondent at home (HP)	4.9	2.4	4.9	2.8	2.4	2.0	3.0
Postponed (P)	0.2	0.1	0.2	0.1	0.0	0.2	0.1
Refused (R)	0.8	0.7	0.8	0.6	1.3	0.2	0.7
Dwelling not found (DNF)	1.4	1.5	1.4	3.2	0.4	0.4	1.5
Household absent (HA)	0.6	1.6	0.6	1.6	1.8	1.3	1.4
Dwelling vacant/address not a dwelling (DV)	7.4	5.2	7.4	5.3	4.8	5.4	5.7
Dwelling destroyed (DD)	0.4	1.2	0.4	2.5	0.4	0.4	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	486	1,761	486	679	541	541	2,247
Household response rate (HRR)[1]	91.9	94.9	91.9	92.5	95.6	97.0	94.2
Eligible women							
Completed (EWC)	86.3	88.0	86.3	92.7	82.4	87.0	87.6
Not at home (EWNH)	9.9	10.1	9.9	5.2	16.4	10.5	10.0
Postponed (EWP)	0.3	0.0	0.3	0.0	0.0	0.0	0.1
Refused (EWR)	2.5	1.1	2.5	0.9	0.6	1.9	1.4
Partly completed (EWPC)	0.7	0.1	0.7	0.0	0.0	0.3	0.2
Incapacitated (EWI)	0.3	0.7	0.3	1.2	0.4	0.3	0.6
Other (EWO)	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	686	2,347	686	968	687	692	3,033
Eligible women response rate (EWRR)[2]	86.3	88.0	86.3	92.7	82.4	87.0	87.6
Overall women response rate (OWRR)[3]	79.3	83.5	79.3	85.7	78.8	84.4	82.6

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

$$OWRR = HRR * EWRR/100$$

For men, a total of 1,121 households were selected, of which almost 1,054 were successfully interviewed, for a household response rate of 94 percent (Table A.2). A total of 1,689 men were identified as eligible for the individual interview, of whom 1,307 were successfully interviewed, yielding a response rate of 77 percent and an overall response rate—the product of the household and individual response rates—of 73 percent for the entire country. Different from women, the overall response rate for men in urban areas is somewhat higher (75 percent) than for men in rural areas (72 percent). By region, the overall response rates for men range from 67 percent in the Savaii region to 78 percent in North West Upolu.

Table A.2 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men, and overall response rates, according to urban-rural residence and region (unweighted), Samoa 2009

	Residence		Region				
Result	Urban	Rural	Apia urban area	North West Upolu	Rest of Upolu	Savaii	Total
Selected households							
Completed (C)	85.8	88.7	85.8	85.4	90.1	91.4	88.0
Household present but no competent respondent at home (HP)	5.9	2.9	5.9	3.8	2.2	2.6	3.6
Postponed (P)	0.4	0.1	0.4	0.3	0.0	0.0	0.2
Refused (R)	0.4	0.7	0.4	0.9	1.1	0.0	0.6
Dwelling not found (DNF)	0.8	1.4	0.8	3.5	0.0	0.0	1.2
Household absent (HA)	0.4	1.1	0.4	0.6	2.2	0.8	1.0
Dwelling vacant/address not a dwelling (DV)	5.4	4.1	5.4	3.5	4.0	4.9	4.4
Dwelling destroyed (DD)	0.8	1.0	0.8	2.0	0.4	0.4	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	239	882	239	342	274	266	1,121
Household response rate (HRR)[1]	91.9	94.6	91.9	91.0	96.5	97.2	94.0
Eligible men							
Completed (EMC)	81.1	76.4	81.1	86.0	71.5	68.7	77.4
Not at home (EMNH)	13.9	18.4	13.9	8.5	23.1	27.0	17.5
Postponed (EMP)	0.6	0.1	0.6	0.2	0.0	0.2	0.2
Refused (EMR)	3.5	3.3	3.5	3.0	3.6	3.3	3.3
Partly completed (EMPC)	0.0	0.1	0.0	0.0	0.3	0.0	0.1
Incapacitated (EMI)	0.9	1.3	0.9	1.8	1.3	0.5	1.2
Other (EMO)	0.0	0.4	0.0	0.6	0.3	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	339	1,350	339	541	390	419	1,689
Eligible men response rate (EMRR)[2]	81.1	76.4	81.1	86.0	71.5	68.7	77.4
Overall men response rate (OMRR)[3]	74.6	72.3	74.6	78.2	69.0	66.8	72.7

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[3] The overall response rate (ORR) is calculated as:

$$OMRR = HRR * EMRR/100$$

ESTIMATES OF SAMPLING ERRORS

Appendix B

The estimates from a sample survey are affected by two types of errors: non-sampling errors and sampling errors. Non-sampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2009 Samoa DHS (SDHS) to minimize this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2009 SDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2009 SDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. The computer software used to calculate sampling errors for the 2009 SDHS is a Macro SAS procedure. This procedure used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics, such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H

m_h is the total number of clusters selected in the hth stratum

y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum

x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum$f$ is the overall sampling fraction, which is so small that it is ignored

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using

simple formulas. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2009 JIDHS, there were 285 non-empty clusters. Hence, 930 replications were created. The variance of a rate *r* is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 285 clusters
$r_{(i)}$ is the estimate computed from the reduced sample of 284 clusters (i^{th} cluster excluded)
k is the total number of clusters

In addition to the standard error, the design effect (DEFT) for each estimate is calculated, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. The relative standard error and confidence limits for the estimates are also calculated.

Sampling errors for the 2009 SDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for the four geographical regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.8 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE) for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women age 40-49*) can be interpreted as follows: the overall average from the national sample is 4.559 and its standard error is 0.116. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 4.559±2×0.116. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 40 to 49 is between 4.326 and 4.791.

For the total sample, the value of the DEFT, averaged over all variables, is 1.05. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.05 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Samoa 2009

Variable	Estimate	Base population
	WOMEN	
Urban	Proportion	All women
No education, or primary	Proportion	All women
Vocational, secondary education or higher	Proportion	All women
Never married/in union	Proportion	All women
Currently married/in union	Proportion	All women
Currently pregnant	Mean	All women
Children ever born	Mean	All women
Children surviving	Mean	Women age 40-49
Children ever born to women age 40-49	Proportion	Currently married women
Know any contraceptive method	Proportion	Currently married women
Know any modern contraceptive method	Proportion	Currently married women
Ever used any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using a modern method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using injectables	Proportion	Currently married women
Currently using female sterilization	Proportion	Current users of modern methods
Used public sector source	Proportion	Currently married women
Want no more children	Proportion	Currently married women
Want to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	All women
Last birth was protected against tetanus	Proportion	Women with at least one live birth in five years before survey
Mothers received medical assistance at delivery	Proportion	Births occurring in five years before survey
Had diarrhea in two weeks before survey	Proportion	Children age 0-59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhea in two weeks before interview
Vaccination card seen	Proportion	Children age 18-29 months
Received BCG	Proportion	Children age 18-29 months
Received DPT (3 doses)	Proportion	Children age 18-29 months
Received Polio (3 doses)	Proportion	Children age 18-29 months
Received measles	Proportion	Children age 18-29 months
Accepting attitudes towards people with HIV	Proportion	All women who has heard of HIV/AIDS
Has heard of HIV/AIDS	Proportion	All women
Knows about condoms	Proportion	All women
Knows about limiting partners	Proportion	All women
Comprehensive knowledge on HIV transmission	Proportion	All women
Comprehensive knowledge on HIV transmission among youth	Proportion	Women age 15-24
Had an injection in past 12 months	Proportion	All women
Had HIV test and received results in past 12 months	Proportion	All women
Total fertility rate (3 years)	Rate	Women years of exposure
Neonatal mortality (0-4 years)[1]	Rate	Children exposed to the risk of mortality
Post-neonatal mortality (0-4 years)[1]	Rate	Children exposed to the risk of mortality
Infant mortality (0-4 years)[1]	Rate	Children exposed to the risk of mortality
Child mortality (0-4 years)[1]	Rate	Children exposed to the risk of mortality
Under-five mortality (0-4 years)[1]	Rate	Children exposed to the risk of mortality
	MEN	
Urban	Proportion	All men 15-49
No education, or primary	Proportion	All men 15-49
Vocational, secondary education or higher	Proportion	All men 15-49
Never married/in union	Proportion	All men 15-49
Currently married/in union	Proportion	All men 15-49
Know any contraceptive method	Proportion	Currently married men 15-49
Ever used any contraceptive method	Proportion	Currently married men 15-49
Want no more children	Proportion	Currently married men 15-49
Want to delay birth at least 2 years	Proportion	Currently married men 15-49
Ideal family size	Mean	All men 15-49
Accepting attitudes towards people with HIV	Proportion	All men 15-49 who have heard of HIV/AIDS
Knows about condoms	Proportion	All men 15-49
Knows about limiting partners	Proportion	All men 15-49
Comprehensive knowledge on HIV transmission	Proportion	All men 15-49
Comprehensive knowledge on HIV transmission among youth	Proportion	All men age 15-24
Had an injection in past 12 months	Proportion	All men 15-49
Had HIV test and received results in past 12 months	Proportion	All men 15-49

[1] Mortality rates are calculated for the past 5 years at the national level and the past 10 years at the regional level.

Table B.2 Sampling errors for national sample, Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.206	0.010	2657	2657	1.300	0.049	0.186	0.227
No education, or primary	0.050	0.005	2657	2657	1.134	0.096	0.040	0.059
Secondary education or higher	0.950	0.005	2657	2657	1.134	0.005	0.941	0.960
Never married/in union	0.366	0.010	2657	2657	1.025	0.026	0.346	0.385
Currently married/in union	0.585	0.011	2657	2657	1.106	0.018	0.564	0.606
Currently pregnant	0.066	0.005	2657	2657	1.061	0.078	0.056	0.076
Children ever born	2.241	0.048	2657	2657	1.023	0.021	2.145	2.337
Children surviving	2.209	0.048	2657	2657	1.029	0.022	2.114	2.304
Children ever born to women age 40-49	4.559	0.116	580	583	1.092	0.025	4.326	4.791
Knowing any contraceptive method	0.847	0.009	1554	1554	0.969	0.010	0.830	0.865
Knowing any modern contraceptive method	0.840	0.009	1554	1554	0.997	0.011	0.821	0.858
Ever used any contraceptive method	0.495	0.013	1554	1554	1.016	0.026	0.469	0.521
Currently using any method	0.287	0.012	1554	1554	1.058	0.042	0.263	0.311
Currently using a modern method	0.267	0.012	1554	1554	1.083	0.046	0.243	0.291
Currently using pill	0.058	0.006	1554	1554	0.956	0.098	0.046	0.069
Currently using condoms	0.002	0.001	1554	1554	0.995	0.602	0.000	0.004
currently use injectables	0.137	0.009	1554	1554	1.082	0.069	0.118	0.156
Currently using female sterilization	0.067	0.007	1554	1554	1.087	0.103	0.053	0.080
Obtained method from public sector source	0.934	0.013	430	435	1.120	0.014	0.907	0.961
Want no more children	0.590	0.013	1554	1554	1.055	0.022	0.563	0.616
Want to delay at least 2 years	0.154	0.010	1554	1554	1.039	0.062	0.135	0.173
Ideal number of children	3.338	0.048	2561	2562	0.980	0.014	3.242	3.434
Last birth was protected against neonatal tetanus	0.306	0.014	1110	1105	1.022	0.046	0.278	0.334
Mothers received medical assistance at delivery	0.808	0.014	1620	1614	1.201	0.017	0.780	0.836
Had diarrhea in the last 2 weeks	0.049	0.006	1598	1594	1.007	0.126	0.037	0.062
Treated with oral rehydration salts (ORS)	0.684	0.062	81	78	0.999	0.090	0.561	0.807
Taken to health provider	0.684	0.054	81	78	0.930	0.079	0.575	0.792
Having health card, seen	0.397	0.027	319	321	1.004	0.069	0.343	0.452
Received BCG vaccination	0.836	0.022	319	321	1.060	0.026	0.792	0.880
Received DPT vaccination (3 doses)	0.375	0.028	319	321	1.024	0.074	0.320	0.430
Received polio vaccination (3 doses)	0.344	0.027	319	321	1.032	0.079	0.290	0.399
Received measles vaccination	0.631	0.026	319	321	0.976	0.042	0.578	0.683
Fully immunized	0.254	0.024	319	321	1.007	0.096	0.205	0.302
Accepting attitudes towards people with HIV	0.021	0.003	2240	2246	1.076	0.156	0.014	0.027
Has heard about HIV/AIDS	0.845	0.008	2657	2657	1.177	0.010	0.829	0.862
Knows about condoms	0.580	0.011	2657	2657	1.116	0.018	0.559	0.601
Knows about limiting partners	0.772	0.010	2657	2657	1.175	0.012	0.753	0.791
Comprehensive knowledge on HIV transmission	0.039	0.004	2657	2657	1.052	0.101	0.031	0.047
Comprehensive knowledge on HIV transmission among youth	0.030	0.005	1028	1033	0.977	0.175	0.019	0.040
Had an injection in past 12 months	0.087	0.006	2657	2657	1.166	0.073	0.074	0.100
Had HIV test and received results in past 12 months	0.006	0.002	2657	2657	1.009	0.245	0.003	0.009
Total fertility rate (last 3 years)	4.625	0.140	na	7439	1.020	0.030	4.345	4.905
Neonatal mortality (last 0-4 years)	4.560	1.599	1608	1603	0.912	0.351	1.361	7.759
Post-neonatal mortality (last 0-4 years)	4.786	1.753	1595	1589	1.023	0.366	1.279	8.293
Infant mortality (last 0-4 years)	9.346	2.319	1608	1603	0.966	0.248	4.709	13.983
Child mortality (last 0-4 years)	6.154	2.170	1526	1513	0.979	0.353	1.813	10.494
Under-five mortality (last 0-4 years)	15.442	3.311	1611	1606	1.027	0.214	8.821	22.064
MEN								
Urban residence	0.173	0.011	1218	1220	0.991	0.062	0.151	0.194
No education, or primary	0.130	0.011	1218	1220	1.093	0.081	0.109	0.151
Vocational, secondary education or higher	0.870	0.011	1218	1220	1.093	0.012	0.849	0.891
Never married/in union	0.508	0.015	1218	1220	1.036	0.029	0.478	0.537
Currently married/in union	0.469	0.015	1218	1220	1.035	0.032	0.440	0.499
Know any contraceptive method	0.934	0.011	568	573	1.075	0.012	0.911	0.956
Ever used any contraceptive method	0.253	0.019	568	573	1.042	0.075	0.215	0.291
Want no more children	0.451	0.022	568	573	1.064	0.049	0.406	0.495
Want to delay at least 2 years	0.277	0.019	568	573	1.011	0.069	0.239	0.315
Ideal family size	3.911	0.079	1110	1123	1.108	0.020	3.754	4.069
Accepting attitudes towards people with HIV	0.033	0.006	1066	1063	1.020	0.168	0.022	0.045
Has heard about HIV/AIDS	0.871	0.011	1218	1220	1.095	0.012	0.850	0.892
Knows about condoms	0.657	0.016	1218	1220	1.175	0.024	0.625	0.689
Knows about limiting partners	0.839	0.012	1218	1220	1.095	0.014	0.816	0.862
Comprehensive knowledge on HIV transmission	0.071	0.008	1218	1220	1.092	0.113	0.055	0.087
Comprehensive knowledge on HIV transmission among youth	0.058	0.012	480	478	1.096	0.202	0.035	0.081
Had an injection in past 12 months	0.142	0.012	1218	1220	1.188	0.084	0.118	0.165
Had HIV test and received results in past 12 months	0.006	0.002	1218	1220	0.996	0.377	0.001	0.010

na = Not applicable

Table B.3 Sampling errors for urban sample, Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	1.000	0.000	592	548	0.000	0.000	1.000	1.000
No education, or primary	0.033	0.009	592	548	1.166	0.258	0.016	0.051
Secondary education or higher	0.967	0.009	592	548	1.166	0.009	0.949	0.984
Never married/in union	0.460	0.022	592	548	1.049	0.047	0.417	0.503
Currently married/in union	0.494	0.022	592	548	1.064	0.044	0.450	0.538
Currently pregnant	0.066	0.012	592	548	1.166	0.180	0.042	0.090
Children ever born	1.906	0.093	592	548	0.973	0.049	1.720	2.092
Children surviving	1.890	0.092	592	548	0.968	0.048	1.707	2.073
Children ever born to women age 40-49	4.239	0.249	128	120	1.117	0.059	3.741	4.736
Knowing any contraceptive method	0.885	0.020	297	271	1.095	0.023	0.844	0.926
Knowing any modern contraceptive method	0.879	0.021	297	271	1.089	0.023	0.838	0.920
Ever used any contraceptive method	0.502	0.029	297	271	1.007	0.058	0.444	0.561
Currently using any method	0.301	0.029	297	271	1.092	0.097	0.243	0.359
Currently using a modern method	0.268	0.028	297	271	1.104	0.106	0.211	0.324
Currently using pill	0.070	0.015	297	271	1.042	0.221	0.039	0.101
Currently using condoms	0.006	0.005	297	271	1.045	0.758	0.000	0.016
currently use injectables	0.090	0.021	297	271	1.244	0.230	0.048	0.131
Currently using female sterilization	0.095	0.018	297	271	1.083	0.194	0.058	0.132
Obtained method from public sector source	0.907	0.036	84	79	1.129	0.040	0.835	0.979
Want no more children	0.658	0.031	297	271	1.136	0.048	0.595	0.720
Want to delay at least 2 years	0.137	0.021	297	271	1.032	0.150	0.096	0.178
Ideal number of children	3.355	0.093	577	535	0.851	0.028	3.170	3.541
Last birth was protected against neonatal tetanus	0.317	0.037	212	190	1.141	0.116	0.243	0.391
Mothers received medical assistance at delivery	0.943	0.016	321	290	1.093	0.017	0.910	0.975
Had diarrhea in the last 2 weeks	0.042	0.012	320	290	0.969	0.292	0.018	0.066
Treated with oral rehydration salts (ORS)	0.903	0.066	15	12	0.853	0.074	0.770	1.036
Taken to health provider	0.547	0.157	15	12	1.021	0.288	0.232	0.862
Having health card, seen	0.424	0.065	72	67	1.132	0.154	0.294	0.555
Received BCG vaccination	0.692	0.061	72	67	1.126	0.088	0.571	0.814
Received DPT vaccination (3 doses)	0.344	0.049	72	67	0.886	0.143	0.246	0.442
Received polio vaccination (3 doses)	0.301	0.049	72	67	0.914	0.162	0.203	0.399
Received measles vaccination	0.483	0.056	72	67	0.963	0.116	0.371	0.596
Fully immunized	0.230	0.046	72	67	0.930	0.199	0.139	0.321
Accepting attitudes towards people with HIV	0.044	0.011	516	479	1.174	0.241	0.023	0.065
Has heard about HIV/AIDS	0.874	0.016	592	548	1.173	0.018	0.842	0.906
Knows about condoms	0.539	0.025	592	548	1.221	0.046	0.489	0.589
Knows about limiting partners	0.816	0.018	592	548	1.135	0.022	0.780	0.853
Comprehensive knowledge on HIV transmission	0.056	0.011	592	548	1.128	0.190	0.035	0.078
Comprehensive knowledge on HIV transmission among youth	0.053	0.015	258	240	1.052	0.277	0.024	0.082
Had an injection in past 12 months	0.103	0.016	592	548	1.300	0.158	0.070	0.136
Had HIV test and received results in past 12 months	0.010	0.004	592	548	0.937	0.388	0.002	0.017
Total fertility rate (last 3 years)	4.143	0.353	na	1518	1.073	0.085	3.438	4.848
Neonatal mortality (last 0-9 years)	1.147	1.151	571	516	0.793	1.003	0.000	3.449
Post-neonatal mortality (last 0-9 years)	2.314	2.320	566	513	1.119	1.003	0.000	6.953
Infant mortality (last 0-9 years)	3.461	2.552	571	516	1.010	0.737	0.000	8.564
Child mortality (last 0-9 years)	0.000	0.000	562	510	na	na	0.000	0.000
Under-five mortality (last 0-9 years)	3.461	2.552	571	516	1.010	0.737	0.000	8.564
MEN								
Urban residence	1.000	0.000	254	211	0.000	0.000	1.000	1.000
No education, or primary	0.065	0.017	254	211	1.087	0.260	0.031	0.098
Vocational, secondary education or higher	0.935	0.017	254	211	1.087	0.018	0.902	0.969
Never married/in union	0.536	0.025	254	211	0.803	0.047	0.486	0.586
Currently married/in union	0.445	0.026	254	211	0.833	0.058	0.393	0.497
Know any contraceptive method	0.933	0.026	114	94	1.097	0.028	0.882	0.985
Ever used any contraceptive method	0.134	0.033	114	94	1.013	0.242	0.069	0.199
Want no more children	0.464	0.049	114	94	1.052	0.106	0.365	0.563
Want to delay at least 2 years	0.200	0.035	114	94	0.943	0.178	0.129	0.270
Ideal family size	3.536	0.137	232	195	0.963	0.039	3.262	3.810
Accepting attitudes towards people with HIV	0.023	0.009	224	184	0.925	0.406	0.004	0.041
Has heard about HIV/AIDS	0.872	0.025	254	211	1.207	0.029	0.821	0.922
Knows about condoms	0.591	0.037	254	211	1.196	0.063	0.516	0.665
Knows about limiting partners	0.835	0.031	254	211	1.333	0.037	0.772	0.897
Comprehensive knowledge on HIV transmission	0.084	0.022	254	211	1.268	0.264	0.040	0.128
Comprehensive knowledge on HIV transmission among youth	0.091	0.038	115	96	1.383	0.410	0.016	0.167
Had an injection in past 12 months	0.065	0.015	254	211	0.944	0.226	0.036	0.094
Had HIV test and received results in past 12 months	0.000	0.000	254	211	na	na	0.000	0.000

na = Not applicable

Table B.4 Sampling errors for rural sample, Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	2065	2109	na	na	0.000	0.000
No education, or primary	0.054	0.006	2065	2109	1.124	0.104	0.043	0.065
Secondary education or higher	0.946	0.006	2065	2109	1.124	0.006	0.935	0.957
Never married/in union	0.341	0.011	2065	2109	1.021	0.031	0.320	0.362
Currently married/in union	0.608	0.012	2065	2109	1.109	0.020	0.585	0.632
Currently pregnant	0.066	0.006	2065	2109	1.033	0.086	0.054	0.077
Children ever born	2.328	0.056	2065	2109	1.033	0.024	2.217	2.439
Children surviving	2.292	0.055	2065	2109	1.043	0.024	2.182	2.402
Children ever born to women age 40-49	4.641	0.131	452	463	1.082	0.028	4.380	4.903
Knowing any contraceptive method	0.840	0.010	1257	1283	0.949	0.012	0.820	0.859
Knowing any modern contraceptive method	0.832	0.010	1257	1283	0.982	0.012	0.811	0.852
Ever used any contraceptive method	0.494	0.014	1257	1283	1.017	0.029	0.465	0.522
Currently using any method	0.284	0.013	1257	1283	1.050	0.047	0.257	0.311
Currently using a modern method	0.267	0.013	1257	1283	1.077	0.050	0.240	0.294
Currently using pill	0.055	0.006	1257	1283	0.935	0.109	0.043	0.067
Currently using condoms	0.001	0.001	1257	1283	0.989	0.999	0.000	0.002
currently use injectables	0.147	0.011	1257	1283	1.057	0.072	0.126	0.169
Currently using female sterilization	0.060	0.007	1257	1283	1.089	0.121	0.046	0.075
Obtained method from public sector source	0.940	0.014	346	356	1.118	0.015	0.911	0.968
Want no more children	0.575	0.014	1257	1283	1.037	0.025	0.546	0.604
Want to delay at least 2 years	0.158	0.011	1257	1283	1.038	0.068	0.137	0.179
Ideal number of children	3.333	0.056	1984	2026	1.013	0.017	3.222	3.444
Last birth was protected against neonatal tetanus	0.304	0.015	898	916	0.994	0.050	0.273	0.334
Mothers received medical assistance at delivery	0.778	0.016	1299	1323	1.194	0.021	0.746	0.811
Had diarrhea in the last 2 weeks	0.051	0.007	1278	1304	1.010	0.139	0.037	0.065
Treated with oral rehydration salts (ORS)	0.644	0.070	66	66	0.995	0.109	0.503	0.784
Taken to health provider	0.709	0.058	66	66	0.918	0.081	0.594	0.824
Having health card, seen	0.390	0.030	247	254	0.971	0.077	0.330	0.450
Received BCG vaccination	0.874	0.022	247	254	1.023	0.025	0.830	0.917
Received DPT vaccination (3 doses)	0.383	0.032	247	254	1.050	0.084	0.318	0.448
Received polio vaccination (3 doses)	0.356	0.032	247	254	1.051	0.090	0.292	0.419
Received measles vaccination	0.670	0.029	247	254	0.971	0.043	0.612	0.727
Fully immunized	0.260	0.028	247	254	1.020	0.109	0.203	0.316
Accepting attitudes towards people with HIV	0.014	0.003	1724	1767	1.002	0.200	0.009	0.020
Has heard about HIV/AIDS	0.838	0.010	2065	2109	1.177	0.011	0.819	0.857
Knows about condoms	0.591	0.012	2065	2109	1.085	0.020	0.567	0.614
Knows about limiting partners	0.761	0.011	2065	2109	1.185	0.015	0.739	0.783
Comprehensive knowledge on HIV transmission	0.035	0.004	2065	2109	1.023	0.118	0.027	0.043
Comprehensive knowledge on HIV transmission among youth	0.022	0.005	770	793	0.927	0.221	0.012	0.032
Had an injection in past 12 months	0.083	0.007	2065	2109	1.128	0.083	0.069	0.097
Had HIV test and received results in past 12 months	0.005	0.002	2065	2109	1.039	0.308	0.002	0.009
Total fertility rate (last 3 years)	4.749	0.153	na	5921	1.007	0.032	4.444	5.054
Neonatal mortality (last 0-9 years)	6.167	1.584	2444	2486	0.976	0.257	3.000	9.335
Post-neonatal mortality (last 0-9 years)	4.467	1.349	2439	2479	0.995	0.302	1.769	7.165
Infant mortality (last 0-9 years)	10.635	2.008	2444	2486	0.960	0.189	6.620	14.650
Child mortality (last 0-9 years)	5.948	1.689	2347	2386	0.956	0.284	2.569	9.327
Under-five mortality (last 0-9 years)	16.520	2.631	2446	2488	0.975	0.159	11.259	21.781
MEN								
Urban residence	0.000	0.000	964	1009	na	na	0.000	0.000
No education, or primary	0.143	0.012	964	1009	1.087	0.086	0.119	0.168
Vocational, secondary education or higher	0.857	0.012	964	1009	1.087	0.014	0.832	0.881
Never married/in union	0.502	0.017	964	1009	1.067	0.034	0.467	0.536
Currently married/in union	0.475	0.017	964	1009	1.061	0.036	0.440	0.509
Know any contraceptive method	0.934	0.012	454	479	1.066	0.013	0.909	0.959
Ever used any contraceptive method	0.277	0.022	454	479	1.047	0.080	0.233	0.321
Want no more children	0.448	0.025	454	479	1.060	0.055	0.399	0.498
Want to delay at least 2 years	0.292	0.021	454	479	1.006	0.074	0.249	0.335
Ideal family size	3.990	0.091	878	928	1.128	0.023	3.808	4.173
Accepting attitudes towards people with HIV	0.036	0.007	842	879	1.020	0.183	0.023	0.049
Has heard about HIV/AIDS	0.871	0.012	964	1009	1.070	0.013	0.848	0.894
Knows about condoms	0.671	0.018	964	1009	1.165	0.026	0.636	0.707
Knows about limiting partners	0.840	0.012	964	1009	1.043	0.015	0.815	0.865
Comprehensive knowledge on HIV transmission	0.068	0.009	964	1009	1.052	0.125	0.051	0.085
Comprehensive knowledge on HIV transmission among youth	0.049	0.011	365	382	0.982	0.226	0.027	0.072
Had an injection in past 12 months	0.158	0.014	964	1009	1.188	0.089	0.130	0.185
Had HIV test and received results in past 12 months	0.007	0.003	964	1009	0.972	0.376	0.002	0.012

na = Not applicable

Table B.5 Sampling errors for Apia Urban Area , Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	1.000	0.000	592	548	0.000	0.000	1.000	1.000
No education, or primary	0.033	0.009	592	548	1.166	0.258	0.016	0.051
Secondary education or higher	0.967	0.009	592	548	1.166	0.009	0.949	0.984
Never married/in union	0.460	0.022	592	548	1.049	0.047	0.417	0.503
Currently married/in union	0.494	0.022	592	548	1.064	0.044	0.450	0.538
Currently pregnant	0.066	0.012	592	548	1.166	0.180	0.042	0.090
Children ever born	1.906	0.093	592	548	0.973	0.049	1.720	2.092
Children surviving	1.890	0.092	592	548	0.968	0.048	1.707	2.073
Children ever born to women age 40-49	4.239	0.249	128	120	1.117	0.059	3.741	4.736
Knowing any contraceptive method	0.885	0.020	297	271	1.095	0.023	0.844	0.926
Knowing any modern contraceptive method	0.879	0.021	297	271	1.089	0.023	0.838	0.920
Ever used any contraceptive method	0.502	0.029	297	271	1.007	0.058	0.444	0.561
Currently using any method	0.301	0.029	297	271	1.092	0.097	0.243	0.359
Currently using a modern method	0.268	0.028	297	271	1.104	0.106	0.211	0.324
Currently using pill	0.070	0.015	297	271	1.042	0.221	0.039	0.101
Currently using condoms	0.006	0.005	297	271	1.045	0.758	0.000	0.016
currently use injectables	0.090	0.021	297	271	1.244	0.230	0.048	0.131
Currently using female sterilization	0.095	0.018	297	271	1.083	0.194	0.058	0.132
Obtained method from public sector source	0.907	0.036	84	79	1.129	0.040	0.835	0.979
Want no more children	0.658	0.031	297	271	1.136	0.048	0.595	0.720
Want to delay at least 2 years	0.137	0.021	297	271	1.032	0.150	0.096	0.178
Ideal number of children	3.355	0.093	577	535	0.851	0.028	3.170	3.541
Last birth was protected against neonatal tetanus	0.317	0.037	212	190	1.141	0.116	0.243	0.391
Mothers received medical assistance at delivery	0.943	0.016	321	290	1.093	0.017	0.910	0.975
Had diarrhea in the last 2 weeks	0.042	0.012	320	290	0.969	0.292	0.018	0.066
Treated with oral rehydration salts (ORS)	0.903	0.066	15	12	0.853	0.074	0.770	1.036
Taken to health provider	0.547	0.157	15	12	1.021	0.288	0.232	0.862
Having health card, seen	0.424	0.065	72	67	1.132	0.154	0.294	0.555
Received BCG vaccination	0.692	0.061	72	67	1.126	0.088	0.571	0.814
Received DPT vaccination (3 doses)	0.344	0.049	72	67	0.886	0.143	0.246	0.442
Received polio vaccination (3 doses)	0.301	0.049	72	67	0.914	0.162	0.203	0.399
Received measles vaccination	0.483	0.056	72	67	0.963	0.116	0.371	0.596
Fully immunized	0.230	0.046	72	67	0.930	0.199	0.139	0.321
Accepting attitudes towards people with HIV	0.044	0.011	516	479	1.174	0.241	0.023	0.065
Has heard about HIV/AIDS	0.874	0.016	592	548	1.173	0.018	0.842	0.906
Knows about condoms	0.539	0.025	592	548	1.221	0.046	0.489	0.589
Knows about limiting partners	0.816	0.018	592	548	1.135	0.022	0.780	0.853
Comprehensive knowledge on HIV transmission	0.056	0.011	592	548	1.128	0.190	0.035	0.078
Comprehensive knowledge on HIV transmission among youth	0.053	0.015	258	240	1.052	0.277	0.024	0.082
Had an injection in past 12 months	0.103	0.016	592	548	1.300	0.158	0.070	0.136
Had HIV test and received results in past 12 months	0.010	0.004	592	548	0.937	0.388	0.002	0.017
Total fertility rate (last 3 years)	4.143	0.353	na	1518	1.073	0.085	3.438	4.848
Neonatal mortality (last 0-9 years)	1.147	1.151	571	516	0.793	1.003	0.000	3.449
Post-neonatal mortality (last 0-9 years)	2.314	2.320	566	513	1.119	1.003	0.000	6.953
Infant mortality (last 0-9 years)	3.461	2.552	571	516	1.010	0.737	0.000	8.564
Child mortality (last 0-9 years)	0.000	0.000	562	510	na	na	0.000	0.000
Under-five mortality (last 0-9 years)	3.461	2.552	571	516	1.010	0.737	0.000	8.564
MEN								
Urban residence	1.000	0.000	254	211	0.000	0.000	1.000	1.000
No education, or primary	0.065	0.017	254	211	1.087	0.260	0.031	0.098
Vocational, secondary education or higher	0.935	0.017	254	211	1.087	0.018	0.902	0.969
Never married/in union	0.536	0.025	254	211	0.803	0.047	0.486	0.586
Currently married/in union	0.445	0.026	254	211	0.833	0.058	0.393	0.497
Know any contraceptive method	0.933	0.026	114	94	1.097	0.028	0.882	0.985
Ever used any contraceptive method	0.134	0.033	114	94	1.013	0.242	0.069	0.199
Want no more children	0.464	0.049	114	94	1.052	0.106	0.365	0.563
Want to delay at least 2 years	0.200	0.035	114	94	0.943	0.178	0.129	0.270
Ideal family size	3.536	0.137	232	195	0.963	0.039	3.262	3.810
Accepting attitudes towards people with HIV	0.023	0.009	224	184	0.925	0.406	0.004	0.041
Has heard about HIV/AIDS	0.872	0.025	254	211	1.207	0.029	0.821	0.922
Knows about condoms	0.591	0.037	254	211	1.196	0.063	0.516	0.665
Knows about limiting partners	0.835	0.031	254	211	1.333	0.037	0.772	0.897
Comprehensive knowledge on HIV transmission	0.084	0.022	254	211	1.268	0.264	0.040	0.128
Comprehensive knowledge on HIV transmission among youth	0.091	0.038	115	96	1.383	0.410	0.016	0.167
Had an injection in past 12 months	0.065	0.015	254	211	0.944	0.226	0.036	0.094
Had HIV test and received results in past 12 months	0.000	0.000	254	211	na	na	0.000	0.000

na = Not applicable

Table B.6 Sampling errors for North West Upolu sample, Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	897	907	na	na	0.000	0.000
No education, or primary	0.061	0.010	897	907	1.215	0.159	0.041	0.080
Secondary education or higher	0.939	0.010	897	907	1.215	0.010	0.920	0.959
Never married/in union	0.385	0.016	897	907	0.969	0.041	0.354	0.417
Currently married/in union	0.558	0.017	897	907	1.034	0.031	0.523	0.592
Currently pregnant	0.068	0.009	897	907	1.078	0.134	0.049	0.086
Children ever born	2.058	0.073	897	907	0.920	0.035	1.913	2.204
Children surviving	2.030	0.070	897	907	0.906	0.035	1.889	2.170
Children ever born to women age 40-49	4.246	0.204	183	185	1.067	0.048	3.839	4.654
Knowing any contraceptive method	0.859	0.015	496	505	0.981	0.018	0.828	0.890
Knowing any modern contraceptive method	0.855	0.016	496	505	1.033	0.019	0.822	0.888
Ever used any contraceptive method	0.470	0.024	496	505	1.073	0.051	0.421	0.518
Currently using any method	0.304	0.021	496	505	0.999	0.068	0.263	0.346
Currently using a modern method	0.280	0.021	496	505	1.017	0.073	0.239	0.321
Currently using pill	0.059	0.008	496	505	0.800	0.144	0.042	0.076
Currently using condoms	0.002	0.002	496	505	0.988	0.997	0.000	0.006
currently use injectables	0.138	0.015	496	505	0.977	0.110	0.108	0.169
Currently using female sterilization	0.075	0.013	496	505	1.103	0.175	0.049	0.101
Obtained method from public sector source	0.923	0.025	142	147	1.113	0.027	0.873	0.973
Want no more children	0.610	0.024	496	505	1.094	0.039	0.562	0.658
Want to delay at least 2 years	0.106	0.016	496	505	1.121	0.146	0.075	0.137
Ideal number of children	3.062	0.076	865	875	0.944	0.025	2.911	3.214
Last birth was protected against neonatal tetanus	0.284	0.027	339	342	1.104	0.095	0.229	0.338
Mothers received medical assistance at delivery	0.861	0.024	493	497	1.276	0.028	0.812	0.910
Had diarrhea in the last 2 weeks	0.056	0.011	486	491	1.027	0.201	0.034	0.078
Treated with oral rehydration salts (ORS)	0.602	0.107	27	28	1.068	0.179	0.387	0.817
Taken to health provider	0.668	0.089	27	28	0.911	0.133	0.490	0.847
Having health card, seen	0.459	0.056	90	92	1.066	0.122	0.347	0.570
Received BCG vaccination	0.836	0.038	90	92	0.976	0.045	0.760	0.912
Received DPT vaccination (3 doses)	0.404	0.054	90	92	1.055	0.134	0.296	0.513
Received polio vaccination (3 doses)	0.362	0.053	90	92	1.042	0.145	0.256	0.467
Received measles vaccination	0.560	0.050	90	92	0.955	0.089	0.460	0.659
Fully immunized	0.263	0.048	90	92	1.036	0.182	0.168	0.359
Accepting attitudes towards people with HIV	0.020	0.005	763	773	1.055	0.266	0.010	0.031
Has heard about HIV/AIDS	0.852	0.014	897	907	1.167	0.016	0.825	0.880
Knows about condoms	0.658	0.018	897	907	1.113	0.027	0.623	0.693
Knows about limiting partners	0.795	0.015	897	907	1.150	0.019	0.764	0.826
Comprehensive knowledge on HIV transmission	0.045	0.008	897	907	1.119	0.173	0.029	0.060
Comprehensive knowledge on HIV transmission among youth	0.027	0.008	382	387	0.967	0.299	0.011	0.043
Had an injection in past 12 months	0.072	0.010	897	907	1.126	0.135	0.053	0.092
Had HIV test and received results in past 12 months	0.006	0.003	897	907	1.255	0.535	0.000	0.013
Total fertility rate (last 3 years)	4.332	0.221	na	2511	0.993	0.051	3.891	4.774
Neonatal mortality (last 0-9 years)	1.901	1.347	952	956	0.955	0.708	0.000	4.595
Post-neonatal mortality (last 0-9 years)	5.560	2.519	948	950	1.037	0.453	0.521	10.599
Infant mortality (last 0-9 years)	7.461	2.808	952	956	1.007	0.376	1.845	13.078
Child mortality (last 0-9 years)	6.040	2.633	919	921	0.952	0.436	0.775	11.305
Under-five mortality (last 0-9 years)	13.456	3.588	952	956	0.938	0.267	6.280	20.633
MEN								
Urban residence	0.000	0.000	441	439	na	na	0.000	0.000
No education, or primary	0.133	0.019	441	439	1.186	0.144	0.095	0.172
Vocational, secondary education or higher	0.867	0.019	441	439	1.186	0.022	0.828	0.905
Never married/in union	0.535	0.026	441	439	1.085	0.048	0.484	0.587
Currently married/in union	0.444	0.026	441	439	1.097	0.059	0.392	0.496
Know any contraceptive method	0.944	0.017	195	195	1.027	0.018	0.910	0.978
Ever used any contraceptive method	0.163	0.031	195	195	1.157	0.188	0.102	0.225
Want no more children	0.473	0.034	195	195	0.947	0.072	0.406	0.541
Want to delay at least 2 years	0.259	0.028	195	195	0.896	0.109	0.203	0.315
Ideal family size	3.918	0.120	386	390	1.078	0.031	3.677	4.159
Accepting attitudes towards people with HIV	0.027	0.008	400	399	0.984	0.294	0.011	0.043
Has heard about HIV/AIDS	0.908	0.015	441	439	1.103	0.017	0.878	0.939
Knows about condoms	0.659	0.027	441	439	1.202	0.041	0.605	0.713
Knows about limiting partners	0.891	0.014	441	439	0.959	0.016	0.862	0.919
Comprehensive knowledge on HIV transmission	0.100	0.016	441	439	1.151	0.165	0.067	0.133
Comprehensive knowledge on HIV transmission among youth	0.064	0.019	181	184	1.043	0.298	0.026	0.102
Had an injection in past 12 months	0.065	0.011	441	439	0.951	0.172	0.043	0.087
Had HIV test and received results in past 12 months	0.006	0.003	441	439	0.887	0.548	0.000	0.012

na = Not applicable

Table B.7 Sampling errors for Rest of Upolu sample, Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	566	597	na	na	0.000	0.000
No education, or primary	0.036	0.009	566	597	1.178	0.256	0.018	0.055
Secondary education or higher	0.964	0.009	566	597	1.178	0.010	0.945	0.982
Never married/in union	0.325	0.021	566	597	1.048	0.064	0.284	0.366
Currently married/in union	0.632	0.023	566	597	1.152	0.037	0.586	0.679
Currently pregnant	0.051	0.009	566	597	0.945	0.172	0.033	0.068
Children ever born	2.411	0.119	566	597	1.134	0.049	2.173	2.649
Children surviving	2.387	0.119	566	597	1.145	0.050	2.149	2.624
Children ever born to women age 40-49	4.791	0.306	114	122	1.177	0.064	4.179	5.403
Knowing any contraceptive method	0.729	0.020	361	378	0.852	0.027	0.689	0.769
Knowing any modern contraceptive method	0.727	0.020	361	378	0.860	0.028	0.686	0.767
Ever used any contraceptive method	0.484	0.023	361	378	0.884	0.048	0.438	0.531
Currently using any method	0.287	0.027	361	378	1.115	0.093	0.234	0.340
Currently using a modern method	0.283	0.027	361	378	1.121	0.094	0.230	0.336
Currently using pill	0.063	0.014	361	378	1.095	0.223	0.035	0.090
Currently using condoms	0.000	0.000	361	378	na	na	0.000	0.000
currently use injectables	0.161	0.021	361	378	1.099	0.132	0.119	0.204
Currently using female sterilization	0.059	0.013	361	378	1.029	0.217	0.033	0.084
Obtained method from public sector source	0.965	0.025	103	108	1.382	0.026	0.914	1.015
Want no more children	0.547	0.029	361	378	1.093	0.052	0.490	0.604
Want to delay at least 2 years	0.200	0.022	361	378	1.065	0.112	0.155	0.245
Ideal number of children	3.557	0.109	542	574	1.035	0.031	3.338	3.776
Last birth was protected against neonatal tetanus	0.309	0.027	282	296	0.996	0.089	0.254	0.364
Mothers received medical assistance at delivery	0.774	0.027	415	435	1.103	0.035	0.719	0.829
Had diarrhea in the last 2 weeks	0.053	0.014	411	431	1.073	0.266	0.025	0.081
Treated with oral rehydration salts (ORS)	0.666	0.114	23	23	0.894	0.171	0.438	0.894
Taken to health provider	0.774	0.067	23	23	0.780	0.086	0.641	0.907
Having health card, seen	0.311	0.048	79	86	0.943	0.156	0.214	0.408
Received BCG vaccination	0.890	0.035	79	86	0.996	0.039	0.821	0.959
Received DPT vaccination (3 doses)	0.420	0.060	79	86	1.088	0.142	0.301	0.540
Received polio vaccination (3 doses)	0.413	0.056	79	86	1.021	0.135	0.301	0.524
Received measles vaccination	0.746	0.051	79	86	1.058	0.069	0.644	0.848
Fully immunized	0.313	0.054	79	86	1.045	0.172	0.205	0.420
Accepting attitudes towards people with HIV	0.011	0.004	454	483	0.916	0.415	0.002	0.019
Has heard about HIV/AIDS	0.808	0.020	566	597	1.206	0.025	0.768	0.848
Knows about condoms	0.495	0.022	566	597	1.068	0.045	0.450	0.540
Knows about limiting partners	0.680	0.023	566	597	1.187	0.034	0.634	0.727
Comprehensive knowledge on HIV transmission	0.025	0.006	566	597	0.864	0.229	0.013	0.036
Comprehensive knowledge on HIV transmission among youth	0.030	0.010	201	215	0.850	0.340	0.010	0.051
Had an injection in past 12 months	0.081	0.014	566	597	1.242	0.176	0.053	0.110
Had HIV test and received results in past 12 months	0.009	0.003	566	597	0.755	0.341	0.003	0.014
Total fertility rate (last 3 years)	5.411	0.285	na	1703	0.890	0.053	4.841	5.982
Neonatal mortality (last 0-9 years)	3.098	2.192	724	764	1.064	0.708	0.000	7.482
Post-neonatal mortality (last 0-9 years)	3.635	2.070	722	762	0.906	0.569	0.000	7.774
Infant mortality (last 0-9 years)	6.733	2.930	724	764	0.962	0.435	0.872	12.593
Child mortality (last 0-9 years)	2.893	2.014	683	724	0.957	0.696	0.000	6.922
Under-five mortality (last 0-9 years)	9.607	3.384	725	765	0.926	0.352	2.839	16.374
MEN								
Urban residence	0.000	0.000	263	279	na	na	0.000	0.000
No education, or primary	0.158	0.027	263	279	1.178	0.168	0.105	0.212
Vocational, secondary education or higher	0.842	0.027	263	279	1.178	0.032	0.788	0.895
Never married/in union	0.460	0.036	263	279	1.173	0.079	0.388	0.532
Currently married/in union	0.519	0.036	263	279	1.160	0.069	0.447	0.590
Know any contraceptive method	0.892	0.029	135	145	1.093	0.033	0.833	0.950
Ever used any contraceptive method	0.298	0.039	135	145	0.994	0.132	0.219	0.377
Want no more children	0.498	0.048	135	145	1.106	0.096	0.402	0.593
Want to delay at least 2 years	0.225	0.039	135	145	1.089	0.175	0.146	0.304
Ideal family size	3.659	0.147	237	253	1.084	0.040	3.364	3.953
Accepting attitudes towards people with HIV	0.009	0.006	210	219	0.944	0.704	0.000	0.021
Has heard about HIV/AIDS	0.788	0.024	263	279	0.959	0.031	0.739	0.836
Knows about condoms	0.669	0.029	263	279	0.983	0.043	0.612	0.726
Knows about limiting partners	0.720	0.028	263	279	0.998	0.038	0.664	0.775
Comprehensive knowledge on HIV transmission	0.042	0.011	263	279	0.917	0.271	0.019	0.064
Comprehensive knowledge on HIV transmission among youth	0.036	0.017	96	101	0.890	0.475	0.002	0.069
Had an injection in past 12 months	0.271	0.037	263	279	1.337	0.136	0.197	0.344
Had HIV test and received results in past 12 months	0.011	0.006	263	279	0.980	0.573	0.000	0.024

na = Not applicable

Table B.8 Sampling errors for Savaii sample, Samoa 2009

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.000	0.000	602	605	na	na	0.000	0.000
No education, or primary	0.062	0.009	602	605	0.940	0.150	0.043	0.080
Secondary education or higher	0.938	0.009	602	605	0.940	0.010	0.920	0.957
Never married/in union	0.291	0.020	602	605	1.092	0.070	0.250	0.331
Currently married/in union	0.661	0.023	602	605	1.183	0.035	0.616	0.707
Currently pregnant	0.078	0.011	602	605	1.028	0.144	0.055	0.100
Children ever born	2.651	0.104	602	605	1.027	0.039	2.444	2.858
Children surviving	2.591	0.104	602	605	1.059	0.040	2.383	2.799
Children ever born to women age 40-49	4.996	0.165	155	155	0.882	0.033	4.665	5.326
Knowing any contraceptive method	0.920	0.015	400	400	1.137	0.017	0.889	0.951
Knowing any modern contraceptive method	0.901	0.017	400	400	1.166	0.019	0.866	0.936
Ever used any contraceptive method	0.533	0.027	400	400	1.069	0.050	0.479	0.586
Currently using any method	0.255	0.023	400	400	1.043	0.089	0.210	0.301
Currently using a modern method	0.236	0.023	400	400	1.093	0.099	0.189	0.282
Currently using pill	0.044	0.009	400	400	0.894	0.209	0.026	0.062
Currently using condoms	0.000	0.000	400	400	na	na	0.000	0.000
currently use injectables	0.145	0.019	400	400	1.092	0.133	0.107	0.184
Currently using female sterilization	0.044	0.012	400	400	1.132	0.264	0.021	0.067
Obtained method from public sector source	0.936	0.023	101	101	0.946	0.025	0.890	0.983
Want no more children	0.558	0.023	400	400	0.917	0.041	0.513	0.604
Want to delay at least 2 years	0.184	0.020	400	400	1.031	0.109	0.144	0.224
Ideal number of children	3.520	0.109	577	578	1.041	0.031	3.302	3.739
Last birth was protected against neonatal tetanus	0.323	0.023	277	277	0.832	0.073	0.276	0.370
Mothers received medical assistance at delivery	0.678	0.033	391	391	1.203	0.048	0.613	0.743
Had diarrhea in the last 2 weeks	0.041	0.011	381	382	0.874	0.265	0.019	0.063
Treated with oral rehydration salts (ORS)	0.684	0.157	16	16	1.038	0.230	0.370	0.999
Taken to health provider	0.684	0.157	16	16	1.038	0.230	0.370	0.999
Having health card, seen	0.396	0.047	78	77	0.846	0.119	0.302	0.491
Received BCG vaccination	0.900	0.039	78	77	1.146	0.044	0.822	0.979
Received DPT vaccination (3 doses)	0.317	0.051	78	77	0.957	0.161	0.215	0.418
Received polio vaccination (3 doses)	0.285	0.054	78	77	1.041	0.188	0.178	0.393
Received measles vaccination	0.716	0.047	78	77	0.909	0.065	0.622	0.810
Fully immunized	0.196	0.040	78	77	0.877	0.203	0.117	0.276
Accepting attitudes towards people with HIV	0.009	0.004	507	512	0.906	0.419	0.001	0.017
Has heard about HIV/AIDS	0.846	0.017	602	605	1.122	0.020	0.813	0.879
Knows about condoms	0.584	0.020	602	605	1.011	0.035	0.544	0.625
Knows about limiting partners	0.789	0.020	602	605	1.188	0.025	0.749	0.828
Comprehensive knowledge on HIV transmission	0.030	0.006	602	605	0.892	0.206	0.018	0.043
Comprehensive knowledge on HIV transmission among youth	0.004	0.004	187	190	0.891	0.983	0.000	0.013
Had an injection in past 12 months	0.101	0.012	602	605	1.002	0.122	0.076	0.125
Had HIV test and received results in past 12 months	0.001	0.001	602	605	0.938	1.007	0.000	0.004
Total fertility rate (last 3 years)	4.728	0.281	na	1708	1.108	0.059	4.165	5.290
Neonatal mortality (last 0-9 years)	14.530	4.158	768	766	0.969	0.286	6.214	22.846
Post-neonatal mortality (last 0-9 years)	3.946	2.283	769	767	0.999	0.578	0.000	8.511
Infant mortality (last 0-9 years)	18.476	4.590	768	766	0.952	0.248	9.296	27.655
Child mortality (last 0-9 years)	8.678	3.847	745	741	0.964	0.443	0.984	16.373
Under-five mortality (last 0-9 years)	26.994	6.216	769	767	1.028	0.230	14.561	39.426
MEN								
Urban residence	0.000	0.000	260	291	na	na	0.000	0.000
No education, or primary	0.144	0.018	260	291	0.811	0.123	0.109	0.180
Vocational, secondary education or higher	0.856	0.018	260	291	0.811	0.021	0.820	0.891
Never married/in union	0.491	0.030	260	291	0.977	0.062	0.430	0.552
Currently married/in union	0.479	0.030	260	291	0.958	0.062	0.419	0.538
Know any contraceptive method	0.964	0.019	124	140	1.105	0.019	0.926	1.001
Ever used any contraceptive method	0.413	0.042	124	140	0.941	0.101	0.330	0.497
Want no more children	0.362	0.049	124	140	1.139	0.137	0.263	0.461
Want to delay at least 2 years	0.406	0.046	124	140	1.028	0.112	0.315	0.497
Ideal family size	4.384	0.204	255	284	1.149	0.047	3.975	4.793
Accepting attitudes towards people with HIV	0.071	0.017	232	261	1.022	0.243	0.037	0.106
Has heard about HIV/AIDS	0.894	0.023	260	291	1.183	0.025	0.849	0.939
Knows about condoms	0.692	0.036	260	291	1.261	0.052	0.620	0.764
Knows about limiting partners	0.879	0.023	260	291	1.155	0.027	0.832	0.926
Comprehensive knowledge on HIV transmission	0.046	0.012	260	291	0.912	0.259	0.022	0.069
Comprehensive knowledge on HIV transmission among youth	0.036	0.018	88	96	0.901	0.498	0.000	0.072
Had an injection in past 12 months	0.189	0.026	260	291	1.070	0.138	0.137	0.241
Had HIV test and received results in past 12 months	0.004	0.004	260	291	1.072	0.999	0.000	0.013

na = Not applicable

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Samoa 2009

	Women		Men	
Age	Number	Percent	Number	Percent
0	208	3.0	207	2.8
1	208	3.0	173	2.4
2	181	2.6	186	2.5
3	177	2.6	196	2.7
4	178	2.6	191	2.6
5	148	2.2	193	2.6
6	190	2.8	159	2.2
7	180	2.6	199	2.7
8	164	2.4	192	2.6
9	167	2.4	196	2.7
10	174	2.5	193	2.6
11	139	2.0	215	2.9
12	180	2.6	205	2.8
13	150	2.2	213	2.9
14	193	2.8	222	3.0
15	133	1.9	147	2.0
16	134	1.9	152	2.1
17	153	2.2	163	2.2
18	113	1.6	140	1.9
19	129	1.9	140	1.9
20	140	2.0	143	2.0
21	103	1.5	112	1.5
22	109	1.6	124	1.7
23	87	1.3	115	1.6
24	103	1.5	98	1.3
25	104	1.5	90	1.2
26	65	0.9	99	1.4
27	80	1.2	81	1.1
28	99	1.4	96	1.3
29	95	1.4	76	1.0
30	79	1.2	94	1.3
31	63	0.9	74	1.0
32	79	1.1	86	1.2
33	67	1.0	73	1.0
34	67	1.0	77	1.1
35	74	1.1	76	1.0
36	86	1.3	80	1.1
37	70	1.0	85	1.2
38	85	1.2	80	1.1
39	82	1.2	96	1.3
40	72	1.1	93	1.3
41	59	0.9	62	0.8
42	53	0.8	90	1.2
43	68	1.0	57	0.8
44	53	0.8	69	0.9
45	81	1.2	58	0.8
46	76	1.1	49	0.7
47	82	1.2	68	0.9
48	50	0.7	64	0.9
49	46	0.7	67	0.9
50	96	1.4	60	0.8
51	55	0.8	58	0.8
52	50	0.7	53	0.7
53	57	0.8	46	0.6
54	54	0.8	38	0.5
55	47	0.7	87	1.2
56	38	0.6	62	0.8
57	31	0.5	48	0.7
58	45	0.7	43	0.6
59	34	0.5	30	0.4
60	35	0.5	39	0.5
61	43	0.6	28	0.4
62	30	0.4	33	0.5
63	39	0.6	25	0.3
64	45	0.6	36	0.5
65	26	0.4	44	0.6
66	27	0.4	18	0.2
67	31	0.5	29	0.4
68	23	0.3	25	0.3
69	29	0.4	26	0.4
70+	318	4.6	240	3.3
Don't know	36	0.5	33	0.5
Total	6,865	100.0	7,313	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Samoa 2009

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percent	
10-14	836	na	na	na
15-19	662	557	21.0	84.2
20-24	543	479	18.0	88.3
25-29	442	378	14.2	85.5
30-34	356	318	12.0	89.3
35-39	397	343	12.9	86.6
40-44	306	281	10.6	91.7
45-49	335	300	11.3	89.6
50-54	313	na	na	na
15-49	3,040	2,656	100.0	87.4

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule from the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64 and interviewed men age 15-54; and percent distribution and percentage of eligible men who were interviewed (weighted), Samoa 2009

Age group	Household population of men age 10-64	Interviewed men age 15-49		Percentage of eligible men interviewed
		Number	Percent	
10-14	545	na	na	na
15-19	359	275	20.7	76.4
20-24	270	222	16.7	82.1
25-29	214	167	12.6	77.8
30-34	213	166	12.5	77.7
35-39	195	149	11.2	76.1
40-44	192	149	11.2	77.5
45-49	149	111	8.4	74.2
50-54	116	89	6.7	76.3
55-59	158	na	na	na
60-64	78	na	na	na
15-49	1,710	1,326	100.0	77.5

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule from the Household Questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Samoa 2009

Subject	Reference group	Percentage with information missing	Number of cases
Birth date	Births in past 15 years		
Month only		0.13	4,298
Month and year		0.03	4,298
Age at death	Deaths in past 15 years	0.00	57
Respondent's education	All women age 15-49	0.03	2,657
	All men age 15-54	0.00	1,307
Diarrhoea in past 2 weeks	Living children age 0-59 months	3.68	1,594

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Samoa 2009

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Calendar year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2009	254	3	256	99.7	100.0	99.7	114.6	158.9	115.0	na	na	na
2008	351	5	355	100.0	100.0	100.0	85.2	153.7	85.9	na	na	na
2007	320	3	323	100.0	100.0	100.0	90.1	0.0	88.7	97.9	84.6	97.8
2006	303	2	305	100.0	100.0	100.0	113.2	na-	114.6	99.4	56.9	98.9
2005	290	4	294	100.0	100.0	100.0	97.7	na-	100.6	102.8	100.0	102.7
2004	261	6	268	100.0	100.0	100.0	121.2	239.1	123.1	90.0	137.9	90.8
2003	290	5	295	100.0	100.0	100.0	105.3	132.1	105.7	108.8	88.5	108.4
2002	272	5	277	99.5	100.0	99.5	88.4	74.1	88.1	99.4	175.8	100.2
2001	258	1	258	100.0	100.0	100.0	120.6	na-	121.2	92.7	13.2	91.2
2000	284	6	289	99.4	100.0	99.4	115.3	80.3	114.5	109.3	300.4	110.7
2005-2009	1,518	16	1,534	99.9	100.0	99.9	98.4	188.2	99.1	na	na	na
2000-2004	1,365	23	1,388	99.8	100.0	99.8	109.2	126.2	109.5	na	na	na
1995-1999	1,292	17	1,309	99.9	93.0	99.8	118.9	320.3	120.3	na	na	na
1990-1994	911	12	923	99.9	95.1	99.8	109.5	102.3	109.4	na	na	na
<1989	784	17	801	99.4	100.0	99.4	106.7	137.1	107.3	na	na	na
All	5,869	85	5,954	99.8	97.9	99.8	108.0	158.7	108.6	na	na	na

na = Not applicable
[1] Both year and month of birth given
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Samoa 2009

	Number of years preceding the survey				
Age at death (days)	0-4	5-9	10-14	15-19	Total 0-19
<1	3	0	0	0	3
1	4	5	1	1	11
2	0	2	0	0	2
3	0	0	1	0	1
4	0	0	0	1	1
7	1	1	2	0	4
13	1	0	0	0	1
14	0	0	1	0	1
17	0	0	0	1	1
21	0	1	0	0	1
Total 0-30 days	8	9	6	3	25
Percentage early neonatal[1]	79.5	80.0	42.9	62.7	69.4

[1] ≤6 days/≤30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey (weighted), Samoa 2009

	Number of years preceding the survey				
Age at death (months)	0-4	5-9	10-14	15-19	Total 0-19
<1[a]	8	9	6	3	25
1	2	0	0	0	2
2	1	2	1	0	4
3	0	0	1	1	2
4	0	0	0	1	1
5	3	0	1	0	4
6	0	2	0	0	2
9	0	0	1	0	1
10	1	0	0	0	1
11	1	1	0	0	2
12	1	1	2	0	4
17	0	0	0	1	1
1 Year	1	1	1	2	5
Total 0-11 months	15	14	10	5	43
Percentage neonatal[1]	53.3	63.1	60.4	59.4	58.6

[a] Includes deaths under one month reported in days
[1] Under one month/under one year

PERSONS INVOLVED IN THE 2009 SAMOA DEMOGRAPHIC AND HEALTH SURVEY

Appendix ***D***

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QUESTIONNAIRES

APPENDIX E

AUGUST 2009

DEMOGRAPHIC AND HEALTH SURVEY (DHS) 2009
HOUSEHOLD'S QUESTIONNAIRE

GOVERNMENT OF SAMOA

Ministry of Health (MOH) working in partnership with MACRO International & Samoa Bureau of Statistics (SBS)

IDENTIFICATION

NAME OF REGION _____

NAME OF DISTRICT _____

NAME OF VILLAGE _____

ENUMERATION AREA .....

HOUSEHOLD NUMBER .....

NAME OF HOUSEHOLD HEAD _____

HOUSEHOLD SUB-SELECTED FOR MALE SURVEY? 1 YES 2 NO

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR 2 0 0 9
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LANGUAGE OF INTERVIEW: 1 ENGLISH 2 SAMOAN 3 BOTH 4 OTHER _____

LANGUAGE OF RESPONDENT: 1 ENGLISH 2 SAMOAN 3 BOTH 4 OTHER _____

TRANSLATOR USED? 1 YES 2 NO

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

							IF AGE 15 YEARS OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	DISABILITY	ELIGIBILITY	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-22 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW. INSERT CODE IN THE BOX.	Is (NAME) male or female? CIRCLE CORRECT SEX FOR EACH PERSON.	Does (NAME) usually live here? CIRCLE CORRECT ANSWER FOR EACH PERSON.	Did (NAME) stay here last night? CIRCLE CORRECT ANSWER FOR EACH PERSON.	How old is (NAME) on his/her last birthday? WRITE THE AGE IN THE BOX.	What is (NAME'S) current marital status? USE THE FOLLOWING CODES: 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	Does (Name) endure or undergo any form of disability? IF YES: What form of disability does (NAME) endure or undergo? SEE CODES BELOW:	**CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49**	**CIRCLE LINE NUMBER OF ALL MEN AGE 15-54**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	Y N	Y N	IN YEARS				
01			1 2	1 2	1 2				01	01
02			1 2	1 2	1 2				02	02
03			1 2	1 2	1 2				03	03
04			1 2	1 2	1 2				04	04
05			1 2	1 2	1 2				05	05
06			1 2	1 2	1 2				06	06
07			1 2	1 2	1 2				07	07
08			1 2	1 2	1 2				08	08
09			1 2	1 2	1 2				09	09
10			1 2	1 2	1 2				10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/ STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

CODES FOR Q.9: TYPES OF DISABILITY

00 = NO DISABILITY
01=PHYSICALLY DISABLED
02=MENTALLY ILL/EMOTIONAL/BEHAVIORAL PROBLEM
03 =MENTALLY RETARDED
04 = AUTISTIC
05 =SPEECH/LANGUAGE DIFFICULTY
06 = DEAF & HEARING IMPAIRED
07=BLIND & VISUALLY IMPAIRED
08=MULTIPLE DISABILITIES
09 = NOT STATED

							IF AGE 15 YEARS OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	DISABILITY	ELIGIBILITY	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-22 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW. INSERT CODE IN THE BOX.	Is (NAME) male or female? CIRCLE CORRECT SEX FOR EACH PERSON.	Does (NAME) usually live here? CIRCLE CORRECT ANSWER FOR EACH PERSON.	Did (NAME) stay here last night? CIRCLE CORRECT ANSWER FOR EACH PERSON.	How old is (NAME) on his/her last birthday? WRITE THE AGE IN THE BOX.	What is (NAME'S) current marital status? USE THE FOLLOWING CODES: 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	Does (Name) endure or undergo any form of disability? IF YES: What form of disability does (NAME) endure or undergo? SEE CODES BELOW:	**CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49**	**CIRCLE LINE NUMBER OF ALL MEN AGE 15-54**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	Y N	Y N	IN YEARS				
11			1 2	1 2	1 2				11	11
12			1 2	1 2	1 2				12	12
13			1 2	1 2	1 2				13	13
14			1 2	1 2	1 2				14	14
15			1 2	1 2	1 2				15	15
16			1 2	1 2	1 2				16	16
17			1 2	1 2	1 2				17	17
18			1 2	1 2	1 2				18	18
19			1 2	1 2	1 2				19	19
20			1 2	1 2	1 2				20	20

TICK HERE IF CONTINUATION SHEET IS USED ☐

(2A) Just to make sure that I have a complete listing. Are there any other persons such as small children or infants that we have not listed? **YES** ☐ ADD TO TABLE **NO** ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? **YES** ☐ ADD TO TABLE **NO** ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? **YES** ☐ ADD TO TABLE **NO** ☐

CODES FOR Q. 3: RELATIONSHIP TO HOUSEHOLD HEAD

01 = HEAD
02 = WIFE/ HUSBAND
03 = SON/ DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/ STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

CODES FOR Q.9: DISABILITY

00 = NO DISABILITY
01=PHYSICALLY DISABLED
02=MENTALLY ILL/ EMOTIONAL/ BEHAVIORAL PROBLEM
03 =MENTALLY RETARDED
04 = AUTISTIC
05 =SPEECH/LANGUAGE DIFFICULT
06 = DEAF & HEARING IMPAIRED
07=BLIND & VISUALLY IMPAIRED
08=MULTIPLE DISABILITIES
09 = NOT STATED

HOUSEHOLD SCHEDULE											
	IF AGE 0-10 YEARS	IF AGE 0-17 YEARS ONLY				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS			
LINE NO.	BIRTH REGISTRATION	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE			
	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the Registration Office? 1 = YES, SEEN 2 = YES, NOT SEEN 3 = REGISTERED 4 = NEITHER 1-3 OR NEVER 8 = DON'T KNOW	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NO. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NO. IF NO, RECORD '00'.	Has (NAME) ever attended school? IF 'NO' AND LAST MEMBER, SKIP TO Q. 23.	What is the highest level of school (NAME) has attended? What is the highest year (NAME) completed at that level? SEE CODES BELOW. IF HIGHER/ UNIVERSITY LEVEL, RECORD TOTAL NUMBER OF YEARS.	Did (NAME) attend school at any time during the 2009 school year?	During this school year, what level and year is (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, 2008? IF 'NO' AND LAST MEMBER. SKIP TO Q. 23.	During that school year, what level and year did (NAME) attend? SEE CODES BELOW.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
		Y N DK		Y N DK		Y N	LEVEL YEAR	Y N	LEVEL YEAR	Y N	LEVEL YEAR
01		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
02		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
03		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
04		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
05		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
06		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
07		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
08		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
09		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
10		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	

CODES FOR QS. 18, 20 & 22: EDUCATION

LEVEL	YEAR	
0 = PRE-SCHOOL/SPECIAL NEEDS	00 = LESS THAN 1 YEAR COMPLETED AT HIGHEST LEVEL (USE FOR Q. 18 ONLY)	
1 = PRIMARY (YRS 1- 8)/ PRIMER 1-3/ STD 1-4/ FORMS 1-2	01 = YEAR 1/ PRIMER 1	01 = YEAR 9/ FORM 3
2 = SECONDARY (YRS 9-13)/ FORMS 3-6	02 = YEAR 2 /PRIMER 2	02 = YEAR 10/ FORM 4
	03 = YEAR 3/ PRIMER 3	03 = YEAR 11/ FORM 5
3 = VOCATIONAL	04 = YEAR 4/ STD 1-2	04 = YEAR 12/ UPPER 5
4 = HIGHER/UNIVERSITY	05 = YEAR 5/ STD 3	05 = YEAR 13/ FORM 6
5 = OLD MISSION SCHOOL	06 = YEAR 6/ STD 4	
6 = NOT STATED	07 = YEAR 7/ FORM 1	55 = OLD MISSION SCHOOL
8 - DON'T KNOW	08 = YEAR 8/ FORM 2	98 = DON'T KNOW

	IF AGE 0-10 YEARS	IF AGE 0-17 YEARS ONLY				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS			
LINE NO.	BIRTH REGISTRATION	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE			
	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the Registration Office? 1 = YES, SEEN 2 = YES, NOT SEEN 3 = REGISTERED 4 = NEITHER 1-3 OR NEVER 8 = DON'T KNOW	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NO. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NO. IF NO, RECORD '00'.	Has (NAME) ever attended school? IF 'NO' AND LAST MEMBER, SKIP TO Q. 23.	What is the highest level of school (NAME) has attended? What is the highest year (NAME) completed at that level? SEE CODES BELOW. IF HIGHER/ UNIVERSITY LEVEL, RECORD TOTAL NUMBER OF YEARS.	Did (NAME) attend school at any time during the 2009 school year?	During this school year, what level and year is (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, 2008? IF 'NO' AND LAST MEMBER. SKIP TO Q. 23.	During that school year, what level and year did (NAME) attend? SEE CODES BELOW.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
		Y N DK		Y N DK		Y N	LEVEL YEAR	Y N	LEVEL YEAR	Y N	LEVEL YEAR
11		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
12		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
13		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
14		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
15		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
16		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
17		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
18		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
19		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	
20		1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23	

CODES FOR QS. 18, 20 & 22: EDUCATION

LEVEL

0 = PRE-SCHOOL/SPECIAL NEEDS
1 = PRIMARY (YRS 1- 8)/ PRIMER 1-3/ STD 1-4/ FORMS 1-2
2 = SECONDARY (YRS 9-13)/ FORMS 3-6
3 = VOCATIONAL
4 = HIGHER/UNIVERSITY
5 = OLD MISSION SCHOOL
6 = NOT STATED
8 - DON'T KNOW

YEAR

00 = LESS THAN 1 YEAR COMPLETED AT HIGHEST LEVEL (USE FOR Q. 18 ONLY)
01 = YEAR 1/ PRIMER 1
02 = YEAR 2 /PRIMER 2
03 = YEAR 3/ PRIMER 3
04 = YEAR 4/ STD 1-2
05 = YEAR 5/ STD 3
06 = YEAR 6/ STD 4
07 = YEAR 7/ FORM 1
08 = YEAR 8/ FORM 2
01 = YEAR 9/ FORM 3
02 = YEAR 10/ FORM 4
03 = YEAR 11/ FORM 5
04 = YEAR 12/ UPPER 5
05 = YEAR 13/ FORM 6
55 = OLD MISSION SCHOOL
98 = DON'T KNOW

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	
23	Now I would like to ask you about some diseases you or any member of your household may have had in the last 12 months. A) Has any member of your household had any of the following diseases in the last 12 months that were diagnosed by a medical doctor? IF YES, CIRCLE THE NAME OF THE DISEASE. THEN CIRCLE '1' AND ASK Q. 23(B).	B) How many of your household members have had this disease in the last 12 months?	NO. OF HOUSEHOLD MEMBERS
	a) Dengue fever?	YES .... 1 → NO/ UNSURE 2	☐☐
	b) Typhoid?	YES .... 1 → NO/ UNSURE 2	☐☐
	c) Filariasis in the last five years?	YES .... 1 → NO/ UNSURE 2	☐☐
	d) Measles?	YES .... 1 → NO/ UNSURE 2	☐☐
	e) Rubella?	YES .... 1 → NO/ UNSURE 2	☐☐
	f) Leprosy?	YES .... 1 → NO/ UNSURE 2	☐☐
	g) Meningococcal disease?	YES .... 1 → NO/ UNSURE 2	☐☐
	h) Diabetes?	YES .... 1 → NO/ UNSURE 2	☐☐
	i) Hypertension?	YES .... 1 → NO/ UNSURE 2	☐☐
	j) Cardiovascular disease?	YES .... 1 → NO/ UNSURE 2	☐☐
	k) Rheumatic heart disease?	YES .... 1 → NO/ UNSURE 2	☐☐
24	CHECK 23A **(a) through (k):** AT LEAST ONE 'YES' ☐ ↓	NOT A SINGLE 'YES' ☐ →	GO TO !01
25	In total, how many household members have had any of the diseases we have been talking about? Now please give me the name of all the household members who have had any of the diseases. ENTER THE LINE NUMBER AND NAME OF EACH PERSON WHO EVER HAVE HAD ANY DISEASE IN THE LIST. ENTER THE LINE NUMBER IN ASCENDING ORDER. CIRCLE THE CODE OF EACH DISEASE THE PERSON EVER HAVE HAD. (IF THERE ARE MORE THAN 12 PERSONS, USE ADDITIONAL QUESTIONNAIRE).		☐☐

PERSONS WHO EVER HAVE HAD THE DISEASE

		PERSON 1	PERSON 2	PERSON 3
26	LINE NUMBER AND NAME FROM COL. (1) AND (2).	LINE NUMBER .... ☐☐ NAME____________	LINE NUMBER .... ☐☐ NAME____________	LINE NUMBER .... ☐☐ NAME____________
27	What was/were (NAME)'s illness/ illnesses? What else?	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K

PERSONS WHO EVER HAVE HAD THE DISEASE				
		PERSON 4	PERSON 5	PERSON 6
26	LINE NUMBER AND NAME FROM COL. (1) AND (2).	LINE NUMBER .... NAME____________________	LINE NUMBER .... NAME____________________	LINE NUMBER .... NAME____________________
27	What was/were (NAME)'s illness/ illnesses? What else?	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K

PERSONS WHO EVER HAVE HAD THE DISEASE				
		PERSON 7	PERSON 8	PERSON 9
26	LINE NUMBER AND NAME FROM COL. (1) AND (2).	LINE NUMBER .... NAME____________________	LINE NUMBER .... NAME____________________	LINE NUMBER .... NAME____________________
27	What was/were (NAME)'s illness/ illnesses? What else?	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K

PERSONS WHO EVER HAVE HAD THE DISEASE				
		PERSON 10	PERSON 11	PERSON 12
26	LINE NUMBER AND NAME FROM COL. (1) AND (2).	LINE NUMBER .... NAME____________________	LINE NUMBER .... NAME____________________	LINE NUMBER .... NAME____________________
27	What was/were (NAME)'s illness/ illnesses? What else?	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K	DENGUE FEVER .... A TYPHOID .... B FILIRIASIS.............. C MEASLES .... D RUBELLA .... E LEPROSY .... F MENINGOCOCCAL .... G DIABETES.............. H HYPERTENSION .... I CARDIOVASCULAR ... J RHEUMATIC .... K

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the **main** source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL . . . . . 61 BOTTLED WATER . . . . . 71 OTHER _____ 96 (SPECIFY)	106 103 106 103 103
102	What is the **main** source of water used by your household for other purposes such as cooking and handwashing?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL . . . . . 61 BOTTLED WATER . . . . . 71 OTHER _____ 96 (SPECIFY)	106 106
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	106
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
105	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN (15+) . . . . . 1 ADULT MAN (15+) . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	
106	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	108

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
108	What type of water waste disposal does your household have?	PROTECTED WATER DISPOSAL . . . 1 UNPROTECTED WATER DISPOSAL . . . 2 NO WATER DISPOSAL 3	
109	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO SEPTIC TANK . . . . . 11 FLUSH TO PIT LATRINE . . . . . 12 FLUSH TO SOMEWHERE ELSE . . . 13 FLUSH, DON'T KNOW WHERE . . . 14 PIT LATRINE VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 NO FACILITY/BUSH/BEACH . . . . . 31 OTHER _____ 96 (SPECIFY)	→ 112
110	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 112
111	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	YES	NO	SKIP
112	Does your household have:				
	Electricity?	ELECTRICITY	1	2	
	A radio?	RADIO	1	2	
	A television?	TELEVISION	1	2	
	A mobile telephone?	MOBILE TELEPHONE	1	2	
	A landline telephone?	LANDLINE TELEPHONE	1	2	
	A refrigerator?	REFRIGERATOR	1	2	
	A deep freezer?	DEEP FREEZER	1	2	
	A gas stove	GAS STOVE	1	2	
	A kerosene stove?	KEROSENE STOVE	1	2	
	A mirowave oven?	MICROWAVE OVEN	1	2	
	An electric jug or kettle?	ELECTRIC JUG/KETTLE	1	2	
	A rice cooker?	RICE COOKER	1	2	
	A blender?	BLENDER	1	2	
	A sewing machine?	SEWING MACHINE	1	2	
	A CD/cassette player?	CD/CASSETTE PLAYER	1	2	
	A video or DVD player?	VIDEO OR DVD PLAYER	1	2	
	An electric water pump?	ELECTRIC WATER PUMP	1	2	
	A washing machine?	WASHING MACHINE	1	2	
	A desktop or laptop computer?	DESK/LAP TOP	1	2	
	An electric fan?	ELECTRIC FAN	1	2	
	An air conditioner?	AIR CONDITIONER	1	2	
	A bed?	BED	1	2	
	A table?	TABLE	1	2	
	A chair?	CHAIR	1	2	
	A sofa?	SOFA	1	2	
	A food safe?	FOOD SAFE	1	2	
	A cupboard?	CUPBOARD	1	2	
	A clock or wall clock?	CLOCK OR WALL CLOCK	1	2	
	A generator?	GENERATOR	1	2	
	A solar power?	SOLAR POWER	1	2	
113	What type of fuel does your household mainly use for cooking?	ELECTRICITY	01		→ 116
		LIQUEFIED PETROLEUM GAS	02		
		KEROSENE	03		
		WOOD	04		
		COCONUT PARTS	05		
		NO FOOD COOKED IN HOUSEHOLD	95		→ 118
		OTHER _____ (SPECIFY)	96		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
114	In this household, is food cooked on an open fire, an open stove or a closed stove? PROBE FOR TYPE.	OPEN FIRE ..... 1 OPEN STOVE ..... 2 CLOSED STOVE WITH CHIMNEY ... 3 OTHER _____ 6 (SPECIFY)	→ 116
115	Does this (fire/stove) have a chimney, a hood, or neither of these?	CHIMNEY ..... 1 HOOD ..... 2 NEITHER 3	
116	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE ..... 1 IN A SEPARATE BUILDING ..... 2 OUTDOORS ..... 3 OTHER _____ 6 (SPECIFY)	→ 118
117	Do you have a separate room which is used as a kitchen?	YES ..... 1 NO 2	
118	**MAIN** MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR GRAVEL/SAND ..... 11 RUDIMENTARY FLOOR WOOD PLANKS ..... 21 COCONUT MIDRIBS ..... 22 FINISHED FLOOR PARQUET OR POLISHED WOOD ..... 31 VINYL OR ASPHALT STRIPS ..... 32 CERAMIC TILES ..... 33 CEMENT ..... 34 CARPET ..... 35 OTHER _____ 96 (SPECIFY)	
119	**MAIN** MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF ..... 11 LOCAL THATCH ..... 12 RUDIMENTARY ROOFING WOOD PLANKS ..... 21 FINISHED ROOFING METAL ..... 31 OTHER _____ 96 (SPECIFY)	
120	**MAIN** MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS ..... 11 COCONUT MIDRIBS ..... 12 RUDIMENTARY WALLS PLYWOOD ..... 21 CARDBOARD ..... 22 REUSED WOOD ..... 23 FINISHED WALLS CEMENT ..... 31 STONE WITH LIME/CEMENT ..... 32 CEMENT BLOCKS ..... 33 WOOD PLANKS/SHINGLES ..... 34 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
121	How many rooms in this household are used for sleeping?	ROOMS ..... [ ][ ]	
122	Does any member of this household own this house?	YES ..... 1 NO 2	
123	Does any member of this household own any (other) house?	YES ..... 1 NO 2	
124	Does any member of this household own: A watch? A bicycle? A motorcycle or motor scooter? A car or truck? A hand cart? A boat? An Outboard motor? A canoe? A fishing gear?	YES NO WATCH ..... 1 2 BICYCLE ..... 1 2 MOTORCYCLE/SCOOTER . 1 2 CAR/TRUCK ..... 1 2 HAND CART ..... 1 2 BOAT ..... 1 2 MOTOR ..... 1 2 CANOE ..... 1 2 FISHING GEAR 1 2	
125	Does any member of this household own any: a: residential land? b: agricultural land? c. commercial land?	YES NO RESIDENTIAL LAND ..... 1 2 AGRICULTURAL LAND ..... 1 2 COMMERCIAL LAND 1 2	
126	Does this household own any livestock or poultry?	YES ..... 1 NO 2	→ 131
127	How many of the following animals does this household currently own? PIGS? DUCKS? CHICKENS? DOGS? CATS? HORSES? IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.	PIGS ..... [ ][ ] DUCKS ..... [ ][ ] CHICKENS ..... [ ][ ] DOGS ..... [ ][ ] CATS ..... [ ][ ] HORSES [ ][ ]	
128	Does your family have a pig sty?	YES ..... 1 NO 2	→ 131
129	How far is the pig sty from your place of residence? IF PIG STY IS NOT WITHIN THE RESIDENTIAL AREA OR COMPOUND, CIRCLE '995'. IF ADJACENT TO HOUSE, CIRCLE '000'	NUMBER OF YARDS ..... [ ][ ][ ] NOT WITHIN COMPOUND ..... 995 ADJACENT TO HOUSE 000	
130	What is the standard distance of a pig sty from any residential place?	NUMBER OF YARDS ..... [ ][ ][ ]	
131	Does any member of this household have a bank account?	YES ..... 1 NO 2	
132	Does the head of this household own this land? IF YES, ASK: What is type of ownership?	CUSTOMARY OWNER ..... 1 FREE HOLDER ..... 2 LEASE LAND ..... 3 EMPLOYER'S LAND 4 CHURCH ..... 5 OTHER 6	

AUGUST 2009

DEMOGRAPHIC HEALTH SURVEY (DHS) 2009
WOMEN'S QUESTIONNAIRE (AGE 15-49)

GOVERNMENT OF SAMOA

Ministry of Health (MOH) working in partnership with MACRO International & Samoa Bureau of Statistics (SBS

WOMAN'S IDENTIFICATION

NAME OF REGION _____

NAME OF DISTRICT _____

NAME OF VILLAGE _____

ENUMERATION AREA . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME AND LINE NUMBER OF WOMAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR 2 0 0 9
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF INTERVIEW 1 ENGLISH 2 SAMOAN 3 BOTH 4 OTHER _____ (SPECIFY)

LANGUAGE OF RESPONDENT 1 ENGLISH 2 SAMOAN 3 BOTH 4 OTHER _____ (SPECIFY)

TRANSLATOR USED? 1 YES 2 NO

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND
WOMEN AGE 15-49

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the SBS. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 40 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey sincere your views important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer:_____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS (PLACE OF BIIRTH) . . . . . 95 VISITOR (TEMPORARY STAY) . . . 96	→ 108
103	Just before you moved here, where else did you live?	AUA . . . . . 1 NWU . . . . . 2 ROU . . . . . 3 SAVAII . . . . . 4 OVERSEAS _____ 6 (SPECIFY COUNTRY)	
104	CHECK 102: LESS THAN 1 YEAR ↓	1 YEARS OR MORE →	106
105	Where were you living 1 year ago?	AUA . . . . . 1 NWU . . . . . 2 ROU . . . . . 3 SAVAII . . . . . 4 OVERSEAS _____ 6 (SPECIFY COUNTRY)	
106	CHECK 102: LESS THAN 5 YEARS ↓	5 YEARS OR MORE →	108
107	Where were you living 5 years ago?	AUA . . . . . 1 NWU . . . . . 2 ROU . . . . . 3 SAVAII . . . . . 4 OVERSEAS _____ 6 (SPECIFY COUNTRY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
109	How old were you at your last birthday? COMPARE AND CORRECT 108 AND/OR 109 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
110	What is your marital status now: are you currently married or living with a man as if married, or are you widowed, divorced, separated or never married and never lived with a man?	CURRENTLY MARRIED . . . . . 1 CURRENTLY LIVING WITH A MAN . . . . . 2 WIDOWED . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 NEVER MARRIED/LIVED WITH A MAN . . . 6	
111	Have you ever attended school?	YES . . . . . 1 NO 2	→ 115
112	What is the highest level of school you attended: primary, secondary, higher or what?	PRIMARY OR LOWER . . . . . 1 SECONDARY . . . . . 2 VOCATIONAL . . . . . 3 HIGHER/UNIVERSITY . . . . . 4 OLD MISSION SCHOOL 5	→ 115
113	What is the highest year you completed at that level? IF HIGHER/UNIVERSITY LEVEL, RECORD THE TOTAL NUMBER OF YEARS COMPLETED.	LESS THAN ONE YEAR . . . . . 00 YEAR 1/ PRIMER 1/ YEAR 9 / FORM 3 . 01 YEAR 2/ PRIMER 2/ YEAR 10/ FORM 4 . 02 YEAR 3/ PRIMER 3/ YEAR 11/ FORM 5 . 03 YEAR 4 / STD 1-2/ YEAR 12/ UPPER 5 . 04 YEAR 5/ STD 3/ YEAR 13/ FORM 6 . 05 YEAR 6/ STD 4 . . . . . 06 YEAR 7/ FORM 1 . . . . . 07 YEAR 8/ FORM 2 . . . . . 08 NUMBER OF YEARS . . . . . [ ][ ]	
114	CHECK 112: PRIMARY OR LOWER [ ] ↓ SECONDARY OR HIGHER [ ] →		119
115	Now I would like you to read this sentence to me. SHOW CARD IN **ENGLISH** TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL IN ENGLISH 1 ABLE TO READ ONLY PARTS OF SENTENCE IN ENGLISH . . . . . 2 ABLE TO READ WHOLE SENTENCE . . 3 BLIND/VISUALLY IMPAIRED 5	→ 120

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	SHOW CARD IN **SAMOAN** TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL IN SAMOAN 1 ABLE TO READ ONLY PARTS OF SENTENCE IN SAMOAN . . . . . 2 ABLE TO READ WHOLE SENTENCE . . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE)	
117	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
118	CHECK 115 and 116: CODE '2', '3' OR '4' CIRCLED IN 115 **OR** 116 ☐ CODE '1' CIRCLED IN 115 **AND** 116 ☐ →		120
119	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
120	Do you listen to the radio almost every day, at least once a week, less than once a week or not al all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
121	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
122	Other than for watching videos, do you use computer almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
123	What is your religion?	EFKS/TAITI . . . . . 11 METHODIST . . . . . 12 ROMAN CATHOLIC . . . . . 13 LDS . . . . . 14 SDS . . . . . 15 ASSEMBLY OF GOD . . . . . 16 OTHER _____ 96 (SPECIFY) REFUSED TO ANSWER . . . . . 97 DON'T KNOW 98	
124	Do you consider yourself a Samoan, part-Samoan or what?	SAMOAN . . . . . 1 PART-SAMOAN . . . . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS LIVING WITH HER . . . [ ][ ] DAUGHTERS LIVING WITH HER . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES ☐ ↓ NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐ →		226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.

RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . . NO	1 2

223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐ NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE) CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. FOR EACH BIRTH SINCE JANUARY 2004: MONTH AND YEAR OF BIRTH ARE RECORDED. FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.	☐ ☐ ☐ ☐ ☐
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 2004-2009. IF NONE, RECORD '0' AND SKIP TO 226	☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	FOR EACH BIRTH SINCE JANUARY 2004, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE RIGHT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
228	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 237
230	When did the last such pregnancy end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
231	CHECK 230: LAST PREGNANCY ENDED IN JANUARY 2004 OR LATER [ ] ↓ LAST PREGNANCY ENDED BEFORE JANUARY 2004 [ ]		→ 237
232	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS. ENTER T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
233	Since January 2004, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 235
234	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2004. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
235	Did you have any miscarriages, abortions or stillbirths that ended before 2004?	YES . . . . . 1 NO 2	→ 237

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
236	When did the last such pregnancy that terminated before 2004 end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
237	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE PREGNANT WITH LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
238	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
239	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	LACTATIONAL AMENORRHEA METHOD (LAM)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	EMERGENCY CONTRACEPTION As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within five days to prevent pregnancy.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) ☐ AT LEAST ONE "YES" (EVER USED) ☐		→ 307
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 306
305	ENTER '0' IN THE CALENDAR IN EACH BLANK MONTH.		→ 333
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . . . . . ☐☐	
308	CHECK 302 (01): WOMAN NOT STERILIZED ☐ WOMAN STERILIZED ☐		→ 311A
309	CHECK 226: NOT PREGNANT OR UNSURE ☐ PREGNANT ☐		→ 322
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 322
311 311A	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST. CIRCLE 'A' FOR FEMALE STERILIZATION.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTABLES . . . . . E IMPLANTS . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACTATIONAL AMEN. METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	→ 316 → 315 → 315 → 319A
312	RECORD IF CODE 'C' FOR PILL IS CIRCLED IN 311. YES (USING PILL) ☐ May I see the package of pills you are using? NO (USING CONDOM BUT NOT PILL) ☐ May I see the package of condoms you are using? RECORD NAME OF BRAND IF PACKAGE SEEN.	PACKAGE SEEN . . . . . 1 BRAND NAME _____ ☐☐ (SPECIFY) PACKAGE NOT SEEN 2	→ 314

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	Do you know the brand name of the (pills/condoms) you are using? RECORD NAME OF BRAND.	BRAND NAME _____ (SPECIFY) [ ][ ] DON'T KNOW 98	
314	How many (pill cycles/condoms) did you get the last time?	NUMBER OF PILL CYCLES/CONDOMS . . [ ][ ][ ] DON'T KNOW 998	
315	The last time you obtained (HIGHEST METHOD ON LIST IN 311), how much did you pay in total, including the cost of the method and any consultation you may have had?	TALA SENE COST .. [ ][ ][ ][ ] . [ ][ ] FREE . . . . . 9995.95 DON'T KNOW 9998.98	→ 319A
316	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 1 GOVT. HEALTH CENTRE . . . . . 2 FAMILY PLANNING CLINIC . . . . . 3 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . 4 OVERSEAS . . . . . 5 DON'T KNOW 8	
317	CHECK 311/311A: CODE 'A' CIRCLED → Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'A' NOT CIRCLED → Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
318	How much did you (your husband/partner) pay in total for the sterilization, including any consultation you (he) may have had?	TALA SENE COST .. [ ][ ][ ][ ] . [ ][ ] FREE . . . . . 9995.95 DON'T KNOW 9998.98	
319 319A	In what month and year was the sterilization performed? Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
320	CHECK 319/319A, 215 AND 230: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 319/319A. YES → NO → GO BACK TO 319/319A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
321	CHECK 319/319A: YEAR IS 2004-2009 ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING.	YEAR IS 2003 OR EARLIER ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2004 THEN SKIP TO	→ 331
322	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2004. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then?		
323	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 333 → 326 → 335 → 324A → 324A → 335 → 335
324	Where did you obtain (CURRENT METHOD) when you started using it?	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTRE . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . 21 PEER TRAINER 22	
324A	Where did you learn how to use the rhythm/lactational amenorhea method? IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	OTHER SOURCE HOTEL/NIGHT CLUB . . . . . 31 FRIEND/RELATIVE . . . . . 32 OVERSEAS . . . . . 41 OTHER _____ 96 (SPECIFY)	
325	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD 12	 → 332 → 329 → 329 → 329 → 335 → 335

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
326	You obtained (CURRENT METHOD FROM 323) from (SOURCE OF METHOD FROM 316 OR 324) in (DATE FROM 319/319A). At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 328
327	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 329
328	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
329	CHECK 326: CODE '1' CIRCLED → At that time, were you told about other methods of family planning that you could use? CODE '1' NOT CIRCLED → When you obtained (CURRENT METHOD FROM 323) from (SOURCE OF METHOD FROM 316 OR 324) were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 331
330	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
331	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	01, 02 → 335 11, 12, 13, 96 → 335

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
332	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTRE . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . 21 PEER TRAINER . . . . . 22 OTHER SOURCE HOTEL/NIGHT CLUB . . . . . 31 FRIEND/RELATIVE . . . . . 32 OVERSEAS . . . . . 41 OTHER _____ 96 (SPECIFY)	335
333	Do you know of a place where you can obtain a method for family planning?	YES . . . . . 1 NO 2	335
334	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTRE . . . . . B FAMILY PLANNING CLINIC . . . . . C PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . . . D PEER TRAINER . . . . . E OTHER SOURCE HOTEL/NIGHT CLUB . . . . . F FRIEND/RELATIVE . . . . . G OVERSEAS . . . . . H OTHER _____ X (SPECIFY)	
335	In the last 12 months, were you visited by a peer trainer who talked to you about family planning?	YES . . . . . 1 NO 2	
336	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	401
337	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2004 OR LATER ☐ ↓ / NO BIRTHS IN 2004 OR LATER ☐ → 546			
402	CHECK 215: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2004 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)			
403	LINE NUMBER FROM 212	LAST BIRTH LINE NO. ☐☐	NEXT-TO-LAST BIRTH LINE NO. ☐☐	SECOND-FROM-LAST BIRTH LINE NO. ☐☐
404	FROM 212 AND 216	NAME(S) _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME(S) _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME(S) _____ LIVING ☐ ↓ DEAD ☐ ↓
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 (SKIP TO 407) ← LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 407) ←	THEN . . . . . 1 (SKIP TO 426) ← LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 426) ←	THEN . . . . . 1 (SKIP TO 426) ← LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 426) ←
406	How much longer would you have liked to wait?	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW . . . 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE .. B NURSE AIDE . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . D OTHER_____ X (SPECIFY) NO ONE . . . . . Y (SKIP TO 414) ←		
408	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND CIRCLE THE APPROPRIATE CODE(S).	HOME YOUR HOME . . . A OTHER HOME . . . B PUBLIC SECTOR GOVT. HOSPITAL C GOVT. HEALTH CENTRE . . . . . D PRIVATE SECTOR MED. CENTRE . . . E OVERSEAS . . . . . F OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
409	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . [ ][ ] DON'T KNOW 98		
410	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . [ ][ ] DON'T KNOW 98		
411	As part of your antenatal care during this pregnancy, were any of the following done at least once?	YES NO		
	Were you weighed?	WEIGHT . . . 1 2		
	Was your blood pressure measured?	BP 1 2		
	Did you give a urine sample?	URINE 1 2		
	Did you give a blood sample?	BLOOD . . . 1 2		
412	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 414) DON'T KNOW 8		
413	Were you told where to go if you had any of these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
414	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 417) DON'T KNOW 8		
415	During this pregnancy, how many times did you get this tetanus injection?	TIMES . . . . . [ ] DON'T KNOW . . . 8		
416	CHECK 415:	2 OR MORE TIMES [ ] (SKIP TO 421) OTHER [ ]		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
417	At any time before this pregnancy,did you receive any tetanus injections, either to protect yourself or another baby?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8		
418	Before this pregnancy, how many other times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW . . . 8		
419	In what month and year did you receive the last tetanus injection before this pregnancy?	MONTH . . . [ ][ ] DK MONTH . . . . . 98 YEAR [ ][ ][ ][ ] (SKIP TO 421) DK YEAR 9998		
420	How many years ago did you receive that tetanus injection?	YEARS AGO . . . . . [ ][ ]		
421	During this pregnancy, were you given or did you buy any iron tablets?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423) DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . [ ][ ][ ] DON'T KNOW . . . 998		
423	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
424	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ______________	NEXT-TO-LAST BIRTH NAME ______________	SECOND-FROM-LAST BIRTH NAME ______________
425	During this pregnancy, did you suffer from night blindness?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8		
426	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
427	Was (NAME) weighed at birth?	YES . . . . 1 NO . . . . 2 (SKIP TO 429) ← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 429) ← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 429) ← DON'T KNOW 8
428	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 ☐.☐☐ KG FROM RECALL 2 ☐.☐☐ DON'T KNOW . 99.98	KG FROM CARD 1 ☐.☐☐ KG FROM RECALL 2 ☐.☐☐ DON'T KNOW . 99.98	KG FROM CARD 1 ☐.☐☐ KG FROM RECALL 2 ☐.☐☐ DON'T KNOW . 99.98
429	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B NURSE AIDE . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND E OTHER ______________ X (SPECIFY) NO ONE . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B NURSE AIDE . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER ______________ X (SPECIFY) NO ONE . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B NURSE AIDE . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND E OTHER ______________ X (SPECIFY) NO ONE . . . . Y
430	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	HOME YOUR HOME . . . 11 (SKIP TO 437) ← OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTRE . . . . . 22 PRIVATE SECTOR MED. CENTRE . . . 31 OVERSEAS HOME . . . . 41 (SKIP TO 437) ← HEALTH FACILITY 42 OTHER______________ 96 (SPECIFY) (SKIP TO 437) ←	HOME YOUR HOME . . . 11 (SKIP TO 438) ← OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTRE . . . . . 22 PRIVATE SECTOR MED. CENTRE . . . 31 OVERSEAS HOME . . . . 41 (SKIP TO 438) ← HEALTH FACILITY 42 OTHER______________ 96 (SPECIFY) (SKIP TO 438) ←	HOME YOUR HOME . . . 11 (SKIP TO 438) ← OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTRE . . . . . 22 PRIVATE SECTOR MED. CENTRE . . . 31 OVERSEAS HOME . . . . 41 (SKIP TO 438) ← HEALTH FACILITY 42 OTHER______________ 96 (SPECIFY) (SKIP TO 438) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
431	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . 998	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998
432	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
433	Before you were discharged after (NAME) was born, did any health care provider check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 436)	YES . . . . . 1 (SKIP TO 448) NO 2	YES . . . . . 1 (SKIP TO 448) NO 2
434	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998		
435	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 1 NURSE/MIDWIFE 2 NURSE AIDE . . . 3 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . 4 OTHER _____ 6 (SPECIFY) (SKIP TO 447)		
436	After you were discharged, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 (SKIP TO 439) NO . . . . . 2 (SKIP TO 447)	YES . . . . . 1 (SKIP TO 448) NO 2	YES . . . . . 1 (SKIP TO 448) NO 2
437	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . A FACILITY NOT OPEN . B TOO FAR/ NO TRANSPORTATION . . . C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVIDER AT FACILITY . . E HUSBAND/FAMILY DID NOT ALLOW . . F NOT NECESSARY . . G NOT CUSTOMARY . . H OTHER _____ (SPECIFY) X		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
438	After (NAME) was born, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 443)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
439	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS. IF MORE THAN 2 MONTHS, PROBE AND CORRECT 438.	HOURS 1 DAYS 2 WEEKS 3 DON'T KNOW . . . 998		
440	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 1 NURSE/MIDWIFE 2 NURSE AIDE . . . 3 OTHER PERSON TRADITIONAL BIRTH ATTENDANT. . . 4 OTHER _____ 6 (SPECIFY)		
441	Where did this first check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	HOME YOUR HOME . . . 11 OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTRE . . . . . 22 PRIVATE SECTOR MED. CENTRE. . . 31 OVERSEAS . . . . . 41 OTHER _____ 96 (SPECIFY)		
442	CHECK 436:	YES → (SKIP TO 447) NOT ASKED →		
443	In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 447) DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
444	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH . . 1 [ ][ ] DAYS AFTER BIRTH . . 2 [ ][ ] WKS AFTER BIRTH . . 3 [ ][ ] DON'T KNOW . . . 998		
445	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 1 NURSE/MIDWIFE. . 2 NURSE AIDE . . . 3 OTHER PERSON TRADITIONAL BIRTH ATTENDANT. . . 4 OTHER _____ 6 (SPECIFY)		
446	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	HOME YOUR HOME . . . 11 OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTRE . . . . . 22 PRIVATE SECTOR MED. CENTRE. . 31 OVERSEAS . . . . . 41 OTHER _____ 96 (SPECIFY)		
447	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 449) NO . . . . . 2 (SKIP TO 450)		
448	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)
449	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
450	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG-NANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 452)		
451	Have you begun to have sexual intercourse again since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
452	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
453	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460)
454	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . 000 HOURS 1 [ ][ ] DAYS 2 [ ][ ]		
455	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 457)		
456	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . A PLAIN WATER . . . B SUGAR OR GLUCOSE WATER . . . C GRIPE WATER . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . G OTHER _____ X (SPECIFY)		
457	CHECK 404: IS CHILD LIVING?	LIVING [ ] DEAD [ ] (SKIP TO 459)		
458	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 461) NO 2		
459	For how many months did you breastfeed (NAME)?	MONTHS . . . [ ][ ] DON'T KNOW . . . 98	MONTHS . . . [ ][ ] STILL BF . . . . . 95 DON'T KNOW . . . 98	MONTHS . . . [ ][ ] STILL BF . . . . . 95 DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
460	CHECK 404: IS CHILD LIVING?	LIVING ☐ → (SKIP TO 463) DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ → (SKIP TO 463) DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ → (SKIP TO 463) DEAD ☐ → (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)
461	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . ☐☐		
462	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . ☐☐		
463	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
464		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION AND HEALTH AND CHILD'S AND WOMAN'S NUTRITION

501	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2004 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
502	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . . . [ ][ ]
503	FROM 212 AND 216	NAME_____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 543)	NAME_____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 543)	NAME_____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 543)
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3
505	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 508) NO 2	YES . . . . . 1 (SKIP TO 508) NO 2	YES . . . . . 1 (SKIP TO 508) NO 2

506 (1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.

(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR		NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR		SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG (AT BIRTH)				BCG				BCG			
Hep B (AT BIRTH)				HB				HB			
DTP 1				D1				D1			
Hep B1				HB 1				HB 1			
Hib 1				Hib 1				Hib 1			
OPV 1				O1				O1			
DTP 2				D2				D2			
Hep B2				HB 2				HB 2			
Hib 2				Hib 2				Hib 2			
OPV 2				O2				O2			
DTP 3				D3				D3			
Hep B3				HB 3				HB 3			
Hib 3				Hib 3				Hib 3			
OPV 3				O3				O3			
MMR1				MMR1				MMR1			
MMR2				MMR2				MMR2			

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
506A	CHECK 506:	BCG TO MMR 2 ALL RECORDED (GO TO 510) OTHER	BCG TO MMR 2 ALL RECORDED (GO TO 510) OTHER	BCG TO MMR 2 ALL RECORDED (GO TO 510) OTHER
507	Has (NAME) received any vaccinations that are not recorded on this card? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, HEP B AT BIRTH, HEP B 1-3, HIB 1-3, DTP 1-3, OPV 1-3, AND MMR VACCINES.	YES . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . 2 (SKIP TO 510) DON'T KNOW 8	YES . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . 2 (SKIP TO 510) DON'T KNOW 8	YES . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . 2 (SKIP TO 510) DON'T KNOW 8
508	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES . . . . 1 NO . . . . 2 (SKIP TO 510) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 510) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 510) DON'T KNOW 8
509	Please tell me if (NAME) received any of the following vaccinations:			
509A	A BCG vaccination against tuberculosis, that is, an injection in the arm that usually causes a scar?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8
509B	Hepatitis B vaccine, that is, an injection given in the thigh or arm, to prevent him/her from getting liver disease?	YES . . . . 1 NO . . . . 2 (SKIP TO 509E) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 509E) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 509E) DON'T KNOW 8
509C	Was the first Hepatitis B vaccine received at birth or later?	AT BIRTH . . . . 1 LATER 2	AT BIRTH . . . . 1 LATER 2	AT BIRTH . . . . 1 LATER 2
509D	How many times was a Hepatitis B vaccination received?	NUMBER OF TIMES . . . . . ☐	NUMBER OF TIMES . . . . . ☐	NUMBER OF TIMES . . . . . ☐
509E	Polio vaccine, that is, drops in the mouth?	YES . . . . 1 NO . . . . 2 (SKIP TO 509H) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 509H) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 509H) DON'T KNOW 8
509F	Was the first polio vaccine received six weeks after birth or later?	6 WEEKS . . . 1 LATER 2	6 WEEKS . . . 1 LATER 2	6 WEEKS . . . 1 LATER 2
509G	How many times was the polio vaccine received?	NUMBER OF TIMES . . . . . ☐	NUMBER OF TIMES . . . . . ☐	NUMBER OF TIMES . . . . . ☐
509H	A DTP vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . 1 NO . . . . 2 (SKIP TO 509J) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 509J) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 509J) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ______________	NEXT-TO-LAST BIRTH NAME ______________	SECOND-FROM-LAST BIRTH NAME ______________
509I	How many times was a DTP vaccination received?	NUMBER OF TIMES ..... ☐	NUMBER OF TIMES ..... ☐	NUMBER OF TIMES ..... ☐
509J	A Hib vaccination against flu, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES .... 1 NO .... 2 (SKIP TO 509J)← DON'T KNOW 8	YES .... 1 NO .... 2 (SKIP TO 509J)← DON'T KNOW 8	YES .... 1 NO .... 2 (SKIP TO 509J)← DON'T KNOW 8
509K	How many times was Hib vaccination received?	NUMBER OF TIMES ..... ☐	NUMBER OF TIMES ..... ☐	NUMBER OF TIMES ..... ☐
509L	A measles injection or an MMR injection - that is, a shot in the arm at the age of 12 and 15 months - to prevent him/her from getting measles, mumps or rubella?	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8
509M	How many times was a MMR vaccination received?	NUMBER OF TIMES ..... ☐	NUMBER OF TIMES ..... ☐	NUMBER OF TIMES ..... ☐
510	In the last seven days, did (NAME) take iron syrup like this? SHOW SAMPLE OF IRON SYRUP.	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8
511	Has (NAME) taken any drug for intestinal worms in the last six months?	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8
512	Has (NAME) had diarrhea in the last 2 weeks?	YES .... 1 NO .... 2 (SKIP TO 525)← DON'T KNOW 8	YES .... 1 NO .... 2 (SKIP TO 525)← DON'T KNOW 8	YES .... 1 NO .... 2 (SKIP TO 525)← DON'T KNOW 8
513	Was there any blood in the stools?	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8
514	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8
515	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ______________	NEXT-TO-LAST BIRTH NAME ______________	SECOND-FROM-LAST BIRTH NAME ______________
516	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . 1 NO . . . . 2 (SKIP TO 521)	YES . . . . 1 NO . . . . 2 (SKIP TO 521)	YES . . . . 1 NO . . . . 2 (SKIP TO 521)
517	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B PRIVATE SECTOR MED. CENTRE . . . C OTHER SOURCE TRADITIONAL HEALER . . . . . D OVERSEAS . . . . . E OTHER __________ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B PRIVATE SECTOR MED. CENTRE . . . C OTHER SOURCE TRADITIONAL HEALER . . . . . D OVERSEAS . . . . . E OTHER __________ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B PRIVATE SECTOR MED. CENTRE . . . C OTHER SOURCE TRADITIONAL HEALER . . . . . D OVERSEAS . . . . . E OTHER __________ X (SPECIFY)
518	CHECK 517:	☐ TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED (SKIP TO 520)	☐ TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED (SKIP TO 520)	☐ TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED (SKIP TO 520)
519	Where did you first seek advice or treatment? USE LETTER CODE FROM 517.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
520	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐
521	Does (NAME) still have diarrhea?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8
522	Was he/she given any of the following to drink at any time since he/she started having the diarrhea:	YES NO DK	YES NO DK	YES NO DK
	a) A fluid made from a special packet called ORS or	FLUID FROM ORS PKT . . 1 2 8	FLUID FROM ORS PKT . . 1 2 8	FLUID FROM ORS PKT . . 1 2 8
	The hospital-recommended: b) homemade salt and sugar solution?	HOMEMADE FLUID . . . 1 2 8	HOMEMADE FLUID . . . 1 2 8	HOMEMADE FLUID . . . 1 2 8
	c) coconut juice?	COCONUT 1 2 8	COCONUT 1 2 8	COCONUT 1 2 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
523	Was anything (else) given to treat the diarrhea?	YES . . . . 1 NO . . . . 2 (SKIP TO 525)← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 525)← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 525)← DON'T KNOW 8
524	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B OTHER (NOT ANTIBIOTIC, ANTIMOTILITY) . . . C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS . H HOME REMEDY/ HERBAL MEDICINE . . . . I OTHER ________ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B OTHER (NOT ANTIBIOTIC, ANTIMOTILITY) . . . C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS . H HOME REMEDY/ HERBAL MEDICINE . . . . I OTHER ________ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B OTHER (NOT ANTIBIOTIC, ANTIMOTILITY) . . . C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS . H HOME REMEDY/ HERBAL MEDICINE . . . . I OTHER ________ X (SPECIFY)
525	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8
526	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . 1 NO . . . . 2 (SKIP TO 529)← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 529)← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 529)← DON'T KNOW 8
527	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . 1 NO . . . . 2 (SKIP TO 530)← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 530)← DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (SKIP TO 530)← DON'T KNOW 8
528	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . 3 OTHER ________ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 530)←	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . 3 OTHER ________ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 530)←	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . 3 OTHER ________ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 530)←
529	CHECK 525: HAD FEVER?	YES ☐ ↓ NO OR DK ☐ ↓ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543)	YES ☐ ↓ NO OR DK ☐ ↓ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543)	YES ☐ ↓ NO OR DK ☐ ↓ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, TO 543)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
530	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8
531	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
532	Did you seek advice or treatment for the illness from any source?	YES .... 1 NO .... 2 (SKIP TO 537)	YES .... 1 NO .... 2 (SKIP TO 537)	YES .... 1 NO .... 2 (SKIP TO 537)
533	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTRE ..... B PRIVATE SECTOR MED. CENTRE . . . C OTHER SOURCE TRADITIONAL HEALER ..... D OVERSEAS ..... E OTHER ________ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTRE ..... B PRIVATE SECTOR MED. CENTRE . . . C OTHER SOURCE TRADITIONAL HEALER ..... D OVERSEAS ..... E OTHER ________ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTRE ..... B PRIVATE SECTOR MED. CENTRE . . . C OTHER SOURCE TRADITIONAL HEALER ..... D OVERSEAS ..... E OTHER ________ X (SPECIFY)
534	CHECK 533:	☐ TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED ☐ (SKIP TO 536)	☐ TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED ☐ (SKIP TO 536)	☐ TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED ☐ (SKIP TO 536)
535	Where did you first seek advice or treatment? USE LETTER CODE FROM 533.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
536	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS ..... ☐☐	DAYS ..... ☐☐	DAYS ..... ☐☐

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________________	NEXT-TO-LAST BIRTH NAME ________________	SECOND-FROM-LAST BIRTH NAME ________________
537	Is (NAME) still sick with a (fever/ cough)?	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8
538	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . 1 NO . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 543) DON'T KNOW 8
539	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIBIOTIC DRUGS PILL/SYRUP . . . A INJECTION . . . B OTHER DRUGS PARACETAMOL/ PANADOL . . . C OTHER __________ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIBIOTIC DRUGS PILL/SYRUP . . . A INJECTION . . . B OTHER DRUGS PARACETAMOL/ PANADOL . . . C OTHER __________ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIBIOTIC DRUGS PILL/SYRUP . . . A INJECTION . . . B OTHER DRUGS PARACETAMOL/ PANADOL . . . C OTHER __________ X (SPECIFY) DON'T KNOW . . . . . Z
540	CHECK 539: CODE A CIRCLED?	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543)	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543)	YES ☐ NO ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 543)
541	Did you already have the antibiotic pill/syrup at home when the child became ill?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	YES . . . . 1 NO . . . . 2 DON'T KNOW 8
542		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 543.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 543.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
543	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2004 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐		→ 546
544	The last time (NAME OF YOUNGEST CHILD) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY)	
545	CHECK 522(a), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐		→ 547
546	Have you ever heard of a special product called ORS or vai masima you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
547	CHECK 215 AND 218, ALL ROWS: HAS AT LEAST ONE CHILD BORN IN 2006 OR LATER AND LIVING WITH HER ☐ ↓ DOES NOT HAVE ANY CHILDREN BORN IN 2006 OR LATER AND LIVING WITH HER ☐ RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 548) _____ (NAME)		→ 601
548	Now I would like to ask you about liquids or foods (NAME FROM 547) had yesterday during the day or at night. Did (NAME FROM 547) (drink/eat):	YES NO DK	
	Plain water? Vaiauli	PLAIN WATER 1 2 8	
	Commercially produced infant formula such as SMA, S-26?	FORMULA 1 2 8	
	Any commercially fortified baby food or cereal like Cerelac, Gerber, etc?	BABY CEREAL 1 2 8	
	Any (other) porridge or gruel?	OTHER PORRIDGE/GRUEL. . 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES							SKIP
549	Now I would like to ask you about (other) liquids or foods that (NAME FROM 547) may have had yesterday during the day or at night. I am interested in whether your child had the item even if it was combined with other foods.								
	Did (NAME FROM 547)/you drink (eat):		CHILD			MOTHER			
			YES	NO	DK	YES	NO	DK	
	a) Milk such as tinned, powdered, or fresh animal milk?	a	1	2	8	1	2	8	
	b) Tea or coffee?	b	1	2	8	1	2	8	
	c) Soft drinks?	c	1	2	8	1	2	8	
	d) Any other liquids?	d	1	2	8	1	2	8	
	e) Bread, rice, noodles, or other foods made from grains?	e	1	2	8	1	2	8	
	f) Pumpkin, carrots, squash, or breadfruit that are yellow or orange inside?	f	1	2	8	1	2	8	
	g) Giant taro, taro, yams, or any other foods made from roots?	g	1	2	8	1	2	8	
	h) Cabbages, pele leaves and any other dark green, leafy vegetables?	h	1	2	8	1	2	8	
	i) Paw-paw, mango, orange, ripe breadfruit?	i	1	2	8	1	2	8	
	j) Any other fruits or vegetables such as apple, pear, banana, pineapple, coconut etc?	j	1	2	8	1	2	8	
	k) Liver, kidney, heart or other organ meats?	k	1	2	8	1	2	8	
	l) Any fresh meat, such as beef, pork, lamb, chicken, or duck?	l	1	2	8	1	2	8	
	m) Any canned or frozen meat or poultry?	m	1	2	8	1	2	8	
	n) Eggs?	n	1	2	8	1	2	8	
	o) Fresh, canned, smoked or dried fish or shellfish?	o	1	2	8	1	2	8	
	p) Any foods made from beans, peas, lentils, or nuts?	p	1	2	8	1	2	8	
	q) Cheese, yogurt or other milk products?	q	1	2	8	1	2	8	
	r) Any oil, fats, or butter, or foods made with any of these such as coconut cream?	r	1	2	8	1	2	8	
	s) Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	s	1	2	8	1	2	8	
	t) Any other solid or semi-solid food?	t	1	2	8	1	2	8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
550	CHECK 548 (LAST 2 CATEGORIES: BABY CEREAL OR OTHER PORRIDGE/GRUEL) AND 549 CATEGORIES e THROUGH t FOR CHILD): AT LEAST ONE "YES' ☐	NOT A SINGLE "YES" ☐	601
551	How many times did (NAME FROM 547) eat solid, semisolid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐ DON'T KNOW 8	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 311/311A: NEITHER STERILIZED ↓ / HE OR SHE STERILIZED →		613
602	CHECK 226: NOT PREGNANT OR UNSURE ↓ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT ↓ Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW AND PREGNANT . . . . . 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT OR UNSURE 5	 → 604 → 613 → 609 → 608
603	CHECK 226: NOT PREGNANT OR UNSURE ↓ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ↓ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ (SPECIFY) 996 DON'T KNOW 998	 → 608 → 613 → 608
604	CHECK 226: NOT PREGNANT OR UNSURE ↓ / PREGNANT →		609
605	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED ↓ / NOT CURRENTLY USING ↓ / CURRENTLY USING →		613
606	CHECK 603: NOT ASKED ↓ / 24 OR MORE MONTHS OR 02 OR MORE YEARS ↓ / 00-23 MONTHS OR 00-01 YEAR →		609

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
607	CHECK 602: WANTS TO HAVE A/ANOTHER CHILD → You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. WANTS NO MORE/ NONE → You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COSTS TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
608	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED → NO, NOT CURRENTLY USING → YES, CURRENTLY USING →		613
609	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 611 613
610	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	613

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
611	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . 22 MENOPAUSAL/HYSTERECTOMY 23 SUBFECUND/INFECUND . . . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 26 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 HUSBAND/PARTNER OPPOSED 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . 53 COSTS TOO MUCH . . . . . 54 INCONVENIENT TO USE . . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 613
612	Would you ever use a contraceptive method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
613	CHECK 216: HAS LIVING CHILDREN ☐ ↓ If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ ↓ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 615 → 615
614	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
615	In the last few months have you:	YES NO	
	Heard about family planning on the radio?	RADIO 1 2	
	Seen about family planning on the television?	TELEVISION 1 2	
	Read about family planning in a newspaper or magazine?	NEWSPAPER OR MAGAZINE . . . 1 2	
616	CHECK 110:		
	CURRENTLY MARRIED **OR** LIVING WITH A MAN ☐	NOT IN UNION ☐ →	701
617	CHECK 311/311A:	CODE B, G, OR M CIRCLED ☐ →	619
		NO CODE CIRCLED ☐ →	621
		OTHER ☐	
618	Does your husband/partner know that you are using a method of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
619	Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
620	CHECK 311/311A:		
	NEITHER STERILIZED ☐	HE OR SHE STERILIZED ☐ →	701
621	Does your husband/partner want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	

SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 110: CURRENTLY MARRIED/ LIVING WITH A MAN ↓ DIVORCED/ SEPARATED OR WIDOWED → 703 NEVER MARRIED AND NEVER LIVED WITH A MAN → 707		
702	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS [ ][ ]	
703	Did your (former) husband/partner ever attend school?	YES . . . . . 1 NO 2	→ 706
704	What was the highest level of school he attended: primary, secondary, higher or what?	PRIMARY OR LOWER . . . . . 1 SECONDARY . . . . . 2 VOCATIONAL . . . . . 3 HIGHER/UNIVERSITY . . . . . 4 OLD MISSION SCHOOL . . . . . 5 DON'T KNOW 8	→ 706
705	What was the highest year he completed at that level? IF HIGHER/UNIVERSITY LEVEL, RECORD THE TOTAL NUMBER OF YEARS COMPLETED.	LESS THAN ONE YEAR . . . . . 00 YEAR 1/ PRIMER 1/ YEAR 9 / FORM 3 01 YEAR 2/ PRIMER 2/ YEAR 10/ FORM 4 02 YEAR 3/ PRIMER 3/ YEAR 11/ FORM 5 03 YEAR 4 / STD 1-2/ YEAR 12/ UPPER 5 04 YEAR 5/ STD 3/ YEAR 13/ FORM 6 05 YEAR 6/ STD 4 . . . . . 06 YEAR 7/ FORM 1 . . . . . 07 YEAR 8/ FORM 2 . . . . . 08 NUMBER OF YEARS [ ][ ] DON'T KNOW 98	
706	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ↓ What is your husband's/ partner's occupation? That is, what kind of work does he mainly do? DIVORCED/ SEPARATED OR WIDOWED ↓ What was your (former) husband's/partner's occupation? That is, what kind of work did he mainly do?	_____ [ ][ ] _____ _____ _____	
707	Aside from your own housework, have you done any other work in the last seven days?	YES . . . . . 1 NO 2	→ 711
708	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	→ 711
709	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES . . . . . 1 NO 2	→ 711

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
710	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 718
711	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
712	CHECK 711: WORKS IN AGRICULTURE ☐ ↓ DOES NOT WORK IN AGRICULTURE ☐		→ 714
713	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
714	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR ORGANIZATION/GOVERNMENT/ PRIVATE EMPLOYER . . . . . 2 SELF-EMPLOYED 3	
715	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
716	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
717	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
718	CHECK 701: CURRENTLY MARRIED/LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐		→ 727
719	CHECK 717: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐		→ 722
720	Who usually decides how the money that you earn will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . 3 OTHER _____ 6 (SPECIFY)	
721	Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER DOESN'T BRING IN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 723

W-41

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
722	Who usually decides how your husband's/partner's earnings will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 OTHER _____ 6 (SPECIFY)	
723	Who usually makes decisions about health care for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	RESPONDENT = 1 HUSBAND/PARTNER = 2 RESPONDENT & HUSBAND/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 OTHER = 6 1 2 3 4 6	
724	Who usually makes decisions about making major household purchases?	1 2 3 4 6	
725	Who usually makes decisions about making purchases for daily household needs?	1 2 3 4 6	
726	Who usually makes decisions about visits to your family or relatives?	1 2 3 4 6	
727	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ LISTEN. / PRES./ NOT LISTEN. / NOT PRES. CHILDREN < 10 . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES . . . 1 2 3	
728	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES / NO / DK	
	If she goes out without telling him?	GOES OUT 1 2 8	
	If she neglects the children?	NEGL. CHILDREN . . . 1 2 8	
	If she argues with him?	ARGUES 1 2 8	
	If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	If she burns the food?	BURNS FOOD 1 2 8	
	If she comes home late from work or community function?	COMES HOME LATE .. 1 2 8	

SECTION 8. HIV/AIDS and SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. HIV is a virus (infection) that can be passed from person to person. If people catch HIV they can become ill. This illness is called AIDS. Prior to this interview, have you ever heard of HIV or the disease called AIDS?	YES . . . . . 1 NO 2	→ 852
802	CHECK Q. 115 and 116: CODE '2', '3', or '4" CIRCLED IN 115 OR 116 OR NOT ASKED ↓ CODE '1' CIRCLED IN 115 & 116 OR CODE '5' CIRCLED IN 115 →		804
803	The following is a list of sources of information on prevention of getting HIV, the virus that causes AIDS. Have you ever :	YES NO	
	a. Read messages about HIV or AIDS in newspapers or magazines?	NEWSPAPER/MAGAZINE . 1 2	
	b. Seen leaflets, brochures, or booklets on HIV or AIDS?	LEAFLETS/BOOKLETS . . . 1 2	
	c. Gotten information on HIV or AIDS from the internet?	INTERNET 1 2	
804	READ INTRODUCTORY STATEMENT ONLY IF Q803 WAS NOT ASKED: The following is a list of sources of information on prevention of getting HIV, the virus that causes AIDS. Have you ever	YES NO	
	a. Seen messages about HIV or AIDS on billboards, signs or posters?	SIGNS/POSTERS 1 2	
	b. Seen/heard messages about HIV or AIDS on TV?	TV 1 2	
	c. Heard messages about HIV or AIDS on radio?	RADIO 1 2	
	d. Attended a community event about HIV or AIDS?	COMMUNITY EVENT 1 2	
	e. Received information about AIDS or HIV, the virus that causes AIDS, from an outreach work, that is someone who came to your community and talked about HIV or AIDS?	OUTREACH WORKER . . . 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	f. Participated in an HIV or AIDS peer education program? g. Participated in another type of HIV or AIDS education program such as a wokshop or school program? h. Discussed AIDS OR HIV, the virus that causes AIDS, with other persons such as friend, family members, or work colleagues?	YES NO PEER EDUCATION . . . . . 1 2 OTHER EDUCATION . 1 2 FAMILY/FRIENDS . 1 2	
805	Can people reduce their chance of getting HIV, the virus that causes AIDS, by having just one, uninfected, faithful sex partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
806	Can people get HIV from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
807	Can people reduce their chance of getting HIV by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Can people get HIV by sharing food with a person who has HIV or AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
809	Can people reduce their chance of getting HIV by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
810	Can people get HIV from the saliva of someone who has HIV or AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
811	Can people get HIV by having injections with a needle or syringe that has already been used by someone else?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
812	Can only gay men and/or faafafines (drag queens) get HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
813	Can people get HIV because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
814	Is it possible for a healthy-looking person to have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
815	Can HIV, the virus that causes AIDS, be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	

W-44

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
816	CHECK 815: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 818
817	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
818	Have you heard about special antiretroviral drugs that people infected with HIV can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
819	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2004 ☐ LAST BIRTH BEFORE JANUARY 2004 ☐		→ 829 → 829
820	CHECK 407 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ NO ANTENATAL CARE ☐		→ 829
821	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
822	During any of the antenatal visits for your last birth, did anyone talk to you about: Babies getting HIV from their mother? Things that you can do to prevent getting HIV? Getting tested for the HIV?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO . 1 2 8 TESTED FOR AIDS . 1 2 8	
823	Were you offered a test for HIV as part of your antenatal care?	YES . . . . . 1 NO 2	
824	I don't want to know the results, but were you tested for the HIV as part of your antenatal care?	YES . . . . . 1 NO 2	→ 829
825	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
826	Where was the test done?	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 1 GOVT. HEALTH CENTRE . . . . . 2 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . . . 3 OVERSEAS . . . . . 4 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
827	Have you been tested for HIV since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 830
828	When was the last time you were tested for HIV?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	→ 836
829	I don't want to know the results, but have you ever been tested to see if you have HIV?	YES . . . . . 1 NO 2	→ 834
830	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
831	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
832	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
833	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 1 GOVT. HEALTH CENTRE . . . . . 2 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . 3 OVERSEAS . . . . . 4 OTHER _____ 6 (SPECIFY)	→ 836
834	Do you know of a place where people can go to get tested for HIV?	YES . . . . . 1 NO 2	→ 836
835	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTRE . . . . . B PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . C OVERSEAS . . . . . D OTHER _____ X (SPECIFY)	
836	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
837	Would you share a meal with a person if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
838	If a member of your family got infected with HIV, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
839	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
840	In your opinion, if a female teacher has HIV but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
841	Should the names of all persons with HIV be displayed in a public place for everyone to see?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
842	Should all persons with HIV live apart from the general community?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
843	Should it be a criminal offence to knowingly pass HIV onto someone else?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
844	Should all newcomers to Samoa be required to take a test for HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
845	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have HIV?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH HIV 3	→ 850
846	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have HIV?	YES . . . . . 1 NO 2	
847	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have HIV?	YES . . . . . 1 NO 2	
848	CHECK 845, 846, AND 847: NOT A SINGLE YES' ☐ ↓ AT LEAST ONE 'YES' ☐ →		850
849	Do you personally know someone who has or is suspected to have HIV or AIDS?	YES . . . . . 1 NO 2	
850	Do you agree or disagree with the following statement: People with HIV or AIDS should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
851	Do you agree or disagree with the following statement: People with HIV or AIDS should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
852	CHECK Q. 801. HEARD ABOUT HIV OR AIDS ☐ ↓ — Apart from HIV, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV OR AIDS ☐ ↓ — Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	

W-47

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
853	CHECK 852: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓	NO ☐ →	901
854	Have you ever heard about the following STI diseases? a. Gonorrhea b. Syphillis c. Chlamydia d. Genital warts e. Genital herpes	YES NO GONORRHEA ..... 1 2 SYPHILLIS ..... 1 2 CHLAMYDIA ..... 1 2 GENITAL WARTS ..... 1 2 GENITAL HERPES ... 1 2	
855	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
856	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
857	CHECK 855, AND 856: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ →		860
858	The last time you had (PROBLEM FROM 855/856), did you seek any kind of advice or treatment?	YES ..... 1 NO 2	→ 860
859	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL FACILITY, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL ..... A GOVT. HEALTH CENTRE ..... B PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE ... C OTHER SOURCE TRADITIONAL HEALER ..... D FRIEND/RELATIVE ..... E OVERSEAS ..... F OTHER _____ X (SPECIFY)	
860	Husbands and wives do not always agree on everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES ..... 1 NO ..... 2 DON'T KNOW 8	

SECTION 9. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 908
902	CHECK Q. 115 and 116: CODE '2', '3', OR '4" CIRCLED IN 115 OR 116 OR NOT ASKED ↓ CODE '1' CIRCLED IN 115 & 116 OR CODE '5' CIRCLED IN 115 →		904
903	The following is a list of sources of information on tuberculosis or TB. Have you ever done any of the following?	YES / NO	
	a. Read messages about TB in newspapers or magazines?	NEWSPAPER/MAGAZINE . 1 2	
	b. Seen leaflets, brochures, or booklets on TB?	LEAFLETS/BOOKLETS . . . 1 2	
	c. Gotten information on TB from the internet?	INTERNET 1 2	
904	READ INTRODUCTORY STATEMENT ONLY IF Q903 WAS NOT ASKED: The following is a list of sources of information on tuberculosis or TB. Have you ever done any of the following?	YES / NO	
	a. Seen messages about TB on billboards, signs or posters?	SIGNS/POSTERS 1 2	
	b. Seen/heard messages about TB on TV?	TV 1 2	
	c. Heard messages about TB on the radio?	RADIO 1 2	
	d. Participated in a TB peer education program?	PEER EDUCATION 1 2	
	e. Participated in another type of TB education program such as a wokshop or school program?	OTHER EDUCATION 1 2	
	f. Attended a community event about TB such as the women community workshop on World TB Day?	COMMUNITY EVENT . . . 1 2	
	g. Received information about TB from an outreach work, that is, someone who came to your community and talked about TB?	OUTREACH WORKER . . . 1 2	
	h. Discussed TB with other persons such as friends, family members, or work colleagues?	FAMILY/FRIENDS 1 2	
905	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F THROUGH SALIVA . . . . . G THROUGH SMOKING . . . . . H OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
906	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
908	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . [ ][ ] NONE 00	→ 912
909	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD 90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . [ ][ ] NONE 00	→ 912
910	The last time you had an injection given to you by a health worker, where did you go to get the injection?	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 1 GOVT. HEALTH CENTRE . . . . . 2 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . 3 OVERSEAS . . . . . 4 OTHER _____ 6 (SPECIFY)	
911	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
912	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 914
913	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
914	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 916
915	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A TAPAA SAMOA . . . . . B OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
916	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem *or not?*		BIG PROB-LEM	NOT A BIG PROB-LEM	
	Getting permission to go?	PERMISSION TO GO . . .	1	2	
	Getting money needed for treatment?	GETTING MONEY	1	2	
	The distance to the health facility?	DISTANCE	1	2	
	Having to take transport?	TAKING TRANSPORT .	1	2	
	Not wanting to go alone?	GO ALONE	1	2	
	Concern that there may not be a female health provider?	NO FEMALE PROVIDER	1	2	
	Concern that there may not be any health provider?	NO PROVIDER . . .	1	2	
	Concern that there may be no drugs available?	NO DRUGS . . .	1	2	
917	Are you covered by any health insurance?	YES . . . . . 1 NO 2			→ 919
918	What type of health insurance? RECORD ALL MENTIONED.	HEALTH INSURANCE THROUGH EMPLOYER . . . . . A SOCIAL SECURITY . . . . . B OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. C OTHER _____ X (SPECIFY)			
919	Are you involved in the MOH and MWCSD physical activity campaigns?	YES . . . . . 1 NO . . . . . 2 NO ANSWER, REFUSED 6			
920	How much servings of fruits do you usually have in a week? (1 SERVING = I/2 CUP) RECORD '00' IF NO SERVING OF FRUITS IN A WEEK.	NO. OF SERVINGS . . . . . [ ][ ]			
921	How much servings of vegetables do you usually have in a week? (1 SERVING = I/2 CUP OF COOKED VEGIES) (1 SERVING = I CUP OF GREEN SALAD) RECORD '00' IF NO SERVING OF VEGETABLES IN A WEEK.	NO. OF SERVINGS . . . . . [ ][ ]			
922	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]			

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

BIRTHS, PREGNANCIES, CONTRACEPTIVE USE

B BIRTHS
P PREGNANCIES
T TERMINATIONS

0 NO METHOD
1 FEMALE STERILIZATION
2 MALE STERILIZATION
3 PILL
4 IUD
5 INJECTABLES
6 IMPLANTS
7 CONDOM
8 FEMALE CONDOM
9 DIAPHRAGM
J FOAM OR JELLY
K LACTATIONAL AMENORRHEA METHOD
L RHYTHM METHOD
M WITHDRAWAL
X OTHER _____
(SPECIFY)

	12	DEC	01		
	11	NOV	02		
	10	OCT	03		
	09	SEP	04		
2	08	AUG	05		2
0	07	JUL	06		0
0	06	JUN	07		0
9	05	MAY	08		9
	04	APR	09		
	03	MAR	10		
	02	FEB	11		
	01	JAN	12		
	12	DEC	13		
	11	NOV	14		
	10	OCT	15		
	09	SEP	16		
2	08	AUG	17		2
0	07	JUL	18		0
0	06	JUN	19		0
8	05	MAY	20		8
	04	APR	21		
	03	MAR	22		
	02	FEB	23		
	01	JAN	24		
	12	DEC	25		
	11	NOV	26		
	10	OCT	27		
	09	SEP	28		
2	08	AUG	29		2
0	07	JUL	30		0
0	06	JUN	31		0
7	05	MAY	32		7
	04	APR	33		
	03	MAR	34		
	02	FEB	35		
	01	JAN	36		
	12	DEC	37		
	11	NOV	38		
	10	OCT	39		
	09	SEP	40		
2	08	AUG	41		2
0	07	JUL	42		0
0	06	JUN	43		0
6	05	MAY	44		6
	04	APR	45		
	03	MAR	46		
	02	FEB	47		
	01	JAN	48		
	12	DEC	49		
	11	NOV	50		
	10	OCT	51		
	09	SEP	52		
2	08	AUG	53		2
0	07	JUL	54		0
0	06	JUN	55		0
5	05	MAY	56		5
	04	APR	57		
	03	MAR	58		
	02	FEB	59		
	01	JAN	60		
	12	DEC	61		
	11	NOV	62		
	10	OCT	63		
	09	SEP	64		
2	08	AUG	65		2
0	07	JUL	66		0
0	06	JUN	67		0
4	05	MAY	68		4
	04	APR	69		
	03	MAR	70		
	02	FEB	71		
	01	JAN	72		

CODES **Principle Occupation**

01. **Managerial, Legislator and Executive officials:**
Main tasks consist of determining and formulating government policies, public laws and regulations and directing activities of enterprises and organizations

(Examples: Members of parliament and cabinet ministers, Chief Justice, Ambassadors, CEO and Deputy CEO of Government Ministries, Village pulenuu, Village High Chiefs, Church Executive Leaders like Chairman of EFKS , Heads of Schools & School Inspectors, Managers and Directors of Companies and Corporations, etc)

02. **Professionals:**
Main tasks require a high level of professional knowledge and experience in the fields of physical and life sciences, or social sciences and humanities requiring **University level Degree or Specialized training**

(Examples: Usually persons holding Senior, PEO to ACEO levels in government offices and professional jobs like Teachers, Nurses, Doctors, Dentists, Lawyers, Judges, Civil Engineers, Architect, Motor Mechanics, Pharmacists, Mathematicians, Statisticians, Demographers, Accountants, Auditor, Journalists, Author, Artists, Priest, Librarians, Pastor, Architects, Electrician, Singer, Musician, Vet, Specialist in any field, etc)

03. **Technicians and associate professionals:**
Main tasks consist of carrying out technical work connected with the application of concepts and operational methods in fields of physical and life sciences or social sciences and humanities requiring Post-secondary Education not equivalent to University degree

(Examples: Usually these persons are in the next level to the Senior level and they assist the professionals like Computer technicians, Teacher assistant, Nurse assistant, Research Assistant, Lecturer Assistant, Electrical Assistant, Engineer Assistant, Library Assistant, or any other Specialist Assistant like Statistical Officer, GIS Officer, etc)

04. **Clerks:**
Main tasks consist of performing secretarial duties, operating word processors and other office machines, recording and computing numerical data, and performing a number of customer-oriented clerical duties, requiring Secondary Education and experience necessary to organize, store, compute and retrieve information.

(Examples: Computer operator, Secretarial work, Data operator, Statistical clerk, Statistical Investigator, Accounts clerk, Office clerk, Bank's clerk, Bank Teller, Loan's clerk, Debt Collector, Payroll officer, etc)

05. **Service workers and shop and market sales**:
Main tasks require the knowledge at Secondary education and experience necessary to provide personal and protective services, and, to sell goods in shops and at markets such as providing services related to travel, housekeeping, catering, personal care, protection of individuals and property, and to maintaining law and order (police).

(Examples: Travel agent, Shop salesman, Shop sales woman, Waitress, Waiter, Bartender, Catering assistants, Chef, Tailor, Hairdresser, Tour guide, Security officer, Police officers, Firemen officers, Hotel Cook or Chef, Air hostess, Deliver Shop sales, Retail salesperson, Market Fresh Flower sales, Flower Arrangement Person, Taxi driver, Bus driver, Flea Market sellers, etc)

06. **Skilled agricultural or poultry or livestock workers**:
Main tasks consist of growing and selling agricultural produce requiring sufficient knowledge and experience to carry out these activities.

(Examples: Taro planter, Banana planter, Chicken farmer, Cattle farmer, etc)

07. **Skilled fishery workers:**
Main tasks consist of catching, cultivating and selling fish requiring sufficient knowledge and experience to carry out these activities

(Examples: Fisherman, Fish-farmer)

AUGUST 2009

DEMOGRAPHIC HEALTH SURVEY (DHS) 2009
MEN'S QUESTIONNAIRE (AGE 15-54)

GOVERNMENT OF SAMOA

Ministry of Health (MOH) working in partnership with MACRO International & Samoa Bureau of Statistics (SBS

MAN'S IDENTIFICATION

NAME OF REGION _____

NAME OF DISTRICT _____

NAME OF VILLAGE _____

ENUMERATION AREA . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME AND LINE NUMBER OF MAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR 2 0 0 9
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF INTERVIEW 1 ENGLISH 2 SAMOAN 3 BOTH 4 OTHER _____ (SPECIFY)

LANGUAGE OF RESPONDENT 1 ENGLISH 2 SAMOAN 3 BOTH 4 OTHER _____ (SPECIFY)

TRANSLATOR USED? 1 YES 2 NO

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the SBS. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 15 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey sincere your views important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer:_____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS (PLACE OF BIIRTH) . . . . . 95 VISITOR (TEMPORARY STAY) . . . 96	→ 108
103	Just before you moved here, where else did you live?	AUA . . . . . 1 NWU . . . . . 2 ROU . . . . . 3 SAVAII . . . . . 4 OVERSEAS _____ 6 (SPECIFY COUNTRY)	
104	CHECK 102: LESS THAN 1 YEAR ↓ 1 YEARS OR MORE → 106		
105	Where were you living 1 year ago?	AUA . . . . . 1 NWU . . . . . 2 ROU . . . . . 3 SAVAII . . . . . 4 OVERSEAS _____ 6 (SPECIFY COUNTRY)	
106	CHECK 102: LESS THAN 5 YEARS ↓ 5 YEARS OR MORE → 108		
107	Where were you living 5 years ago?	AUA . . . . . 1 NWU . . . . . 2 ROU . . . . . 3 SAVAII . . . . . 4 OVERSEAS _____ 6 (SPECIFY COUNTRY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
109	How old were you at your last birthday? COMPARE AND CORRECT 108 AND/OR 109 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
110	What is your marital status now: are you currently married or living with a woman as if married, or are you a widower, divorced, separated or never married and never lived with a woman?	CURRENTLY MARRIED . . . . . 1 CURRENTLY LIVING TOGETHER . . . . . 2 WIDOWER . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 NEVER MARRIED/LIVED TOGETHER . . . 6	
111	Have you ever attended school?	YES . . . . . 1 NO 2	→ 115
112	What is the highest level of school you attended: primary, secondary, higher or what?	PRIMARY OR LOWER . . . . . 1 SECONDARY . . . . . 2 VOCATIONAL . . . . . 3 HIGHER/UNIVERSITY . . . . . 4 OLD MISSION SCHOOL 5	→ 115
113	What is the highest year you completed at that level? IF HIGHER/UNIVERSITY LEVEL, RECORD THE TOTAL NUMBER OF YEARS COMPLETED.	LESS THAN ONE YEAR . . . . . 00 YEAR 1/ PRIMER 1/ YEAR 9 / FORM 3 . 01 YEAR 2/ PRIMER 2/ YEAR 10/ FORM 4 . 02 YEAR 3/ PRIMER 3/ YEAR 11/ FORM 5 . 03 YEAR 4 / STD 1-2/ YEAR 12/ UPPER 5 . 04 YEAR 5/ STD 3/ YEAR 13/ FORM 6 . 05 YEAR 6/ STD 4 . . . . . 06 YEAR 7/ FORM 1 . . . . . 07 YEAR 8/ FORM 2 . . . . . 08 NUMBER OF YEARS . . . . . [ ][ ]	
114	CHECK 112: PRIMARY OR LOWER [ ] ↓ SECONDARY OR HIGHER [ ] →		119
115	Now I would like you to read this sentence to me. SHOW CARD IN **ENGLISH** TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL IN ENGLISH . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE IN ENGLISH . . . . . 2 ABLE TO READ WHOLE SENTENCE . . 3 BLIND/VISUALLY IMPAIRED 5	→ 120

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	SHOW CARD IN **SAMOAN** TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL IN SAMOAN . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE IN SAMOAN . . . . . 2 ABLE TO READ WHOLE SENTENCE . . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE)	
117	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
118	CHECK 115 and 116: CODE '2', '3' OR '4' CIRCLED IN 115 **OR** 116 ☐ ↓ CODE '1' CIRCLED IN 115 **AND** 116 ☐ →		120
119	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
120	Do you listen to the radio almost every day, at least once a week, less than once a week or not al all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
121	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
122	Other than for watching videos, do you use computer almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
123	What is your religion?	EFKS/TAITI . . . . . 11 METHODIST . . . . . 12 ROMAN CATHOLIC . . . . . 13 LDS . . . . . 14 SDS . . . . . 15 ASSEMBLY OF GOD . . . . . 16 OTHER _____ 96 (SPECIFY) REFUSED TO ANSWER . . . . . 97 DON'T KNOW 98	
124	Do you consider yourself a Samoan, part-Samoan or what?	SAMOAN . . . . . 1 PART-SAMOAN . . . . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ HAS HAD ONLY ONE CHILD → 212 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	→ 212

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN ..... [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS ..... [ ][ ]	
213	CHECK 203 AND 205:	AT LEAST ONE LIVING CHILD [ ] ↓ / NO LIVING CHILDREN [ ]	→ 301
214	How many years old is your (youngest) child?	AGE IN YEARS ..... [ ][ ]	
215	CHECK 214:	(YOUNGEST) CHILD IS AGE 0-3 YEARS [ ] ↓ / OTHER [ ]	→ 301
216	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
217	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES ..... 1 NO ..... 2 DON'T KNOW 3	→ 219
218	Were you ever present during any of those antenatal check-ups?	PRESENT ..... 1 NOT PRESENT 2	
219	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY ..... 1 AT HOME ASSISTED BY TBA ..... 2 AT HOME ASSISTED BY RELATIVES 3 OTHER 4	→ 221
220	What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility?	COST TOO MUCH ..... 01 FACILITY CLOSED ..... 02 TOO FAR/NO TRANSPORTATION ... 03 DON'T TRUST FACILITY/POOR QUALITY SERVICE ..... 04 NO FEMALE PROVIDER ..... 05 NOT THE FIRST CHILD ..... 06 CHILD'S MOTHER DID NOT THINK IT WAS NECESSARY ..... 07 HE DID NOT THINK IT WAS NECESSARY .... 08 FAMILY DID NOT THINK IT WAS NECESSARY ..... 09 OTHER_____ 96 (SPECIFY) DON"T KNOW 98	
221	When a child has diarrhea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL ..... 1 ABOUT THE SAME ..... 2 LESS THAN USUAL ..... 3 NOTHING TO DRINK ..... 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR METHODS 02, 07, 10, AND 11, ASK 302 IF 301 HAS CODE 1 CIRCLED.		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
05	INJECTABLES Women can have an injection by a health their upper provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
06	IMPLANTS Women can have several small rods placed in arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
07	CONDOM Men can put a rubber sheath on their penis before sexual ntercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
09	LACTATIONAL AMENORRHEA METHOD (LAM)	YES . . . . . 1 NO 2	
10	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	WITHDRAWAL Men can be careful and pull out before cllmax	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	EMERGENCY CONTRACEPTION As an emergency measure after sexual intercourse, women can take special pills at any time within 5 days to prevent pregnancy.	YES . . . . . 1 NO 2	
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 1 2	
304	In the last few months, have you discussed the practice of family planning with a health worker or health professional?	YES . . . . . 1 NO 2	
305	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 307
306	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
307	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES . . . . . 1 NO . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	
308	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a) Contraception is women's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous.	AGREE DIS-AGREE DK CONTRACEPTION WOMAN'S BUSINESS . 1 2 8 WOMAN MAY BECOME PROMISCUOUS . . . 1 2 8	
309	CHECK 301 (07) KNOWS MALE CONDOM YES ☐ NO ☐		→ 313
310	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 313
311	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTRE . . . . . B FAMILY PLANNING CLINIC . . . C PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . D PEER TRAINOR . . . . . E OTHER SOURCE HOTEL/NIGHT CLUB . . . . . F FRIEND/RELATIVE . . . . . G OVERSEAS . . . . . H OTHER _____ X (SPECIFY)	
312	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	CHECK 301 (08) KNOWS FEMALE CONDOM YES ☐ NO ☐		→ 401
314	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 401
315	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTRE . . . . . B FAMILY PLANNING CLINIC . . . C PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . D PEER TRAINOR . . . . . E OTHER SOURCE HOTEL/NIGHT CLUB . . . . . F FRIEND/RELATIVE . . . . . G OVERSEAS . . . . . H OTHER _____ X (SPECIFY)	
316	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO 2	

SECTION 4. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	CHECK 110: CURRENTLY MAARRIED/ LIVING TOGETHER ☐ DIVORCED/SEPARATED WIDOWER/ NEVER MARRIED ☐ → 406		
402	CHECK 302: MAN NOT STERILIZED ☐ MAN STERILIZED ☐ → 406		
403	Is your wife (partner) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
404	CHECK 403: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW ☐ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? WIFE/ PARTNER PREGNANT ☐ Now I have some questions about the future. After the child(ren) you and your (wife/partner) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 COUPLE INFECUND . . . . . 3 WIFE (WIVES)/PARTNER(S) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 406
405	CHECK 403: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW ☐ How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . 993 COUPLE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	
406	CHECK 208: HAS LIVING CHILDREN ☐ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . [ ][ ] OTHER _____ 96 (SPECIFY)	→ 501 → 501
407	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER [ ][ ] [ ][ ] [ ][ ] OTHER _____ 96 (SPECIFY)	

SECTION 5. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 504
502	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 504
503	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 513
504	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
505	CHECK 504: WORKS IN AGRICULTURE ☐ ↓ DOES NOT WORK IN AGRICULTURE ☐		→ 507
506	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
507	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR ORGANIZATION/GOVERNMENT/ PRIVATE EMPLOYER . . . . . 2 SELF-EMPLOYED 3	
508	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
509	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
510	CHECK 110: CURRENTLY MAARRIED/ LIVING TOGETHER ☐ ↓ DIVORCED/SEPARATED WIDOWER/ NEVER MARRIED ☐		→ 513
511	CHECK 509: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐		→ 513
512	Who decides how the money you earn will be used: mainly you, mainly your (wife /partner), or you and (wife/partner) jointly?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
513	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:		HUS-BAND	WIFE	BOTH EQUALLY	DON'T KNOW/ DEPENDS	
	a) making large household purchases?	a)	1	2	3	8	
	b) making small daily household purchases?	b)	1	2	3	8	
	c) deciding when to visit the wife's family or relatives?	c)	1	2	3	8	
	d) deciding what to do with the money she earns for her work?	d)	1	2	3	8	
	e) deciding how many children to have?	e)	1	2	3	8	
514	I will now read you some statements about pregnancy. Please tell me if you agree or disagree with them.			AGREE	DIS-AGREE	DK	
	a) Childbearing is a woman's concern and there is no need for the father to get involved.	CHILDBEARING WOMAN'S CONCERN..		1	2	8	
	b) It is crucial for the mother's and child's health that a woman have assistance from a doctor or nurse at delivery.	DOCTOR/NURSE'S ASSISTANCE CRUCIAL		1	2	8	
515	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following *situations:*			YES	NO	DK	
	If she goes out without telling him?	GOES OUT		1	2	8	
	If she neglects the children?	NEGL. CHILDREN . . .		1	2	8	
	If she argues with him?	ARGUES		1	2	8	
	If she refuses to have sex with him?	REFUSES SEX		1	2	8	
	If she burns the food?	BURNS FOOD		1	2	8	
	If she comes home late from work or community function?	COMES HOME LATE...		1	2	8	
516	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to…		YES	NO	DON'T KNOW/ DEPENDS		
	a) Get angry and reprimand her?	a)	1	2	8		
	b) Refuse to give her money or other means of support?	b)	1	2	8		
	c) Use force and have sex with her even if she doesn't want to?	c)	1	2	8		
	d) Go ahead and have sex with another woman?	d)	1	2	8		

SECTION 6. HIV/AIDS and SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Now I would like to talk about something else. HIV is a virus (infection) that can be passed from person to person. If people catch HIV they can become ill. This illness is called AIDS. Prior to this interview, have you ever heard of HIV or the disease called AIDS?	YES . . . . . 1 NO 2	→ 643
602	CHECK Q. 115 and 116: CODE '2', '3', or '4" CIRCLED IN 115 OR 116 OR NOT ASKED ↓ CODE '1' CIRCLED IN 115 & 116 OR CODE '5' CIRCLED IN 115 →		604
603	The following is a list of sources of information on prevention of getting HIV, the virus that causes AIDS. Have you ever	YES / NO	
	a. Read messages about HIV or AIDS in newspapers or magazines?	NEWSPAPER/MAGAZINE . 1 2	
	b. Seen leaflets, brochures, or booklets on HIV or AIDS?	LEAFLETS/BOOKLETS . . . 1 2	
	c. Gotten information on HIV or AIDS from the internet?	INTERNET 1 2	
604	READ INTRODUCTORY STATEMENT ONLY IF Q603 WAS NOT ASKED: The following is a list of sources of information on prevention of getting HIV, the virus that causes AIDS. Have you ever	YES / NO	
	a. Seen messages about HIV or AIDS on billboards, signs or posters?	SIGNS/POSTERS 1 2	
	b. Seen/heard messages about HIV or AIDS on TV?	TV 1 2	
	c. Heard messages about HIV or AIDS on radio?	RADIO 1 2	
	d. Attended a community event about HIV or AIDS?	COMMUNITY EVENT . . . 1 2	
	e. Received information about AIDS or HIV, the virus that causes AIDS, from an outreach work, that is someone who came to your community and talked about HIV or AIDS?	OUTREACH WORKER . . . 1 2	
	f. Participated in an HIV or AIDS peer education program?	PEER EDUCATION 1 2	
	g. Participated in another type of HIV or AIDS education program such as a wokshop or school program?	OTHER EDUCATION 1 2	
	h. Discussed AIDS OR HIV, the virus that causes AIDS, with other persons such as friend, family members, or work colleagues?	FAMILY/FRIENDS 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
605	Can people reduce their chance of getting HIV, the virus that causes AIDS, by having just one, uninfected, faithful sex partner?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
606	Can people get HIV from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
607	Can people reduce their chance of getting HIV by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
608	Can people get HIV by sharing food with a person who has HIV or AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
609	Can people reduce their chance of getting HIV by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
610	Can people get HIV from the saliva of someone who has HIV or AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
611	Can people get HIV by having injections with a needle or syringe that has already been used by someone else?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
612	Can only gay men and/or faafafines (drag queens) get HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
613	Can people get HIV because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
614	Is it possible for a healthy-looking person to have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
615	Can HIV, the virus that causes AIDS, be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
616	CHECK 615: AT LEAST ONE 'YES' ☐ ↓	OTHER ☐	→ 618
617	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
618	Have you heard about special antiretroviral drugs that people infected with HIV can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
619	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
620	I don't want to know the results, but have you ever been tested to see if you have HIV?	YES . . . . . 1 NO 2	→ 625

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
621	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
622	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
623	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
624	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 1 GOVT. HEALTH CENTRE . . . . . 2 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . 3 OVERSEAS . . . . . 4 OTHER _____ 6 (SPECIFY)	→ 627
625	Do you know of a place where people can go to get tested for HIV?	YES . . . . . 1 NO 2	→ 627
626	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTRE . . . . . B PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . C OVERSEAS . . . . . D OTHER _____ X (SPECIFY)	
627	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
628	Would you share a meal with a person if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
629	If a member of your family got infected with HIV, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
630	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
631	In your opinion, if a female teacher has HIV but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
632	Should the names of all persons with HIV be displayed in a public place for everyone to see?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
633	Should all persons with HIV live apart from the general community?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
634	Should it be a criminal offence to knowingly pass HIV onto someone else?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
635	Should all newcomers to Samoa be required to take a test for HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
636	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have HIV?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH HIV 3	→ 641
637	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have HIV?	YES . . . . . 1 NO 2	
638	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have HIV?	YES . . . . . 1 NO 2	
639	CHECK 636, 637, AND 638: NOT A SINGLE YES' ☐ ↓ AT LEAST ONE 'YES' ☐ →		641
640	Do you personally know someone who has or is suspected to have HIV or AIDS?	YES . . . . . 1 NO 2	
641	Do you agree or disagree with the following statement: People with HIV or AIDS should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
642	Do you agree or disagree with the following statement: People with HIV or AIDS should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
643	CHECK 601. HEARD ABOUT HIV OR AIDS ☐ ↓ Apart from HIV, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV OR AIDS ☐ ↓ Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
644	CHECK 643: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ →		701

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
645	Have you ever heard about the following STI diseases? a. Gonorrhea b. Syphillis c. Calmydia d. Genital warts e. Genital herpes	YES / NO GONORRHEA ..... 1 2 SYPHILLIS ..... 1 2 CALMYDIA ..... 1 2 GENITAL WARTS ..... 1 2 GENITAL HERPES ... 1 2	
646	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
647	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
648	CHECK 646, AND 647: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐	→ 651	
649	The last time you had (PROBLEM FROM 646/647), did you seek any kind of advice or treatment?	YES ..... 1 NO 2	→ 651
650	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL FACILITY, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL ..... A GOVT. HEALTH CENTER ..... B PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE ... C OTHER SOURCE TRADITIONAL HEALER ..... D FRIEND/RELATIVE ..... E OVERSEAS ..... F OTHER _____ X (SPECIFY)	
651	Husbands and wives do not always agree on everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES ..... 1 NO ..... 2 DON'T KNOW 8	

SECTION 7. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 708
702	CHECK Q. 115 and 116: CODE '2', '3', OR '4" CIRCLED IN 115 OR 116 OR NOT ASKED ↓ CODE '1' CIRCLED IN 115 & 116 OR CODE '5' CIRCLED IN 115 →		704
703	The following is a list of sources of information on tuberculosis or TB. Have you ever done any of the following?	YES / NO	
	a. Read messages about TB in newspapers or magazines?	NEWSPAPER/MAGAZINE . 1 2	
	b. Seen leaflets, brochures, or booklets on TB?	LEAFLETS/BOOKLETS . . . 1 2	
	c. Gotten information on TB from the internet?	INTERNET 1 2	
704	READ INTRODUCTORY STATEMENT ONLY IF Q703 WAS NOT ASKED: The following is a list of sources of information on tuberculosis or TB. Have you ever done any of the following?	YES / NO	
	a. Seen messages about TB on billboards, signs or posters?	SIGNS/POSTERS 1 2	
	b. Seen/heard messages about TB on TV?	TV 1 2	
	c. Heard messages about TB on the radio?	RADIO 1 2	
	d. Participated in an TB peer education program?	PEER EDUCATION 1 2	
	e. Participated in another type of TB education program such as a wokshop or school program?	OTHER EDUCATION 1 2	
	f. Attended a community event about TB such as the women community workshop on World TB Day?	COMMUNITY EVENT 1 2	
	g. Received information about TB from an outreach work, that is, someone who came to your community and talked about TB?	OUTREACH WORKER . . . 1 2	
	h. Discussed TB with other persons such as friends, family members, or work colleagues?	FAMILY/FRIENDS 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
705	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F THROUGH SALIVA . . . . . G THROUGH SMOKING . . . . . H OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
706	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
708	Some men are circumcised. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER 5	
709	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . [ ][ ] NONE 00	→ 713
710	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . [ ][ ] NONE 00	→ 713
711	The last time you had an injection given to you by a health worker, where did you go to get the injection?	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 1 GOVT. HEALTH CENTER . . . . . 2 PRIVATE MEDICAL SECTOR PRIVATE MEDICAL CENTRE . . . . . 3 OVERSEAS . . . . . 4 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
713	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 715
714	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
715	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 717
716	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A TAPAA SAMOA . . . . . B OTHER _____ X (SPECIFY)	
717	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 719
718	What type of health insurance? RECORD ALL MENTIONED.	HEALTH INSURANCE THROUGH EMPLOYER . . . . . A SOCIAL SECURITY . . . . . B OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. C OTHER _____ X (SPECIFY)	
719	Are you involved in the MOH and MWCSD physical activity campaigns?	YES . . . . . 1 NO . . . . . 2 NO ANSWER, REFUSED 6	
720	How much servings of fruits do you usually have in a week? (1 SERVING = I/2 CUP) RECORD '00' IF NO SERVING OF FRUITS IN A WEEK.	NO. OF SERVINGS . . . . . [ ][ ]	
721	How much servings of vegetables do you usually have in a week? (1 SERVING = I/2 CUP OF COOKED VEGIES) (1 SERVING = I CUP OF GREEN SALAD) RECORD '00' IF NO SERVING OF VEGETABLES IN A WEEK.	NO. OF SERVINGS . . . . . [ ][ ]	
722	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

CODES **Principle Occupation**

01. **Managerial, Legislator and Executive officials:**
Main tasks consist of determining and formulating government policies, public laws and regulations and directing activities of enterprises and organizations

(Examples: Members of parliament and cabinet ministers, Chief Justice, Ambassadors, CEO and Deputy CEO of Government Ministries, Village pulenuu, Village High Chiefs, Church Executive Leaders like Chairman of EFKS , Heads of Schools & School Inspectors, Managers and Directors of Companies and Corporations, etc)

02. **Professionals:**
Main tasks require a high level of professional knowledge and experience in the fields of physical and life sciences, or social sciences and humanities requiring **University level Degree or Specialized training**

(Examples: Usually persons holding Senior, PEO to ACEO levels in government offices and professional jobs like Teachers, Nurses, Doctors, Dentists, Lawyers, Judges, Civil Engineers, Architect, Motor Mechanics, Pharmacists, Mathematicians, Statisticians, Demographers, Accountants, Auditor, Journalists, Author, Artists, Priest, Librarians, Pastor, Architects, Electrician, Singer, Musician, Vet, Specialist in any field, etc)

03. **Technicians and associate professionals:**
Main tasks consist of carrying out technical work connected with the application of concepts and operational methods in fields of physical and life sciences or social sciences and humanities requiring Post-secondary Education not equivalent to University degree

(Examples: Usually these persons are in the next level to the Senior level and they assist the professionals like Computer technicians, Teacher assistant, Nurse assistant, Research Assistant, Lecturer Assistant, Electrical Assistant, Engineer Assistant, Library Assistant, or any other Specialist Assistant like Statistical Officer, GIS Officer, etc)

04. **Clerks:**
Main tasks consist of performing secretarial duties, operating word processors and other office machines, recording and computing numerical data, and performing a number of customer-oriented clerical duties, requiring Secondary Education and experience necessary to organize, store, compute and retrieve information.

(Examples: Computer operator, Secretarial work, Data operator, Statistical clerk, Statistical Investigator, Accounts clerk, Office clerk, Bank's clerk, Bank Teller, Loan's clerk, Debt Collector, Payroll officer, etc)

05. **Service workers and shop and market sales**:
Main tasks require the knowledge at Secondary education and experience necessary to provide personal and protective services, and, to sell goods in shops and at markets such as providing services related to travel, housekeeping, catering, personal care, protection of individuals and property, and to maintaining law and order (police).

(Examples: Travel agent, Shop salesman, Shop sales woman, Waitress, Waiter, Bartender, Catering assistants, Chef, Tailor, Hairdresser, Tour guide, Security officer, Police officers, Firemen officers, Hotel Cook or Chef, Air hostess, Deliver Shop sales, Retail salesperson, Market Fresh Flower sales, Flower Arrangement Person, Taxi driver, Bus driver, Flea Market sellers, etc)

06. **Skilled agricultural or poultry or livestock workers**:
Main tasks consist of growing and selling agricultural produce requiring sufficient knowledge and experience to carry out these activities.

(Examples: Taro planter, Banana planter, Chicken farmer, Cattle farmer, etc)

07. **Skilled fishery workers:**
Main tasks consist of catching, cultivating and selling fish requiring sufficient knowledge and experience to carry out these activities

(Examples: Fisherman, Fish-farmer)