## Republic of Nauru

# Demographic and Health Survey 2007 

by<br>the Nauru Bureau of Statistics, the Secretariat of the Pacific Community, and Macro International Inc.

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## PREFACE

The 2007 Nauru Demographic and Health Survey (2007 NDHS) was one of four pilot demographic and health surveys conducted in the Pacific under an Asian Development Bank $\mathrm{ADB} /$ Secretariat of the Pacific Community (SPC) Regional DHS Pilot Project. The primary objective of this survey was to provide up-to-date information for policy-makers, planners, researchers and programme managers, for use in planning, implementing, monitoring and evaluating population and health programmes within the country. The survey was intended to provide key estimates of Nauru's demographics and health situation.

The findings of the 2007 NDHS are very important in measuring the achievements of family planning and other health programmes. To ensure better understanding and use of these data, the results of this survey should be widely disseminated at different planning levels. Different dissemination techniques will be used to reach different segments of society.

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## SUMMARY OF FINDINGS

The 2007 Nauru Demographic Health Survey ( 2007 NDHS) is a nationally representative survey of 655 eligible women (aged 15-49) and 392 eligible men (aged 15 and above). The 2007 NDHS is the first such survey for the country and one of four demographic health surveys conducted in the Pacific as part of the Asian Development Bank/Secretariat of the Pacific Community Demographic and Health Surveys Pilot Project. The primary purpose of the 2007 NDHS was to furnish policy-makers and planners with detailed information on fertility, family planning, infant and child mortality, maternal and child health, nutrition, and knowledge of HIV and AIDS and other sexually transmitted infections.

## FERTILITY

Survey results indicate that Nauru's total fertility rate is 3.4 births per woman. This means that, on average, every Nauruan woman has 3.4 children by the end of her reproductive period if the current age-specific fertility rate remains constant at the level observed in the three-year period before the survey. This is lower than the fertility rate calculated from the 2002 census ( 4.0 children per woman).

Childbearing starts early and is nearly universal. Women in Nauru have an average of 2.3 children by the time they are in their late twenties, and more than four children by the time they reach age 50 .

Initiation of childbearing in Nauru has not changed much over time, although it appears that there has been a slight increase in age at first birth in recent years. The median age at first birth is 22.1 years for women aged 25-29, the youngest cohort for whom a median age can be estimated, as opposed to a median age at first birth of 21.6 for women aged 45-49.

Marriage patterns are an important determinant of fertility levels within a population. The age at first marriage for women shows little change over time. The results show that the median age at first marriage is 22 years among old women (age group 45-49) while the median age at first
marriage is 21.1 years among women aged 25-29. Women in Nauru tend to initiate sexual intercourse about four years before marriage, as evidenced by the median age at first intercourse among women aged 20-49 (17.6 years) compared with the median age at first marriage ( 21.2 years). Similarly, age at first sexual intercourse among Nauruan women also shows a very slow increasing trend. For example, the percentage of women who had sexual intercourse by exact age 15 is the same or similar among younger cohorts of women, except for those in the 25-29 age category. The percentage of women who first had sexual intercourse by exact age 18 is higher among younger cohorts of women than older women in the 40-49 age group.

Men, in contrast, tend to marry several years later than women and initiate sexual activity around the same time as women. The median age at marriage among men aged $20-49$ is 22.8 years, while the median age at first sexual intercourse is 16.6 years. The age at first sex for men has remained relatively constant over the years.

Birth intervals in Nauru are generally short as shown by the median birth interval of 28.5 months. About 37 percent of non-first births in Nauru occur at least 24 months after the birth of the previous sibling. The median birth interval is substantially longer for mothers aged 30-39, and for birth orders 4-6.

## FAMILY PLANNING

Overall, knowledge of family planning is very high in Nauru with 93 percent of all women and 99 percent of all men aged 15-49 having heard of at least one method of contraception. Pills, injectables, condoms and female sterilisation are the most widely known modern methods among women and men.

About 64 percent of currently married women have ever used a family planning method at least once in their lifetime. The modern methods commonly ever used for family planning by married women are male condom, female sterilisation, injectables and pills, with withdrawal as the commonly used traditional method.

Modern methods are more widely used than traditional methods, with 51.5 percent of currently married women using a modern method, and 37 percent using a traditional
method. The most popular modern method is male condom. About one out of five (23.1 percent) currently married women reported to have ever used this method of contraception.

Approximately 36 percent of currently married women reported that they were using contraception at the time of the survey. About one-quarter used a modern contraceptive method.

Overall, 24 percent of currently married women have an unmet need for family planning services. The need for spacing births ( 16.4 percent) is higher than the need for limiting births (7.1 percent).

## MATERNAL HEALTH

Ninety-five percent of women who had a live birth within the five years preceding the survey received antenatal care from a skilled health professional. Two in five women (40 percent) made four or more antenatal care visits during their entire pregnancy. The median duration of pregnancy for the first antenatal visit was 5.7 months, indicating that Nauruan women started antenatal care at a relatively late stage in their pregnancy.

Among women who received antenatal care, about two in five women (39.6 percent) reported that they were informed about how to recognise signs of problems during pregnancy. Weight and blood pressure measurements (97.3 percent and 97.9 percent, respectively) were taken for these women. Urine and blood samples were taken from over 90 percent of pregnant women. Only 19 percent of women received two or more tetanus toxoid injections during their last pregnancy. In the case of an additional 24 percent of women, the baby was protected against neonatal tetanus because of previous immunisations the woman had received.

Over nine in ten births occurred in a health facility. Overall, 97 percent of births were delivered with the assistance of a trained health professional; that is, a doctor, nurse, midwife, medical assistant, or clinical officer. Only 3 percent of births were attended by a relative or some other person, while 8 percent of births were delivered by caesarean section.

Postpartum care was extremely high in Nauru. Only 18 percent of women who had a live
birth in the five years preceding the survey received no postnatal care at all, and 66 percent of mothers received postnatal care within the critical first two days after delivery. Eighty-one percent of women received their first postnatal care from trained health professionals, while less than 1 percent were cared for by others.

Common problems cited in accessing health care in Nauru included no drugs, no provider and no transport to health centres .

## CHILD HEALTH

Eighty-six percent of children aged 18-29 months were fully vaccinated at the time of the survey. About 98 percent had received the BCG vaccination, and 95 percent had been vaccinated against measles. Because DPT and polio vaccines are often administered at the same time, their coverage rates are expected to be similar. However, differences in coverage of DPT and polio result, in part, from stock-outs of the vaccines. Ninety-eight percent of children received the first doses of DPT and of polio. However, 89 percent of children received the third dose of DPT and 91 percent received the third dose of polio.

The occurrence of diarrhoea in children varied by age. Young children aged 12-23 months were more prone to diarrhoea than children in other age groups. There was little variation in the prevalence of diarrhea by child's sex. Diarrhoea was more common among children who in the middle and highest wealth quintile households, and diarrhoea was common among children who in households with no improved source of drinking water.
Almost three in four children ( 70 percent) with diarrhoea were treated with some kind of oral rehydration therapy (ORT) or increased fluids. More than one in five children (23 percent) were treated with ORS prepared from an ORS packet, 30 percent were given recommended home fluids, and 45 percent were given increased fluids.

## FOSTERHOOD AND ORPHANHOOD

In Nauru, about 65 children aged less than 18 years live with both parents, while 11 percent live with a mother but not with father even though the father is alive.

About 13 percent of children do not live with either parent. These children are likely to be between the ages of 15 and 17 years in the second wealth quintile households. There is very little variation by sex.

Overall, about one-fifth of children (15 percent) between the ages of 15 and 17 do not live with their biological parents. Eight percent of these children have either one or both parents dead.

## BREASTFEEDING AND NUTRITION

Breastfeeding is nearly universal in Nauru, with 95 percent of children born in the five years preceding the survey having been breastfed at some time. There is very little difference in whether children were ever breastfed by most background characteristics, except for the fourth wealth quintile with 89 percent of children having ever been breastfed.

Between the ages of 6 and 23 months, children tended to consume foods made from grains more often than any other food group. Over 70 percent of breastfeeding children and 97 percent of non-breastfeeding children in this age group ate foods made from grains in the day and night preceding the interview. The next most commonly consumed food group was meat, fish, poultry and eggs. Around 61 percent of breastfeeding children and 88 percent of non-breastfeeding children ate meat, fish, poultry and eggs. The third most commonly consumed food group was fruits and vegetables rich in vitamin A, which were consumed by 52 percent of breastfeeding children and 70 percent of non-breastfeeding children).

Ninety-six percent of children aged 6-23 months living with their mother received breast milk, other milk or milk products during the 24 -hour period before the survey; 81 percent had a minimally diverse diet (i.e. they had been fed foods from the minimum number of food groups depending on their age and breastfeeding status), and 43 percent had been fed the minimum number of times appropriate for their age. In summary, about two in five Nauruan children ( 37.7 percent) aged 6-23 months met the minimum standard with respect to all three infant and young child feeding practices

About 91 percent of children aged 6-35 months living with their mother consumed
foods rich in vitamin A in the 24-hour period before the survey. Consumption of foods rich in vitamin A decreased with children's age. For example, all children were reported to consume foods rich in vitamin at ages 18-23 months but then dropped to 98 percent by ages 24-35 months.

The staple diet of young Nauruan mothers consisted of foods made from grains ( 96 percent) and those from the meat, fish, shellfish, poultry and eggs group (97 percent). Almost four in five women ( 76.9 percent) consumed fruits and vegetables rich in vitamin A. Half the number of women (51.5 percent) consumed other solid or semisolid foods. More than 60 percent of mothers drank milk, 85 percent drank tea and coffee, and 66 percent drank other liquids.
About 5 percent of children under age 5 were reported to be underweight, and these children tended to be in the lowest, middle and fourth wealth quintile households. One in every eight women ( 80 percent) aged 15-49 were overweight and obese, and the proportion increased with age from 50 percent of women aged 15-19 to 92 percent of women aged 40-49. Among men aged 15-49, 77 percent were reported to be overweight and obese. The prevalence of overweight and obese increased at ages 20-29 and increased with men's age.

The prevalence rate of anaemia among Nauruan women aged 15-49 was 34 percent. Anaemia was common among young Nauruan women aged 15-19, among women who had two to three children, among women who smoked, and among women in the lowest wealth quintile. More than half of the 255 children aged 6-59 months were reported to have any anaemia during the survey. The prevalence of anaemia showed a declining trend with children's increasing age.

## HIV, AIDS AND STIS

In Nauru, knowledge about AIDS is not as high as in the Marshall Islands. In Nauru, men are more knowledgeable ( 83 percent) than women ( 73 percent) about the disease. The results show that the level of knowledge increased with age, level of education and level of living status.
Men and women were specifically asked if one could reduce the risk of acquiring HIV through consistently using condoms, limiting
sexual intercourse to one uninfected partner who has no other sex partners, and abstaining from sexual intercourse. About 56 percent of women and 67 percent of men agreed that using a condom at every sexual intercourse could reduce the risk of getting the AIDS virus, and 55 percent of women and 68 percent of men agreed that limiting sexual intercourse to one uninfected partner is a way to avoid contracting HIV and AIDS.

Generally, most women and men are aware that the chances of getting HIV can be reduced by the following specified prevention methods: limiting sex to one uninfected partner ( 55 percent of women, 68 percent of men), abstaining from sex ( 54 percent women, 65 percent men), using a condom ( 56 percent women, 67 percent men).

About 50 percent of women and 59 percent of men know that a healthy-looking person can have the AIDS virus. Knowledge that people cannot get the AIDS virus by sharing food with an infected person was lower ( 44 percent of women, 42 percent of men) than the knowledge that the AIDS virus cannot be transmitted by supernatural means ( 55 percent women, 59 percent men). Respondents were also asked if they thought that people could get the AIDS virus because of witchcraft or other supernatural means; the majority of respondents rejected this idea.

Less than one in five women (18 percent) and one in five men (17 percent) had a comprehensive knowledge about HIV and AIDS. Married women with more than a secondary level education and those in the second and fourth wealth quintile were more likely to have comprehensive knowledge than other women. Like women, comprehensive knowledge was more common among men who are currently married and with those with in the higher wealth quintiles.

Knowledge of mother-to-child transmission of HIV (by breastfeeding) was almost the same for women ( 40 percent) and men ( 39 percent). A very low proportion of women (16 percent) and an even lower percentage of men (8 percent) knew that there are special drugs that can be given to a pregnant woman infected with the AIDS virus to reduce the risk of transmitting the virus to the baby. More than one in ten women ( 12 percent) and less than one in ten men ( 7 percent) aged 15-49 knew that HIV can be transmitted
through breastfeeding and that the risk of transmission can be reduced by special drugs.

Few women and men expressed positive attitudes and opinions towards family members with AIDS. For example, 47 percent of women and 45 percent of men reported that they would not want to keep secret that a family member had the AIDS virus, while only 28 percent of women and 26 percent of men reported that they would buy vegetables from a shopkeeper who had the AIDS virus. However seven in ten women and men (both about 66 percent) reported that they would be willing to care for a family member with the AIDS virus.

More women than men ( 87 percent and 78 percent, respectively) in the 15-49 age group agreed that a wife was justified in refusing to have sexual intercourse with her husband if she knows that he has a sexually transmitted disease. Married men and those in a living together union were more likely to agree that a wife was justified in refusing to have sexual intercourse with her husband if she knows that he has a sexually transmitted disease.

Among women and men who had sexual intercourse in the past 12 months, 10 percent of women had multiple partners ( $2+$ partners) compared with 36 percent of men with multiple partners. Having multiple sexual partners is more likely among younger women and men who have never been married. About 24 percent of women and 52 percent of men had had higher-risk sex during the same 12 months period. Among those women and men who had had higher-risk sex in the past 12 months, about 14 percent of men and 9 percent of women used a condom.

About 42 percent of Nauruan women and 53 percent of Nauruan men were likely to know where to go for an HIV test. About 12 percent of women and 16 percent of men had an HIV test compared with over-three quarters of women and men who never had an HIV test.

Only 4 percent of women had received HIV counseling during antenatal care, 7 percent were offered HIV testing during antenatal care and received results. Overall, only 2 percent of women were counseled, offered an HIV test and received HIV test results. This indicates that low numbers of women were tested for HIV during their antenatal care.

More than 2 percent of women and men reported that they had an STI or symptoms of an STI in the 12 months preceding the survey. Women aged 20-24 and men aged 15-29 had the highest likelihood of reporting symptoms of an STI. Never-married women were less likely to report symptoms of an STI.

About 15 percent of young women and 31 percent of young men in the 15-24 age group had their first sex very early in life (i.e. before age 15). About 64 percent of young women and 76 percent of young men had sex before they turned age 18. Early sexual initiation is more likely among young adults who know where to obtain condoms compared with those who do not know a source of condoms.

## MORTALITY

In the zero to four years before the survey (i.e. 2003-2007), the infant mortality rate was 38 deaths per 1,000 live births. This means that about 4 in every 100 babies born in Nauru do not live to their first birthday. Those survivinge to their first birthday, will also survive until reaching their fifth birthday. The overall under-five mortality rate 38 deaths per 1,000 live births, which implies that 4 in every 100 babies do not survive to the fifth birthday.

The first month of life is associated with the highest risk to survival. The neonatal mortality rate is 27 deaths per 1,000 live births, implying that nearly 3 out of every 100 infant deaths occur during the first month of life. As childhood mortality declines, postneonatal mortality usually declines faster than the neonatal mortality because neonatal mortality is frequently caused by biological factors that are not easily addressed by primary care interventions. In Nauru, postneonatal mortality is 11 per 1,000 births.

Nauru's infant mortality rate during the 10 years before the 2007 NDHS was 40 deaths per 1,000 births, while the under 5 mortality rate was reported to be 44 deaths per 1,000 births.

About 21 percent of births in Nauru were not in any high-risk category and another 20 percent of births were in an unavoidable risk category. The remaining 59 percent of births were in at least one of the specified avoidable high-risk categories. About two in five births ( 43 percent) were in one of the
high-risk categories (i.e. 19 percent for birth orders $>3$ and 18 percent for short birth intervals of $<24$ months), while 16 percent were in multiple high-risk categories. The births in multiple high-risk categories were mostly found in two combinations: birth order higher than three with birth interval $<24$ months ( 8 percent of births).

## DHS INDICATORS REQUIRED BY INTERNATIONAL AGENCIES

| INDICATOR | NATIONAL | DIFFERENTIALS |  |
| :---: | :---: | :---: | :---: |
|  |  | URBAN | RURAL |
| Millennium Development Goal/United Nations Population Fund |  |  |  |
| Net enrolment ratio in primary education (net attendance ratio) | 88.1 | na | na |
| Net enrolment ratio in primary education (net attendance ratio - males) | 83.3 | na | na |
| Net enrolment ratio in primary education (net attendance ratio - females) | 93.5 | na | na |
| Literacy rate of women aged 15-49 (in \%) | 99.3 | na | na |
| Literacy rate of men aged 15-49 years (in \%) | 95.9 | na | na |
| Literacy rate of women aged 15-24 (in \%) | 99.2 | na | na |
| Literacy rate of men aged 15-24 (in \%) | 92.8 | na | na |
| Ratio of girls to boys in primary, secondary, and tertiary education | 1.12 | na | na |
|  | 1.32 | na | na |
|  | - | na | na |
| Ratio of literate women to men aged 15-24 | 1.07 | na | na |
| Ratio of literate women to men 15-49 | 1.04 | na | na |
| Under-five mortality rate (per 1,000) | 38 | na | na |
| Infant mortality rate (per 1,000) | 38 | na | na |
| Percent of children aged 18-29 months who are immunised against measles | 95.4 | na | na |
| Percent of children aged 18-29 months who are immunised against measles by age 12 months | 59.9 | na | na |
| Percent of births attended to by skilled health personnel | 97.4 | na | na |
| Contraceptive prevalence rate (in \%) | 35.6 | na | na |
| Percent of population using solid fuels | 8.3 | na | na |
| Percent of population with sustainable access to an improved water source, urban and rural | 90.1 | na | na |
| Percent of population with access to improved sanitation, urban and rural | 72.2 | na | na |


| INDICATOR | NATIONAL | DIFFERENTIALS |  |
| :---: | :---: | :---: | :---: |
|  |  | URBAN | RURAL |
| HIV/UN GENERAL ASSEMBLY SPECIAL SESSION |  |  |  |
| Condom availability, quality and use among youth |  |  |  |
| Condom use at first sexual intercourse among young people: Women and men (in \%) | 10.7 | na | na |
|  | 7.1 | na | na |
| Knowledge of a formal source of condoms among young people (aged 15-24): Women and men (in \%) | 58.8 | na | na |
|  | 69.8 |  |  |
| Accepting attitudes toward those living with HIV - composite of four components (in \%) | 9.3 | na | na |
|  | 6.4 |  |  |
| Willing to care for family member: Women and men (in \%) | 65.9 | na | na |
|  | 65.7 |  |  |
| Would buy fresh vegetables from a shopkeeper with AIDS: Women and men (in \%) | 27.9 | na |  |
|  | 26.4 | na | na |
|  |  |  | na |
| Female teacher who is HIV+ but not sick should be allowed to continue teaching in school: Women and men (in \%) | 29.0 | na | na |
|  | 20.2 | na | na |
| Not secretive about family member's HIV status: Women and men(in \%) | 45.1 | na | na |
|  | 47.0 | na | na |
| Heard of HIV/AIDS: Women and men | 73.1 | na | na |
|  | 83.2 | na | na |
| Knowledge of HIV prevention methods: Women and men (in \%) |  |  |  |
| Use of condoms: Women and men | 56.2 | na | na |
|  | 66.7 | na | na |
| Only one/limiting partner: Women and men | 54.8 | na | na |
|  | 68.4 | na | na |
| Abstain from sex: Women and men | 54.1 | na | na |
|  | 65.1 | na | na |
| No incorrect beliefs about AIDS (in \%) |  |  |  |
| Healthy-looking person can have the AIDS virus: Women and men | 49.8 | na | na |
|  | 58.5 | na | na |
| AIDS cannot be transmitted by supernatural means: Women and men | 55.3 | na | na |
|  | 59.0 | na | na |
| Cannot become infected by sharing food with someone who has AIDS: Women and men | 43.9 | na | na |
|  | 42.2 | na | na |
| Knowledge of MTCT by transmission during pregnancy and through breastfeeding: Women and men (in \%) |  |  |  |
|  | 40.2 | na | na |
|  | 39.3 | na | na |
| Voluntary counseling and testing (in \%) |  |  |  |
| HIV testing behavior among young people sexually active in the last 12 months: Women and men | 5.9 | na | na |
|  | 4.5 | na | na |
| Mother-to-child transmission(in \%) |  |  |  |
| Pregnant women counseled and tested for HIV | 1.7 | na | na |
| Pregnant women counseled for HIV during ANC visit | 4.4 | na | na |
| Pregnant women tested for HIV during ANC visit | 7.3 | na | na |


| INDICATOR |  | DIFFERENTIALS |  |
| :---: | :---: | :---: | :---: |
|  | NATIONAL | URBAN | RURAL |
| HIV/UN General Assembly Special Session |  |  |  |
| Sexual negotiation and attitudes (in \%) |  |  |  |
| Women's ability to negotiate safer sex with husband | 86.5 | na | na |
| Sexual behavior(in \%) |  |  |  |
| Higher-risk sex in the last year: Women and men | 23.9 | na | na |
|  | 51.5 | na | na |
| Multiple partners in the last year among sexually active respondents aged 15-49: Women and men | 10.5 | na | na |
|  | 35.7 | na | na |
| Condom use at last higher-risk sex (in \%) |  |  |  |
| Last sex with anyone: Women and men | 8.6 | na | na |
|  | 14.4 | na | na |
| Commercial sex in last year: Men aged 15-49 | 0.4 | na | na |
| Condom use at last commercial sex, reported by client | Na | na | na |
| Young people's sexual behavior(in \%) |  |  |  |
| Abstinence of never-married young women and men | 25.1 | na | na |
|  | 17.3 | na | na |
| Sex before the age of 15: Women and men aged 15-24 | 14.8 | na | na |
|  | 31.3 | na | na |
| Sex before the age of 18: Women and men aged 15-24 | 64.2 | na | na |
|  | 76.1 | na | na |
| Young people having premarital sex in last year: Women and men | 42.8 | na | na |
|  | 59.8 | na | na |
| Young people using a condom during premarital sex: Women and men | 9.6 | na | na |
|  | 14.7 | na | na |
| Young people (aged 15-24) having multiple partners in last year: Women and men | 16.7 | na | na |
|  | 53.3 | na | na |
| Young people using a condom at last higher-risk sex: Women and men | 9.8 | na | na |
|  | 16.7 | na | na |
| Condom use at first sex: Young women and men | 10.7 | na | na |
|  | 7.1 | na | na |
| Age-mixing in sexual relationships: Women (in \%) |  |  |  |
| Young women aged 15-19, non-marital, non-cohabiting partner in the last 12 months | Na | na | na |
| Young women aged 15-24, any partner in the last 12 months | na | na | na |
| Forced sex among young people (in \%) |  |  |  |
| Sex among young people while they are intoxicated: Women and men | 26.6 | na | na |
|  | 67.7 | na | na |
| Sex with commercial sex workers among young people: Men | 0.0 | na | na |
| Appropriate diagnosis and treatment of STIs (in \%) |  |  |  |
| Seeking treatment for STIs: Women and men | 23.3 | na | na |
|  | na | na | na |
| Social impact |  |  |  |
| Birth registration (in \%) | 82.6 | na | na |
| Prevalence of orphans under age 18 (single \& double)(in \%) | 7.8 | na | na |
| Prevalence of orphanhood among children under age 15 (single \& double) (in \%) | 7.2 | na | na |



## CHAPTER 1 INTRODUCTION

### 1.1 HISTORY, GEOGRAPHY AND ECONOMY

### 1.1.1 History

Nauru was first sighted in 1789 by Europeans and reported by Captain John Fearn of the whaling ship the Hunter. There was little contact after Fearn's visit until the 1830s when Nauru became an important source for food and water for the ships frequenting the area. Commander T. Beckford Simpson, Master of the Giraffe wrote in his diary in 1843 that 'this island and many others in the Pacific, are infested by Europeans who are either runaway convicts, expirees, or deserters from whalers, and for the most part men of the very worst description...' With them, these early Europeans brought diseases, and the taste for alcohol and firearms. The combination of these factors brought about and fueled the resulting warfare also known as the Ten Years Wars (18781888) (Taylor and Thoma 1983)

After this period, Nauru was administered by numerous countries. The Anglo-German Convention divided the western Pacific into spheres of influence; however, in 1888, Germans gunboat Eber landed at Nauru and proclaimed the island a German Territory. During the German annexation, alcohol and firearms were banned and evangelism began.

In 1900, phosphate was discovered and mining began in 1906 under the auspices of the Pacific Phosphate Company. Nauruans, however, played a very small role in mining because workers were imported from China and neighboring islands. Later, under the treaty of Versailles in 1914, Nauru's sovereignty was vested in the British Crown and was afterwards jointly administered by Australia, New Zealand and Great Britain.

In 1920, modernisation of Nauru began in earnest and the subsequent availability of purchasable commodities increased demands on monetary wealth, which was closely linked with phosphate royalties. From the 1920s to 1930s, phosphate mining continued and royalties on mined land slowly increased although expatriates continued to form the core of the labour force.

During the Japanese occupation during World War II, 1,201 Nauruans were sent to Truk (now Chuuk in the Federated States of Micronesia) where they suffered hardship, with over40 percent dying. It was reported that at the beginning of the war, the Nauruan population was 1,848 , but by the end, it was 1,278 , which equates to a reduction of approximately 30 percent.

In 1947, an agreement was signed by Australia, New Zealand and the United Kingdom under the United Nations trusteeship ${ }^{1}$ system. Under the trusteeship, mining and export resumed, continuing for over 20 years until independence in 1968.

Nauru became an independent sovereign nation in 1968, with a president elected by members of parliament.

Since independence, the phenomenal profits gained from phosphate mining resulted in a boom period in the economy. The profits were used to run national and local governments, provide social services, and purchase overseas investments in various enterprises, and were invested in the Nauru Phosphate Royalties Trust (NPRT) ${ }^{2}$. All of these were designed to sustain the flow of income after the exhaustion of phosphate. Royalty interests from the sale of phosphate were duly distributed to shareholders on a financial year basis until the late 1990s when the economy collapsed. Although much emphasis was placed on individual incomes from phosphate, in reality, the wealth was not uniformly distributed. Distribution was determined according to ownership and proportions of land.

[^0]A legacy of the phosphate mining and subsequent abundance of money resulted in a heavy reliance on imported goods. Consumables of any nature were imported, including food, drinks, cigarettes, vehicles and entertainment systems. Unfortunately, this trend continues, despite the economic collapse and gloomy economic and financial forecasts.

The composition of Nauru's population is largely the result of the mining industry. Workers almost a century ago were imported from various parts of the world to work the mines. Early accounts reveal that in 1939, the foreign population was equal to the indigenous population of Nauruans. In 1977, the proportions were 60 percent foreigners and 40 percent indigenous Nauruans. These proportions increased in 1992 to 70 percent foreigners, 30 percent indigenous Nauruans. In 2006, the proportion of foreigners dwindled to only 6 percent as a result of a mass outflow of migrant workers and their families due to the collapse of the phosphate mining industry. The phosphate industry continues to drive Nauru's economy, trade and foreign relations, and will likely continue to have a clear and direct impact on the country's population in the future (SPC 2002).

### 1.1.2 Geography

Nauru is a raised coral atoll in the central Pacific, about 60 km south of the equator. It belongs to the Pacific subregion of Micronesia. Its nearest neighbor is Banaba (Ocean Island) in the Republic of Kiribati, about 330 km to the east. Nauru is bordered by Solomons Islands to the southwest, and by the Republic of the Marshall Islands and the Federated States of Micronesia to the northwest.
Nauru has a total land area of $21.1 \mathrm{~km}^{2}$, and measures 6 km by 4 km , with a circumference of 19 km . Nauru is the smallest independent nation in the world.

### 1.1.3 Economy

Nauru's land tenure system has survived colonisation, and land access rights and land use rights are still held by family clans. However, with the transition to a monetary economy, poverty has increased and governance has changed considerably. Both of these have contributed to the country's heavy reliance upon phosphate productions as a source of income to buy imported goods. Due to Nauru's hierarchical and hereditary nature of customary land ownership, the distribution of lands is uneven. The result is that modernisation has caused disparities among the population due to the distribution of wealth. This disparity is further increased through the current lands registration system, and through abuse, corruption and inconsistencies within the judicial process. Traditionally, coastal fisheries and subsistence agriculture served as the major sources of livelihood for most people. The last 50 years have brought significant population growth, as well as increasing economic monetisation, with the result being that subsistence livelihoods are no longer an option for the majority of the population. Today, Nauruans are highly urbanised and depend greatly on the island's diminishing phosphate reserves and on overseas investments to finance imports (particularly of food). The ability of the natural environment to sustain the island's population has been seriously compromised by phosphate mining activities, and now depends on rehabilitation activities being undertaken by the government-owned mining entities.

The bulk of the population depends on cash incomes and imported goods for sustenance, but employment opportunities are largely limited to the public sector. The government is the main employer, and the private sector has contracted in recent years. In 2004, the public sector accounted for 41 percent of wage employment, and the average annual earnings of national government employees (AUD13,275) was more than 1.5 times higher than the average for the private sector. There is still much debate on whether a flourishing private sector should drive the next surge in economic growth (unlike in the past), or whether Nauru should remain a welfaretype society that is highly dependent on government employment. Nauru's geographic isolation and resulting high transportation and communications costs - coupled with a deteriorating infrastructure, and poor access to financial and banking institutions, among others - have hindered economic growth.

Nauru's GDP and per capita GDP have declined rapidly since the late 1980s, falling from among the highest per capita in the world to a considerably lower (but currently undisclosed) level. Current per capita GDP has been estimated by the Pacific Islands Forum Secretariat - with
assistance from the Secretariat of the Pacific Community (SPC) - and through a subsequent report from the Asian Development Bank (ADB), with technical assistance by consultants from the Pacific Financial and Technical Assistance Centre based in Fiji. Both estimates were assisted by the Nauru Bureau of Statistics (BOS). The slow recovery from 2001 to 2004 has been driven by higher government expenditure, fuelled by Compact bump-up funds, ${ }^{3}$ the commencement of transfers under the new Compact economic package in 2004, and increased financial assistance from Taiwan.

### 1.2 POPULATION

Population censuses have been carried out in Nauru since 1921, mostly at 10-year intervals. Table 1.1 provides a summary of the basic demographic indicators available for Nauru from the census data for 1921-2006. Nauru's population has increased three times since 1921, from around 2,000 in 1921 to over 6,000 in 1966. The population grew rapidly between 1933 and 1966 (reaching a growth rate of 5.4 percent in 1966), but the population growth rate subsequently slowed to 1.3 percent in 1977. More rapid growth in the 1980s and 1990s has been followed by a recent population decline ( -2.1 percent in 2006), which was likely due to the steadily failing economy caused by the depletion of Nauru's phosphate resources.

Nauru's population density has increased significantly, from 98 people/ $\mathrm{km}^{2}$ in 1921 to 479 people $/ \mathrm{km}^{2}$ in 2002. Life expectancy declined by about five years between 1992 and 2002. Female life expectancy ( 56.9 years) in 2002 was higher than male life expectancy (49.0 years). Nauru is completely urban in terms of its population distribution.

Table 1.1: Basic demographic indicators, selected demographic indicators, Nauru 1921-2006

|  | 1921 | 1933 | 1947 | 1954 | 1961 | 1966 | 1977 | 1983 | 1992 | 2002 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total population | 2066 | 2641 | 2855 | 3473 | 4613 | 6057 | 6966 | 7674 | 9919 | 10065 | 9257 |
| Intercensal growth rate (in \%t) |  | 2 | 0.6 | 2.8 | 4.1 | 5.4 | 1.3 | 1.5 | 2.9 | 0.1 | -2.1 |
| Density (population/sq km) | 98 | 126 | 136 | 165 | 220 | 288 | 332 | 365 | 472 | 479 | 441 |
| Percent urban | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Life expectancy |  |  |  |  |  |  |  |  |  |  |  |
| Male | - | - | - | - | - | - | - | - | 54.4 | 49 | - |
| Female | - | - | - | - | - | - | - | - | 61.2 | 56.9 | - |
| Total | - | - | - | - | - | - | - | - | 57.6 | 52.6 | - |
| -- equals to unknown (not available) |  |  |  |  |  |  |  |  |  |  |  |
| Source: 2002 Nauru Census M |  |  |  |  |  |  |  |  |  |  |  |

### 1.3 POPULATION AND HEALTH POLICIES AND PROGRAMMES

### 1.3.1 Evolution of population policy

Nauru experienced an alarming drop in its population (to around 1,000 people) around 1920 due to an influenza epidemic. The effect of the flu was particularly ravaging because the epidemic occurred at a time when the population was recovering from a disastrous dysentery epidemic. The country's population and health situation was in a tenuous state, causing fear for the continuing survival of Nauruans. A policy known as 'populate or perish' was adopted, with 1,500 set as a target for a sustainable population. This target was met in 1932 (although it dropped below this again during WWII), and was a cause for celebration. This national event - called Angam Day - continues to be celebrated today.

Subsequent rapid growth, combined with low life expectancy raised considerable concerns on the part of the government, which sought to implement programmes and plans to cope with the resulting demand for both social and economic services. Changes in socioeconomic conditions, such as improvements in health status, and the need for better information on policy-making were

[^1]the driving forces that lead to the undertaking of the demographic and health survey (DHS). Significant population expansion has placed pressure on the educational system, and increased the need for jobs, while high infant mortality and low life expectancy point to the need to review health policies and services, particularly given the current economic hardship. The DHS supports current activities, including family planning, HIV awareness, efforts to reduce gender disparity, the creation of district public healthcare workers, and public health programmes, and also assists in making assessments of health policies and services, and the health statistics framework.

The escalating prices of commodities and services and the drop in household income from worker wages and salaries lent urgency to the need to ascertain the general health of Nauru's population. The DHS was viewed as a means to establish a baseline for many basic health indicators, and a basis for a review and reformulation of Nauru's health policy. The economic climate and stricter budget policy placed a greater focus on the health and education sectors, and on the improved use of data and statistics for policy- and decision-making. The decision to implement the DHS was taken with the intent of assisting Nauru in developing health indicators and health data to assist with policy-making, reviews and meeting reporting obligations under the Millennium Development Goals (MDGs), and national targets under the Nauru National Sustainable Development Strategies (NSDS) plan.

### 1.4 SURVEY OBJECTIVES

The 2007 Nauru Demographic and Health Survey ( 2007 NDHS) was executed from 13 August to 5 October 2007 by Nauru's BOS in conjunction with the Ministry of Health (MOH), using a nationally representative sample of almost 400 households. All women aged 15-49 in these households were eligible to be individually interviewed, and all men aged 15 and over in every seconded selected households were eligible to be interviewed.

The main objective of the 2007 NDHS was to provide current and reliable data on fertility and family planning behaviour, child mortality, adult and maternal mortality, children's nutritional status, the use of maternal and child health services, and knowledge of HIV and AIDS. Specific survey objectives were to:

- collect data at the national level that will allow key demographic rates to be calculated;
- analyse the direct and indirect factors that determine fertility levels and trends;
- measure the level of contraceptive knowledge and practice among women and men (by method);
- collect high-quality data on family health, including immunisation coverage among children, prevalence and treatment of diarrhoea and other diseases among children under age 5 years, and maternity care indicators, including antenatal visits, assistance at delivery, and postnatal care;
- collect data on infant and child mortality;
- obtain data on child feeding practices, including breastfeeding, and collect 'observation' information to use in assessing the nutritional status of women and children; and
- collect data on knowledge and attitudes of women and men about sexually transmitted infections (STIs) and HIV and AIDS, and evaluate patterns of recent behaviour regarding condom use.

This information is essential for informed policy decisions and the planning, monitoring, and evaluation of health programmes in general, and reproductive health programmes in particular. A long-term objective of the survey is to strengthen the technical capacity of government organisations to plan, conduct, process and analyse data from complex national population and health surveys. Moreover, these estimates of population and health indicators from the 2007 NDHS are anticipated to be comparable with data collected in similar surveys in other Pacific Island DHS pilot countries and in other developing countries.

### 1.5 SURVEY ORGANISATION

The 2007 NDHS was carried out under the ADB/SPC Pacific Regional Pilot DHS Project, and was executed by Nauru's BOS in collaboration with the MOH. SPC and Macro International Inc
(through its MEASURE DHS project) provided technical assistance. The survey was funded by ADB.

A steering committee was formed to be responsible for coordination, oversight, advice and decision-making on all major aspects of the survey. The steering committee comprised representatives from various ministries and key stakeholders including MOH and BOS.

### 1.6 SAMPLE DESIGN

The 2007 NDHS sample was designed to provide reliable estimates of total fertility and infant mortality rates at the national level. The survey used a two-stage, stratified probability sample design. The most recent census in 2002 provided the basic sample design information.

The primary sampling units (PSUs) consisted of 14 census enumeration areas or districts, with the inclusion of an area (called Location) based on its population density. In total, 15 PSUs were selected with probability proportional to size, with size being the number of households according to the census.

### 1.7 QUESTIONNAIRES

Three questionnaires were used in the survey: a household questionnaire, a women's questionnaire and a men's questionnaire. The contents of these questionnaires were based on model questionnaires developed by the MEASURE DHS programme at Macro International.
In consultation with MOH , NDHS staff modified the model questionnaires to reflect relevant issues relating to population, family planning, HIV and AIDS, and other health matters in Nauru. The questionnaires were also translated into Nauruan.

The household questionnaire was used to list all of the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. The main purpose of the household questionnaire was to identify women and men who were eligible for the individual interview. The household questionnaire also collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor and roof of the house, and ownership of various durable goods. In addition, this questionnaire was also used to record the nutritional status of children under age 6 years through height and weight measurements.

The women's questionnaire was used to collect information from all women aged 15-49. Women were asked about their:

- educational background, residential history and media exposure;
- reproductive history and child mortality;
- knowledge and use of family planning methods;
- fertility preferences;
- prenatal and delivery care;
- breastfeeding and infant feeding practices;
- vaccinations and childhood illnesses;
- marriage and sexual activity;
- work and their husband's background characteristics;
- awareness and behaviour about AIDS and other STIs; and
- domestic violence.

The men's questionnaire collected similar information contained in the women's questionnaire, but was shorter because it did not contain questions on reproductive history, maternal and child health, nutrition or domestic violence.

### 1.8 LISTING, PRETEST, TRAINING AND FIELDWORK

### 1.8.1 Listing

A household listing operation was implemented immediately prior to data collection. Teams of listers visited each PSU to list the households living there and to update maps provided by the Nauru Rehabilitation Cooperation. These lists formed the framework for the second stage of selection. The secondary sample units (SSUs) consisted of households. Households were selected in each PSU, with a total of 400 households selected.

All women aged 15-49 who slept in the sample household on the night prior to the interview date were eligible to be interviewed with the women's questionnaire. Every second household was subselected for the men's survey. All men aged 15 or over in sub-selected households were eligible to be interviewed.

### 1.8.2 Pretest

The pretest was undertaken from 2-13 July 2007. For the pretest, 9 women and 2 men were recruited and trained for two weeks to be interviewers. Pretest training consisted of classroom lectures, demonstration interviews, front-of class interviews, mock interviews, quizzes and tests, and some field practice that consisted of interviewing sample selected households. The interview team spent less than one week interviewing 11 households. After the pretest, the NDHS team reviewed and discussed the results. The pretest resulted in revising the translation of some questions and skip instructions in the questionnaires

### 1.8.3 Training

Potential 2007 NDHS staff were trained from 23 July-11 August 2007. In total, 17 women and 2 men were selected to be trained to implement the survey, including one person to act as project manager, two to act as team supervisors, and four nurses to conduct biometric measurements. Each survey team consisted of four female interviewers, one male interviewer, two biometric nurses, one field editor and one team supervisor. Training, which was mostly done by SPC technical specialists to the project, consisted mainly of lectures followed by mock interviews between trainees. Towards the end of the training, participants conducted practice interviews in households close to the training site. Several quizzes were also administered, graded and reviewed.

This process of assessment and training made sure that field supervisors, field editors, interviewers and data processors were of very high caliber, and this was demonstrated in the high degree of team work and quality data obtained.

### 1.8.4. Fieldwork

Two teams collected data, each team comprising one supervisor, one field editor, four female interviewers, two male interviewers and four biometric nurses. One senior NDHS staff who was designated as DHS manager also acted as field coordinator. Data collection started on 13 August 2007 and was completed on 5 October 2007.

It was agreed that the main enumeration would be conducted at Nauru General Hospital (central location) mainly due to the survey's objective and confidentiality issues. Senior NDHS staff made periodic visits to field teams to monitor the quality of data collection. Problems during data collection included unreliable rental vehicles for respondent pickup, prolonged processing of funds from the Treasury (which sometimes delayed reimbursement of expenses), and rescheduling of respondent appointments to the central location.

### 1.9 DATA PROCESSING

Completed questionnaires were returned periodically from the field to the central office. Data processing began on 27 August 2007 and was completed in the first week of December 2007. Data processing staff consisted of one supervisor from BOS, one questionnaire
administrator/coding clerk, and three data entry operators. Data were entered using CSPro ${ }^{4}$ software. All data were entered twice (i.e. 100 percent verification). The concurrent processing of the data was a distinct advantage for data quality, since NDHS staff were able to advise field teams of errors detected during data entry.

Upon completion of the data entry, final editing was undertaken in the second week of December 2007. Once the sampling weights became available, these were incorporated into the household and individual records and preliminary tables were generated.

### 1.10 RESPONSE RATES

Table 1.2 shows response rates for the 2007 NDHS. In total, 400 households were selected in the sample, of which 392 were found to be occupied at the time of the fieldwork. Of the existing households, 389 were successfully interviewed, yielding a household response rate of 99 percent.

In the households interviewed during the survey, 655 eligible women (aged 15-49) were identified, of whom 618 were successfully interviewed, yielding a response rate of 94 percent. With regard to the men's survey results, 392 eligible men (aged 15 and over) were identified, of whom 354 were successfully interviewed, yielding a response rate of 90 percent. The lower response rate for men reflects the relatively high refusal of men to answer questions, and their absences during contact times. Because household surveys were conducted during normal weekday working hours, men (who were in most instances the breadwinners) were not present. Workers in households were in some instances unable to attend their interview appointments, as some employers refused to grant leave to their respective employees. A letter explaining the survey and selection of individuals was provided on request by the survey agency, which included a supporting medical certificate from the public health hospital for this purpose.

In total, 972 individuals (or cases of eligible females and males) were successfully interviewed for the 2007 NDHS.

Table 1.2: Results of the household and individual interviews
Number of households, number of interviews, and response rates, according to residence (unweighted), Nauru 2007

| Result | Total |
| :--- | :---: |
| Household interviews |  |
| Households selected | 400 |
| Households occupied | 392 |
| Households interviewed | 389 |
| Household response rate ${ }^{1}$ | $99.2 \%$ |
| Interviews with women aged 15-49 |  |
| $\quad$ Number of eligible women | 655 |
| $\quad$ Number of eligible women interviewed | 618 |
| Eligible women response rate ${ }^{2}$ | $94.4 \%$ |
| Interviews with men aged 15+ |  |
| Number of eligible men | 392 |
| Number of eligible men interviewed | 354 |
| Eligible men response rate² |  |
| ${ }^{1}$ Households interviewed/households occupied. | $90.3 \%$ |
| ${ }^{2}$ Respondents interviewed/eligible respondents. |  |

[^2]
## CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

This chapter focuses on the characteristics of the household population and the housing situation of survey respondents, and includes characteristics such as age-sex structure, literacy and education, household arrangements (headship, size) and housing facilities (e.g. sources of water supply, sanitation facilities, dwelling characteristics and household possessions). Because there is no discernable distinction in Nauru between urban and rural settings, all corresponding data and analysis within this chapter refer to an urban setting.

Besides providing a background for better understanding of many social and demographic phenomena discussed in the following chapters, this general description is useful for assessing the level of economic and social development of Nauru's population.

### 2.1 HOUSEHOLD POPULATION BY AGE AND SEX

The 2007 NDHS included a household questionnaire that gathered information on the socioeconomic characteristics of usual residents and visitors who had spent the previous night in the selected households. Table 2.1 shows the reported distribution by proportions of the de facto household population in five-year age groups and by sex. Data show that there are slightly more women $(1,181)$ than men $(1,168)$ in Nauru; or represented in percentages, women represented 51 percent of the population and men 49 percent. The only noticeable case was the $20-24$ age group, where the population of women was three percentage points higher than for men, suggesting a sex ratio of 130 females for every 100 males. The table further depicts Nauru's population as a young population, with a large proportion of the population being in the younger age groups. The population under age 15 years accounted for 39 percent of the total population, while the population aged 60 and over was very small at 1.8 percent.

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, Nauru 2007.

|  | Age | Males | Females |
| :--- | :---: | :---: | :---: |
| Total |  |  |  |
| $\mathbf{5}$ | 12.7 | 14.1 | 13.4 |
| $5-9$ | 12.9 | 12.3 | 12.6 |
| $10-14$ | 13.6 | 12.3 | 12.9 |
| $15-19$ | 10.2 | 9.9 | 10.1 |
| $20-24$ | 9.7 | 12.6 | 11.1 |
| $25-29$ | 9.1 | 8.1 | 8.6 |
| $30-34$ | 7.3 | 7.4 | 7.4 |
| $35-39$ | 6.2 | 5.1 | 5.7 |
| $40-44$ | 5.7 | 4.8 | 5.3 |
| $45-49$ | 4.0 | 5.7 | 4.9 |
| $50-54$ | 4.0 | 3.9 | 4.0 |
| $55-59$ | 2.4 | 1.8 | 2.1 |
| $60-64$ | 0.6 | 0.6 | 0.6 |
| $65-69$ | 0.4 | 0.3 | 0.3 |
| $70-74$ | 0.3 | 0.6 | 0.5 |
| $75-79$ | 0.3 | 0.3 | 0.3 |
| $80+$ | 0.1 | 0.1 | 0.1 |
| Don't know/missing | 0.4 | 0.2 | 0.3 |
| Total | 100.0 | 100.0 | 100.0 |
| Number | 1,168 | 1,181 | 2,349 |

Table 2.1 shows the percentage distribution of the de facto household population by five-year age groups and by sex. In total, 2,349 people were sampled from the total population of Nauru's 12 districts. A thirteenth enumeration area, known as the 'Location', was included due to its density. In this sample of 2,349 people, there were 1,181 females and 1,168 males. More than onehalf ( 54 percent, of women fell within the child-bearing ages of 15-49 years, 13 percent were less than 5 years, while 8 percent were aged 50 and over. The smaller proportion of women aged 15-19 (as compared to those aged 10-14) may have been a result of interviewers intentionally placing women from the 15-19 age group into the 10-14 age group in order to avoid having to conduct interviews. This same pattern was not as evident in the male population.

About 13 percent of the male population is aged 5 years and younger, and 39 percent of the male population is aged 15 and younger. Males younger than 15 years were not interviewed in the 2007 NDHS. The remaining male population aged 15 and over ( 61 percent) were prospective candidates eligible to be interviewed for the relevant sections of the 2007 NDHS.

The population of women in the $20-24$ age group was proportionately larger than the population of women in the 15-19 and 25-29 age groups, which can be attributed to misreporting of ages from both respondents and interviewers, or could be a result of a sample selection. Differences in proportions are clearly illustrated in Figure 2.1.
Nauru is depicted as having a young population: 49 percent of its population is younger than 20 years. Figure 2.1 shows that the older age groups make up a small proportion of the population ( 1.8 percent. The dependency ratio is 69.5 , which suggests that the bulk of the population is between 15 and 59 years. The population pyramid in Figure 2.1 reflects a broad population-base pattern that is characteristic of a rapidly growing population. The impact of this population structure will likely be felt in the future when eventually the young population reaches reproductive ages.

Figure 2.1 Percentage distribution of de facto household population by age and sex, Nauru 2007


### 2.2 HOUSEHOLD COMPOSITION

Table 2.2 shows the percentage of households by sex of household heads and household size; mean household size, and the percentage of households with orphans and foster children under age 18 according to residence. Of the 389 households interviewed, two-thirds, or 69 percent, were headed by men. The remaining 31 percent were households headed by women. About 35 percent
of the total number of households having reported foster and/or orphan children living within them, and 29 percent of households reported cases of fostering children.

About 39 percent of households had between 1 and 4 usual members per household, 41 percent had between 5 and 8 members, and approximately one-fifth of households were found to have 9 or more usual household members, yielding a mean (average) household size of 6.1 members.

### 2.3 FOSTERHOOD AND ORPHANHOOD

The high number of households fostering children depended on the phrasing of the question. By the local definition, fostering can be interpreted to mean temporary babysitting and/or caring for a child other than one's own child, which most often involves relatives and close family members. It is highly worth considering that the possibility of respondents misinterpreting this question has occurred, which would account for the high proportions within the categories 'fosterhood' and 'orphanhood'. Table 2.2 shows that more than one-third ( 34.5 percent) of households are either fostering or are guardians of orphans, whether permanent or temporary. About 29 percent of households were fostering children less than 18 years of age. Only 2.5 percent of households reported having two orphans, with just under one-tenth (9.9 percent) reporting having a single orphan.
Overall, a majority ( 65 percent) of children under age 18 are living with both parents (Table 2.3.1). An average of only 1 percent reported being orphaned with both parents dead. Approximately 13 percent of all children under age 18 reported that both parents were alive. An average of 15 percent were living with only their mothers. A higher proportion (11 percent) reported that their fathers were alive but were not living in the household, and about 4 percent reported that their fathers were dead. About 16 percent of children under age 18 reported not living with a biological parent and 8 percent of them had one or both parents dead.

## Table 2.2: Household composition

Percentage of households by sex of household head and by household size; mean size of household, and percentage of households with orphans and foster children under age 18, according to residence, Nauru 2007

| Characteristic | Total |
| :--- | :---: |
| Household headed by |  |
| Male | 69.4 |
| Female | 30.6 |
| Total | 100.0 |
| Number of usual members |  |
| 1 | 7.9 |
| 2 | 5.1 |
| 3 | 11.1 |
| 4 | 14.6 |
| 5 | 13.7 |
| 6 | 9.4 |
| 7 | 11.5 |
| 8 | 6.2 |
| $9+$ | 20.6 |
| Total | 100.0 |
| Mean household size | 6.1 |
| Percentage of households with orphans and foster children under 18 |  |
| Foster children ${ }^{1}$ | 29.2 |
| Double orphans | 2.5 |
| Single orphans | 9.9 |
| Foster and/or orphan children | 34.5 |
| Number of households | 389 |

Note: Table is based on de jure household members (i.e. usual residents).
${ }^{1}$ Foster children are those under age 18 living in households with neither their mother nor their father present
Table 2.3.1: Children's living arrangements and orphanhood
Percent distribution of de jure children under age 18 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, Nauru 2007

| Background characteristic | Living with both parents | $\qquad$ |  | Living with father but not with mother |  | Not living with either parent |  |  |  |  |  | Percentage not living with a biolo- gical parent | Percentage with one or both parents dead | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Father alive | Father dead | Mother alive | Mother dead | Both alive | Only father alive | Only mother alive | Both dead | Missing information on father/ mother | Total |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-4 | 70.2 | 11.5 | 2.7 | 1.1 | 0.0 | 11.9 | 0.0 | 0.6 | 1.1 | 1.0 | 100.0 | 13.5 | 4.4 | 319 |
| .. $<2$ | 68.9 | 12.7 | 4.4 | 0.0 | 0.0 | 11.8 | 0.0 | 0.0 | 0.0 | 2.2 | 100.0 | 11.8 | 4.4 | 124 |
| ..2-4 | 71.0 | 10.8 | 1.7 | 1.8 | 0.0 | 11.9 | 0.0 | 0.9 | 1.7 | 0.2 | 100.0 | 14.5 | 4.3 | 194 |
| 5-9 | 69.5 | 10.2 | 2.4 | 1.9 | 0.9 | 11.8 | 0.6 | 0.2 | 1.2 | 1.1 | 100.0 | 13.9 | 5.4 | 301 |
| 10-14 | 60.6 | 11.8 | 4.9 | 2.5 | 1.2 | 12.1 | 2.2 | 2.5 | 1.2 | 0.9 | 100.0 | 18.0 | 12.1 | 304 |
| 15-17 | 51.4 | 8.8 | 8.0 | 4.3 | 0.0 | 17.7 | 0.7 | 2.2 | 0.7 | 6.2 | 100.0 | 21.3 | 11.6 | 129 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Males | 64.9 | 10.3 | 4.9 | 2.9 | 0.2 | 12.3 | 1.2 | 0.6 | 0.5 | 2.2 | 100.0 | 14.6 | 7.4 | 526 |
| Females | 65.0 | 11.4 | 2.9 | 1.4 | 1.0 | 12.9 | 0.7 | 1.8 | 1.7 | 1.1 | 100.0 | 17.2 | 8.1 | 527 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 57.6 | 16.0 | 9.8 | 1.1 | 0.9 | 11.1 | 0.6 | 0.9 | 0.8 | 1.1 | 100.0 | 13.5 | 13.1 | 205 |
| Second | 69.6 | 8.3 | 2.3 | 0.5 | 0.7 | 15.1 | 1.2 | 0.8 | 0.5 | 1.1 | 100.0 | 17.5 | 5.4 | 211 |
| Middle | 64.0 | 15.5 | 1.4 | 3.0 | 0.0 | 12.3 | 0.8 | 1.5 | 0.0 | 1.4 | 100.0 | 14.7 | 3.8 | 230 |
| Fourth | 64.2 | 7.9 | 1.3 | 3.6 | 1.5 | 12.8 | 0.0 | 2.0 | 2.6 | 4.1 | 100.0 | 17.5 | 7.4 | 208 |
| Highest | 69.4 | 6.1 | 5.3 | 2.5 | 0.0 | 11.8 | 2.0 | 0.9 | 1.8 | 0.4 | 100.0 | 16.3 | 9.9 | 199 |
| Total <15 | 66.8 | 11.2 | 3.4 | 1.8 | 0.7 | 11.9 | 0.9 | 1.1 | 1.2 | 1.0 | 100.0 | 15.1 | 7.2 | 924 |
| Total <18 | 64.9 | 10.9 | 3.9 | 2.1 | 0.6 | 12.6 | 0.9 | 1.2 | 1.1 | 1.6 | 100.0 | 15.9 | 7.8 | 1,053 |

Note: Table is based on de jure members (i.e. usual residents).

One-quarter of children in the lowest wealth quintile were living in households without their father; this figure includes the 9.8 percent of children in this quintile whose fathers were dead. There were more younger children at age $0-4$ reporting their father alive but were living with their mother only. Female children were more likely to live with their mother only as compared to male children ( 11.4 percent and 10.3 percent). Data also show that there was small proportion of children living with the father alone. However the same proportion of children by different age (less than 20 percent) were reported not living with their parent even though both parent were alive.

### 2.4 EDUCATIONAL LEVEL OF HOUSEHOLD POPULATION

Education affects many aspects of life, including individual demographic and health behaviour. Studies have shown that educational attainment level is strongly associated with contraceptive use, fertility, and the general health status, morbidity and mortality of children. In each household, for all members aged 5 or older, data were collected on the highest level of education attended and the highest grade completed at that level.

### 2.4.1 Educational attainment of the female household population

In Table 2.4.1, the percentage age distribution of females by educational attainment and median years of completion is tabulated. The data show that the majority of Nauruan females had attended but did not complete school. For example, only about 7 percent of females aged 6 and over had no education while only 4 percent had completed primary education. Interestingly, older people between the ages of 20 and $65+$ were more likely to attain some secondary level of education.

Table 2.4.1: Educational attainment of the female household population
Percent distribution of de facto female household population age six and over by highest level of schooling attended or completed, and median grade completed, according to background characteristics, Nauru 2007

| Background characteristic | No education | Some primary | Completed primary ${ }^{1}$ | Some secondary | Completed secondary ${ }^{2}$ | More than secondary |  | Total | Number | Median years completed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |  |  |
| 6-9 | 44.2 | 54.6 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 100.0 | 118 | 0.0 |
| 10-14 | 3.6 | 46.9 | 21.3 | 25.9 | 0.0 | 0.0 | 2.3 | 100.0 | 145 | 4.9 |
| 15-19 | 0.5 | 3.2 | 5.2 | 74.1 | 14.7 | 1.1 | 1.2 | 100.0 | 117 | 8.7 |
| 20-24 | 1.5 | 1.4 | 1.4 | 74.1 | 15.3 | 5.1 | 1.1 | 100.0 | 148 | 9.4 |
| 25-29 | 0.5 | 1.8 | 0.0 | 68.5 | 22.6 | 6.6 | 0.0 | 100.0 | 95 | 9.9 |
| 30-34 | 0.0 | 1.9 | 0.0 | 73.6 | 19.5 | 5.0 | 0.0 | 100.0 | 87 | 9.5 |
| 35-39 | 0.0 | 0.8 | 0.0 | 76.1 | 19.5 | 2.9 | 0.6 | 100.0 | 60 | 9.7 |
| 40-44 | 1.7 | 0.7 | 1.7 | 48.5 | 46.7 | 0.8 | 0.0 | 100.0 | 57 | 10.0 |
| 45-49 | 0.0 | 0.0 | 0.0 | 58.2 | 28.1 | 7.7 | 6.1 | 100.0 | 68 | 10.1 |
| 50-54 | 0.0 | 0.0 | 1.0 | 71.3 | 16.5 | 5.2 | 6.1 | 100.0 | 46 | 9.6 |
| 55-59 | 0.0 | 0.0 | 4.8 | 74.0 | 7.3 | 6.1 | 7.8 | 100.0 | 21 | 9.5 |
| 60-64 | 0.0 | 0.0 | 0.0 | 53.3 | 11.3 | 35.5 | 0.0 | 100.0 | 7 | 11.5 |
| 65+ | 14.9 | 0.0 | 0.0 | 44.4 | 0.0 | 18.8 | 21.9 | 100.0 | 16 | 9.3 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 7.4 | 13.8 | 4.2 | 55.8 | 9.7 | 4.7 | 4.4 | 100.0 | 205 | 8.6 |
| Second | 5.4 | 16.3 | 3.5 | 56.5 | 13.9 | 1.8 | 2.6 | 100.0 | 191 | 9.1 |
| Middle | 5.6 | 19.2 | 4.6 | 54.9 | 13.1 | 2.1 | 0.6 | 100.0 | 220 | 8.6 |
| Fourth | 10.1 | 9.1 | 4.7 | 51.6 | 19.8 | 2.6 | 2.0 | 100.0 | 189 | 9.0 |
| Highest | 4.0 | 12.8 | 4.0 | 52.6 | 18.0 | 7.3 | 1.3 | 100.0 | 183 | 9.4 |
| Total | 6.5 | 14.4 | 4.2 | 54.3 | 14.7 | 3.6 | 2.2 | 100.0 | 987 | 9.0 |

[^3]When comparing the wealth status and educational attainment of female household members, females in the lowest wealth quintile ( 7.4 percent) were the most likely to have no formal education compared with females in the highest quintile ( 4.0 percent). Similarly, when comparing the completed secondary education results, people in the lowest quintile ( 9.7 percent) face difficulties in completing a secondary level education compared with people in the highest quintile ( 18.0 percent). Generally speaking, women in the poorest wealth quintile tend to have no education or are struggling to complete a secondary education, compared with women in the highest quintile.

### 2.4.2 Education attainment of the male household population

In Table 2.4.2, the percentage distribution of males by educational attainment and median years of completion is tabulated. The results show a similar pattern to that of females; that is, the majority of males had attended but did not complete school. The highest proportion of males in the 'No education' category indicates were those in the 10-14 (6.2 percent) and 15-19 (3.9 percent) age groups. These figures are quite high considering the fact that in Nauru, school is compulsory for everyone aged $6-16$, and that education is free. Based on the remaining outcomes, there is no variation in the variables by other background characteristics.

Table 2.4.2: Educational attainment of male household population
Percent distribution of the de facto male household populations aged six and over by highest level of schooling attended or completed and median grade completed, according to background characteristics, Nauru 2007

| Background characteristic | No education | Some primary | Complete d primary ${ }^{1}$ | Some secondary | Completed secondary ${ }^{2}$ | More than secondary | Don't know/ missing | Total | Number | Median years completed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |  |  |
| 6-9 | 43.8 | 55.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 100.0 | 117 | 0.2 |
| 10-14 | 6.2 | 51.4 | 18.4 | 21.2 | 0.0 | 0.0 | 2.8 | 100.0 | 159 | 4.5 |
| 15-19 | 3.9 | 5.7 | 3.7 | 74.3 | 11.8 | 0.0 | 0.6 | 100.0 | 120 | 8.4 |
| 20-24 | 1.6 | 2.3 | 7.6 | 69.3 | 15.0 | 1.6 | 2.6 | 100.0 | 113 | 9.2 |
| 25-29 | 0.9 | 6.6 | 4.1 | 67.2 | 11.6 | 3.7 | 5.8 | 100.0 | 107 | 8.8 |
| 30-34 | 1.9 | 0.0 | 3.0 | 65.2 | 19.6 | 6.9 | 3.4 | 100.0 | 86 | 9.6 |
| 35-39 | 0.0 | 1.4 | 4.7 | 74.5 | 14.7 | 4.8 | 0.0 | 100.0 | 73 | 9.5 |
| 40-44 | 0.0 | 0.9 | 1.4 | 63.4 | 16.6 | 6.7 | 10.9 | 100.0 | 67 | 9.6 |
| 45-49 | 0.0 | 1.7 | 2.2 | 54.2 | 31.1 | 7.9 | 2.9 | 100.0 | 46 | 10.1 |
| 50-54 | 0.0 | 2.1 | 2.0 | 61.2 | 16.4 | 7.8 | 10.5 | 100.0 | 47 | 9.6 |
| 55-59 | 0.0 | 3.6 | 0.0 | 64.1 | 3.6 | 14.3 | 14.3 | 100.0 | 28 | 9.5 |
| 60-64 | 0.0 | 23.6 | 0.0 | 42.1 | 0.0 | 0.0 | 34.3 | 100.0 | 7 | 9.2 |
| $65+$ | 0.0 | 0.0 | 15.6 | 63.6 | 0.0 | 7.6 | 13.3 | 100.0 | 13 | 9.8 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 7.7 | 16.1 | 8.9 | 46.6 | 10.2 | 2.3 | 8.2 | 100.0 | 193 | 7.6 |
| Second | 9.3 | 19.5 | 4.6 | 53.9 | 7.9 | 2.5 | 2.4 | 100.0 | 191 | 7.5 |
| Middle | 7.4 | 18.1 | 6.3 | 55.4 | 7.0 | 2.8 | 3.0 | 100.0 | 188 | 8.5 |
| Fourth | 6.1 | 16.7 | 4.3 | 52.0 | 12.4 | 3.9 | 4.5 | 100.0 | 204 | 8.6 |
| Highest | 5.4 | 15.7 | 5.2 | 50.7 | 15.2 | 4.5 | 3.2 | 100.0 | 209 | 9.0 |
| Total | 7.1 | 17.2 | 5.8 | 51.7 | 10.7 | 3.2 | 4.3 | 100.0 | 986 | 8.3 |

[^4]When comparing the wealth status of men, poor males in the lowest wealth quintile are most likely to have no education ( 7.7 percent) or will struggle to complete a secondary education ( 10.2 percent), compared with males in the highest wealth quintile, where 5.4 percent have no education and 15.2 percent struggle to complete a secondary education. Correspondingly, the likelihood of reaching 'more than secondary level of education' is much greater among the wealthiest Nauruans than those from poorer households.

### 2.4.3 Primary school attendance ratio

Nauru uses a 3-6-4 formal education system: three years of pre-school, six years of primary and four years of secondary. The official age ranges for these levels are 4-6 years, 7-12 years and 13-16 years, respectively.

The net attendance ratio (NAR) for the primary level is the percentage of primary school-age children (ages 6-12) attending primary school. Overall, the primary school NAR is 88 percent in Nauru (see Table 2.5).

There is very little variation in the NAR by wealth quintiles. The NAR is lowest among schoolage children in the lowest wealth quintile households ( 82 percent) and highest for children in the fourth wealth quintile ( 94 percent). The NAR for children in all other wealth quintiles ranges between 84 percent and 90 percent. Even though primary education is free, not all children from the different wealth categories attend primary education. Most of the children not attending primary education are found in the lower wealth quintiles.

The gross attendance ratio (GAR) measures attendance irrespective of the official age at each level. The GAR for primary school is the total number of primary school-age students (ages 5-24), expressed as a percentage of the official primary school-age population (ages 6-12). A major contributing factor to high GAR is children starting primary school later than the recommended age of 6 years. Overall, the primary school GAR is 99 percent, with the highest GAR in the fourth wealth quintile ( 109 percent), which is followed by 101 percent in the highest quintile. However, when comparing GAR by sex for primary and secondary level, the proportion of female students to male students is greater.

The gender parity index (GPI) is a measure of the ratio of females to males attending school, regardless of age. For primary school, the GPI is 1.14 , indicating that female students outnumber male students (i.e. for every 100 males there are 114 females). There is not much variation in the GPI for the primary school GAR by background characteristics; however, the ratios that are below the national average are in the second and fourth wealth quintiles with ratios of 1.08 in both wealth quintiles.

### 2.4.4 Secondary school attendance ratio

The concept of NAR at the secondary level is similar to that at the primary level; that is, the percentage of secondary school-age children (13-18 years) attending secondary school. Overall, only 60 out of 100 secondary school-age children in Nauru attend secondary school. The secondary NAR for males is 52 percent and is 69 percent for females.

The secondary school NAR increases with wealth from about 42 percent in the lowest wealth quintile to 68 percent in the wealthiest quintile, with the two lowest wealth quintiles falling below the national average of 60 percent. The secondary school GAR is 65 for the nation as a whole, and similar patterns are seen at the primary level where females outnumber males 72 to 58 . Similar to the NAR, the secondary GAR increases as wealth increases: GAR is 44 percent among youth in the poorest households and 74 percent among youth in the wealthiest households.

Table 2.5: School attendance ratios
Net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population by sex and level of schooling; and the gender parity index (GPI), according to background characteristics, Nauru 2007

| Background characteristic | Net attendance ratio ${ }^{1}$ |  |  |  | Gross attendance ratio ${ }^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Total | GPI ${ }^{3}$ | Males | Females | Total | GPI ${ }^{3}$ |
| Primary School |  |  |  |  |  |  |  |  |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 66.0 | 96.8 | 82.2 | 1.47 | 85.9 | 100.8 | 93.8 | 1.17 |
| Second | 84.7 | 84.8 | 84.8 | 1.00 | 90.8 | 97.9 | 93.9 | 1.08 |
| Middle | 84.0 | 95.4 | 89.9 | 1.14 | 86.3 | 110.3 | 98.6 | 1.28 |
| Fourth | 95.2 | 92.4 | 94.2 | 0.97 | 105.7 | 114.4 | 108.8 | 1.08 |
| Highest | 83.7 | 97.8 | 90.4 | 1.17 | 94.1 | 107.9 | 100.6 | 1.15 |
| Total | 83.3 | 93.5 | 88.1 | 1.12 | 92.5 | 105.8 | 98.7 | 1.14 |
| Secondary School |  |  |  |  |  |  |  |  |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 25.3 | 60.5 | 41.8 | 2.39 | 28.1 | 62.2 | 44.0 | 2.21 |
| Second | 41.9 | 63.7 | 51.8 | 1.52 | 49.3 | 68.9 | 58.2 | 1.40 |
| Middle | 52.1 | 71.5 | 64.2 | 1.37 | 66.2 | 74.3 | 71.2 | 1.12 |
| Fourth | 69.4 | 76.7 | 73.0 | 1.10 | 69.4 | 79.6 | 74.5 | 1.15 |
| Highest | 68.9 | 67.0 | 68.1 | 0.97 | 76.6 | 69.7 | 73.8 | 0.91 |
| Total | 52.1 | 68.6 | 60.2 | 1.32 | 58.0 | 71.5 | 64.6 | 1.23 |

${ }^{1}$ The NAR for primary school is the percentage of primary school-age children (aged 7-12 years) attending primary school. The NAR for secondary school is the percentage of secondary school-age children (13-17 years) that is attending secondary school. By definition, NAR cannot exceed 100 percent.
${ }^{2}$ The GAR for primary school is the total number of primary school-age children, expressed as a percentage of the official primary school-age population. The GAR for secondary school is the total number of secondary school-age children, expressed as a percentage of the official secondary school-age population. If there are significant numbers of over-age and under-age students at a given level of schooling, the GAR can exceed 100 percent.
${ }^{3}$ The GPI for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The GPI for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

The GPI for the secondary school GAR is 1.23 , indicating that, among students of all ages, for every 10 male students in secondary school there are approximately $20-21$ female students. This ratio is higher than the GPI for the primary school GAR, and varies by background characteristics. Male students are outnumbered by female students in all levels of the wealth quintiles except for the highest. The GPI for the secondary school GAR is especially low in the highest wealth quintile households, indicating a slight gender inequality gap in favor of males.

Figure 2.2: Age-specific attendance rates for the de facto population $\mathbf{5 - 2 4}$ years


### 2.4.5 Age-specific attendance rates

Figure 2.2 presents information on school attendance among youth aged 5-24, by age. The figure includes students who attended primary school, secondary school, or a higher education level during the 2007 school year.

By age 7, the vast majority of children in Nauru attend school (over 75 percent). Rates of attendance range from $75-100$ percent among males and females aged $7-13$, which peak at age 8 for both sexes. Starting at age 9 , attendance rates decline slightly for male children, with female attendance rates declining dramatically at ages 15 and 16 . By ages $20-24$, attendance rates are very low (i.e. below 10 percent), indicating very low attendance at the tertiary and vocational level.

Figure 2.2 also shows a small variance for students aged 5 years due to the small sample size. It should be noted that the small sample has limited the analysis by background characteristics; therefore, the observed rate misrepresents the whole population. However, when considering children aged 6 against background characteristics, the results indicate that around 60percent of all children in this age group do not attend school, even though primary schooling in Nauru is free.

### 2.5 HOUSING CHARACTERISTICS

Increased access to safe drinking water results in improved health outcomes in the form of reduced cases of water-borne diseases such as dysentery and cholera. Information was collected in the 2007 NDHS about certain characteristics of household drinking water, including source of drinking water, time taken to collect water, people who usually collect the water, water treatment prior to drinking, and type of sanitation facility.
Table 2.6 shows that 89 percent of households use improved water sources, and that 89 percent of households rely on rainwater as their primary source of drinking water. With regards to the amount of time taken to collect water, 97 percent of households collect their water on their premises.

Water from an improved source can be contaminated at collection, during transportation, and during storage. Information was collected on whether or not water was treated prior to drinking. The majority of households ( 76 percent) use an appropriate treatment method - such as boiling, bleaching or filtering - on their drinking water, while 23 percent use no treatment. The most commonly reported method of treatment is boiling. Seven in ten households ( 70 percent) boiled water prior to drinking.

## Table 2.6: Household drinking water

Percent distribution of households and de jure population by source, time to collect water, and person who usually collects drinking water; and percentage of households and the de jure by treatment of drinking water, according to residence, Nauru 2007

|  | \# households | Population |
| :---: | :---: | :---: |
| Characteristic | Total | Total |
| Source of drinking water |  |  |
| Improved source | 88.6 | 90.1 |
| Rainwater | 88.6 | 90.1 |
| Non-improved source | 9.2 | 8.3 |
| Unprotected dug well | 0.4 | 0.1 |
| Tanker truck/cart with small tank | 8.8 | 8.2 |
| Other | 2.2 | 1.6 |
| Total | 100 | 100 |
| Percentage using any improved source of drinking water | 88.6 | 90.1 |
| Time to obtain drinking water (round trip) |  |  |
| Water on premises | 97.2 | 97.9 |
| Less than 30 minutes | 0.4 | 0.6 |
| 30 minutes or longer | 0.7 | 0.1 |
| Don't know/missing | 1.7 | 1.5 |
| Total | 100 | 100 |
| Person who usually collects drinking water |  |  |
| Adult females 15+ | 1 | 0.8 |
| Adult males 15+ | 0.7 | 0.5 |
| Other | 0.5 | 0.3 |
| Water on premises | 97.2 | 97.9 |
| Missing | 0.5 | 0.5 |
| Total | 100 | 100 |
| Water treatment prior to drinking ${ }^{1}$ |  |  |
| Boiled | 70.1 | 68.2 |
| Bleach/chlorine | 2.7 | 3.5 |
| Strained through cloth, | 15.8 | 18 |
| ceramic, sand or other filter | 0.2 | 0.1 |
| Other | 0.7 | 0.7 |
| No treatment | 22.8 | 24.3 |
| Percentage using an appropriate treatment method ${ }^{2}$ | 75.9 | 74.7 |
| Number | 389 | 2,360 |

${ }^{1}$ Respondents may report multiple treatment methods, so the sum of treatment may exceed 100 percent.
${ }^{2}$ Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

### 2.6 HOUSEHOLD SANITATION FACILITIES

Poor sanitation coupled with unsafe water sources increases the risk of water-borne diseases and illnesses due to poor hygiene. This has contributed immensely to Nauru's disease burden. Households without proper toilet facilities are more exposed to the risk of diseases such as dysentery, diarrhoea and typhoid fever than those with improved sanitation facilities. Table 2.7 shows that about seven in ten households ( 70 percent) use improved toilet or latrine facilities compared with about three in ten households ( 30 percent) that use non-improved toilet or latrine facilities. Households with improved toilet facilities that are flush/pour flush to piped sewer systems accounted for 28 percent, while those with flush/pour flush to septic tanks accounted for 32 percent. The 2007 NDHS results support what was found by the 2002 Nauru Population and Housing Census.

Table 2.7: Household sanitation facilities
Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Nauru 2007

| Type of toilet/latrine facility | \# households <br> Total | Population <br> Total |
| :---: | :---: | :---: |
| Improved, not shared facility |  |  |
| Flush/pour flush to piped sewer system | 27.6 | 24.1 |
| Flush/pour flush to septic tank | 32.4 | 35.2 |
| Flush/pour flush to pit latrine | 10.9 | 12.9 |
| Non-improved facility |  |  |
| Any facility shared with other households | 24.6 | 23.3 |
| Flush/pour flush not to sewer/septic tank/pit latrine | 0.4 | 0.7 |
| No facility/bush/field | 0.6 | 0.6 |
| Other | 2.4 | 2.2 |
| Missing | 1.2 | 1.1 |
| Total | 100.0 | 100.0 |
| Number | 389 | 2,360 |

### 2.7 HOUSEHOLD CHARACTERISTICS

Table 2.8 provides information relating to other dwelling characteristics, such as whether or not the household has electricity, the main construction materials used for the floor, the number of rooms used for sleeping, and information on type of power or fuel used for cooking and location of cooking.

Nearly 100 percent of households in Nauru have access to electricity, which is similar to what was found by the 2002 Population and Housing Census.

The type of material used for floors may be viewed as an indicator of the quality of housing (a wealth dimension) as well as an indicator of health risk. Some floor materials, such as earth and sand, pose a health problem since they can act as breeding grounds for pests and may be a source of dust. They are also more difficult to keep clean.

Overall, over eight out of every ten Nauruan households ( 82 percent) have floors made of vinylasphalt strips, ceramic tiles or cement, followed by parquet or polished wood (13 percent). Only 4 percent of households have wood or plank floors, while a very small proportion of households have palm ( 0.7 percent) or earth ( 0.2 percent) floors.

The number of rooms used for sleeping gives an indication of the extent of crowding in households. Crowding in one sleeping room increases the risks of infection by diseases. Overall, 16 percent of all households use only one room for sleeping. A higher percentage of households (64percent) in Nauru are more likely to use three or more rooms for sleeping.

Smoke from solid fuels 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 the risk of respiratory infections and other diseases. A majority of Nauruan households ( 87 percent) cook within the same house with while 9 percent cook outdoors, followed by 3 percent who use a separate building for cooking.

Cooking fuel affects air quality for household members. Clean fuel is not affordable in most cases, and most households resort to using solid fuels that emit considerable amounts of smoke. As a result, household members are likely to be exposed to air pollution. Reducing the proportion of the population relying on solid fuels is an MDG. In Nauru, 8 percent of households cook with solid fuels.

Table 2.8 shows that electricity is the main fuel source used for cooking in 84 percent of all households, while wood is used in 7 percent of households. LPG/natural gas/biogas is used by 4 percent of all households, while kerosene is used by 4 percent of all households. Chimneys help reduce the exposure of household members to smoke from cooking fires. Results show that 73 percent of households use open fires/stoves without chimneys for cooking, which wastes energy and exposes household members to harmful smoke.

Table 2.8: Household characteristics
Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel ${ }^{1}$ for cooking; and among those using solid fuels, percent distribution by type of fire/stove, according to residence, Nauru 2007

| Housing characteristic | \# households <br> Total | Population Total |
| :---: | :---: | :---: |
| Electricity |  |  |
| Yes | 99.8 | 99.9 |
| No | 0.2 | 0.1 |
| Total | 100.0 | 100.0 |
| Flooring material |  |  |
| Earth, sand | 0.2 | 0.4 |
| Wood/planks | 3.8 | 3.4 |
| Palm/bamboo | 0.7 | 0.5 |
| Parquet or polished wood | 13.2 | 13.8 |
| Vinyl or asphalt strips | 18.1 | 17.7 |
| Ceramic tiles | 17.4 | 16.9 |
| Cement | 46.4 | 47.1 |
| Other | 0.2 | 0.1 |
| Total | 100.0 | 100.0 |
| Rooms used for sleeping |  |  |
| One | 16.4 | 11.8 |
| Two | 18.7 | 15.6 |
| Three or more | 63.9 | 71.8 |
| Missing | 1.0 | 0.8 |
| Total | 100.0 | 100.0 |
| Place for cooking |  |  |
| In the house | 87.2 | 84.7 |
| In a separate building | 2.8 | 3.6 |
| Outdoors | 9.2 | 10.8 |
| Other | 0.5 | 0.8 |
| Missing | 0.4 | 0.2 |
| Total | 100.0 | 100.0 |
| Cooking fuel |  |  |
| Electricity | 84.0 | 81.8 |
| LPG/natural gas/biogas | 4.4 | 4.1 |
| Kerosene | 3.5 | 5.2 |
| Wood | 7.1 | 8.3 |
| No food cooked in household | 0.4 | 0.2 |
| Other | 0.6 | 0.5 |
| Total | 100.0 | 100.0 |
| Percentage using solid fuel ${ }^{1}$ for cooking | 7.1 | 8.3 |
| Number of households | 389 | 2,360 |

Table 2.8 (continued)

| Housing characteristic | \# households <br> Total | Population <br> Total |
| :--- | ---: | ---: |
| Type of fire/stove among households using solid fuel ${ }^{1}$ |  |  |
| Open fire/stove with hood | 7.7 | 3.0 |
| Open fire/stove without chimney or hood | 72.9 | 80.1 |
| Other | 3.5 | 1.9 |
| Missing | 15.9 | 14.9 |
| Total | 100.0 | 100.0 |
| Number of households/ population using solid fuel ${ }^{1}$ | 27 | 196 |
| LPG = liquid petroleum gas |  |  |
| ${ }^{1}$ Includes coal/lignite, charcoal, wood/straw/shrubs/grass, agricultural crops, and animal dung. |  |  |

### 2.8 HOUSEHOLD ASSETS

The 2007 NDHS also collected information on household ownership of selected assets that are believed to have a strong association with poverty levels. Some of these can be used to measure household welfare when combined with other indicators to generate a wealth index. Information was collected on household ownership of radios and televisions as a measure of access to mass media; telephones (both mobile and non-mobile) as an indicator of access to an efficient means of communication; refrigerators as an indication of the capacity for hygienic food storage; and means of transportation (bicycle, motorcycle, boat with or without a motor, or private car or truck) as a sign of the household's level of access to public services and markets as well as exposure to developments in other areas. In addition, ownership of agricultural land indicates the household's access to means of production. Ownership of farm animals such as local pigs or chickens indicates the level of assets that a household possesses, which could be used to meet household demands.

Table 2.9 shows that 39 percent of households in Nauru own a radio. Overall, 71 percent of households own television sets, while 3 percent of households own a non-mobile telephone, and 79 percent own a refrigerator. About 37 percent of households own a motorcycle, while 36 percent own cars or trucks.

Over a quarter of all households (29 percent) own agricultural land. Pigs and chickens were the most commonly owned types of livestock, each owned by 30 percent of all Nauruan households.

Table 2.9: Household durable goods
Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land and livestock/farm animals by residence, Nauru 2007

|  | \# households <br> Total | Population <br> Total |
| :--- | :---: | :---: |
| Possession |  |  |
| Rausehold effects | 38.5 | 39.6 |
| Television | 71.2 | 75.3 |
| Non-mobile telephone | 3.0 | 4.1 |
| Refrigerator | 79.1 | 80.9 |
| Electric generator | 14.3 | 16.3 |
| Washing machine | 43.0 | 43.9 |
| Computer | 17.5 | 21.3 |
| Water pump | 46.1 | 49.8 |
| Video or DVD player | 70.7 | 74.8 |
| CD/cassette player | 30.8 | 31.7 |
| Sewing machine | 16.8 | 18.6 |
| Fan | 96.1 | 97.2 |

Table 2.9 (continued)

|  | \# households <br> Total | Population <br> Total |
| :--- | :---: | :---: |
| Possession | 89.1 | 90.3 |
| Table | 82.8 | 83.0 |
| Chair | 81.8 | 83.7 |
| Clock | 82.9 | 82.3 |
| Bed |  |  |
| Means of transport | 31.9 | 35.5 |
| Bicycle | 36.6 | 43.7 |
| Motorcycle/scooter | 35.5 | 41.2 |
| Car/truck | 6.1 | 7.8 |
| Boat with a motor | 29.2 | 32.6 |
| Ownership of agricultural land | 30.6 | 38.0 |
| Ownership of farm animals ${ }^{1}$ | 389 | 2,360 |
| Number |  |  |

${ }^{1}$ Pigs, ducks or chicken

### 2.9 WEALTH QUINTILES

The 2007 NDHS did not collect information on household income or consumption. The wealth index is a proxy for the long-term standard of living of the household. Household assets covered in previous sections of this report were used to calculate the wealth index, which included items such refrigerators, televisions, and cars; dwelling characteristics such as floor material; type of drinking water source; toilet facilities; and others that relate to wealth status. All of the information gathered on household assets and dwelling characteristics was used to create the index that best represents the wealth status of the households interviewed.

To construct the wealth index, each household asset for which information was collected was assigned a weight or factor score generated through principal components analysis. The resulting asset scores were standardised in relation to a standard normal distribution with a mean of zero and a standard deviation of one.

Each household was assigned a standardised score for each asset, where the score differs depending on whether or not the household owned that asset (or, in the case of sleeping arrangements, the number of people per room). These scores were summed by household, and individuals were ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles (i.e. five groups with the same number of individuals in each). The 20 percent of the population with the lowest total asset scores become the individuals in the lowest wealth quintile, the next 20 percent become members of the second wealth quintile, and so forth. At the national level, approximately 20 percent of the household population is in each wealth quintile.

In other words, the wealth index measures the standard of living of a household relative to other households in Nauru. It indicates that an individual living in a household in the second wealth quintile has a better socioeconomic status than someone in the lowest wealth quintile and a worse socioeconomic status than someone in the middle wealth quintile.
In defining wealth quintiles, a single asset index is developed on the basis of data from the entire country sample and used in all tabulations presented. Separate asset indices are not prepared for rural and urban population groups on the basis of rural or urban data.

Wealth quintiles are expressed in terms of quintiles of individuals in the population, rather than quintiles of individuals at risk for any one health or population indicator. Thus, for example, the quintile rates for infant mortality refer to the infant mortality rates per 1,000 live births among all people in the population quintile concerned, as distinct from quintiles of live births or newly born infants, who constitute the only members of the population at risk of mortality during infancy.

The assets index has been found to be highly comparable to both poverty rates and GDP per capita for India, and against expenditure data from household surveys in Nepal, Pakistan and Indonesia (Filmer and Pritchett 1998) and Guatemala (Rutstein 1999).

Table 2.10 shows almost equal distribution of de jure population by level of wealth quintile. For example 20 percent of the population were living in the lowest wealth quintile as compared to 19.8 percent living in the highest wealth quintile.

Table 2.10: Wealth quintiles
Percent distribution of the de jure population by wealth quintiles, Nauru 2007

|  | Lowest | Second | Middle | Fourth | Highest | Total | Number of <br> population |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residence/region | 20.0 | 19.7 | 20.4 | 20.1 | 19.8 | 100.0 | 2,360 |

### 2.10 BIRTH REGISTRATION

The birth registration system in Nauru is considered to be good but needs considerable quality control checks to improve proper recording and maintenance. It is the first legal acknowledgment of a child's existence, and as such, the registration of births is fundamental to the realisation of a number of rights and practical needs, including but not limited to, provision of access to social services. However, the period between birth and registration can be as much as four years. This is due to the lack of incentive for parents to register their child, which is a direct result of seizures in the payment of social benefits such as child support allowances. Only when the child turns 4 years old, coinciding with their first year of school (kindergarten), are parents obliged to register their child's birth in order to access the educational services offered. In this sense, although registration is considered good, total registration can take time achieve. The other issue of concern is registration by ethnicity. Birth registration in a well established and functioning system ensures that the country has an up-to-date and reliable database for planning. This is as useful for national level planning and government bodies as it is for community groups that are responsible for maintaining education, health and other social services for the community and within.

Table 2.11: Birth registration of children under age 5
Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Nauru 2007

|  | Percentage of children whose births are registered |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Background characteristic | Had a birth <br> certificate | Did not have a <br> birth certificate | Total registered | Number of <br> children |
| Age | 14.3 | 63.4 | 77.7 | 124 |
| <2 | 8.4 | 77.3 | 85.7 | 194 |
| $2-4$ |  |  |  |  |
| Sex | 9.8 | 69.4 | 79.3 | 150 |
| Male | 11.5 | 74.1 | 85.5 | 169 |
| Female |  |  |  |  |
| Wealth quintile | 6.5 | 64.1 | 70.6 | 62 |
| Lowest | 15.6 | 67.1 | 82.7 | 67 |
| Second | 12.6 | 82.2 | 94.8 | 67 |
| Middle | 9.3 | 65.7 | 75.0 | 59 |
| Fourth | 8.9 | 79.3 | 88.2 | 64 |
| Highest | 10.7 | 71.9 | 82.6 | 319 |
| Total |  |  |  |  |

Table 2.11 shows that 83 percent of children in Nauru are registered. There is not much variation in birth registration among the household wealth quintiles, ranging from 70 percent in the lowest, to 95 percent in the middle quintile. Surprisingly, 72 percent reported having no birth certificates, imposing fees for the issuance of birth certificates may have played a similar role upon the obligations of parents. There were few differences between the sexes, only that female proportions were much greater than male in all three variables of registrations.

### 2.11 KEY RESULTS

The major findings identified in this chapter - based on the characteristics of the household population and housing of the survey respondents - include the following.

1. Results of the NDHS 2007 show that Nauru's population is made up of slightly more women than men, that is 50.3 percent are women and 49.7 percent are men. Regarding the total population distribution, an estimated of 38 percent are less than 14 years of age, and less than 1 percent are 70 years and older. This indicates a young population structure and a very low life expectancy.
2. Seven out of ten households in Nauru are headed by men, and one in five households have more than nine people who are usual members living in one household, indicating overcrowding in these households. The average household size is 6 .
3. About one in five children under the age of 18 are not living with a biological parent, 11 percent live with their mother only (even though the father is alive), and the parents of 8 percent of children under 18 years are dead.
4. The median number of years for completing an education in Nauru is slightly higher for females ( 9 years) than for males ( 8 years). Even though primary education is free in Nauru, only 4 percent of females and 6 percent of males completed a primary education level (6 years). Secondary education on the other hand, is achieved by 15 percent of all females and 11 percent of all males. The low number completing a secondary education can attributed to limited opportunities and costs of a secondary education.
5. The NAR for primary level education is the percentage of primary school-age children (ages $6-12)$ attending primary school. This measure also applies to secondary level education. The NAR is higher for primary ( 88 percent) than for secondary level ( 60 percent), implying there are less secondary-age children attending secondary education.
6. Age-specific attendance rates among youth aged 5-24 show that there is a high rate of attendance, ranging from 75-100 percent, among males and females aged 7-13. Starting at age 9 , attendance rates slightly decline for male children and dramatically decline for female children at age 15 years.
7. About 89 percent of households reported using an improved source of drinking water, while 9 percent used a non-improved source. One out of five households reported not applying any appropriate treatment method for their drinking water. One in every three households reported using a non-improved facility.
8. Almost all households ( 99.8 percent) had electricity, about half of all households had cement flooring ( 46 percent), 16percent had one room for sleeping, 3percent used a separate building for cooking, 7 percent used solid fuel for cooking, and 73 percent cooked on open fire or stove without a chimney.
9. Of the total households surveyed, only 38 percent had a radio, 37 percent owned a motorcycle and 29 percent owned agricultural land.
10. About the same proportion of the population ( 20 percent) is found to be living in each wealth quintile (i.e. from the lowest to the highest).
11. The majority of children ( 83 percent) under age 5 years are reported to be officially registered with the civil authorities as according to the NDHS 2007 results. Registration took place mostly when children were between 2 and 4 years of age ( 86 percent).

## CHAPTER 3 CHARACTERISTICS OF RESPONDENTS

This chapter describes the background characteristics of men and women of reproductive age (i.e. the age at the time of the survey, marital status, residence, education, literacy, and media access). This information - in addition to factors such as employment, occupation, earnings and continuity of employment, which affect the empowerment of women - help in understanding the context of the reproductive and health status of men and women. An analysis of these variables provides the socioeconomic context in which demographic and reproductive health issues are examined in later chapters.

### 3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

Table 3.1 presents the background characteristics of the 667 women and 653 men (aged 15-49) interviewed in the 2007 NDHS. The distribution of respondents according to age show that women outnumbered men in all age groups. There is a high peak in the number of women aged $20-24$, which is attributed to the intentional displacement of women in this age group by enumerators. As expected of Nauru's age structure, the proportion of respondents in each age group declines with increasing age for both sexes. More than half ( 56 percent) of the overall population was below the age of 30 ; the proportion below 30 by gender was basically equal. Women in the 15-19 and 45-49 age groups represented almost one-third ( 30 percent) of the female population. About 40 percent of women and 38 percent of men were aged 15-24, 29 percent of women and 34 percent of men were aged $25-34$, and the remaining respondents were aged 35-49.

Overall, almost half of all respondents ( 52.7 percent females, 48.7 percent males) were formally married. ${ }^{5}$ Male respondents were much more likely than female respondents to have never married ( 38.3 percent for males, 30.1 percent for females). Almost an equal proportion of males and females reported living together with a partner ( 9.8 percent females, 10.2 percent males). A higher proportion of females ( 6.4 percent) than males ( 2.8 percent) reported either being divorced, separated or widowed, showing women are less likely to remarry.
Table 3.1 shows that the proportion of women and men (weighted ${ }^{6}$ and unweighted ${ }^{7}$ ) with no education were equal, while women were more likely than men to acquire education beyond the primary level. The proportion of men ( 6.4 percent) with only a primary education was higher than that of women (1.9 percent). About 90 percent of women had some secondary education, compared with 87 percent of men, and 8 percent of women attained an education level higher than secondary, compared with 7 percent of men.

[^5]Table 3.1: Background characteristics of respondents
Percent distribution of women and men aged 15-49 by selected background characteristics, Nauru 2007

| Background characteristic | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Weighted percent | Weighted | Unweighted | Weighted percent | Weighted | Unweighted |
| Age |  |  |  |  |  |  |
| 15-19 | 18.9 | 117 | 118 | 19.2 | 60 | 61 |
| 20-24 | 21.1 | 131 | 138 | 18.4 | 57 | 60 |
| 25-29 | 15.6 | 96 | 94 | 18.1 | 56 | 56 |
| 30-34 | 13.8 | 85 | 87 | 15.6 | 48 | 48 |
| 35-39 | 9.9 | 61 | 58 | 12.5 | 39 | 39 |
| 40-44 | 10.0 | 62 | 58 | 8.8 | 27 | 25 |
| 45-49 | 10.7 | 66 | 65 | 7.5 | 23 | 25 |
| Marital status |  |  |  |  |  |  |
| Never married | 30.1 | 186 | 188 | 38.3 | 119 | 119 |
| Married | 52.7 | 325 | 321 | 48.7 | 151 | 149 |
| Living together | 9.8 | 60 | 64 | 10.2 | 32 | 36 |
| Divorced/separated | 4.7 | 29 | 29 | 1.7 | 5 | 6 |
| Widowed | 2.7 | 17 | 16 | 1.1 | 3 | 4 |
| Education |  |  |  |  |  |  |
| No education | 0.2 | 1 | 1 | 0.2 | 1 | 1 |
| Primary | 1.9 | 12 | 14 | 6.4 | 20 | 22 |
| Secondary | 89.8 | 555 | 551 | 86.6 | 270 | 269 |
| More than secondary | 8.2 | 50 | 52 | 6.8 | 21 | 22 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 20.6 | 127 | 113 | 14.5 | 45 | 39 |
| Second | 20.4 | 126 | 126 | 21.5 | 67 | 68 |
| Middle | 20.9 | 129 | 134 | 20.5 | 64 | 77 |
| Fourth | 18.8 | 116 | 123 | 20.5 | 64 | 62 |
| Highest | 19.3 | 119 | 122 | 23.0 | 72 | 68 |
| Religion |  |  |  |  |  |  |
| Nauru Congregational | 41.5 | 257 | 260 | 31.8 | 99 | 96 |
| Roman Catholic | 34.8 | 215 | 227 | 31.3 | 97 | 106 |
| Nauru Independence | 11.7 | 72 | 65 | 12.6 | 39 | 32 |
| Assembly of God | 8.5 | 53 | 45 | 0.0 | 0 | 0 |
| No Religion | 0.5 | 3 | 3 | 2.8 | 9 | 7 |
| Other | 2.8 | 17 | 17 | 21.6 | 67 | 73 |
| Ethnicity |  |  |  |  |  |  |
| Nauruan | 88.8 | 549 | 550 | 89.1 | 277 | 282 |
| Part Nauruan | 6.9 | 43 | 43 | 5.6 | 18 | 19 |
| Ikiribati | 1.9 | 12 | 12 | 2.3 | 7 | 5 |
| Tuvaluan | 0.5 | 3 | 4 | 1.4 | 4 | 4 |
| Other | 1.8 | 11 | 9 | 1.6 | 5 | 4 |
| Total 15-49 | 100.0 | 618 | 618 | 100.0 | 311 | 314 |
| 50+ | na | na | na | na | 43 | 40 |
| Total men 15+ | na | na | na | na | 354 | 354 |

[^6]The wealth quintiles show that females were almost evenly distributed across all quintiles, although the proportion decreased in the two upper quintiles. Males, however, show an opposite trend, with a higher proportion concentrated in the upper quintiles. The highest proportion of males is in the wealthiest quintile, and the lowest in the lowest quintile. Conversely, the lowest proportions of women are found in the upper (fourth and fifth) quintiles. Figure 3.1 shows that overall, women earn less than their male counterparts, as reflected by the higher proportions of women in the lower wealth quintiles, and lower proportions in the upper quintiles, as compared with men. The proportions in the middle (third) wealth quintile were almost even.

About 42 percent of Nauruan were from the Nauru Congregational church. The second common church was Roman Catholic. The population of Nauru was composed by 89 percent Nauruan, 7 percent part Nauruans, about 2 percent Ikiribati and others and the rest of about 1 percent were from Tuvalu.

Figure 3.1: Percent distribution of women and men aged 15-49 by wealth quintile, Nauru 2007


### 3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Tables 3.2.1 and 3.2.2 show the distribution of respondents aged 15-49 by gender and according to the highest level of schooling attended. Both tables show that young people were more likely to attend secondary school than older people, although there is also a higher tendency for them to drop out and not complete secondary school. Older people were more likely to attain 'more than secondary level education'. The percentage of both women and men lacking formal education is almost negligible, accounting for less than 2 percent of women (all aged 40-44) just 1.2 percent of men (aged 25-29). Most respondents had some secondary education ( 68 percent of women, less than 72 percent of men), but considerably fewer ( 22 percent of women, 15 percent of men) completed a secondary education. Understandably, people within the youngest age group (15-19) have not yet completed their secondary schooling. Generally, older people are more likely to be better educated and to reach a higher education level than are younger people, which will have a direct impact on future skill levels. The median years completed at school ranges from 9 to less than 11 years for the respective age groups for women, which is slightly higher than for men (between 8 and 10). Nauru's education policy does not favour women, but the figures suggest that women tend to stay in school longer than men, due to their social and economic circumstances.

Table 3.2.1: Educational attainment by women
Percent distribution of women aged 15-49 by highest level of schooling attended or completed, and median grade completed, according to background characteristics, Nauru 2007

| Background characteristic | Highest level of schooling |  |  |  |  |  | Total | Median years completed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No education | Some primary | Completed primary ${ }^{1}$ | Some secondary | Completed secondary ${ }^{2}$ | More than secondary |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-24 | 0.0 | 0.0 | 2.8 | 75.4 | 13.7 | 8.1 | 100.0 | 9.2 | 247 |
| 15-19 | 0.0 | 0.0 | 3.0 | 80.7 | 12.8 | 3.5 | 100.0 | 9.0 | 117 |
| 20-24 | 0.0 | 0.0 | 2.6 | 70.6 | 14.6 | 12.2 | 100.0 | 9.4 | 131 |
| 25-29 | 0.0 | 2.0 | 0.8 | 69.7 | 19.7 | 7.9 | 100.0 | 9.9 | 96 |
| 30-34 | 0.0 | 0.0 | 0.0 | 77.0 | 16.3 | 6.7 | 100.0 | 9.4 | 85 |
| 35-39 | 0.0 | 0.9 | 0.0 | 72.0 | 19.8 | 7.3 | 100.0 | 9.8 | 61 |
| 40-44 | 1.9 | 0.6 | 1.9 | 46.3 | 43.5 | 5.9 | 100.0 | 10.0 | 62 |
| 45-49 | 0.0 | 0.0 | 0.0 | 58.4 | 28.0 | 13.6 | 100.0 | 10.3 | 66 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 0.0 | 0.6 | 2.6 | 77.1 | 13.6 | 6.2 | 100.0 | 9.2 | 127 |
| Second | 0.0 | 1.6 | 0.9 | 70.3 | 19.0 | 8.2 | 100.0 | 9.6 | 126 |
| Middle | 0.9 | 0.0 | 1.2 | 72.5 | 18.9 | 6.5 | 100.0 | 9.5 | 129 |
| Fourth | 0.0 | 0.0 | 1.7 | 68.4 | 22.9 | 7.1 | 100.0 | 9.7 | 116 |
| Highest | 0.0 | 0.0 | 0.8 | 59.1 | 26.9 | 13.2 | 100.0 | 10.2 | 119 |
| Total | 0.2 | 0.5 | 1.4 | 69.6 | 20.1 | 8.2 | 100.0 | 9.6 | 618 |

${ }^{1}$ Completed six years at the primary level.
${ }^{2}$ Completed five years at the secondary level.

## Table 3.2.2: Educational attainment by men

Percent distribution of men aged 15-49 by highest level of schooling attended or completed, and median grade completed, according to background characteristics, Nauru 2007

| Background characteristic | Highest level of schooling |  |  |  |  |  | Total | Median years completed | Number of men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No education | Some <br> primary | Completed primary ${ }^{1}$ | Some secondary | Completed secondary ${ }^{2}$ | More than secondary |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-24 | 0.0 | 3.6 | 4.2 | 74.2 | 15.3 | 2.7 | 100.0 | 8.8 | 117 |
| 15-19 | 0.0 | 2.3 | 5.3 | 74.7 | 15.0 | 2.7 | 100.0 | 8.7 | 60 |
| 20-24 | 0.0 | 5.0 | 3.1 | 73.7 | 15.6 | 2.6 | 100.0 | 9.1 | 57 |
| 25-29 | 1.2 | 2.5 | 5.5 | 76.2 | 8.8 | 5.7 | 100.0 | 8.8 | 56 |
| 30-34 | (0.0) | (0.0) | (1.7) | (68.1) | (19.5) | (10.7) | 100.0 | 9.7 | 48 |
| 35-39 | (0.0) | (2.3) | (6.5) | (75.8) | (10.3) | (5.1) | 100.0 | 9.4 | 39 |
| 40-44 | (0.0) | (0.0) | (6.9) | (63.7) | (13.2) | (16.2) | 100.0 | 9.5 | 27 |
| 45-49 | (0.0) | (0.0) | (0.0) | (64.6) | (21.3) | (14.1) | 100.0 | 9.9 | 23 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | (0.0) | (6.5) | (12.9) | (63.4) | (11.6) | (5.6) | 100.0 | 8.5 | 45 |
| Second | 1.0 | 2.8 | 6.2 | 74.0 | 11.2 | 4.8 | 100.0 | 8.9 | 67 |
| Middle | 0.0 | 0.0 | 1.1 | 78.9 | 12.2 | 7.9 | 100.0 | 9.3 | 64 |
| Fourth | 0.0 | 1.4 | 2.6 | 64.8 | 18.6 | 12.6 | 100.0 | 9.5 | 64 |
| Highest | 0.0 | 1.2 | 1.3 | 76.6 | 17.6 | 3.4 | 100.0 | 9.6 | 72 |
| Total 15-49 | 0.2 | 2.1 | 4.3 | 72.2 | 14.4 | 6.8 | 100.0 | 9.2 | 311 |
| 50+ | (0.0) | (5.4) | (4.8) | (66.2) | (8.3) | (15.3) | 100.0 | 9.3 | 43 |
| Total men 15+ | 0.2 | 2.5 | 4.3 | 71.5 | 13.7 | 7.8 | 100.0 | 9.3 | 354 |

### 3.3 LITERACY ACHIEVEMENT

An individual's literacy level determines their ability to read all, part or none of a simple sentence in English. Questions assessing literacy were asked of each respondent who had not attended any school and who had attended primary level or higher. The 2007 NDHS interviewed people aged 15-49 who had not attended school and those who had only attended primary level. Those with a secondary or more than a secondary education ( 97.9 percent for women, 93.4 percent men) were considered literate and therefore were not given literacy test. The interviewer prompted respondents to read a simple sentence in English, and then recorded whether or not respondents could read the entire sentence, only parts of it, or could not read the entire sentence.

### 3.3.1 Literacy achievement: women and men

Literacy levels were determined for those who had attended secondary or higher education. It is expected that people who have attained a higher education level will show higher literacy levels than those who with only a primary education. It would be useful to assess literacy levels in Nauruan, which (in contrast to English) is not taught in schools. The figures quoted here may well be overestimates, because comprehension was not determined (this would involve interpreting what was read in English into the spoken language, Nauruan). In this author's opinion an evaluation based on comprehension would produce a much more accurate picture of literacy in Nauru. Caution should be exercised when using or referring to the following tables on literacy, because the figures shown represent both unweighted and weighted aggregates.

Data in Tables 3.3.1 and 3.3.2 reveal that literacy levels for Nauruan women ( 99.3 percent) are slightly higher than for men ( 96.1 percent). Only about 1.0 percent of both men and women could not read at all; this figure was expected to be somewhat higher.

Literacy levels were expected to be higher among respondents from wealthier households. This is most evident among poor men, where 86.2 percent were literate in the lowest quintile, while more than 95 percent were literate in all other wealth quintiles.

Table 3.3.1: Literacy of women
Percent distribution of women aged 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nauru 2007

| Background characteristic | Secondary school or higher | No schooling or primary school |  |  | Total | Percentage literate ${ }^{1}$ | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Can read a whole sentence | Can read part of a sentence | Cannot read at all |  |  |  |
| Age |  |  |  |  |  |  |  |
| 15-19 | 97.0 | 1.1 | 1.1 | 0.8 | 100.0 | 99.2 | 117 |
| 20-24 | 97.4 | 1.8 | 0.0 | 0.9 | 100.0 | 99.1 | 131 |
| 25-29 | 97.2 | 2.0 | 0.8 | 0.0 | 100.0 | 100.0 | 96 |
| 30-34 | 100.0 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 85 |
| 35-39 | 99.1 | 0.0 | 0.0 | 0.9 | 100.0 | 99.1 | 61 |
| 40-44 | 95.6 | 0.0 | 1.9 | 2.5 | 100.0 | 97.5 | 62 |
| 45-49 | 100.0 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 66 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 96.8 | 1.0 | 1.6 | 0.6 | 100.0 | 99.4 | 127 |
| Second | 97.5 | 1.5 | 0.0 | 1.0 | 100.0 | 99.0 | 126 |
| Middle | 97.9 | 1.2 | 0.0 | 0.9 | 100.0 | 99.1 | 129 |
| Fourth | 98.3 | 0.7 | 1.0 | 0.0 | 100.0 | 100.0 | 116 |
| Highest | 99.2 | 0.0 | 0.0 | 0.8 | 100.0 | 99.2 | 119 |
| Total | 97.9 | 0.9 | 0.5 | 0.7 | 100.0 | 99.3 | 618 |

${ }^{1}$ Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence.

Table 3.3.2: Literacy of men
Percent distribution of men aged 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nauru 2007

| Background characteristic | Secondary school or higher | No schooling or primary school |  |  |  |  | Percent- age literate ${ }^{1}$ | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Can read a whole sentence | Can read part of a sentence | Cannot read at all | Missing | Total |  |  |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | 92.5 | 0.0 | 1.1 | 2.7 | 3.7 | 100.0 | 93.6 | 60 |
| 20-24 | 91.9 | 0.0 | 0.0 | 4.9 | 3.2 | 100.0 | 91.9 | 57 |
| 25-29 | 90.7 | 1.6 | 2.5 | 0.0 | 5.1 | 100.0 | 94.9 | 56 |
| 30-34 | (98.3) | (1.7) | (0.0) | (0.0) | (0.0) | 100.0 | (100.0) | 48 |
| 35-39 | (91.2) | (0.0) | (5.2) | (0.0) | (3.7) | 100.0 | (96.3) | 39 |
| 40-44 | (93.1) | (6.9) | (0.0) | (0.0) | (0.0) | 100.0 | (100.0) | 27 |
| 45-49 | (100.0) | (0.0) | (0.0) | (0.0) | (0.0) | 100.0 | (100.0) | 23 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | (80.6) | (0.0) | (5.6) | (6.0) | (7.9) | 100.0 | (86.2) | 45 |
| Second | 90.0 | 4.0 | 1.0 | 0.0 | 4.9 | 100.0 | 95.1 | 67 |
| Middle | 98.9 | 0.0 | 0.0 | 0.0 | 1.1 | 100.0 | 98.9 | 64 |
| Fourth | 96.0 | 0.0 | 1.4 | 1.3 | 1.4 | 100.0 | 97.4 | 64 |
| Highest | 97.5 | 1.3 | 0.0 | 1.2 | 0.0 | 100.0 | 98.8 | 72 |
| Total 15-49 | 93.4 | 1.2 | 1.3 | 1.4 | 2.7 | 100.0 | 95.9 | 311 |
| 50+ | (89.8) | (8.1) | (0.0) | (0.0) | (2.1) | 100.0 | (97.9) | 43 |
| Total men 15+ | 93.0 | 2.0 | 1.2 | 1.2 | 2.6 | 100.0 | 96.1 | 354 |

Note: Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence.

### 3.4 ACCESS TO MASS MEDIA

Access to information is essential for the development of knowledge and awareness, which may influence perceptions and behaviour. Exposure to media was assessed by asking respondents how often they read a newspaper, watch television, or listen to a radio. Current infrastructure limitations means that media coverage (particularly of radio and television) is limited to areas within range of media telecasts.

Most of Nauru's population is exposed to some form of media. In general, men are more likely than women to have access to all types of mass media. Tables 3.4.1 and 3.4.2 show that television is the most popular medium. The tables also show that around 70 percent of women and 84 percent of men watch television a minimum of once per week, and 50 percent of men listen to radio each week, compared with 26 percent of women. Men were more likely ( 46 percent) to read newspapers at least once a week compared with women ( 26 percent). About 28 percent of men access all three types of media at least once a week compared with 9 percent of women. Younger men aged 15-24 were more likely to read a newspaper or watch television than women in this same age group. Not surprisingly, women were more likely to have no access to media (19 percent) than men ( 8 percent).

## Table 3.4.1: Exposure to mass media: Women

Percentage of women aged 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Nauru 2007

|  | Reads a <br> newspaper at <br> least once a <br> week | Watches <br> television at <br> least once a <br> week | Listens to the <br> radio at least <br> once a week | All three <br> media at least <br> once a week | No access to <br> media at least <br> once a week | Number |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Background characteristic |  |  |  |  |  |  |
| Age | 18.7 | 83.3 | 12.2 | 4.4 | 14.0 | 117 |
| 15-19 | 26.4 | 79.3 | 18.4 | 8.0 | 14.5 | 131 |
| 20-24 | 31.4 | 75.9 | 32.0 | 11.5 | 14.0 | 96 |
| $25-29$ | 25.8 | 77.7 | 23.5 | 14.5 | 15.0 | 85 |
| 30-34 | 29.5 | 65.7 | 26.1 | 7.8 | 21.0 | 61 |
| 35-39 | 25.6 | 53.3 | 32.6 | 8.0 | 27.4 | 62 |
| 40-44 | 22.1 | 57.3 | 34.4 | 7.1 | 26.5 | 66 |
| 45-49 |  |  |  |  | $*$ | $*$ |

Note: Figures in parentheses are based on 25-49 unweighted cases. Education categories refer to the highest level of education attended, whether or not that level was completed.

## Table 3.4.2: Exposure to mass media: Men

Percentage of men aged 15-49 who are exposed to specific media on a weekly basis, by background characteristics,Nauru 2007

| Background characteristic | Reads a newspaper at least once a week | Watches television at least once a week | Listens to the radio at least once a week | All three media at least once a week | No access to media at least once a week | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |
| 15-19 | 24.4 | 88.6 | 26.0 | 10.7 | 11.4 | 60 |
| 20-24 | 27.5 | 81.0 | 43.2 | 15.9 | 6.5 | 57 |
| 25-29 | 49.5 | 81.3 | 48.8 | 32.9 | 11.0 | 56 |
| 30-34 | (40.9) | (88.8) | (39.8) | (21.4) | (6.4) | 48 |
| 35-39 | (57.6) | (77.2) | (65.1) | (41.1) | (9.7) | 39 |
| 40-44 | (66.3) | (82.0) | (67.6) | (36.1) | (5.8) | 27 |
| 45-49 | (55.9) | (86.0) | (58.2) | (39.7) | (6.7) | 23 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | 20 |
| Secondary | 43.5 | 86.0 | 47.1 | 25.9 | 6.6 | 270 |
| More than secondary | * | * | * | * | * | 21 |

Table 3.4.2 (continued)

| Background characteristic | Reads a newspaper at least once a week | Watches television at least once a week | Listens to the radio at least once a week | All three media at least once a week | No access to media at least once a week | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | (32.8) | (77.3) | (47.0) | (24.6) | (16.1) | 45 |
| Second | 34.0 | 78.6 | 41.2 | 13.6 | 6.8 | 67 |
| Middle | 38.9 | 81.1 | 40.9 | 20.4 | 11.4 | 64 |
| Fourth | 38.1 | 88.5 | 42.5 | 26.8 | 8.4 | 64 |
| Highest | 62.6 | 90.7 | 59.3 | 40.9 | 3.2 | 72 |
| Total 15-49 | 42.2 | 83.7 | 46.4 | 25.5 | 8.6 | 311 |
| 50+ | (77.5) | (87.7) | (75.7) | (58.1) | (1.8) | 43 |
| Total men 15+ | 46.5 | 84.2 | 49.9 | 29.5 | 7.8 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases. Education categories refer to the highest level of education attended, whether or not that level was completed.

The lack of providers - of television, radio, newspapers and the Internet - affects mass media coverage. Radio and television are operated by the government, meaning the content is limited to government-sponsored programmes and telecasts. Newspapers and newsletters are in circulation only sporadically - during campaigns, promotions, etc. - and are usually phased out after each election year. Coverage of global or regional news is available through imported (e.g. from Australia or Fiji) newspapers or magazines. The Internet, which provides independent accounts of both national and global issues, should have been included as a news source. The Internet in Nauru is provided on a user-pay basis, and is only available to official workers only. Access to the Internet (measuring growth trends by the number of subscribers) would be worth investigating and analysing.

Exposure to media is positively associated with educational attainment in the case of women, but this comparison could not be made for men, due to the low number of respondents (only figures for men with a secondary level education are included in Table 3.4.2). As indicated in Table 3.4.1, 22 percent of women with more than a secondary education are exposed to at least one form of media each week, compared with only 8 percent of women with only a secondary education (a ratio of almost $3: 1$ ). The pattern is reflected for all forms of media, including newspapers ( 32 percent of women with a post-secondary education read newspapers once per week, compared with 25 percent with a secondary education) television (accessed by 77 percent with a postsecondary education, and 73 percent with a secondary education), and radio (accessed by 34 percent with a post-secondary education, and 23 percent with a secondary education). Among men, a majority watch television at least once a week. A comparison of women and men can be made only for respondents with a secondary education; the proportion of men accessing radios and newspapers is approximately double that of women. The common media being reported is television, which is watched at least once a week (or more frequently) by 73 percent of women and 86 percent of men with a secondary education. The proportion of men ( 7 percent) who lack media access at least once a week is much lower than that of women (18 percent).

Figure 3.2: Media access by educational attainment and sex


Wealth plays a significant role in whether a person has access to the media, and also indicates the level of affluence of the resident population, and to some extent the nation. If knowledge and awareness are the foundations of active participation in Nauru's society, then it is likely that residents who lack capacity (in the form of wealth) are more disadvantaged than those who do not.

Analysis of media access by wealth quintiles indicates that men have better access than women across all quintiles, with access generally increasing with wealth. For example, 7 percent of women from the poorest households are exposed to at least one form of media each week, compared with 19 percent from the richest households. Similarly, 14 percent of men from the poorest households are exposed to at least one form of media each week, compared with 40 percent from the richest households.

Figure 3.3: Media access by quintiles and sex


日 Listens to the radio at least once a week $\square$ All three media at least once a week
$\square$ No access to media at least once a week

Wealth quintile

### 3.5 EMPLOYMENT STATUS

Like education, employment can be a source of empowerment for women, especially by helping them to attain decision-making positions and acquire control over their income. The empowerment of women is often under-reported, especially in terms of women's work related to family or home duties, which are most commonly referred to as informal work or home duties.

Tables 3.5.1 and 3.5.2 show that 52 percent of women and 74 percent of men are classified as currently employed in Nauru. The proportion that is currently employed increases with age (and is highest in the 35-39 age group for both sexes) and with the number of living children. Women who were married or living together with a partner are the most likely to be employed ( 54 percent), followed by those who were divorced, separated, or widowed ( 53 percent). Women who never married are the least likely to be employed ( 46 percent), while 61 percent of nevermarried men are employed.

Current employment levels of both women and men are positively associated with educational attainment, and particularly so for women. Women attaining more than secondary level education are more likely to be employed ( 77 percent) than those with just a secondary education ( 50 percent). Comparisons across education levels could not be made for men because of an insufficient number of respondents, but a comparison between women and men can be made for those with a secondary education (those completed part secondary and full secondary education).

Table 3.5.1: Employment status of women
Percent distribution of women aged 15-49 by employment status, according to background characteristics, Nauru 2007

| 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 | 25.9 | 4.1 | 70.0 | 100.0 | 117 |
| 20-24 | 47.3 | 5.9 | 46.8 | 100.0 | 131 |
| 25-29 | 58.0 | 0.0 | 42.0 | 100.0 | 96 |
| 30-34 | 53.0 | 4.8 | 42.1 | 100.0 | 85 |
| 35-39 | 68.5 | 3.3 | 28.2 | 100.0 | 61 |
| 40-44 | 63.0 | 2.0 | 35.0 | 100.0 | 62 |
| 45-49 | 67.6 | 0.0 | 32.4 | 100.0 | 66 |
| Marital status |  |  |  |  |  |
| Never married | 45.5 | 3.8 | 50.7 | 100.0 | 186 |
| Married or living together | 54.3 | 3.0 | 42.7 | 100.0 | 386 |
| Divorced/separated/widowed | (52.9) | (2.5) | (44.6) | 100.0 | 46 |
| Number of living children |  |  |  |  |  |
| 0 | 45.7 | 4.7 | 49.7 | 100.0 | 245 |
| 1-2 | 54.0 | 2.0 | 44.0 | 100.0 | 155 |
| 3-4 | 55.6 | 2.8 | 41.6 | 100.0 | 106 |
| $5+$ | 57.1 | 2.2 | 40.7 | 100.0 | 113 |
| Education |  |  |  |  |  |
| Less than secondary | * | * | * | 100.0 | 13 |
| Secondary | 50.0 | 3.6 | 46.4 | 100.0 | 555 |
| More than secondary | 77.2 | 0.0 | 22.8 | 100.0 | 50 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 32.1 | 1.3 | 66.6 | 100.0 | 127 |
| Second | 52.7 | 4.0 | 43.4 | 100.0 | 126 |
| Middle | 44.8 | 4.0 | 51.2 | 100.0 | 129 |
| Fourth | 62.5 | 5.3 | 32.3 | 100.0 | 116 |
| Highest | 68.0 | 1.6 | 30.4 | 100.0 | 119 |
| Total | 51.6 | 3.2 | 45.2 | 100.0 | 618 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases. Education categories refer to the highest level of education attended, whether or not that level was completed.
1 'Currently employed' is defined as having done work in the past seven days, and includes people 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.

Differences between women and men are significant: 73 percent of men who have only a secondary education are employed, compared with 50 percent of women. Relatively small proportions (ranging from 1 percent to 10 percent) reported not being currently employed throughout all wealth quintiles for both sexes. As expected, employment generally increases with wealth for both men and women, but the proportion of employed males is higher than that of females. For example, the percentage range for women varies from 32 percent (in the lowest quintile) to 68 percent in the highest, with a mid-range of approximately 50 percent. For men employment was less associated with wealth, ranging from 66 percent in the fourth quintile to 83 percent in the highest, with a mid-range of approximately 75 percent.

The government is the primary employer, but it operates through a variety of agencies and instruments, leading to a lack of standardisation of pay-grades or basic wages. The private sector has recently begun contracting, which will add pressure on the government to provide additional employment.

Table 3.5.2: Employment status of men
Percent distribution of men aged 15-49 by employment status, according to background characteristics, Nauru 2007

| Background characteristic | Employed in the 12 months preceding the survey |  | Not employed in the 12 months preceding the survey | Total | Number of men |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Currently employed ${ }^{1}$ | Not currently employed |  |  |  |
| Age |  |  |  |  |  |
| 15-19 | 32.6 | 6.0 | 61.4 | 100.0 | 60 |
| 20-24 | 83.6 | 6.1 | 10.3 | 100.0 | 57 |
| 25-29 | 83.1 | 12.3 | 4.6 | 100.0 | 56 |
| 30-34 | (86.0) | (0.9) | (13.1) | 100.0 | 48 |
| 35-39 | (88.0) | (2.1) | (9.9) | 100.0 | 39 |
| 40-44 | (83.1) | (0.0) | (16.9) | 100.0 | 27 |
| 45-49 | (80.4) | (4.7) | (14.8) | 100.0 | 23 |
| Marital status |  |  |  |  |  |
| Never married | 61.0 | 6.6 | 32.4 | 100.0 | 119 |
| Married or living together | 81.9 | 4.6 | 13.5 | 100.0 | 183 |
| Divorced/separated/widowed | * | * | * | 100.0 | 9 |
| Number of living children |  |  |  |  |  |
| 0 | 65.3 | 6.9 | 27.8 | 100.0 | 165 |
| 1-2 | 87.8 | 5.0 | 7.2 | 100.0 | 53 |
| 3-4 | 78.8 | 4.5 | 16.7 | 100.0 | 51 |
| $5+$ | (87.8) | (0.0) | (12.2) | 100.0 | 42 |
| Education |  |  |  |  |  |
| Less than secondary | * | * | * | 100.0 | 20 |
| Secondary | 72.8 | 5.5 | 21.7 | 100.0 | 270 |
| More than secondary | * | * | * | 100.0 | 21 |
| Wealth quintile |  |  |  |  |  |
| Lowest | (72.9) | (9.2) | (17.9) | 100.0 | 45 |
| Second | 75.6 | 5.6 | 18.8 | 100.0 | 67 |
| Middle | 73.2 | 3.3 | 23.5 | 100.0 | 64 |
| Fourth | 65.6 | 4.2 | 30.2 | 100.0 | 64 |
| Highest | 83.0 | 5.2 | 11.9 | 100.0 | 72 |
| Total 15-49 | 74.4 | 5.3 | 20.4 | 100.0 | 311 |
| 50+ | (75.0) | (0.0) | (25.0) | 100.0 | 43 |
| Total men 15+ | 74.4 | 4.6 | 20.9 | 100.0 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases. Education categories refer to the highest level of education attended, whether or not that level was completed.
${ }^{1}$ '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.

### 3.6 OCCUPATION

Respondents who were currently employed were asked to state their occupation (Fig. 3.4, and Tables 3.6.1 and 3.6.2). More currently employed women ( 36 percent) than men ( 12 percent) were engaged in 'professional, technical and managerial' occupations, while men ( 35 percent) were more likely to be employed in 'sales and services' than were women ( 30 percent). The high proportion of men ( 33 percent) employed performing unskilled manual labour, and the greater employment of women as professionals reflects gender biases towards certain occupation types, and the mechanics of the selection process. This is particularly the case with respect to professionally classified occupations - such as nurses and teachers, as well as clerical jobs compared with labour and service-oriented occupations.

Figure 3.4: Occupation of men and women aged 15-49 by sex


Most men who are engaged in non-agricultural activities work in unskilled manual labour, sales and services occupations, or skilled manual labour occupations. Most women not in agriculture are engaged in sales and services or clerical occupations. The professional, technical, and managerial occupations, which require more skill and have higher income-earning potential, employ almost two in five working women and about one in ten working men ( 12.2 percent).

Table 3.6.1 shows the distribution of women employed in the 12 months preceding the survey by type of occupation, according to their background characteristics. In general, women are more likely than men to be employed in skilled, higher income-earning occupations. Data also show that education positively associated with the type of occupation and the level of wealth quintile women living in, for example, women with higher education were more likely to hold higher occupation and more likely to be living in higher wealth quintile.

Skilled or unskilled manual occupations are filled primarily by women under age 25 (such women are also more likely to have never married, to not have children, to have low levels of education, and to be in less wealthy households). Professional/technical managerial or related occupations are most likely to be filled by women over age 30 , who are also more likely to have higher levels of education, and be from wealthier households.

## Table 3.6.1: Occupation of women

Percent distribution of women aged 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nauru 2007

| Background characteristic | Professional/ technical/ managerial | Clerical | Sales and services | Skilled manual | Unskilled manual | Agriculture | Missing | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | (16.4) | (16.6) | (35.0) | (8.7) | (4.5) | (0.0) | (18.6) | 100.0 | 35 |
| 20-24 | 30.1 | 29.4 | 30.2 | 4.7 | 1.1 | 3.4 | 1.1 | 100.0 | 70 |
| 25-29 | 32.5 | 36.5 | 26.3 | 1.7 | 1.4 | 0.0 | 1.4 | 100.0 | 56 |
| 30-34 | 41.5 | 23.2 | 27.1 | 1.5 | 6.6 | 0.0 | 0.0 | 100.0 | 49 |
| 35-39 | (52.1) | (15.1) | (28.1) | (1.8) | (0.0) | (2.9) | (0.0) | 100.0 | 44 |
| 40-44 | (43.3) | (23.3) | (30.3) | (0.0) | (3.1) | (0.0) | (0.0) | 100.0 | 40 |
| 45-49 | (39.1) | (15.1) | (34.2) | (0.0) | (3.5) | (4.1) | (4.0) | 100.0 | 45 |
| Marital status |  |  |  |  |  |  |  |  |  |
| Never married | 34.0 | 25.2 | 25.2 | 6.0 | 2.6 | 0.0 | 7.1 | 100.0 | 92 |
| Married or living together | 38.3 | 23.2 | 30.2 | 1.5 | 2.8 | 2.5 | 1.5 | 100.0 | 221 |
| Divorced/separated/widowed | (27.6) | (25.5) | (44.0) | (0.0) | (3.0) | (0.0) | (0.0) | 100.0 | 26 |
| Number of living children |  |  |  |  |  |  |  |  |  |
| 0 | 28.2 | 27.2 | 27.5 | 5.0 | 5.2 | 0.9 | 5.9 | 100.0 | 123 |
| 1-2 | 35.6 | 28.8 | 30.4 | 3.0 | 0.9 | 1.2 | 0.0 | 100.0 | 87 |
| 3-4 | 39.3 | 23.9 | 33.5 | 0.0 | 0.0 | 1.9 | 1.3 | 100.0 | 62 |
| $5+$ | 49.5 | 11.4 | 30.2 | 0.0 | 3.1 | 3.1 | 2.7 | 100.0 | 67 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | * | 100.0 | 2 |
| Secondary | 33.3 | 24.9 | 32.2 | 2.2 | 3.1 | 1.2 | 3.1 | 100.0 | 297 |
| More than secondary | (62.0) | (14.6) | (10.7) | (6.1) | (0.0) | (4.7) | (2.0) | 100.0 | 39 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | (34.3) | (4.8) | (43.3) | (3.7) | (10.2) | (0.0) | (3.6) | 100.0 | 43 |
| Second | 39.9 | 21.4 | 26.0 | 5.5 | 2.2 | 2.8 | 2.2 | 100.0 | 71 |
| Middle | 28.9 | 33.6 | 26.2 | 2.4 | 2.8 | 2.0 | 4.1 | 100.0 | 63 |
| Fourth | 37.4 | 23.0 | 31.5 | 0.0 | 1.0 | 2.8 | 4.3 | 100.0 | 79 |
| Highest | 39.0 | 29.2 | 27.8 | 2.2 | 0.9 | 0.0 | 0.9 | 100.0 | 83 |
| Total | 36.3 | 23.9 | 29.9 | 2.6 | 2.7 | 1.6 | 2.9 | 100.0 | 339 |

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

Among men, unskilled manual occupations are more likely to be filled by Nauruan men in the age group 30-39. Marital status shows little correlation with unskilled manual labour, but these jobs are more likely to be filled by men from poorer households. Men aged 30 and older, those with higher levels of education, and from wealthier households are somewhat more likely to be in professional/technical managerial-related occupations.

## Table 3.6.2 : Occupation of men

Percent distribution of men aged 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nauru 2007

| Background characteristic | Professional/ technical/ managerial | Clerical | Sales and services | Skilled manual | Unskilled manual | Agriculture | Missing | Total | Number of men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | (9.9) | (0.0) | (50.9) | (2.0) | (24.4) | (6.6) | (6.2) | 100.0 | 23 |
| 20-24 | 5.9 | 3.8 | 60.3 | 3.2 | 25.1 | 1.7 | 0.0 | 100.0 | 51 |
| 25-29 | 6.2 | 2.7 | 32.9 | 5.2 | 41.1 | 12.0 | 0.0 | 100.0 | 54 |
| 30-34 | (7.3) | (0.0) | (31.9) | (31.8) | (20.6) | (6.3) | (2.0) | 100.0 | 42 |
| 35-39 | (11.5) | (2.6) | (35.0) | (9.8) | (32.3) | (8.9) | (0.0) | 100.0 | 35 |
| 40-44 | * | * | * | * | * | * | * | 100.0 | 23 |
| 45-49 | * | * | * | * | * | * | * | 100.0 | 20 |
| Marital status |  |  |  |  |  |  |  |  |  |
| Never married | 8.6 | 1.8 | 41.3 | 5.8 | 32.5 | 7.2 | 2.8 | 100.0 | 81 |
| Married or living together | 9.8 | 4.2 | 37.3 | 11.4 | 31.6 | 5.7 | 0.0 | 100.0 | 159 |
| Divorced/separated/widowed | * | * | * | * | * | * | * | 100.0 | 9 |
| Number of living children |  |  |  |  |  |  |  |  |  |
| 0 | 8.8 | 2.9 | 42.1 | 6.9 | 29.5 | 8.0 | 1.9 | 100.0 | 119 |
| 1-2 | 8.4 | 0.0 | 42.5 | 12.9 | 26.5 | 9.7 | 0.0 | 100.0 | 49 |
| 3-4 | (13.4) | (2.1) | (33.4) | (10.5) | (37.3) | (3.3) | (0.0) | 100.0 | 43 |
| $5+$ | (11.6) | (10.4) | (27.5) | (12.4) | (35.7) | (2.4) | (0.0) | 100.0 | 36 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | * | 100.0 | 17 |
| Secondary | 10.4 | 3.5 | 40.9 | 9.4 | 28.4 | 6.8 | 0.7 | 100.0 | 211 |
| More than secondary | * | * | * | * | * | * | * | 100.0 | 20 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | (3.9) | (0.0) | (28.6) | (9.8) | (47.8) | (6.1) | (3.9) | 100.0 | 37 |
| Second | 8.4 | 6.6 | 35.0 | 11.7 | 35.6 | 2.8 | 0.0 | 100.0 | 54 |
| Middle | 12.8 | 4.0 | 44.0 | 7.8 | 26.3 | 5.1 | 0.0 | 100.0 | 49 |
| Fourth | (5.5) | (5.7) | (39.3) | (14.0) | (25.3) | (8.3) | (1.9) | 100.0 | 44 |
| Highest | 15.7 | 0.0 | 42.6 | 5.8 | 25.4 | 10.5 | 0.0 | 100.0 | 63 |
| Total 15-49 | 9.9 | 3.3 | 38.5 | 9.5 | 31.1 | 6.7 | 0.9 | 100.0 | 248 |
| 50+ | (29.8) | (2.2) | (10.1) | (6.0) | (44.9) | (0.0) | (6.8) | 100.0 | 32 |
| Total men 15+ | 12.2 | 3.1 | 35.3 | 9.1 | 32.7 | 5.9 | 1.6 | 100.0 | 280 |

[^7]
### 3.7 EARNINGS, TYPE OF EMPLOYER, AND CONTINUITY OF EMPLOYMENT

Table 3.7 and Figure 3.5 show the distribution of women by their employment status. The data indicate that the majority (over 97 percent) of employed women receive payment in cash only, 3 percent are paid both in cash and in kind, 2 percent receive no payment for their work, and 1 percent receive payments in some form other than those previously mentioned.

Figure 3.5: Type of employment for women


Most women (59.2 percent) are employed by a non-family member, about 32 percent by a family member, and 7 percent of working women are self-employed. Most women ( 78.2 percent) work all year, while 12.8 percent work occasionally, and 9 percent work seasonally.

## Table 3.7: Type of employment for women

Percent distribution of women aged 15-49 employed in the 12 months preceding the survey, by type of earnings, type of employer, and continuity of employment, for non-agricultural and total, Nauru 2007

| Employment characteristic | Non-agricultural <br> work | Total |
| :--- | :---: | :---: |
| Type of earnings | 98.5 | 97.7 |
| Cash only | 0.3 | 0.3 |
| Cash and in-kind | 0.3 | 0.5 |
| In-kind only | 0.9 | 1.5 |
| Not paid | 100.0 | 100.0 |
| Total |  |  |
| Type of employer | 32.3 | 31.8 |
| Employed by family member | 59.2 | 59.2 |
| Employed by non-family member | 7.2 | 7.7 |
| Self-employed | 100.0 | 100.0 |
| Total |  |  |
| Continuity of employment | 79.6 | 78.2 |
| All year | 8.5 | 9.0 |
| Seasonal | 11.8 | 12.8 |
| Occasional | 100.0 | 100.0 |
| Total | 323 | 339 |
| Number of women employed during the |  |  |
| last 12 months |  |  |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases.
Total includes 5 women employed in agriculture and 10 for whom the type of employment is missing, who are not shown separately

### 3.8 KNOWLEDGE AND ATTITUDES TOWARD TUBERCULOSIS

Tuberculosis (TB) is one of the largest causes of death in the world. Knowledge of TB in a society is critical to understanding how people deal with the disease. The 2007 NDHS asked questions about knowledge and attitudes toward TB. Tables 3.8.1 and 3.8.2 show several indicators relating to respondents' knowledge and attitudes concerning TB, including percentages who have heard of the disease, who know that TB is spread through the air by coughing, who believe that TB can be cured, and who would want to keep it secret that a family member has TB.

Knowledge of TB among women ( 68 percent) was much lower than among men ( 80.8 percent). Many Nauruans ( 74 percent of women, 31 percent of men) who had heard of TB reported that it is spread through the air.

Table 3.8.1: Women's knowledge and attitudes concerning tuberculosis
Percentage of women aged 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, Nauru 2007

| Background characteristic | Among all respondents |  | Among respondents who have heard of TB |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who have heard of TB | Number | 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 |
| Age |  |  |  |  |  |  |
| 15-19 | 57.8 | 117 | 59.1 | 47.4 | 36.0 | 68 |
| 20-24 | 62.9 | 131 | 66.5 | 60.3 | 33.5 | 82 |
| 25-29 | 69.8 | 96 | 77.1 | 60.5 | 19.8 | 67 |
| 30-34 | 65.6 | 85 | 77.1 | 61.3 | 16.6 | 56 |
| 35-39 | 83.8 | 61 | 81.3 | 70.3 | 14.9 | 51 |
| 40-44 | 74.6 | 62 | 83.0 | 61.7 | 17.1 | 46 |
| 45-49 | 78.0 | 66 | 84.2 | 71.0 | 8.6 | 52 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | 13 | * | * | * | 4 |
| Secondary | 67.5 | 555 | 73.8 | 59.6 | 22.1 | 374 |
| More than secondary | 85.0 | 50 | (82.0) | (77.6) | (23.4) | 43 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 67.0 | 127 | 77.0 | 63.6 | 27.8 | 85 |
| Second | 61.9 | 126 | 78.2 | 63.9 | 21.5 | 78 |
| Middle | 63.9 | 129 | 72.8 | 45.7 | 25.8 | 83 |
| Fourth | 71.4 | 116 | 76.9 | 66.3 | 22.0 | 83 |
| Highest | 77.9 | 119 | 67.0 | 65.4 | 15.4 | 93 |
| Total | 68.2 | 618 | 74.2 | 61.1 | 22.4 | 422 |

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

About 61 percent of women and 43 percent of men who have heard of TB believe it can be cured. In general the proportion of women and men who believe that TB can be cured increases with age. This pattern is not evident for educational background and wealth quintile.

Table 3.8.2: Men's knowledge and attitudes concerning tuberculosis
Percentage of men aged 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, Nauru 2007

| Background characteristic | Among all respondents |  | Among respondents who have heard of TB |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who have heard of TB | Number | 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 |
| Age |  |  |  |  |  |  |
| 15-19 | 69.5 | 60 | (9.1) | (33.8) | (21.9) | 41 |
| 20-24 | 73.7 | 57 | (36.5) | (33.0) | (36.7) | 42 |
| 25-29 | 76.4 | 56 | (31.8) | (45.1) | (19.6) | 43 |
| 30-34 | (94.1) | 48 | (27.7) | (40.0) | (22.8) | 46 |
| 35-39 | (83.6) | 39 | (54.3) | (49.0) | (7.8) | 32 |
| 40-44 | (91.7) | 27 | * | * | * | 25 |
| 45-49 | (93.0) | 23 | * | * | * | 22 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | 20 | * | * | * | 12 |
| Secondary | 81.8 | 270 | 29.3 | 42.8 | 20.6 | 220 |
| More than secondary | * | 21 | * | * | * | 19 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | (74.7) | 45 | (21.6) | (29.7) | (20.5) | 34 |
| Second | 76.4 | 67 | 23.1 | 48.1 | 25.9 | 51 |
| Middle | 77.1 | 64 | 37.6 | 40.6 | 23.6 | 49 |
| Fourth | 87.3 | 64 | 28.3 | 48.0 | 11.0 | 56 |
| Highest | 86.3 | 72 | 38.5 | 44.7 | 19.0 | 62 |
| Total 15-49 | 80.8 | 311 | 30.7 | 43.3 | 19.7 | 251 |
| 50+ | (96.1) | 43 | (45.5) | (83.8) | (19.6) | 41 |
| Total men 15+ | 82.7 | 354 | 32.8 | 49.0 | 19.7 | 293 |

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

Only 22 percent of women who have heard about TB would want a family member's TB status kept a secret, while the proportion of men is even lower ( 19.6 percent). The proportion of women and men who would not want to reveal whether a family member had TB dropped with increased wealth.

Overall, Nauruan women appear to have a better understanding of the disease, its cause and the extent to which it can be cured compared with men. However, women are more likely than men to not reveal that a family member has TB.

### 3.9 TOBACCO USE

Tobacco use among women ( 62 percent) was higher than among men ( 55 percent). Fewer women (46.8 percent) than men (49.6 percent) reported not using tobacco (Figure 3.6). In general, the data show that the proportion of women using cigarettes increases from 45 percent up to 56.5 percent for women aged 15-29. The proportion then declines to 52 percent for women in the age $30-34$ age group, and to 49 percent in the $40-44$ age group. The highest proportion of women using cigarettes was reported for women aged 45-49. More than half of women aged 15-19 do not using tobacco ( 54 percent). However the proportion declines to 44 percent of women aged 25-29 and then increases to 48 percent among women aged $30-34$ and to 51 percent for women aged 40-44.

The use of cigarettes and tobacco among men did not show any pattern with age. However, the highest peak in tobacco use is seen among men aged 20-24.

Figure 3.6: Tobacco use by sex


Increased education among women is associated with a slight decrease in tobacco use (data for men are not broken down by education level). There is no clear association between an increase in wealth and a decrease in tobacco use. Both women and men show a lower proportion of tobacco use with increased wealth.

Overall, older, less educated Nauruan women living in low income households are more likely to be heavy tobacco users (Table 3.9.1). Among men, heavy tobacco use is prevalent among younger, poorly educated men living in low income households (Table 3.9.2). A majority of the men and women aged 15 and older use tobacco heavily, which may have serious ramifications, both on their personal health and on the future health and well-being of the population.

## Table 3.9.1: Tobacco use by women

Percentage of women aged 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percentage of cigarette smokers by number of cigarettes smoked in the preceding 24 hours, according to background characteristics and maternity status, Nauru 2007

| Background characteristic | Cigarettes | Other tobacco | Does not use tobacco |  | Number of cigarettes in the last 24 hours |  |  |  |  | Total | Number of cigarette smokers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1-2 | 3-5 | 6-9 | 10+ | Don't know/ missing |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 45.0 | 8.3 | 53.9 | 117 | 11.9 | 29.1 | 23.0 | 31.6 | 4.5 | 100.0 | 53 |
| 20-24 | 56.4 | 4.5 | 43.6 | 131 | 8.8 | 23.6 | 8.0 | 54.6 | 5.0 | 100.0 | 74 |
| 25-29 | 56.5 | 10.6 | 43.5 | 96 | 6.0 | 12.3 | 13.0 | 68.6 | 0.0 | 100.0 | 54 |
| 30-34 | 52.3 | 7.8 | 47.7 | 85 | (1.8) | (13.5) | (9.7) | (70.4) | (4.5) | 100.0 | 45 |
| 35-39 | 50.3 | 14.8 | 49.7 | 61 | (0.0) | (13.8) | (7.5) | (73.6) | (5.1) | 100.0 | 31 |
| 40-44 | 49.4 | 12.5 | 50.6 | 62 | (5.8) | (10.2) | (15.1) | (65.6) | (3.4) | 100.0 | 30 |
| 45-49 | 62.1 | 7.9 | 37.9 | 66 | (2.2) | (5.2) | (10.4) | (76.7) | (5.4) | 100.0 | 41 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | 13 | * | * | * | * | * | 100.0 | 8 |
| Secondary | 53.1 | 9.2 | 46.6 | 555 | 5.4 | 18.2 | 11.6 | 60.9 | 4.0 | 100.0 | 295 |
| More than secondary | 48.7 | 4.1 | 51.3 | 50 | 3.1 | 2.2 | 15.1 | 76.6 | 3.0 | 100.0 | 25 |
| Maternity status |  |  |  |  |  |  |  |  |  |  |  |
| Pregnant | (36.1) | (3.8) | (63.9) | 49 | * | * | * | * | * | 100.0 | 18 |
| Breastfeeding (not pregnant) | 45.1 | 11.9 | 53.8 | 109 | 7.7 | 22.7 | 11.6 | 56.0 | 2.0 | 100.0 | 49 |
| Neither | 56.6 | 8.6 | 43.4 | 460 | 4.8 | 15.8 | 13.4 | 61.8 | 4.3 | 100.0 | 261 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 64.9 | 13.6 | 34.1 | 127 | 10.6 | 18.6 | 8.7 | 57.1 | 5.0 | 100.0 | 83 |
| Second | 47.4 | 6.8 | 52.6 | 126 | 6.2 | 10.8 | 14.2 | 64.0 | 4.9 | 100.0 | 60 |
| Middle | 55.2 | 10.3 | 44.8 | 129 | 6.0 | 18.1 | 11.9 | 59.0 | 5.0 | 100.0 | 71 |
| Fourth | 53.5 | 8.5 | 46.5 | 116 | 2.8 | 18.6 | 9.9 | 66.3 | 2.4 | 100.0 | 62 |
| Highest | 43.3 | 4.5 | 56.7 | 119 | 1.9 | 16.9 | 19.8 | 60.0 | 1.4 | 100.0 | 52 |
| Total | 53.0 | 8.8 | 46.8 | 618 | 5.9 | 16.8 | 12.4 | 61.0 | 3.9 | 100.0 | 327 |

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

Table 3.9.2: Tobacco use by men
Percentage of men aged 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percentage of cigarette smokers by number of cigarettes smoked in the preceding 24 hours, according to background characteristics, Nauru 2007

| Background characteristic | Cigarettes | Other tobacco | Does not use tobacco | Number of men | Number of cigarettes in the last 24 hours |  |  |  |  | Total | Number of cigarette smokers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1-2 | 3-5 | 6-9 | 10+ |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 41.4 | 0.0 | 58.6 | 60 | (8.0) | (23.4) | (11.8) | (49.1) | (7.7) | 100.0 | 25 |
| 20-24 | 74.6 | 3.0 | 25.4 | 57 | (2.0) | (14.2) | (10.4) | (52.4) | (21.0) | 100.0 | 43 |
| 25-29 | 53.5 | 2.7 | 46.5 | 56 | (0.0) | (6.6) | (14.9) | (71.4) | (7.1) | 100.0 | 30 |
| 30-34 | 42.0 | 5.9 | 53.9 | 48 | * | * | * | * | * | 100.0 | 20 |
| 35-39 | 48.7 | 6.2 | 51.3 | 39 | * | * | * | * | * | 100.0 | 19 |
| 40-44 | 55.4 | 12.3 | 44.6 | 27 | * | * | * | * | * | 100.0 | 15 |
| 45-49 | 42.4 | 3.5 | 57.6 | 23 | * | * | * | * | * | 100.0 | 10 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | 20 | * | * | * | * | * | 100.0 | 12 |
| Secondary | 51.6 | 3.8 | 47.7 | 270 | 3.8 | 10.1 | 9.5 | 64.1 | 12.4 | 100.0 | 139 |
| More than secondary | * | * | * | 21 | * | * | * | * | * | 100.0 | 10 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 75.4 | 2.0 | 24.6 | 45 | (2.2) | (9.9) | (15.5) | (62.6) | (9.8) | 100.0 | 34 |
| Second | 59.2 | 4.6 | 40.8 | 67 | (3.6) | (1.8) | (8.9) | (68.3) | (17.4) | 100.0 | 40 |
| Middle | 42.8 | 3.5 | 57.2 | 64 | (9.9) | (10.3) | (9.9) | (53.2) | (16.7) | 100.0 | 27 |
| Fourth | 46.6 | 5.0 | 53.4 | 64 | (6.7) | (25.7) | (12.2) | (50.2) | (5.1) | 100.0 | 30 |
| Highest | 43.6 | 4.6 | 53.7 | 72 | (0.0) | (10.0) | (2.3) | (78.3) | (9.4) | 100.0 | 31 |
| Total 15-49 | 52.0 | 4.1 | 47.4 | 311 | 4.3 | 10.9 | 9.8 | 63.1 | 11.9 | 100.0 | 162 |
| 50+ | 31.7 | 13.4 | 68.3 | 43 | * | * | * | * | * | 100.0 | 14 |
| Total men 15+ | 49.6 | 5.2 | 49.9 | 354 | 3.9 | 10.1 | 9.0 | 65.5 | 11.5 | 100.0 | 175 |

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

### 3.10 KEY RESULTS

This section provides a summary of key issues regarding men and women in the reproductive age group ( $15-49$ years), and identifies issues that enhance women's empowerment.

1. There is an equal proportion of women and men in most age groups. The exceptions are i) the $20-24$ age group, with a higher proportion of women (due to enumerators intentionally displacing women in this age group), and ii) the 40-49 age group, which has a lower proportion of men due to their shorter life expectancy.
2. One in every three women and men are single, while more women ( 53 percent) are married as opposed to men (49 percent), and more women are also divorced and widowed.
3. The majority of women and men (about 90 percent) have some secondary or completed a secondary education, but less than 10 percent of both women and men have some postsecondary education. The median number of years of education completed is roughly the same for women ( 9.6 years) and men ( 9.2 years). The literacy level in Nauru is high for both women ( 99 percent) and men ( 96 percent).
4. More women than men reside in households in the poorest wealth quintile, while more men than women reside in households in the wealthiest quintile. More than 80 percent of
women and men claim to be Nauruans. The most common church is the Nauru Congregational Church.
5. Access to information is essential for the development of knowledge and awareness, which may influence perceptions and behaviour. Television is the most commonly accessed form of media (accessed at least weekly by 73 percent of women and 84 percent of men). Fewer that 50 percent of men and 30 percent of women listen to the radio or read a newspaper at least once per week.
6. More women ( 45 percent) reported not being employed in the 12 months preceding the survey than men ( 20 percent). These women are more likely to be in the lowest wealth quintile with limited (secondary or primary) education. Women are more likely to hold professional/ technical/managerial and clerical jobs than are men. The majority of women work for cash only in non-agricultural work, and more likely to work throughout the year.
7. More men ( 81 percent) report being more aware of TB than do women ( 68 percent), although Nauruan women appear to have a better understanding of the disease. The use of cigarettes is slightly higher among women ( 53 percent) than men ( 50 percent).

## CHAPTER 4 FERTILITY LEVELS, TRENDS AND DIFFERENTIALS

### 4.1 INTRODUCTION

This chapter examines a number of fertility indicators, including levels, patterns and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women initiate childbearing. Information on current and cumulative fertility is essential in monitoring population growth. Data on birth intervals are important because short intervals are strongly associated with childhood mortality. The age at which childbearing begins can also have a major impact on the health and well-being of both the mother and child.

Data on fertility were collected in several ways. Each woman was asked about all of the births she had had in her lifetime. To ensure completeness of responses, the duration, month and year of termination, and the result of the pregnancy were recorded for each pregnancy. In addition, questions were asked separately about sons and daughters who live with the mother, those who live elsewhere, and those who have died. Subsequently, a list of all births was recorded along with the name, age if still alive, and age at death if dead. Finally, information was collected on whether women were pregnant at the time of the survey.

### 4.2 CURRENT FERTILITY

The current fertility level is one of the most important topics in this report because of its direct relevance to population policies and programmes. Current fertility can be measured using the agespecific fertility rate (ASFR), total fertility rate (TFR), general fertility rate (GFR), and crude birth rate (CBR). ASFR provides the age pattern of fertility, while TFR refers to the number of live births that a woman would have had if she were subject to the current ASFRs throughout the reproductive ages (15-49 years). GFR is expressed as the number of live births per 1,000 women of reproductive age, and CBR is expressed as the number of live births per 1,000 population. The measures of fertility presented in this chapter refer to the three-year period prior to the survey. This generates a sufficient number of births to provide robust and current estimates.

Current estimates of fertility levels are presented in Table 4.1. Overall, the 2007 NDHS estimated a total TFR of 3.4. This means that on average, a Nauruan woman would have 3.4 children by the end of her reproductive period if the current ASFR remains constant at the level observed in the three-year period before the survey. The results show a declining trend of TFR from 4.0 in the 2002 census report. Table 4.1 also shows that GFR is estimated to be 119 children per 1,000 women aged 15-49 years, while CBR is reported to be 30 per 1,000 population.

Figure 4.1: Age-specific fertility rates for women aged 15-49 three years preceding the survey


ASFRs are depicted in Figure 4.1. The most fertile age group was $20-24$ years, with 200 births per 1,000 women. Fertility levels of women aged $40-44$ were very low, followed by women aged 35-39, and teenage women aged 15-19 who gave birth to an estimated 69 children per 1,000 women.

## Table 4.1: Current fertility

Age-specific, total rate, the general fertility rate, and the crude birth rates for the three years preceding the survey, by residence, Nauru 2007

| Age group | Total |
| :--- | :---: |
| $15-19$ | 69 |
| $20-24$ | 200 |
| $25-29$ | 155 |
| $30-34$ | 141 |
| $35-39$ | 56 |
| $40-44$ | 50 |
|  |  |
| TFR | 3.4 |
| GFR | 119 |
| CBR | 30.2 |

Notes: Age-specific fertility rates are per 1,000 women. Rates for the 45-49 age group 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.

### 4.3 FERTILITY TRENDS

Table 4.2 uses information from the retrospective birth histories obtained from the 2007 NDHS respondents to examine trends in ASFRs for successive five-year periods before the survey. To calculate these rates, births were classified according to the period in which the birth occurred and the mother's age at the time of birth. Because birth histories were not collected for women over the age of 50 , 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 aged 45-49 for the period five to nine years or more prior to the survey, because women in that age group would have been 50 years or older at the time of the survey.

## Table 4.2: 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, Nauru 2007

|  | Number of years preceding survey |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Mother's age at birth | $\mathbf{0 - 4}$ | $\mathbf{5 - 9}$ | $\mathbf{1 0 - 1 4}$ | $\mathbf{1 5 - 1 9}$ |
| $15-19$ | 84 | 105 | 101 | 108 |
| $20-24$ | 211 | 244 | 240 | 216 |
| $25-29$ | 168 | 211 | 228 | 236 |
| $30-34$ | 118 | 156 | 182 | $[176]$ |
| $35-39$ | 58 | 63 | $[103]$ |  |
| $40-44$ | $[29]$ | $[35]$ |  |  |

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

Table 4.2 and Figure 4.2 show fertility trends by mother's age at birth for the last 20 years roughly corresponding to the period 1988-2007. During the period 1988-2002, fertility trends for
all age groups remained relatively stable. During the period 1998-2007, changes in fertility level seem to have occurred at all age groups. For example, teenage fertility dropped from 105 to 84. There was also a decline of about 17 percent in fertility level among women aged 20-29.

Figure 4.2: Trends in age-specific fertility rates


### 4.4 CHILDREN EVER BORN AND LIVING

Table 4.3 and Figure 4.3 present the distribution of all women and currently married women by number of children ever born, according to five-year age groups. The table also shows the mean number of children ever born. Data on the number of children ever born reflect the accumulation of births to women over their entire reproductive years, and therefore have limited correlation with current fertility levels, particularly when a country has experienced a decline in fertility. However, the information on children ever born is useful for observing how average family size varies across age groups, and for observing the level of primary infertility, particularly for women who have not been able to conceive any children.
Table 4.3: Children ever born and living
Percent distribution of all women and currently married women by number of children ever born, mean number of children ever born and mean number of living children, according to age group, Nauru 2007

| Percentages of children ever born |  |  |  |  |  |  |  |  |  |  |  | Total | Number of women | Mean number of children ever born | Mean number of living children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10+ |  |  |  |  |
| ALL WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 89.2 | 8.5 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.00 | 117 | 0.13 | 0.12 |
| 20-24 | 47.9 | 16.0 | 22.0 | 10.7 | 2.9 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.00 | 131 | 1.07 | 0.99 |
| 25-29 | 30.4 | 14.0 | 16.4 | 14.9 | 11.2 | 13.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.00 | 96 | 2.02 | 1.94 |
| 30-34 | 22.0 | 5.8 | 15.6 | 9.0 | 13.9 | 14.4 | 13.5 | 0.9 | 4.9 | 0.0 | 0.0 | 100.00 | 85 | 3.18 | 3.07 |
| 35-39 | 18.3 | 15.6 | 9.8 | 8.3 | 15.8 | 7.2 | 12.7 | 2.9 | 8.4 | 0.0 | 0.9 | 100.00 | 61 | 3.34 | 3.23 |
| 40-44 | 12.4 | 11.9 | 7.8 | 11.5 | 8.2 | 17.7 | 13.2 | 3.9 | 6.8 | 5.7 | 0.9 | 100.00 | 62 | 4.05 | 3.89 |
| 45-49 | 9.3 | 12.7 | 6.5 | 14.9 | 12.2 | 9.4 | 5.5 | 4.1 | 8.2 | 4.2 | 13.0 | 100.00 | 66 | 4.72 | 4.35 |
| Total | 38.8 | 12.0 | 12.2 | 9.4 | 8.0 | 7.6 | 5.0 | 1.2 | 3.1 | 1.0 | 1.6 | 100.00 | 618 | 2.24 | 2.13 |
| CURRENTLY MARRIED WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | * | * | * | * | * | 100.00 | 21 | 0.61 | 0.53 |
| 20-24 | 25.0 | 19.1 | 33.6 | 18.3 | 2.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.00 | 76 | 1.58 | 1.45 |
| 25-29 | 24.6 | 10.0 | 18.2 | 19.1 | 12.3 | 15.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.00 | 69 | 2.32 | 2.22 |
| 30-34 | 14.7 | 4.1 | 17.4 | 9.1 | 14.9 | 17.4 | 16.4 | 1.1 | 4.9 | 0.0 | 0.0 | 100.00 | 71 | 3.58 | 3.44 |
| 35-39 | 16.4 | 12.7 | 9.7 | 9.4 | 17.3 | 8.2 | 12.4 | 3.3 | 9.6 | 0.0 | 1.0 | 100.00 | 54 | 3.57 | 3.45 |
| 40-44 | (6.4) | (11.2) | (8.1) | (15.1) | (9.1) | (17.3) | (10.2) | (5.1) | (8.9) | (7.5) | (1.2) | 100.00 | 47 | 4.44 | 4.30 |
| 45-49 | (12.8) | (4.3) | (5.8) | (15.6) | (13.1) | (12.9) | (4.3) | (3.9) | (8.0) | (5.8) | (13.5) | 100.00 | 48 | 4.94 | 4.59 |
| Total | 19.6 | 11.9 | 16.9 | 13.8 | 10.7 | 11.0 | 6.5 | 1.8 | 4.3 | 1.6 | 2.0 | 100.00 | 386 | 3.07 | 2.92 |

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

Figure 4.3: Mean number of children ever born


Overall, the mean number of children ever born for all Nauruan women is 2.24. Married women had, on average, 3.07 children. The number of children currently being born to women in Nauru exceeds the mean for all women, because the category 'all women' includes those who are single, separated and widowed, and who are therefore less likely to have children.

The mean number of children ever born increases with women's age. While women aged 15-19 had very few children, women aged 45-49 had 4.72 children, which is also called the completed fertility rate, a cohort measure demonstrating how many children a certain cohort of women who have completed their childbearing years actually produced during those years.

The data furthermore show that about 9 percent of women have had no children, which is an indication of voluntary or involuntary infertility.

### 4.5 BIRTH INTERVALS

A birth interval is defined as the length of time between two live births. The study of birth intervals is important in understanding the health status of young children. Research has shown that short birth intervals are closely associated with poor health in children, especially during infancy. Children born too close to a previous birth, especially if the interval between the births is less than two years, are at increased risk of health problems and dying at an early age. Longer birth intervals, on the other hand, contribute to the improved health status of both mother and child.

The study of birth intervals uses two measures: median birth interval and proportion of non-first births that occur with an interval of 24 months or more after the previous birth. Table 4.4 presents the distribution of second- and higher-order births in the five years preceding the survey by the number of months since the previous birth, according to background characteristics. The table also presents the median number of months since the preceding birth.

Table 4.4: Birth intervals
Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Nauru 2007

| Background characteristic | Months since preceding birth |  |  |  |  |  |  | Number of nonfirst births | Median number of months since preceding birth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 7-17 | 18-23 | 24-35 | 36-47 | 48-59 | 60+ | Total |  |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | 100.0 | 3 | 18.4 |
| 20-29 | 17.2 | 27.8 | 31.6 | 14.7 | 2.8 | 5.9 | 100.0 | 143 | 25.8 |
| 30-39 | 12.0 | 12.9 | 28.3 | 22.3 | 9.1 | 15.4 | 100.0 | 78 | 35.1 |
| 40-49 | * | * | * | * | * | * | 100.0 | 18 | 32.2 |
| Birth order |  |  |  |  |  |  |  |  |  |
| 2-3 | 17.0 | 27.3 | 27.5 | 12.9 | 3.8 | 11.4 | 100.0 | 131 | 25.9 |
| 4-6 | 12.4 | 15.5 | 35.0 | 20.3 | 6.6 | 10.3 | 100.0 | 93 | 31.4 |
| 7+ | * | * | * | * | * | * | 100.0 | 18 | 30.9 |
| Sex of preceding birth |  |  |  |  |  |  |  |  |  |
| Male | 14.3 | 19.6 | 35.8 | 13.4 | 4.9 | 12.0 | 100.0 | 126 | 28.9 |
| Female | 16.1 | 25.0 | 25.6 | 19.6 | 5.0 | 8.6 | 100.0 | 116 | 28.2 |
| Survival of preceding birth |  |  |  |  |  |  |  |  |  |
| Living | 15.2 | 21.9 | 30.9 | 16.2 | 5.1 | 10.6 | 100.0 | 235 | 28.7 |
| Dead | * | * | * | * | * | * | 100.0 | 7 | 25.1 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 21.6 | 19.0 | 28.0 | 17.5 | 4.1 | 9.8 | 100.0 | 50 | 28.7 |
| Second | 14.6 | 27.5 | 31.3 | 8.3 | 9.0 | 9.4 | 100.0 | 50 | 26.3 |
| Middle | 12.4 | 15.5 | 31.2 | 25.0 | 5.5 | 10.5 | 100.0 | 51 | 33.0 |
| Fourth | (15.5) | (27.0) | (33.5) | (17.5) | (0.0) | (6.5) | 100.0 | 44 | 26.9 |
| Highest | (11.5) | (22.7) | (31.0) | (13.5) | (5.8) | (15.6) | 100.0 | 46 | 28.5 |
| Total | 15.2 | 22.2 | 30.9 | 16.4 | 5.0 | 10.4 | 100.0 | 241 | 28.5 |

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

Birth intervals in Nauru are relatively short with a median birth interval of 28.5 months. Factors that are likely to contribute to this short birth interval are discussed in other chapters. The relatively short period of postpartum amenorrhea, low percentage of women breast feeding, and the low proportion of current use of family planning among married women all contribute.

The median birth interval is substantially longer for mothers aged 30-39, and for birth orders 4-6.

### 4.6 AGE AT FIRST BIRTH

The age at which childbearing commences is an important determinant of the overall level of fertility as well as the health and welfare of the mother and child. Early initiation into childbearing lengthens the reproductive period and, subsequently increases fertility. In some societies, postponement of first births due to an increase in age at marriage has contributed to the overall fertility decline. Table 4.5 shows the percentage of women who have given birth by specific ages, according to their age at the time of the survey.

Overall, the median age at first birth for women aged $25-49$ is estimated to be 22 years. The median age at first birth is not calculated for those women at aged $15-24$ because less than 50 percent of them were not mothers before reaching the beginning of age groups 15-19 and $20-24$. In general, there is little variation in age at first birth among the different age groups. For
example, median age at first birth for women in the $25-29$ age group is about 22.1 whereas for women in the 45-49 age it is 21.6 .

Table 4.5: Age at first birth
Percentage of women aged 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Nauru 2007

| Current age | Percentage who gave birth by exact age |  |  |  |  | Percentage who have never given birth | Number of women | Median age at first birth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15 | 18 | 20 | 22 | 25 |  |  |  |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | 0.7 | na | na | na | na | 89.2 | 117 | a |
| 20-24 | 0.7 | 21.5 | 39.3 | na | na | 47.9 | 131 | a |
| 25-29 | 0.0 | 13.4 | 36.3 | 49.2 | 65.3 | 30.4 | 96 | 22.1 |
| 30-34 | 0.0 | 17.6 | 34.1 | 56.0 | 63.6 | 22.0 | 85 | 21.1 |
| 35-39 | 0.0 | 20.4 | 32.6 | 45.1 | 61.6 | 18.3 | 61 | 23.0 |
| 40-44 | 2.9 | 18.8 | 28.3 | 48.9 | 73.0 | 12.4 | 62 | 22.2 |
| 45-49 | 0.0 | 18.2 | 32.9 | 54.7 | 82.7 | 9.3 | 66 | 21.6 |
| 20-49 | 0.5 | 18.4 | 34.8 | na | na | 27.1 | 501 | 21.9 |
| 25-49 | 0.5 | 17.3 | 33.2 | 51.0 | 68.7 | 19.7 | 371 | 21.9 |

na $=$ not applicable
$a=$ omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

### 4.7 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy is a major health concern because of its association with higher morbidity and mortality for both the mother and child. Childbearing during teenage years also frequently has adverse social consequences, particularly on female educational attainment because women who become mothers in their teens are more likely to curtail their education.

Table 4.6 shows the percentage of women aged 15-19 who are mothers or who are pregnant with their first child. The results show that 15 percent of adolescent-aged females (15-19 years) have begun childbearing. About 11 percent have had a live birth and 4 percent are currently pregnant with their first child during the survey. However, caution should be exercised when interpreting teenage pregnancy because there might be cases where first pregnancies are under-reported.

Table 4.6: Teenage pregnancy and motherhood
Percentage of women aged 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, Nauru 2007

|  | Percentage who: |  | Percentage who <br> have begun <br> childbearing | Number of <br> women |
| :--- | :---: | :---: | :---: | :---: |
| Background characteristic | Have had a live <br> birth | Are pregnant with <br> first child |  |  |
| Age | $*$ | $*$ | $*$ | 11 |
| 15 | $*$ | $*$ | $(23.4)$ | 22 |
| 16 | $(5.7)$ | $(17.7)$ | $(17.1)$ | 28 |
| 17 | $(17.1)$ | $(0.0)$ | $(15.5)$ | 27 |
| 18 | $(15.5)$ | $(0.0)$ |  | 29 |
| 19 |  |  | 15.0 | 117 |

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

### 4.8 KEY RESULTS

This section summarises the key findings of fertility levels and differences that are important to consider in future development planning and policy decisions towards population growth, and service delivery, including education and healthcare in Nauru. Nauru, like many other Pacific Island countries, experiences significant challenges associated with high fertility lev0.els, the main source of high population growth. High population is often associated with socioeconomic problems, including high unemployment, urban growth with unplanned settlement practices, and poor environmental health.

The 2007 NDHS reported a fertility level of 3.4 births per woman, implying that on average a Nauruan woman would have three to four children by the time she ended her childbearing years if she were to pass through her childbearing years conforming to the ASFRs observed during this period. This translates into a 17 percent decline in the overall fertility level of 4.0 children per woman as estimated from the 2002 population census. However, with this decline, Nauru's fertility level is still above a replacement level of 2.1 births per woman. This means that couples are still having more children than needed for population replacement, resulting in population growth.

Other findings include:

1. ASFRs show that childbearing mostly occurs in women in the $20-24$ year age group. There is a declining ASFR trend after this.
2. The mean number of children ever born for currently married woman is 3.07 births. The mean number of children increases with women's increasing age.
3. The median birth interval since the previous birth has been estimated at 29 months, which indicates that half of all births occur in a birth interval of less than three years.
4. The median age of women at first birth is 22 years, which implies that half of all births occur in women below this age.
5. By age 19 , about one in five teenage girls has already begun bearing children.

## CHAPTER 5 FAMILY PLANNING

This chapter describes and analyses information from the 2007 NDHS on contraceptive knowledge; past, current and future use of contraception; and attitudes pertaining to contraception. While the results primarily focus on women, some results from the male survey are discussed because men play an important role in reproductive health decision-making, and the realisation of reproductive health goals. Data on exposure to family planning messages through the media, sources and costs of contraception, contact with family planning providers, and husbands' attitude and knowledge about their wives' contraceptive use are also presented.

These topics are of practical use to policy and programme managers in formulating effective family planning strategies. One important indicator resulting from this survey is the percentage of married women, aged 15-49 years, who are currently using any method of contraception referred to as the contraceptive prevalence rate.

### 5.1. KNOWLEDGE OF CONTRACEPTION

A major objective of the 2007 NDHS was to assess the level of knowledge of contraceptive methods among women and men. Individuals who have adequate information about the available contraceptive methods are better able to develop a rational approach to planning their families. The ability to spontaneously name or recognise a family planning method when it is described is a simple test of a respondent's knowledge, but is not necessarily an indication of willingness to use family planning. Information on knowledge of contraception was collected in the survey by asking female and male respondents to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent had heard of it. Contraceptive methods are grouped into two types in Table 5.1. Modern methods include female sterilisation, male sterilisation, pill, intrauterine contraceptive device (IUD), injectables, implants, male condom, female condom, lactational amenorrhea method (LAM), and emergency contraceptives. Traditional methods include rhythm method (periodic abstinence), withdrawal and folk methods.

In Table 5.1, information about knowledge of contraceptive methods is presented for all women and men as well as for currently married and sexually active unmarried women and men by specific methods. Findings from the 2007 NDHS show that knowledge of at least one modern method of family planning in Nauru is almost universal among both women and men. The most widely known modern contraceptive methods among currently married women are male condoms ( 88 percent), pill ( 80 percent), injectables( 75 percent), female sterilisation ( 67 percent), and IUD ( 59 percent). Twenty-six percent of married women knew about implants, 34 percent of women had heard of LAM, and 16 percent of women had heard of emergency contraception. This pattern is similar for all currently married and sexually active unmarried men, except that men are more likely than women to have heard of male and female condoms and are less likely to have knowledge about pills. Emergency contraception ( 15 percent) was the least known method among married and unmarried females, while LAM was the least known method among both married and unmarried males (4 percent).

Effective use of LAM means that a woman is exclusively or predominantly breastfeeding, is less than six months postpartum, is postpartum amenorrheic, and knows how to use another contraceptive method when any of the previous criteria do not hold.

Table 5.1: Knowledge of contraceptive methods
Percentage of all respondents, currently married respondents and sexually active unmarried respondents aged 15-49 who know any contraceptive method, by specific method, Nauru 2007

| Method | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All women | Currently married women | Sexually active unmarried woman ${ }^{1}$ | All men | Currently married men | Sexually active unmarried men ${ }^{1}$ |
| Any method | 92.6 | 95.6 | (95.2) | 98.7 | 99.2 | (100.0) |
| Any modern method | 91.9 | 94.5 | (95.2) | 98.4 | 98.7 | (100.0) |
| Female sterilisation | 61.2 | 68.5 | (60.6) | 61.5 | 74.9 | (53.6) |
| Male sterilisation | 29.9 | 33.7 | (33.1) | 27.4 | 34.9 | (25.8) |
| Pill | 73.5 | 79.8 | (66.7) | 51.0 | 59.9 | (54.5) |
| IUD | 50.3 | 58.8 | (39.3) | 17.3 | 23.9 | (17.5) |
| Injectables | 65.4 | 72.5 | (56.7) | 28.8 | 36.6 | (19.6) |
| Implants | 22.5 | 25.7 | (27.9) | 9.0 | 10.4 | (6.1) |
| Male condom | 86.5 | 87.8 | (90.2) | 98.0 | 98.7 | (100.0) |
| Female condom | 27.7 | 26.7 | (30.1) | 35.5 | 34.4 | (55.3) |
| Lactational amenorrhea (LAM) | 29.1 | 34.0 | (32.4) | 4.4 | 6.6 | (4.3) |
| Emergency contraception | 15.0 | 15.5 | (12.5) | 13.4 | 16.1 | (19.6) |
| Any traditional method | 74.9 | 82.1 | (70.9) | 78.7 | 77.6 | (89.0) |
| Rhythm | 54.5 | 61.0 | (42.0) | 23.2 | 29.6 | (25.9) |
| Withdrawal | 61.6 | 69.7 | (61.4) | 76.3 | 74.0 | (89.0) |
| Folk method | 15.4 | 14.7 | (20.9) | 8.2 | 8.9 | (10.5) |
| Mean number of methods known by respondents 15-49 | 5.9 | 6.5 | 5.7 | 4.5 | 5.1 | 4.8 |
| Number of respondents | 618 | 386 | 40 | 311 | 183 | 36 |
| Mean number of methods known by respondents 15+ | na | na | na | 4.7 | 5.2 | 4.8 |
| Number of respondents | na | na | na | 354 | 216 | 36 |

Note: Figures in parentheses are based on 25-49 unweighted cases.
na $=$ not applicable
${ }^{1}$ Had last sexual intercourse within 30 days preceding the survey.

Among sexually active unmarried women, few respondents had knowledge about emergency contraception, implants and female condoms. LAM and implants were reported to be the least known of modern family planning methods among active unmarried men.

A greater proportion of women and men knew of a modern contraceptive method than a traditional method. Knowledge of any traditional contraceptive method among all groups of women ranged between 70 percent and 83 percent. Reported knowledge of traditional methods was much higher among men ( 89 percent). The mean number of known contraceptive methods varied by the marital status of women and men, with the lowest number of methods (five) estimated for unmarried men while the highest ( 7 methods) was observed for married women.

The high level of knowledge could be attributed to the successful dissemination of family planning messages through outreach programmes and the revitalised family planning programme. Emergency contraception was the least known method among both married women and sexually active unmarried women. This may be attributed to the fact that emergency contraception is being newly introduced to the family planning programme. Wide knowledge of condoms is due to the expansion of the STI and HIV prevention programme.

### 5.2 KNOWLEDGE OF CONTRACEPTIVE METHODS BY BACKGROUND CHARACTERISTICS

Table 5.2 explores the level of knowledge about contraceptive methods for currently married women and men aged 15-49 who have heard of at least one contraceptive method or who have heard of at least one modern method by their background characteristics. The table is restricted to currently married women and men in order to facilitate comparison between subgroups.

Table 5.2: Knowledge of contraceptive methods by background characteristics
Percentage of currently married women and currently married men aged 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method by background characteristics, Nauru 2007

| Background characteristic | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Heard of any method | Heard of any modern method ${ }^{1}$ | Number | Heard of any method | Heard of any modern method ${ }^{1}$ | Number |
| Age |  |  |  |  |  |  |
| 15-24 | 97.8 | 97.8 | 98 | 100.0 | (97.3) | 32 |
| 25-29 | 95.1 | 94.0 | 69 | 100.0 | (100.0) | 40 |
| 30-34 | 94.0 | 94.0 | 71 | 100.0 | (100.0) | 39 |
| 35-39 | (99.0) | (94.8) | 54 | 95.2 | (95.2) | 30 |
| 40-49 | 92.9 | 91.5 | 95 | 100.0 | (100.0) | 43 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | * | 7 | * | * | 9 |
| Secondary | 95.5 | 94.6 | 353 | 100.0 | 99.5 | 160 |
| More than secondary | (97.0) | (97.0) | 26 | * | * | 14 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 94.2 | 94.2 | 62 | * | * | 23 |
| Second | 92.9 | 91.4 | 81 | 100.0 | 100.0 | 44 |
| Middle | 95.3 | 93.7 | 82 | 100.0 | 100.0 | 45 |
| Fourth | 96.3 | 94.2 | 82 | 100.0 | 97.2 | 31 |
| Highest | 99.0 | 99.0 | 79 | 100.0 | 100.0 | 41 |
| Total 15-49 | 95.6 | 94.5 | 386 | 99.2 | 98.7 | 183 |
| 50+ | na | na | na | 95.7 | 95.7 | 33 |
| Total men 15+ | na | na | na | 98.7 | 98.3 | 216 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
na = not applicable
${ }^{1}$ Female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, diaphragm, foam or jelly, lactational amenorrhea method (LAM), and emergency contraception.

Family planning knowledge was measured against three characteristics: age, educational level and wealth. It was found that the level of knowledge exceeded 90 percent for married women and men. However, the 40-49 year age group of married women has a slightly lower level of knowledge of any method or any modern method; also, slightly lower levels of knowledge were reported for currently married men in the $35-39$ age group. It was reported that the highest level of knowledge of any method is higher in the $35-39$ age group. Those women and men with little education and those in the second lowest wealth quintile had slightly lower levels of knowledge of at least one contraceptive method.

### 5.3 EVER USE OF CONTRACEPTION: WOMEN AND MEN

Data on ever use of contraception has special significance because it reveals the cumulative success of programmes in promoting the use of family planning among couples. Ever use refers to the use of a method at any time, with no distinction between past and present use. In the 2007 NDHS, respondents who had heard of a family planning method were asked if they had ever used a method.

Table 5.3 .1 shows the percentage of all women and currently married women who have ever used family planning methods, by specific method and age. About 64 percent of currently married women have used a contraceptive method, 52 percent have used a modern method, while 37 percent have used traditional methods. The most common methods of modern family planning that have ever used among currently married women were reported to be male condoms (23 percent), female sterilisation (13 percent) and injectables (12 percent). Negligible levels of use were reported for emergency contraception, male sterilisation and female condoms.

Among currently married women, use of any modern contraception during a lifetime was higher among younger women and lower among women aged 35 and older. There is a relationship between age and choice of methods. Male condoms were used more often among partners of younger married women aged $20-29$, while pills were the preferred choice of older married women aged 35-39. Injectables were also common among younger currently married women, but usage declined by age 30 and over, indicating that younger currently married women were using this method for birth spacing rather than limiting the number of children.

The 2007 NDHS collected information on ever use of contraception for men as well, but with respect to four male methods only: male sterilisation, male condoms, rhythm method and withdrawal. As evident in Table 5.3.2, 68 percent of currently married men aged 15-49 have ever used a method in the past, with 56 percent having used an effective modern method, and 49 percent having used less effective traditional methods.

The most common methods used among men were male condoms and withdrawal. The methods least used were male sterilisation and rhythm. Contraceptive use among younger men aged 15-19 was lower (male condoms 38 percent, withdrawal 29 percent) than among slightly older men aged 20-24, which may be related to different levels of sexual activity between the two age groups.
Table 5.3.1: Ever use of contraception: Women
Percentage of all women, currently married women, and sexually active unmarried women aged 15-49 who have ever used any contraceptive method by method, according to age, Nauru 2007

|  |  |  | Modern method |  |  |  |  |  |  |  |  | Traditional method |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Any method | Any modern method | Female sterilisation | Male sterilisation | Pill | IUD | Injectables | Male condom | Female condom | LAM | Emergency contraception | Anytraditional method | Rhythm | Withdrawal | Folk method | Number of women |
| ALL WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 24.2 | 19.1 | 0.0 | 0.0 | 1.3 | 0.0 | 0.9 | 17.5 | 0.0 | 0.7 | 0.0 | 14.6 | 1.1 | 12.7 | 0.8 | 117 |
| 20-24 | 58.2 | 41.5 | 0.0 | 0.0 | 3.9 | 2.4 | 11.0 | 31.9 | 0.7 | 5.7 | 0.0 | 35.8 | 13.6 | 29.0 | 2.6 | 131 |
| 25-29 | 61.0 | 49.3 | 4.6 | 1.2 | 13.1 | 2.6 | 20.0 | 33.8 | 1.1 | 11.7 | 0.0 | 42.7 | 16.7 | 37.8 | 4.5 | 88 |
| 30-34 | 66.6 | 51.2 | 15.8 | 1.0 | 5.8 | 2.4 | 13.2 | 22.8 | 0.0 | 19.3 | 0.0 | 50.4 | 27.2 | 30.7 | 4.6 | 82 |
| 35-39 | 62.1 | 52.5 | 14.3 | 0.0 | 21.8 | 14.9 | 7.7 | 15.5 | 0.0 | 8.9 | 0.0 | 33.9 | 18.5 | 22.3 | 3.3 | 60 |
| 40-49 | 46.1 | 40.6 | 23.5 | 0.0 | 9.2 | 5.8 | 4.9 | 6.6 | 0.0 | 4.7 | 0.8 | 17.8 | 6.1 | 8.6 | 5.2 | 123 |
| Total | 51.5 | 40.9 | 9.2 | 0.5 | 8.0 | 3.8 | 9.1 | 21.6 | 0.3 | 7.7 | 0.2 | 31.5 | 12.8 | 23.1 | 3.3 | 618 |
| CURRENTLY MARRIED WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 21 |
| 20-24 | 69.0 | 50.5 | 0.0 | 0.0 | 5.0 | 4.0 | 18.9 | 34.0 | 1.2 | 8.8 | 0.0 | 37.7 | 12.4 | 31.8 | 2.3 | 76 |
| 25-29 | 66.6 | 55.0 | 5.9 | 1.5 | 12.2 | 1.1 | 20.9 | 34.9 | 1.4 | 15.1 | 0.0 | 46.8 | 16.6 | 40.4 | 5.8 | 69 |
| 30-34 | 69.3 | 56.2 | 18.3 | 1.1 | 5.5 | 2.8 | 13.3 | 25.3 | 0.0 | 21.3 | 0.0 | 51.4 | 31.4 | 30.0 | 3.9 | 71 |
| 35-39 | 62.0 | 51.3 | 15.9 | 0.0 | 21.4 | 16.7 | 7.2 | 11.5 | 0.0 | 9.9 | 0.0 | 35.7 | 18.4 | 22.7 | 3.6 | 54 |
| 40-49 | 52.7 | 46.5 | 26.9 | 0.0 | 10.2 | 7.4 | 4.6 | 6.1 | 0.0 | 4.5 | 1.0 | 18.7 | 5.2 | 10.2 | 5.9 | 95 |
| Total | 63.5 | 51.5 | 13.3 | 0.5 | 9.7 | 5.7 | 12.3 | 23.1 | 0.5 | 11.0 | 0.3 | 37.0 | 15.3 | 26.6 | 4.2 | 386 |
| SEXUALLY ACTIVE UNMARRIED WOMEN ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | (50.7) | (40.1) | (6.0) | (3.1) | (7.7) | (0.0) | (4.5) | (29.8) | (0.0) | (4.4) | (0.0) | (35.1) | (14.6) | (30.1) | (2.0) | 40 |
| Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{1}$ Women who had sexual intercourse within 30 days preceding the survey |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 5.3.2: Ever use of contraception: Men
Percentage of all men aged 15-49 and above who have ever used any contraceptive method by method, according to age, Nauru 2007

| Age | Any method | Any modern method | Modern method |  | Any traditional method | Traditional method |  | Number of men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Male sterilisation | Male condom |  | Rhythm | Withdrawal |  |
| 15-19 | 42.0 | 37.9 | 0.0 | 37.9 | 29.2 | 1.5 | 29.2 | 60 |
| 20-24 | 82.8 | 71.0 | 2.8 | 69.8 | 65.3 | 4.3 | 63.8 | 57 |
| 25-29 | 72.8 | 58.2 | 0.0 | 58.2 | 53.3 | 15.3 | 53.3 | 53 |
| 30-34 | 72.3 | 58.9 | 1.7 | 58.9 | 58.4 | 6.0 | 58.4 | 44 |
| 35-39 | 66.7 | 56.5 | 0.0 | 56.5 | 45.6 | 8.7 | 45.6 | 38 |
| 40-49 | 70.0 | 52.5 | 1.4 | 51.1 | 37.8 | 8.8 | 35.2 | 49 |
| Total 15-49 | 68.4 | 55.5 | 1.0 | 55.0 | 49.3 | 7.4 | 48.4 | 311 |
| 50+ | 64.8 | 41.4 | 2.1 | 39.3 | 51.3 | 22.7 | 46.7 | 43 |
| Total men 15+ | 68.0 | 53.8 | 1.1 | 53.1 | 49.5 | 9.2 | 48.2 | 354 |

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

Figure 5.1: Proportion of all men and women who have ever used any method of contraception, Nauru 2007


Figure 5.1 shows the proportion of all women and men who have ever used any method of family planning by age at the time of the 2007 NDHS. Generally, a higher proportion of currently married men have ever used any method of family planning for all ages as compared with women. Ever use of contraception varies with age for men and women. The pattern of ever use is curvilinear, with use being lowest among women in the youngest age group (15-19), increasing with age to a plateau among women in their 30s and 40 s . The level of ever use of any method among all women rises to 67 percent among those aged 30-34, and then slightly declines as age increases. Among all women aged $15-19$, only 24 percent reported having ever used any method, while 19 percent of these women in this age group reported having used any method. For men
aged 15-19, 38 percent reported having used any modern method and 42 percent for any method. Differences between age groups may reflect lifetime effects and/or genuine cohort change.

### 5.4 CURRENT USE OF CONTRACEPTION BY AGE

Current use of contraception is defined as the proportion of women who reported the use of a family planning method at the time of the interview. The level of current use - usually calculated among currently married women aged 15-49 - is the most widely used measure of the success of family planning programmes (referred to as the contraceptive prevalence rate). Furthermore, it can be used to estimate the reduction in fertility attributable to contraception. To collect information on current use of contraception among Nauruan women, respondents in the childbearing ages (15-49 years) were asked whether they were currently using any methods, and if so which methods they were using. All current methods that were used and reported from all women were then recorded. Table 5.4 shows the percent distribution of all women and currently married women who are currently using specific family planning methods by age. Similar information on current use was not collected for men.

Table 5.4 shows that approximately 36 percent of currently married women are using a family planning method, with 25 percent using a modern contraceptive method. The most commonly used modern method was female sterilisation ( 13 percent), followed by IUD ( 4 percent), male condoms ( 3 percent), injectables ( 2 percent) and LAM ( 2 percent). For traditional methods, the most commonly used were rhythm and withdrawal (about 5 percent for both methods). Use of other methods was reported as negligible.

Patterns of contraceptive use vary by age. Low contraceptive use in the 15-19 age group is expected as most young women are still in school and most are not sexually active. Contraceptive use increases in the 20-24 age group and further increases in women who are in their late 20s and 30 s , and is maintained in the later reproductive years above 40 .
Table 5.4: Current use of contraception by age
Percent distribution of all women, currently married women, and sexually active unmarried women aged 15-49 by contraceptive method currently used, according to age, Nauru 2007

| Age | Any method | Any modern method | Modern method |  |  |  |  |  |  | Any traditional method | Traditional method |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Female sterilisation | Male sterilisation | Pill | IUD | Injectables | $\begin{gathered} \text { Male } \\ \text { condom } \end{gathered}$ | LAM |  | Rhythm | Withdrawal | Folk method | $\begin{gathered} \text { Not } \\ \text { currently } \\ \text { using } \end{gathered}$ | Total | Number of women |
| ALL WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 8.5 | 3.8 | 0.0 | 0.0 | 0.7 | 0.0 | 0.9 | 1.6 | 0.7 | 4.7 | 1.1 | 3.6 | 0.0 | 91.5 | 100.0 | 117 |
| 20-24 | 20.8 | 10.2 | 0.0 | 0.0 | 0.7 | 0.0 | 3.1 | 5.6 | 0.8 | 10.5 | 5.1 | 5.5 | 0.0 | 79.2 | 100.0 | 131 |
| 25-29 | 30.0 | 18.3 | 4.2 | 0.0 | 3.3 | 0.8 | 0.0 | 5.5 | 4.4 | 11.7 | 3.9 | 5.6 | 2.2 | 70.0 | 100.0 | 96 |
| 30-34 | 34.4 | 23.8 | 15.1 | 0.9 | 1.5 | 1.4 | 1.8 | 0.6 | 2.4 | 10.6 | 5.6 | 5.0 | 0.0 | 65.6 | 100.0 | 85 |
| 35-39 | 38.8 | 31.4 | 15.7 | 0.0 | 0.0 | 10.5 | 2.1 | 3.2 | 0.0 | 7.4 | 5.8 | 0.0 | 1.6 | 61.2 | 100.0 | 61 |
| 40-49 | 35.9 | 31.0 | 23.7 | 0.0 | 0.0 | 5.0 | 0.7 | 1.0 | 0.7 | 4.9 | 2.6 | 0.9 | 1.4 | 64.1 | 100.0 | 128 |
| Total | 26.7 | 18.5 | 9.2 | 0.1 | 1.0 | 2.4 | 1.4 | 2.9 | 1.5 | 8.1 | 3.8 | 3.6 | 0.8 | 73.3 | 100.0 | 618 |
| CURRENTLY MARRIED WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 100.0 | 21 |
| 20-24 | 27.0 | 12.7 | 0.0 | 0.0 | 1.2 | 0.0 | 5.4 | 4.7 | 1.4 | 14.4 | 6.1 | 8.3 | 0.0 | 73.0 | 100.0 | 76 |
| 25-29 | 33.1 | 22.2 | 5.9 | 0.0 | 2.3 | 1.1 | 0.0 | 7.8 | 5.1 | 10.9 | 1.1 | 6.7 | 3.0 | 66.9 | 100.0 | 69 |
| 30-34 | 39.8 | 27.0 | 18.3 | 1.1 | 0.0 | 1.7 | 2.2 | 0.8 | 2.9 | 12.8 | 6.8 | 6.0 | 0.0 | 60.2 | 100.0 | 71 |
| 35-39 | 38.6 | 30.1 | 15.9 | 0.0 | 0.0 | 11.9 | 2.4 | 0.0 | 0.0 | 8.4 | 6.6 | 0.0 | 1.8 | 61.4 | 100.0 | 54 |
| 40-49 | 43.3 | 36.8 | 26.9 | 0.0 | 0.0 | 6.6 | 1.0 | 1.3 | 1.0 | 6.5 | 3.4 | 1.2 | 1.8 | 56.7 | 100.0 | 95 |
| Total | 35.6 | 25.1 | 13.3 | 0.2 | 0.6 | 3.8 | 2.3 | 2.8 | 2.1 | 10.5 | 4.7 | 4.5 | 1.2 | 64.4 | 100.0 | 386 |
| SEXUALLY ACTIVE UNMARRIED WOMEN ${ }^{\text {1 }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | (23.9) | (18.8) | (6.0) | (0.0) | (5.1) | (0.0) | (0.0) | (5.8) | (1.9) | (5.1) | (3.1) | (2.0) | (0.0) | (76.1) | 100.0 | 40 | Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.

If more than one method is used, only the most effective method is considered in this tabulation.
If more than one method is used, only the most effective method is considered in this tabulation.
LAM = lactational amenorrhea method
${ }^{1}$ Women who have had sexual intercourse within 30 days preceding the survey.

### 5.5 CURRENT USE OF CONTRACEPTION BY BACKGROUND CHARACTERISTICS

The study of contraceptive use by background characteristics is important because it indicates which subgroups use family planning methods more commonly than others. This way, family planning programmes are informed about the need for targeted intervention for particular subgroups. Table 5.5 presents the percent distribution of married women by their current use of family planning methods, according to background characteristics. This table allows a comparison of contraceptive use among major population groups, and permits an examination of differences in the method mix among current users within various subgroups

The relationship between education and contraceptive use is mixed. Use of modern methods is highest among women with a secondary education ( 26 percent) and lower among women with more than a secondary education ( 18 percent). This could be due to the very small number of cases for women with more than a secondary education. The most popular modern method among women with a secondary education is female sterilisation (13 percent), followed by IUD ( 4 percent) and male condoms ( 3 percent).

There is a direct association between the use of modern family planning methods and the number of children women have. Only 6 percent of women who have yet to have children use modern contraception; the percentage increases to 34 percent among women with three to four children, and to 46 percent among women with five or more children. As expected, permanent methods are popular among high-parity women. Use of female sterilisation increases with the number of living children a woman has. Approximately 32 percent of women with five or more children reported using female sterilisation. Injectables, male condoms and IUD are also more popular among women with one to four children. Injectables are more popular for a number of reasons: they're easily accessible because supplies are available at most health facilities; they work for a relatively long time; they are convenient to use; and their use can be kept private. Male condoms are more commonly used among women who have not yet had children.

Contraceptive use does not show a clear relationship with wealth quintiles. However, women in the fourth quintile were the most likely to use modern contraception ( 29 percent). The lowest quintile reported the least use of any modern contraception. Female sterilisation was popular among all levels of wealth quintiles. Women in the highest wealth quintile reported the highest use of female sterilisation and IUD.
Table 5.5: Current use of contraception by background characteristics
Percent distribution of currently married women aged 15-49 by contraceptive method currently used, according to background characteristics, Nauru 2007

| Background characteristic | Any method | Any modern method | Modern method |  |  |  |  |  |  | Any traditional method | Traditional method |  |  | Not currently using | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Female sterilisation | Male sterilization | Pill | IUD | Injectables | Male condom | LAM |  | Rhythm | Withdrawal | Folk method |  |  |  |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 100.0 | 7 |
| Secondary | 36.8 | 26.1 | 13.3 | 0.2 | 0.7 | 4.0 | 2.5 | 3.0 | 2.3 | 10.7 | 5.0 | 4.4 | 1.4 | 63.2 | 100.0 | 353 |
| More than secondary | (24.3) | (18.4) | (16.2) | (0.0) | (0.0) | (2.1) | (0.0) | (0.0) | (0.0) | (5.9) | (3.0) | (3.0) | (0.0) | (75.7) | 100.0 | 26 |
| Number of living children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 7.5 | 6.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 | 1.5 | 0.0 | 0.0 | 1.5 | 92.5 | 100.0 | 80 |
| 1-2 | 27.4 | 13.0 | 3.1 | 0.0 | 2.2 | 0.9 | 2.4 | 2.2 | 2.2 | 14.4 | 6.6 | 5.5 | 2.3 | 72.6 | 100.0 | 114 |
| 3-4 | 48.9 | 34.1 | 15.3 | 0.9 | 0.0 | 6.4 | 4.3 | 2.9 | 4.3 | 14.8 | 7.9 | 6.9 | 0.0 | 51.1 | 100.0 | 93 |
| $5+$ | 55.5 | 46.3 | 32.2 | 0.0 | 0.0 | 7.8 | 2.2 | 2.3 | 1.7 | 9.1 | 3.4 | 4.7 | 1.0 | 44.5 | 100.0 | 98 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 30.8 | 21.5 | 10.8 | 0.0 | 0.0 | 1.8 | 2.9 | 4.9 | 1.2 | 9.3 | 3.7 | 2.8 | 2.8 | 69.2 | 100.0 | 62 |
| Second | 39.2 | 24.5 | 12.5 | 0.0 | 0.0 | 3.4 | 2.1 | 1.4 | 5.2 | 14.7 | 5.5 | 9.2 | 0.0 | 60.8 | 100.0 | 81 |
| Middle | 30.9 | 23.7 | 14.7 | 0.0 | 0.0 | 3.6 | 1.1 | 2.4 | 1.9 | 7.2 | 5.0 | 2.2 | 0.0 | 69.1 | 100.0 | 82 |
| Fourth | 39.4 | 28.9 | 12.6 | 1.0 | 3.1 | 3.0 | 1.5 | 5.6 | 2.2 | 10.5 | 4.1 | 4.1 | 2.3 | 60.6 | 100.0 | 82 |
| Highest | 36.7 | 26.2 | 15.2 | 0.0 | 0.0 | 6.8 | 4.1 | 0.0 | 0.0 | 10.5 | 5.2 | 3.8 | 1.5 | 63.3 | 100.0 | 79 |
| Total | 35.6 | 25.1 | 13.3 | 0.2 | 0.6 | 3.8 | 2.3 | 2.8 | 2.1 | 10.5 | 4.7 | 4.5 | 1.2 | 64.4 | 100.0 | 386 |

Figure 5.2: Current use of contraception among currently married women by background characteristics, Nauru 2007


### 5.6 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

To determine the timing of the initiation of family planning in relation to childbirth, the 2007 NDHS asked all women about the number of living children they had when they first used family planning methods. Table 5.6 shows the distribution of women by age group and by the number of living children at first use of contraception. This table permits an analysis of cohort changes in parity at first use of contraception.

About 9 percent of all women first used a family planning method when they had four or more children, 21 percent of all women first used family planning at the time they had no children, and 9 percent first used it after the birth of their first child.
An important point of this table is cohort change in parity at first use of contraception. Younger women report first use of contraception at lower parities than older women, suggesting a shift toward the early use of contraception and the desire to delay childbearing among Nauruan women. For example, 32 percent of women aged 20-24 initiated use before having any children, compared with 16 percent of women aged $35-39$. This may be because young women are more likely to use contraceptives to space apart births, whereas older women used them to limit births after they have reached high parities ( $4+$ children).

Table 5.6: Number of children at first use of contraception
Percent distribution of women aged 15-49 by number of living children at the time of first use of contraception, according to current age, Nauru 2007

| Current age | Never used | Number of living children at time of first use of contraception |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 0 | 1 | 2 | 3 | 4+ | Missing |  |  |
| 15-19 | 75.8 | 19.7 | 2.9 | 1.5 | 0.0 | 0.0 | 0.0 | 100.0 | 117 |
| 20-24 | 41.8 | 31.7 | 11.5 | 8.2 | 3.8 | 1.8 | 1.2 | 100.0 | 131 |
| 25-29 | 38.4 | 25.4 | 13.5 | 8.2 | 7.3 | 7.3 | 0.0 | 100.0 | 96 |
| 30-34 | 32.0 | 22.6 | 11.5 | 10.8 | 9.9 | 11.1 | 2.1 | 100.0 | 85 |
| 35-39 | 37.3 | 15.5 | 7.7 | 7.3 | 11.7 | 20.4 | 0.0 | 100.0 | 61 |
| 40-44 | 44.4 | 5.0 | 6.2 | 6.7 | 11.9 | 25.8 | 0.0 | 100.0 | 62 |
| 45-49 | 63.7 | 10.9 | 4.9 | 3.9 | 2.3 | 14.4 | 0.0 | 100.0 | 66 |
| Total | 48.5 | 20.7 | 8.6 | 6.6 | 5.9 | 9.2 | 0.5 | 100.0 | 618 |

### 5.7 KNOWLEDGE OF FERTILE PERIOD

An elementary knowledge of reproductive physiology provides a useful background for the successful practice of coitus-associated contraceptive methods such as withdrawal, periodic abstinence, LAM, condoms, and vaginal barrier methods. As shown in Tables 5.1, 55 percent of all women have heard of the rhythm method, Table 5.3 .1 shows that 13 percent have ever used it in the past, and Table 5.4 , shows that 4 percent are currently using this method. Table 5.7 shows a respondent's knowledge about the time during the menstrual cycle when a woman is most likely to get pregnant. This also shows that continuity of use of any method of contraception requires motivation and commitment.

Table 5.7: Knowledge of fertile period
Percent distribution of women aged 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method, Nauru 2007

| Perceived fertile period | Users of rhythm <br> method | Non-users of <br> rhythm method | All <br> women |
| :--- | :---: | :---: | :---: |
| Just before her menstrual period begins | $*$ | 5.9 | 5.8 |
| During her menstrual period | $*$ | 0.8 | 0.8 |
| Right after her menstrual period has ended | $*$ | 26.0 | 25.9 |
| Halfway between two menstrual periods | $*$ | 10.2 | 10.8 |
| Other | $*$ | 1.0 | 1.1 |
| No specific time | $*$ | 9.0 | 8.6 |
| Don't know | $*$ | 46.5 | 46.6 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of women | 23 | 595 | 618 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases.
Total includes 4 women with missing information on knowledge of fertile period who are not shown separately.

Overall, only 11 percent of women correctly reported the most fertile time as being halfway between two menstrual periods. Among all women, only 11 percent were able to correctly identify a woman's fertile period, while 26 percent reported that a woman's most fertile period follows immediately after menstruation has ended. Approximately 47 percent of all women do not know when their fertile period is, while 9 percent did not respond. Among non-users of the rhythm method, 26 percent stated that a woman is most susceptible to pregnancy just after her period has ended, 10 percent reported that the fertile period is halfway between the two menstrual periods. Unfortunately, a respondent's knowledge about the time during the menstrual cycle when a woman is most likely to get pregnant for users of the rhythm method could not be presented due to a very small sample size.

### 5.8 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning methods is the extent to which non-users of contraception plan to use family planning in the future. Currently married women who were not using contraception at the time of the survey were asked about their intention to use family planning in the future. The results are shown in Table 5.8. Among currently married women who were not using contraception, 28 percent reported that they intended to use a family planning method in the future, 64 percent said that they did not intend to use a method in the future, and 8 percent were unsure of their future intention. There were minor differences in the percentage of women who intend to use family planning according to their number of living children. The proportion of women intending to use family planning methods peaked at 28 percent among non-users with one child, and then declined to 27 percent among women with four or more children.

Intention to use contraception in the future provides a forecast of potential demand for services and acts as a convenient summary indicator of disposition toward contraception among current non-users. Respondents may or may not adhere to their intentions for future use.

Table 5.8: Future use of contraception
Percent distribution of currently married women aged 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Nauru 2007

|  | Number of living children ${ }^{1}$ |  |  |  |  |  |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| Intention | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4 +}$ | Total |
| Intends to use | 19.6 | $(28.1)$ | $(33.2)$ | $(38.2)$ | 26.7 | 27.6 |
| Unsure | 7.4 | $(8.1)$ | $(6.6)$ | $(6.4)$ | 8.1 | 7.5 |
| Does not intend to use | 73.0 | $(63.8)$ | $(55.3)$ | $(55.4)$ | 65.1 | 64.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 62 | 46 | 38 | 32 | 70 | 248 |

Note: Figures in parentheses are based on 25-49 unweighted cases.
Total includes two women with missing information on intention to use in the future, for whom data are not shown separately.
${ }^{1}$ Includes current pregnancy.

### 5.9 REASONS FOR NOT USING CONTRACEPTION

The various reasons that women give for not using family planning methods reflect differences in values and beliefs and individual circumstances. This information is critical for designing programmes aimed at improving contraceptive use and may allude to a number of programme areas such as community education, providers' attitudes, access to services, and quality of services. Table 5.9 shows the percent distribution of currently married women who are not using a contraceptive method and who do not intend to use it in the future, and the main reasons for not intending to use.
Approximately 51 percent of women do not intend to use contraception in the future because of fertility-related personal choices. Most of these women want as many children as possible ( 27 percent). One in every four currently married women ( 25 percent) do not intend to use contraception because of opposition to use, with most of them citing respondent opposition to use any methods as a reason for non-use. About 16 percent of women also cited method-related reasons, primarily fear of side effects ( 9 percent), as a major reason for non-use in the future. About 6 percent of women reported a lack of knowledge as a reason for not intending to use contraception in the future; of which 5 percent cited lack knowledge about methods.

Overall, these data suggest that there is substantial scope for strengthening family planning programmes to increase contraceptive use and includes formulating and reviewing family planning policy, review of quality of care, capacity of service providers, access to services, community education and advocacy for family planning as a key tool for improving family health
socioeconomic well-being. The reasons volunteered by respondents should be the basis for further exploration for formulating targeted interventions. Improved information and educational activities will play an important role in dispelling fears and misconceptions about specific contraceptive methods and contraceptive use in general.

Table 5.9: Reason for not intending to use contraception in the future

Percent distribution of currently married women aged 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, Nauru 2007

| Reason | Percent <br> distribution |
| :--- | :---: |
| Fertility-related reasons |  |
| Infrequent sex/no sex | 2.1 |
| Menopausal/had hysterectomy | 6.6 |
| Subfecund/ infecund | 15.2 |
| Wants as many children as possible | 27.3 |
| Opposition to use |  |
| Respondent opposed | 12.5 |
| Husband/partner opposed | 0.6 |
| Religious prohibition | 11.6 |
| Lack of knowledge |  |
| Knows no method | 4.8 |
| Knows no source | 1.1 |
| Method-related reasons |  |
| Health concerns | 2.4 |
| Fear of side effects | 9.2 |
| Inconvenient to use | 1.1 |
| Interfere with body's normal process | 3.2 |
| Other | 0.6 |
| Don't know | 1.2 |
| Total | 100.0 |
| Number of women | 159 |

Note: Total includes one woman with missing information on reason not to use contraception in the future, for whom data are not shown separately.

### 5.10 PREFERRED METHOD OF CONTRACEPTION FOR FUTURE USE

Future demand for specific family planning methods can be assessed by asking non-users who intend to use them in the future which methods they prefer to use. Table 5.10 provides some indication of currently married women's preferences for the method they might use in the future. However, the information should be interpreted with caution because two conditions are implied here: intention to use and method preferred if intention is followed. Most currently married women would prefer to use periodic abstinence ( 23 percent) and condom use ( 19 percent) in the future. Approximately 14 percent of women mentioned female sterilisation and withdrawal as a potential future method, and 12 percent mentioned injectables.

## Table 5.10: Preferred method of contraception for future use

Percent distribution of currently married women aged 15-49 who are not using a contraceptive method but who intend to use one in the future by preferred method, Nauru 2007

| Method | Percent distribution |
| :--- | :---: |
| Female sterilisation | 14.2 |
| Pill | 6.8 |
| IUD | 6.6 |
| Injectables | 12.0 |
| Condom | 19.0 |
| Diaphragm | 1.3 |
| Lactation amenorrhea | 1.5 |
| Periodic abstinence | 22.5 |
| Withdrawal | 13.6 |
| Unsure | 2.5 |
|  |  |
| Total | 100.0 |
| Number of women | 69 |

### 5.11 EXPOSURE TO FAMILY PLANNING MESSAGES

Electronic media such as radio and television are important for communicating messages about family planning. Information on the level of exposure to such media is important for programme managers and planners to effectively target population subgroups for information, education and communication campaigns. To assess the extent to which media serve as a source of family planning messages, respondents were asked if they had heard or seen a message about family planning on the radio, television or in the print media (newspaper, magazine, poster) in the months preceding the survey. The results are shown in Table 5.11.

In Nauru, the most common media sources are newspapers and/or magazines and television for both women and men. Men were more likely to be exposed to family planning messages than women through these media. Exposure to family planning messages on the radio was low. Only 4 percent of women and 14 percent of men had heard about family planning via radio.

In general, a respondent's exposure to media messages on family planning by various methods differs with age. Younger women aged 15-19 were least likely to have been exposed to family planning messages on the radio while men in the same age group had slightly higher exposure via radio. On the other hand, women aged 35-39 were more likely to get media messages through newspapers and/or magazines. Men aged 40-44 were more likely to get media messages through the three main media sources (radio, television and newspaper and/or magazines) than men of other ages.
Table 5.11: Exposure to family planning messages
Percentage of women and men aged 15-49 who heard or saw a family planning message on the radio or television or in a newspaper in the past few months, according to background characteristics, Nauru 2007

| Background characteristic | Women |  |  |  |  | Men |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Radio | Television | Newspaper/ magazine | None of these three media sources | Number | Radio | Television | Newspaper/ magazine | None of these three media sources | Number |
| Age |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 0.8 | 6.3 | 11.4 | 84.8 | 117 | 2.4 | 16.4 | 13.5 | 74.6 | 60 |
| 20-24 | 2.6 | 13.9 | 27.8 | 68.9 | 131 | 4.9 | 27.7 | 9.4 | 66.1 | 57 |
| 25-29 | 2.6 | 6.6 | 20.9 | 76.8 | 96 | 17.9 | 34.7 | 31.3 | 48.8 | 56 |
| 30-34 | 3.6 | 9.4 | 23.5 | 75.4 | 85 | (15.1) | (25.3) | (28.3) | (58.9) | 48 |
| 35-39 | 6.8 | 12.7 | 32.2 | 62.4 | 61 | (11.8) | (24.7) | (37.4) | (47.4) | 39 |
| 40-44 | 5.0 | 8.0 | 13.0 | 81.6 | 62 | (35.4) | (48.6) | (44.4) | (39.4) | 27 |
| 45-49 | 7.0 | 4.4 | 16.5 | 78.7 | 66 | (30.3) | (32.3) | (36.5) | (50.4) | 23 |
| Education |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | 13 | * | * | * | * | 20 |
| Secondary | 3.0 | 8.7 | 20.3 | 76.3 | 555 | 12.4 | 30.5 | 25.7 | 56.9 | 270 |
| More than secondary | 10.1 | 14.6 | 31.3 | 63.0 | 50 | * | * | * | * | 21 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 0.7 | 6.3 | 16.1 | 80.9 | 127 | (20.1) | (37.2) | (26.3) | (58.8) | 45 |
| Second | 4.2 | 9.3 | 21.5 | 72.4 | 126 | 14.9 | 22.9 | 26.9 | 61.6 | 67 |
| Middle | 0.8 | 7.4 | 17.7 | 78.8 | 129 | 7.9 | 19.0 | 25.1 | 65.5 | 64 |
| Fourth | 7.0 | 7.4 | 22.5 | 76.6 | 116 | 10.6 | 20.5 | 25.0 | 57.8 | 64 |
| Highest | 5.4 | 14.7 | 26.6 | 69.5 | 119 | 16.9 | 42.6 | 25.4 | 46.0 | 72 |
| Total 15-49 | 3.5 | 9.0 | 20.8 | 75.7 | 618 | 13.8 | 28.2 | 25.7 | 57.6 | 311 |
| $50+$ | na | na | na | na | na | (36.1) | (35.2) | (43.3) | (37.0) | 43 |
| Total men $15+$ | na | na | na | na | na | 16.5 | 29.1 | 27.8 | 55.1 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
na $=$ not applicable

Education level influences media exposure positively, as the level of exposure to family planning messages increases with increasing level of education. For example, only 20 percent of women with a secondary education had exposure to family planning information by reading magazines and/or newspapers compared with 31 percent with more than a secondary education. On the other hand, women in different wealth quintiles do not show any consistency in the level of family planning exposure through these media.

### 5.12 CONTACT OF NON-USERS WITH FAMILY PLANNING PROVIDERS

When family planning providers visit women in the field or when women visit health facilities, family planning fieldworkers and health providers are expected to discuss family planning issues and available contraception options, and to motivate non-users to adopt a family planning method. To gain insight into the level of contact between non-users and health workers, women were asked if a family planning fieldworker had visited them and discussed family planning issues during the 12 months preceding the survey. In addition, women were asked if they had visited a health facility in the 12 months preceding the survey for any reason, and whether anyone at the facility had discussed family planning with them during the visit.

Table 5.12 shows that fieldworkers discussed family planning with only 5 percent of non-users during the 12 months preceding the survey. At the same time, only 7 percent of non-users discussed family planning at a health facility. One of the reasons for the low exposure to family planning from fieldworkers is the lack of emphasis on home visits. This low level of contact of non-users with family planning providers varies by background characteristics. The highest percentages ( 96 percent) of women who neither discussed family planning with fieldworkers or at a health facility were noted among the youngest age group.

Overall, 89 percent of women who could have been exposed to family planning information did not discuss family planning during a field visit or at a health facility, indicating numerous missed opportunities to inform and educate women about family planning.

## Table 5.12: Contact of non-users with family planning providers

Among women aged 15-49 who were not using contraception, the percentage who during the last 12 months were visited by a fieldworker 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 fieldworker nor at a health facility, by background characteristics, Nauru 2007

| Background characteristic | Percentage of women who were visited by fieldworker who discussed family planning | Percentage of women who visited a health facility in the past 12 months and who: |  | Percentage of women who neither discussed family planning with fieldworker nor at a health facility | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Discussed family planning | Did not discuss family planning |  |  |
| Age |  |  |  |  |  |
| 15-19 | 2.5 | 1.2 | 11.6 | 96.3 | 107 |
| 20-24 | 4.0 | 8.3 | 36.1 | 87.7 | 103 |
| 25-29 | 7.9 | 11.2 | 42.4 | 81.0 | 67 |
| 30-34 | 2.4 | 9.7 | 34.0 | 88.8 | 56 |
| 35-39 | (8.1) | (11.2) | (23.1) | (83.8) | 37 |
| 40-44 | (5.6) | (6.7) | (40.9) | (87.7) | 35 |
| 45-49 | (5.3) | (0.0) | (43.1) | (94.7) | 47 |
| Education |  |  |  |  |  |
| Less than secondary | * | * | * | * | 12 |
| Secondary | 4.0 | 5.9 | 29.7 | 90.2 | 402 |
| More than secondary | (12.6) | (12.2) | (43.4) | (78.2) | 39 |

Table 5.12 (Continued)

| Wealth quintile |  |  |  | 99 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Lowest | 3.8 | 2.5 | 33.0 | 93.7 | 92 |
| Second | 8.0 | 7.8 | 28.3 | 86.0 | 98 |
| Middle | 1.2 | 9.1 | 26.1 | 89.7 | 80 |
| Fourth | 5.8 | 6.0 | 37.2 | 88.2 | 85 |
| Highest | 4.8 | 7.2 | 31.6 | 88.0 | 453 |
| Total | 4.6 | 6.5 | 31.0 | 89.3 |  |

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

### 5.13 HUSBAND'S KNOWLEDGE OF WIFE'S USE OF CONTRACEPTION

Use of family planning methods is facilitated when couples discuss and agree on the issue. To assess the extent to which women use contraception without telling their partners, the 2007 NDHS asked married women whether their husbands or partners knew whether they were using a family planning method or not.

Table 5.13 shows that the vast majority of women ( 85 percent) say their husbands know that they are using contraception, an indication where men have full knowledge of family planning and where they play an important role in planning the number of children they wish to have.

On the other hand, very few women ( 6 percent) stated they are practicing family planning without their husband's knowledge.

Table 5.13: Husband/partner's knowledge of women's use of
contraception
Among currently married women aged 15-49 who are using a method, percent distribution by whether they report that their husbands/partners know about their use, according to wealth quintile, Nauru 2007

| Wealth quintile | Knows $^{1}$ | Does not <br> know | Unsure whether <br> knows/missing | Total | Number of <br> women |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Lowest | $*$ | $*$ | $*$ | 100.0 | 19 |
| Second | 88.9 | 2.9 | 8.2 | 100.0 | 32 |
| Middle | 90.3 | 3.6 | 6.1 | 100.0 | 25 |
| Fourth | 87.7 | 6.9 | 5.3 | 100.0 | 32 |
| Highest | 74.4 | 7.6 | 18.0 | 100.0 | 29 |
| Total | 85.0 | 5.8 | 9.1 | 100.0 | 137 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Includes women who report use of male sterilisation, male condoms or withdrawal.

### 5.14 KEY RESULTS

The contraceptive prevalence rate in Nauru is 36 percent, which means that about two in every five currently married women reported using any family planning methods at the time of the survey. This indicator is the most widely used measure of the success and effectiveness of family planning programmes and services in the country. The results indicate that the majority of currently married women were not applying any contraceptive methods to control their number of children, which will have the following impacts on Nauru's population and development planning and policies:

- Contribute to high level of fertility and to the poor health status of both mother and child.
- Contribute to high population growth, which is always associated with socioeconomic problems.
The following results might also help explain why the contraceptive prevalence rate is not as expected. These findings could be considered in future family planning strategies to help increase the use of family planning methods in Nauru.
- About 16 percent of currently married women who are not using contraception and who do not intend to use it in the future reported that the reason for not intending to use contraception in the future is method-related. These women were not intending to use any contraception because they were afraid of the side effects of the method on their health. Counselling is needed for these women. Service providers need to be trained to become more competent in discussing minor side effects with clients.
- A very low proportion of women and men have been exposed to family planning messages via media such as radio, television and newspapers or magazines.
- There is a low level of contact of non-users with family planning providers, and a lack of emphasis on discussing family planning issues during home visits on the part of family planning fieldworkers. Family planning needs to be integrated with other maternal and child health, and reproductive health activities.
Policy implications for health services, especially family planning programmes can include:
- Increase contraceptive use by providing advocacy and high-quality services for family planning.
- Improve information and educational activities, which will play an important role in dispelling fears and misconceptions about specific contraceptive methods and contraceptive use in general.
- Increase (free) access to family planning methods that individuals can obtain when required.
- Maintain the supply of methods at all levels in order to meet current and future use of methods.
- Provide training and counselling at community and individual levels on the importance and advantage of family planning.
- Involve men and husbands in decisions about family planning so that they will see family planning as a shared responsibility.


## CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY

This chapter explores the principal factors, other than contraception, that affect a woman's chances of becoming pregnant. These are referred to as other proximate (or direct) determinants of fertility, and include marriage and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and secondary infertility, menopause. These factors interact and influence each other and affect fertility levels and trends.

The DHS looked at nuptiality because marriage is the leading indicator of a woman's exposure to the risk of pregnancy; therefore, understanding nuptuality is important for understanding fertility. Marriage here refers to unions that are recognised by civil and religious laws, as well as by the community. In most societies, marriage sanctions childbearing, and married women are exposed to a greater risk of becoming pregnant than unmarried women. Thus, women in populations in which age at marriage is low tend to start childbearing early and have a high fertility level. For this reason, this chapter explores the trends in age at marriage. This chapter also includes information on more direct measures of the beginning of exposure to pregnancy and the level of exposure, namely, age at first sexual intercourse and the frequency of intercourse. Finally, measures of several other proximate determinants of fertility, which, like marriage and sexual intercourse, influence exposure to the risk of pregnancy, are presented. These include duration of postpartum amenorrhea, postpartum abstinence, and secondary infertility (also known as menopause).

### 6.1 CURRENT MARITAL STATUS

Respondents' marital status at the time of the survey is presented in Table 6.1 and Figure 6.1. In Table 6.1, the term 'married' includes legal or formal marriage, while 'living together' designates an informal union. However, in this report, these two categories are combined and referred to collectively as 'currently married' or 'currently in union - living together'. Respondents who were widowed, divorced, or not living together (separated) made up the remainder of the 'evermarried' or 'ever-in-union' category.

Table 6.1 shows that the percentage of women in union was 62 percent compared with 59 percent of men. Of those women currently in union, 10 percent were living with a partner, while 53 percent were observed to be married. Similarly, of the 59 percent of men in union at the time of the 2007 NDHS, 10 percent were living with a partner compared with 49 percent who were married. The results generally show that in their teen years, most Nauruan women and men opt not to get married but to instead live together; then as they grow older, most will likely decide to get married. For instance, the proportion of married women and married men in the 15-19 age category are much lower than for those in the living together status. This distribution changes in the older age categories as women and men most likely decide to permanently get married.

The results from Table 6.1 also show that less than 5 percent of young people aged 15-19 were married rather than in a living-together arrangement. For example, 12 percent of young women aged 15-19 were in a living-together union compared with only 6 percent who were married. This number remains constant for women in a living-together status up to age 30 compared with rapid increases in the proportion of woman marrying in Nauru. In contrast, young Nauruan men (aged 15-19) had a slow start to martial union with about 9 percent entering into a living-together arrangement, while none were in a married union. In the 20-24 age group, the proportion of men in a living-together arrangement increased to 17 percent, and to 30 percent in a married union.

The results of the 2007 NDHS also show that divorce is not a real problem for Nauruan women and men, however, separation appears to be higher among women ( 5 percent) than among men ( 2 percent). For Nauruan women who are separated, this 5 percent is not equally distributed among all age groups (see appropriate columns in Table 6.1 and Figure 6.1). Nauruan women in the 25-29 age group were more likely to be separated than women in other age groups. In contrast, teenage men were more likely to be separated from their partners than men in other age groups.

With respect to widowhood, more women than men aged 40 and over were widowed. This is expected because the average life expectancy of men is usually lower than that for females.

## Table 6.1: Current marital status

Percent distribution of women and men aged 15-49 by current marital status, according to age, Nauru 2007

| Age | Marital status |  |  |  |  |  |  | Percentage of respondents currently in union | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { respondents } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Never married | Married | Living together | Divorced | Separated | Widowed | Total |  |  |
| WOMEN |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | 79.8 | 6.3 | 12.0 | 0.0 | 1.8 | 0.0 | 100.0 | 18.4 | 117 |
| 20-24 | 38.4 | 45.9 | 12.4 | 0.0 | 3.3 | 0.0 | 100.0 | 58.3 | 131 |
| 25-29 | 17.3 | 59.0 | 12.1 | 0.0 | 9.0 | 2.6 | 100.0 | 71.2 | 96 |
| 30-34 | 9.5 | 77.9 | 4.8 | 0.0 | 5.6 | 2.3 | 100.0 | 82.7 | 85 |
| 35-39 | 9.0 | 83.0 | 5.1 | 0.0 | 2.9 | 0.0 | 100.0 | 88.1 | 61 |
| 40-44 | 7.6 | 62.8 | 13.5 | 1.2 | 5.8 | 9.1 | 100.0 | 76.3 | 62 |
| 45-49 | 11.7 | 68.4 | 4.3 | 1.1 | 4.1 | 10.4 | 100.0 | 72.7 | 66 |
| Total 15-49 | 30.1 | 52.7 | 9.8 | 0.2 | 4.5 | 2.7 | 100.0 | 62.4 | 618 |
| MEN |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | 89.6 | 0.0 | 8.6 | 0.0 | 1.9 | 0.0 | 100.0 | 8.6 | 60 |
| 20-24 | 53.2 | 29.5 | 17.3 | 0.0 | 0.0 | 0.0 | 100.0 | 46.8 | 57 |
| 25-29 | 27.5 | 61.7 | 9.3 | 0.0 | 1.5 | 0.0 | 100.0 | 71.0 | 56 |
| 30-34 | (14.4) | (72.3) | (7.3) | (0.0) | (5.0) | (0.9) | 100.0 | (79.6) | 48 |
| 35-39 | (21.2) | (73.9) | (2.9) | (0.0) | (2.1) | (0.0) | 100.0 | (76.7) | 39 |
| 40-44 | (5.8) | (81.6) | (4.7) | (0.0) | (0.0) | (7.9) | 100.0 | (86.3) | 27 |
| 45-49 | (12.9) | (59.4) | (24.0) | (0.0) | (0.0) | (3.6) | 100.0 | (83.5) | 23 |
| Total 15-49 | 38.3 | 48.7 | 10.2 | 0.0 | 1.7 | 1.1 | 100.0 | 58.9 | 311 |
| 50+ | (5.2) | (74.9) | (2.6) | (0.0) | (3.3) | (13.9) | 100.0 | (77.5) | 43 |
| Total men 15+ | 34.3 | 51.8 | 9.3 | 0.0 | 1.9 | 2.7 | 100.0 | 61.1 | 354 |

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

Figure 6.1: Current marital status of women and men


### 6.2 AGE AT FIRST MARRIAGE

Whether or not the start of marriage coincides with the initiation of sexual intercourse, and thus, the beginning of exposure to the risk of pregnancy, first marriage is an important social and demographic indicator and, in most societies, represents the point in a woman's life when childbearing is acceptable. Note that in Table 6.2, 'married' includes 'living together'. In this table, the age at first marriage is defined as the age at which the respondent began living with her/his first spouse or partner.
Marriage is a leading social and demographic indicator of women's exposure to the risk of pregnancy, especially in the case of low levels of contraceptive use. Populations in which age at marriage is low tend to be populations with early childbearing and high fertility. Table 6.2 presents the percentage of women and men who were married by specific ages, and the median age at first marriage, according to respondents' age at the time of the survey.

Trends in age at marriage by people in different age groups are described by comparing the cumulative distribution for successive younger age groups. In drawing conclusions concerning trends, data for the oldest age group are interpreted cautiously because respondents may not recall dates or ages at marriage with accuracy.

For each group, the accumulated percentages stop at the lower age boundary of the cohort to avoid censoring problems. For instance, for the 20-24 age group, accumulation stops with the percentage married by exact age 20 .

As a measure of central tendency, the median age at marriage is used. The median here is defined as the age by which half of the cohort has married, not the age by which half of those married have started living with their spouse. The median is preferred over the mean as a measure of central tendency, because, unlike the mean, it can be estimated for all age groups where at least half are ever married at the time of survey.

The median age at first marriage for men and women aged $20-49$ was 22.8 for men and 21.2 for women. Although the minimum legal age in Nauru for a woman to get married is 18 , marriage among young girls is a common practice. Among women aged 20-49, 3 percent were married by age 15,23 percent were married by age 18 , and 43 percent were married by age 20 . However, the trend is shifting toward fewer women marrying at very young ages, as only 3 percent of women aged 15-19 were married before age 15 compared with 6 percent of women aged 40-44.

Table 6.2: Age at first marriage
Percentage of women and men aged 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Nauru 2007

| Current age | Percentage first married by exact age: |  |  |  |  | Percentage never married | Number | Median age at first marriage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15 | 18 | 20 | 22 | 25 |  |  |  |
| WOMEN |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | 3.5 | na | na | na | na | 79.8 | 117 | 10.8) |
| 20-24 | 1.9 | 26.8 | 42.7 | na | na | 38.4 | 131 | na |
| 25-29 | 2.4 | 17.1 | 45.3 | 56.1 | 76.2 | 17.3 | 96 | 21.1 |
| 30-34 | 6.3 | 30.6 | 52.1 | 63.2 | 79.9 | 9.5 | 85 | 19.8 |
| 35-39 | 1.3 | 17.7 | 36.8 | 56.5 | 73.3 | 9.0 | 61 | 21.3 |
| 40-44 | 6.3 | 29.7 | 41.2 | 54.7 | 69.0 | 7.6 | 62 | 21.3 |
| 45-49 | 0.0 | 15.7 | 32.9 | 50.0 | 72.8 | 11.7 | 66 | 22.0 |
| 20-49 | 3.0 | 23.4 | 42.6 | na | na | 18.5 | 501 | 21.2 |
| 25-49 | 3.3 | 22.2 | 42.6 | 56.5 | 74.7 | 11.5 | 371 | 21.2 |
| MEN |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | a | na | na | na | na | 89.6 | 60 | 12.8) |
| 20-24 | a | 12.3 | 25.4 | na | na | 53.2 | 57 | (1.8) |
| 25-29 | a | 17.7 | 41.0 | 51.8 | 68.2 | 27.5 | 56 | 21.6 |
| 30-34 | a | 7.5 | 27.5 | 46.1 | 58.4 | 14.4 | 48 | 22.5 |
| 35-39 | a | 27.4 | 46.2 | 48.1 | 58.7 | 21.2 | 39 | 23.0 |
| 40-44 | a | 7.1 | 23.5 | 44.2 | 61.7 | 5.8 | 27 | 23.3 |
| 45-49 | a | 6.5 | 22.4 | 50.8 | 75.2 | 12.9 | 23 | 22.0 |
| 20-49 | a | 13.8 | 32.0 | 46.6 | 59.9 | 26.2 | 252 | 22.8 |
| 25-49 | a | 14.3 | 34.0 | 48.4 | 63.8 | 18.2 | 194 | 22.3 |
| 25+ | a | 14.4 | 33.0 | 46.7 | 61.7 | 15.8 | 237 | 22.7 |

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
na = not applicable due to censoring.
$a=$ omitted because less than 50 percent of the women/men married for the first time before reaching the beginning of the age group.

Marriage among men on the other hand starts fairly late. Among men aged 20-49, none had married by age 15 , and only 14 percent had married by age 18 . By age 20,32 percent of men have been married, compared with 43 percent of women. According to the 2007 NDHS, the median age at first marriage for men aged 20-49 was 23 , about two years later than the median age for women.

### 6.3 AGE AT FIRST SEXUAL INTERCOURSE

The 2007 NDHS collected data on age at first sexual intercourse. The median age at first sexual intercourse for women aged 20-49 was 17.6 years. By age 15, 13 percent of women aged 20-49 were already sexually active, and 55 percent were sexually active by age 18 (Table 6.3). The cumulative percentage of sexually active women increased steadily, reaching 79 percent by age 20 .

## Table 6.3: Age at first sexual intercourse

Percentage of women and men aged 15-49 who had first sexual intercourse by specific exact ages, percentage who never had intercourse, and median age at first intercourse, according to current age, Nauru 2007

|  | Percentage who had first sexual intercourse by exact age |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | \(\left.\begin{array}{c}Percentage <br>

who never <br>
had\end{array}\right)\)
na = not applicable due to censoring
$a=$ omitted because less than 50 percent of e respondents had intercourse for the first time before reaching the beginning of the age group.

Unlike marriage, sexual activity among men starts earlier than among women. For instance, 24 percent of men aged 20-49 were sexually active by age 15 (compared with 13 percent of women). With women, this percentage increased steadily, reaching 80 percent by age 20. The median age at first sexual intercourse for men aged 20-49 years was 16.6 years compared with 17.6 years for women. As was the case with women, the median age for men calculated from the 2007 NDHS shows no evidence of change over time.
Note that the median age in the above tables is defined as the exact age by which 50 percent of an age group had sexual intercourse for the first time. The table is used to describe differentials in age at first intercourse between males and females and to examine differences by age groups.

### 6.4 RECENT SEXUAL ACTIVITY

In societies with low contraceptive use, the probability of a woman becoming pregnant is closely related to her exposure to and frequency of sexual intercourse. Information on recent sexual activity is therefore a useful measure of a woman's exposure to the risk of pregnancy. The 2007 NDHS asked women and men about the timing of their last sexual intercourse. Tables 6.4.1 and 6.4 .2 present the percent distribution of women and men by the timing of last sexual intercourse,
according to their background characteristics. Respondents are considered to be sexually active if they have had sexual intercourse at least once in the four weeks preceding the survey.

Among women aged 15-49, almost half (49 percent) were sexually active in the four weeks prior to the survey, while 21 percent had had sex within the past year but not in the four weeks prior to the survey. About 12 percent of women in this age category had ever had sex but were not sexually active in the past 12 months. The highest level of recent sexual activity was observed among women aged $25-44$, of whom $56-68$ percent were sexually active in the past month. The proportion of women who were sexually active does appear to decline as age increases; however, their level of sexual activity was maintained at over 50 percent as age increased, and declined after age 44. Similarly, the proportion of women in a marital union who were sexually active in the four weeks preceding the survey does not appear to have declined. A consistently high proportion (over 60 percent) of women who were married or living together were sexually active in the four weeks prior to the 2007 NDHS. Women who were married in the past or had never been married were quite likely to have had sex in the recent past (see Table 6.4.1). The results also indicate that sexual activity occurred outside the marriage and living-together union. Women in higher wealth quintile households were more likely to have had sex in the past four weeks than those in lower wealth quintile households.

Overall, men aged 15-49 years were as likely as women in the same age group to have had recent intercourse (Table 6.4.2). About 44 percent of men had sexual intercourse in the four weeks before the survey, 23 percent had sexual intercourse in the past year but not in the previous four weeks, about 8 percent had sex one or more years ago, and about 6 percent have never had sexual intercourse. Men's sexual activity patterns were quite similar to those of women but at different levels. However, the percentage levels are similar, indicating very active and high sexual activity among Nauruans in the four weeks before the 2007 NDHS.

Table 6.4.1: Recent sexual activity of women
Percent distribution of women aged 15-49 by timing of last sexual intercourse, according to background characteristics, Nauru 2007

| Background characteristic | Timing of last sexual intercourse |  |  |  | Never had sexual intercourse | Total | Numberofwomen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Within the last 4 weeks | Within 1 year ${ }^{1}$ | One or more years | Missing |  |  |  |
| Age |  |  |  |  |  |  |  |
| 15-19 | 23.4 | 22.5 | 3.0 | 5.1 | 45.9 | 100.0 | 117 |
| 20-24 | 45.3 | 30.6 | 11.2 | 6.4 | 6.5 | 100.0 | 131 |
| 25-29 | 56.6 | 22.3 | 15.5 | 5.7 | 0.0 | 100.0 | 96 |
| 30-34 | 67.7 | 18.2 | 8.4 | 3.9 | 1.8 | 100.0 | 85 |
| 35-39 | 65.5 | 18.8 | 6.2 | 9.5 | 0.0 | 100.0 | 61 |
| 40-44 | 56.7 | 4.1 | 19.8 | 19.4 | 0.0 | 100.0 | 62 |
| 45-49 | 40.3 | 14.2 | 25.5 | 20.0 | 0.0 | 100.0 | 66 |
| Marital status |  |  |  |  |  |  |  |
| Never married | 16.2 | 26.1 | 18.3 | 5.1 | 34.2 | 100.0 | 186 |
| Married or living together | 67.4 | 17.4 | 4.9 | 10.3 | 0.0 | 100.0 | 386 |
| Divorced/separated/widowed | (21.7) | (23.4) | (44.1) | (10.8) | (0.0) | 100.0 | 46 |
| Marital duration ${ }^{2}$ |  |  |  |  |  |  |  |
| 0-4 years | 66.5 | 23.1 | 1.8 | 8.6 | 0.0 | 100.0 | 92 |
| 5-9 years | 72.1 | 18.1 | 3.8 | 6.0 | 0.0 | 100.0 | 85 |
| 10-14 years | 65.8 | 19.7 | 5.8 | 8.7 | 0.0 | 100.0 | 53 |
| 15-19 years | (74.9) | (13.0) | (6.4) | (5.6) | (0.0) | 100.0 | 54 |
| 20-24 years | (64.6) | (6.5) | (6.9) | (22.0) | (0.0) | 100.0 | 37 |
| 25+ years | (54.9) | (19.2) | (6.1) | (19.9) | (0.0) | 100.0 | 34 |
| Married more than once | (64.2) | (13.8) | (8.9) | (13.1) | (0.0) | 100.0 | 32 |

Table 6.4.1 (continued)

|  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: |
| Education | $*$ | $*$ | $*$ | $*$ | $*$ | 100.0 | 13 |  |
| Less than secondary | 48.3 | 20.2 | 11.9 | 9.2 | 10.4 | 100.0 | 555 |  |
| Secondary | $*$ | $*$ | $*$ | $*$ | $*$ | 100.0 | 50 |  |
| More than secondary |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Wealth quintile | 45.9 | 19.6 | 20.6 | 5.7 | 8.2 | 100.0 | 127 |  |
| $\quad$ Lowest | 47.3 | 17.4 | 13.0 | 8.5 | 13.8 | 100.0 | 126 |  |
| Second | 45.5 | 20.2 | 10.1 | 10.8 | 13.3 | 100.0 | 129 |  |
| Middle | 52.7 | 23.6 | 8.4 | 9.0 | 6.3 | 100.0 | 116 |  |
| Fourth | 52.2 | 22.0 | 6.4 | 9.9 | 9.5 | 100.0 | 119 |  |
| Highest | 48.6 | 20.5 | 11.8 | 8.8 | 10.3 | 100.0 | 618 |  |
| Total |  |  |  |  |  |  |  |  |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Excludes women who had sexual intercourse within the last four weeks.
${ }^{2}$ Excludes women who are not currently married.

Table 6.4.2: Recent sexual activity of men
Percent distribution of men aged 15-49 by timing of last sexual intercourse, according to background characteristics, Nauru 2007

| Background characteristic | Timing of last sexual intercourse |  |  |  | Never had sexual intercourse | Total | Number of men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Within the last 4 weeks | Within 1 year ${ }^{1}$ | One or more years | Missing |  |  |  |
| Age |  |  |  |  |  |  |  |
| 15-19 | 30.2 | 20.5 | 7.6 | 8.9 | 32.7 | 100.0 | 60 |
| 20-24 | 44.2 | 34.6 | 8.9 | 11.0 | 1.2 | 100.0 | 57 |
| 25-29 | 46.9 | 22.7 | 6.9 | 23.5 | 0.0 | 100.0 | 56 |
| 30-34 | (44.0) | (25.6) | (9.1) | (21.3) | (0.0) | 100.0 | 48 |
| 35-39 | (52.1) | (19.2) | (8.5) | (20.2) | (0.0) | 100.0 | 39 |
| 40-44 | (57.5) | (15.4) | (7.1) | (17.2) | (2.8) | 100.0 | 27 |
| 45-49 | (41.2) | (15.3) | (0.0) | (43.5) | (0.0) | 100.0 | 23 |
| Marital status |  |  |  |  |  |  |  |
| Never married | 25.7 | 30.9 | 15.2 | 10.6 | 17.6 | 100.0 | 119 |
| Married or living together | 55.3 | 19.0 | 1.8 | 23.9 | 0.0 | 100.0 | 183 |
| Divorced/separated/widowed | * | * | * | * | * | 100.0 | 9 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | (31.8) | (30.7) | (10.9) | (20.8) | (5.7) | 100.0 | 45 |
| Second | 45.3 | 18.1 | 8.1 | 24.0 | 4.4 | 100.0 | 67 |
| Middle | 32.7 | 28.8 | 6.7 | 24.2 | 7.5 | 100.0 | 64 |
| Fourth | 50.7 | 15.2 | 6.8 | 14.9 | 12.4 | 100.0 | 64 |
| Highest | 54.2 | 25.7 | 5.9 | 10.4 | 3.8 | 100.0 | 72 |
| Total 15-49 | 43.9 | 23.3 | 7.5 | 18.6 | 6.8 | 100.0 | 311 |
| 50+ | (31.8) | (19.3) | (25.1) | (23.8) | (0.0) | 100.0 | 43 |
| Total men 15+ | 42.4 | 22.8 | 9.6 | 19.2 | 5.9 | 100.0 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
${ }^{1}$ Excludes men who had sexual intercourse within the last four weeks.

As in the case with women, men currently married or living with a woman were most likely to have had recent sexual intercourse: 55 percent compared with 26 percent of never married men. Like women, men in the higher wealth quintile households were more likely to have had sex in the past four weeks than those in lower wealth quintile households.

### 6.5 POSTPARTUM AMENORRHEA, ABSTINENCE AND INSUSCEPTIBILITY

Postpartum amenorrhea refers to the interval between childbirth and the return of menstruation. During this period, the risk of pregnancy is reduced. Among women not using contraception, the exposure to the risk of pregnancy in the period following birth is determined by two major factors: breastfeeding and sexual abstinence. Postpartum protection from conception can be prolonged by breastfeeding, which can lengthen the duration of amenorrhea, or by delayed resumption of sexual activities (postpartum abstinence). In Table 6.5, the percentage of births for which mothers were postpartum amenorrheic and abstaining is presented along with the percentage of births for which mothers were defined as still postpartum insusceptible (i.e. either amenorrhea or abstaining or both). These women were classified as not exposed (i.e. insusceptible) to the risk of pregnancy.

At the time of the survey, 29 percent of women who had given birth during the three years preceding the survey were insusceptible, because they were still amenorrheic ( 15 percent) or still abstaining ( 20 percent) or both. The median duration of postpartum insusceptibility was 5.2 months, 1.6 months for amenorrhea, and 2.1 months for postpartum sexual abstinence.

Table 6.5: Postpartum amenorrhea, abstinence and insusceptibility
Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, and median and mean durations, Nauru 2007

|  | Percentage of births for which the mother is: |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Total and median duration <br> (in months) | Amenorrheic | Abstaining | Insusceptible ${ }^{1}$ | Number of <br> births |
| Total | 15.1 | 20.4 | 28.7 | 194 |
| Median | 1.6 | 2.1 | 5.2 | na |
| Mean | 5.8 | 7.5 | 10.2 | na |

Note: Estimates are based on status at the time of the survey.
na = not applicable
Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth.

### 6.6 MEDIAN DURATION OF POSTPARTUM INSUSCEPTIBILITY BY BACKGROUND CHARACTERISTICS

The median duration of postpartum amenorrhea, abstinence and insusceptibility by various background characteristics is presented in Table 6.6. The median duration of postpartum abstinence shows very little variation across background characteristics, except for the lowest household wealth quintile. The information in Table 6.6 shows that the variation in postpartum insusceptibility is mainly due to variations in postpartum amenorrhea. There is no difference between women under age 30 and women over age 30 in the median duration of postpartum abstinence.

Table 6.6: Median duration of amenorrhea, postpartum abstinence and postpartum insusceptibility
Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Nauru 2007

| Background characteristic | Postpartum amenorrhea | Postpartum abstinence | Postpartum insusceptibility ${ }^{1}$ |
| :--- | :---: | :---: | :---: |
| Mother's age |  |  |  |
| $15-29$ | 2.2 | 2.1 | 5.5 |
| $30-49$ | 0.5 | 2.1 | 3.6 |
| Wealth quintile |  |  |  |
| Lowest | 4.6 | 4.1 | 6.8 |
| Second | 1.4 | 1.7 | 5.2 |
| Middle | 0.4 | 0.4 | 0.4 |
| Fourth | 0.9 | 2.0 | 3.6 |
| Highest | 2.1 | 2.1 | 2.1 |
| Total | 1.6 | 2.1 | 5.2 |

Note: Medians are based on the status at the time of the survey (current status).
${ }^{1}$ Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth.

### 6.7 MENOPAUSE

Another factor influencing the risk of pregnancy among women over age 30 is menopause. Table 6.7 presents an important indicator concerning fecundity as measured by evidence of menopause. The lack of a menstrual period among women who are neither pregnant nor postpartum amenorrheic in the six months preceding the 2007 NDHS, was taken as evidence of menopause and therefore infecundity. Although the onset of menopause was difficult to determine for an individual woman, methods were available for estimating the proportion of women who were menopausal for the population as a whole. For this analysis, a woman was considered menopausal if she was neither pregnant nor postpartum amenorrheic but did not have a menstrual period in the six months preceding the survey.

Table 6.7 summarises the percentage of women aged 30-49 that were menopausal. According to the 2007 NDHS, 17.8 percent of women aged 30-49 were menopausal. The proportion of women who were menopausal increased with age from about 5 percent for the $30-34$ age group to approximately 38 percent for the 46-47 age group. It is clear that the onset of infertility with increasing age reduces the proportion of women who are exposed to the risk of pregnancy. Since these indicators are based on a very small sample of women, they should be interpreted with caution.

Table 6.7: Menopause
Percentage of women aged 30-49 who are menopausal, by age, Nauru 2007

|  | Percentage menopausal ${ }^{1}$ | Number of women |
| :--- | :---: | :---: |
| $30-34$ | 5.0 | 85 |
| $35-39$ | 7.7 | 61 |
| $40-41$ | $(23.1)$ | 30 |
| $42-43$ | $*$ | 23 |
| $44-45$ | $*$ | 22 |
| $46-47$ | $(37.7)$ | 26 |
| $48-49$ | $*$ | 27 |
| Total | 17.8 | 274 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months prior to. the survey.

### 6.8 KEY RESULTS

This section summarises the major findings on factors other than contraception that affect a woman's chances of becoming pregnant; factors that could be considered in policy and development planning in Nauru. These are referred to as other proximate (or direct) determinants of fertility and include marriage and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and secondary infertility, menopause. These factors interact with and influence each other and affect fertility levels and trends. The results show that:

1. Marriage was more common among women than men in Nauru; about 53 percent of womenwere married as opposed to 49 percent of men. More women married earlier, with 46 percent in the 20-24 age group compared with only 30 percent of men in the same age group. The median age of marriage for women was 21 years compared with 23 years for men.
2. In contrast men initiated sex earlier than women. For instance, the median age at first sexual intercourse for men was reported to be 16.5 years compared with 17.4 years for women. Early initiation of sexual behaviour contributes to early exposure of STIs and early unwanted pregnancy.
3. Information on recent sexual activity is a useful measure of exposure to the risk of pregnancy. About one in every two women aged 15-49 were sexually active in the four weeks prior to the survey as compared with 44 percent of men.
4. About one in three women ( 28.7 percent) who had given birth during the three years preceding the survey were insusceptible, 15 percent were still amenorrheic, while 20 percent were still abstaining from sex.

## CHAPTER 7 FERTILITY PREFERENCES

Information on fertility preferences is of considerable importance to family planning programmes because it helps determine the need for contraception, whether for spacing or limiting births, and the extent of unwanted and mistimed pregnancies. Data on fertility preferences can also be useful as an indicator of the direction that future fertility may take.

In the 2007 NDHS, women who were either not pregnant or unsure about their status were asked: 'Would you like to have (a/another) child or would you prefer not to have any (more) children?' A different question was posed for women who were pregnant at the time of the survey: 'After the child you are expecting, would you like to have another child or would you prefer not to have any more children?' Women who indicated that they wanted another child were asked how long they would like to wait before the birth of the next child. Finally, women were asked how many children in total they would like to have, if they could start childbearing afresh.

Given the ongoing family planning programmes that address both men and women, and the fact that men play a vital role in the realisation of reproductive goals, the 2007 NDHS included questions that elicited information on men's fertility preferences. Responses to questions in the 2007 NDHS questionnaire provide a basis for the classification of women and men by their fertility preferences according to selected background characteristics.

### 7.1 DESIRE FOR MORE CHILDREN

Data on the desire for more children can provide an indication of future reproductive behaviour, provided that the required family planning services are available, affordable, and accessible to allow people to realise their fertility preferences. Table 7.1 presents the distribution of currently married women and men by their desire for more children according to the number of living children.

Table 7.1 shows the percent distribution of currently married women and currently married men aged 15-49 by their desire for children, according to the number of living children. Data show that about 22 percent of currently married women and 21 percent of currently married men desire no more children; 24 percent of currently married women and 15 percent of men desire to have another child soon, while 15 percent of currently married women and 16 percent of currently married men desire to have another child later after two or more years. Among all currently married women, 14 percent are sterilised compared with 7.6 percent of currently married men who are sterilised.

Table 7.1: Fertility preferences by number of living children
Percent distribution of currently married women and currently married men aged 15-49 by desire for children, according to number of living children, Nauru 2007

| Desire for children | Number of living children |  |  |  |  |  |  | $\begin{gathered} \text { Total } \\ 15-49 \end{gathered}$ | 50+ | Total men $15+$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6+ |  |  |  |
| WOMEN ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |
| Have another soon ${ }^{2}$ | 59.1 | 29.5 | 22.7 | 20.3 | (9.9) | (1.9) | 7.7 | 23.7 | na | na |
| Have another later ${ }^{3}$ | 5.0 | 22.2 | 22.1 | 30.0 | (16.9) | (5.4) | 3.4 | 15.0 | na | na |
| Have another, undecided when | 13.1 | 10.3 | 8.5 | 3.5 | (5.5) | (0.0) | 1.4 | 6.5 | na | na |
| Undecided | 5.0 | 15.1 | 14.3 | 12.9 | (15.5) | (7.9) | 9.6 | 11.3 | na | na |
| Want no more | 7.8 | 11.7 | 24.1 | 13.8 | (23.3) | (46.0) | 34.9 | 21.9 | na | na |
| Sterilised ${ }^{4}$ | 2.3 | 0.0 | 5.7 | 16.2 | (13.2) | (31.4) | 31.3 | 13.5 | na | na |
| Declared infecund | 6.8 | 11.3 | 2.5 | 2.0 | (5.5) | (4.4) | 6.5 | 5.6 | na | na |
| Missing | 0.8 | 0.0 | 0.0 | 1.3 | (10.0) | (2.9) | 5.3 | 2.6 | na | na |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | na | na |
| Number | 68 | 53 | 62 | 58 | 43 | 43 | 58 | 386 | na | na |

Table 7.1 (continued)

| MEN5 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Have another soon ${ }^{2}$ | (20.9) | (13.7) | * | (15.3) | (9.7) | * | * | 14.9 | (7.7) | 13.8 |
| Have another later ${ }^{3}$ | (9.9) | (33.3) | * | (5.4) | (18.9) | * | * | 16.0 | (0.0) | 13.6 |
| Have another, undecided when | (48.0) | (29.7) | * | (22.9) | (9.6) | * | * | 24.0 | (24.2) | 24.0 |
| Undecided | (6.2) | (15.7) | * | (18.1) | (22.7) | * | * | 14.6 | (0.0) | 12.3 |
| Want no more | (5.2) | (7.6) | * | (27.1) | (30.7) | * | * | 21.2 | (41.5) | 24.3 |
| Sterilised ${ }^{4}$ | (7.5) | (0.0) | * | (6.2) | (8.4) | * | * | 7.6 | (9.2) | 7.8 |
| Declared infecund | (2.4) | (0.0) | * | (0.0) | (0.0) | * | * | 0.9 | (15.4) | 3.1 |
| Missing | (0.0) | (0.0) | * | (4.9) | (0.0) | * | * | 0.8 | (2.1) | 1.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number | 38 | 26 | 24 | 29 | 24 | 21 | 20 | 183 | 33 | 216 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures 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 two years.
${ }^{3}$ Wants to delay next birth for two or more years.
${ }^{4}$ Includes both female and male sterilisation.
${ }^{5}$ The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Figure 7.1: Proportion of women and men aged 15-49 by desire to have children


### 7.2 NEED FOR FAMILY PLANNING SERVICES

The proportion of women who want to stop childbearing or who want to space their next birth is a crude measure of the extent of family planning needs, given that not all of these women are exposed to the risk of pregnancy and some of them may already be using contraception. This section discusses the extent of need and the potential demand for family planning services. Women who want to postpone their next birth for two or more years, or who want to stop childbearing altogether but are not using a contraceptive method are said to have an unmet need for family planning. Pregnant women are considered to have an unmet need for birth spacing or
birth limiting if their pregnancy was mistimed or unwanted. Similarly, amenorrheic women are categorised as having an unmet need if their last birth was mistimed or unwanted. Women who are currently using a family planning method are said to have their need met for family planning services. The total demand for family planning services comprises those who fall in the met need and unmet need categories.

Table 7.2 presents data on unmet need, met need, and the total demand for family planning services for currently married women, as well as the totals for all women, and women who are not currently married. Overall, 24 percent of currently married women have an unmet need for family planning services. Of these women, 16 percent were for birth spacing and 7 percent were for birth limiting. About four out of ten married women ( 36 percent) were currently using contraceptive methods. This constitutes the overall met needs for family planning in Nauru. The total demand for family planning services on the other hand is estimated at 59 percent, while the demand satisfied accounts for 60 percent.

A substantial difference was noted in the level of unmet needs for family planning by age group. As shown, currently married women below the age of 35 are more likely not to meet their need for family planning as opposed to currently married women aged 35 and older. This is clearly demonstrated by the proportion of unmet needs that are higher in younger married women as opposed to older women. The table also shows that the proportion of unmet needs is higher for birth spacing, particularly in younger married women (aged 15-29). Birth limiting however does not show any clear pattern; the same level is observed throughout all age groups. This result clearly indicates that younger women are more likely to opt for birth spacing than for birth limiting, whereas older married women are more likely to opt for birth limiting than for birth spacing. In other words, the demand for birth spacing is more common in younger women.

The proportion of met needs is higher for birth spacing than for birth limiting in younger age groups. For birth spacing, the proportion of met needs decreases with increased age except in the 35-39 age group, whereas for birth limiting, the proportion of met needs increases with age with the exception of women in the 35-39 age group. This result clearly reveals that the demand for family planning services, especially in younger married women, is for birth spacing whereas older women use any form of contraceptive methods for the purpose of birth limiting.

Table 7.2: Need and demand for family planning among currently married women
Percentage of currently married women aged 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage for the demand for contraception that is satisfied, by background characteristics, Nauru 2007

|  | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Background characteristic | For spacing | For limiting | Total | For spacing | For limiting | Total | For spacing | For limiting | Total |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | * | * | * | * | 21 |
| 20-24 | 30.3 | 6.4 | 36.6 | 22.8 | 4.3 | 27.0 | 53.0 | 10.7 | 63.7 | 42.5 | 76 |
| 25-29 | 21.5 | 9.6 | 31.1 | 21.8 | 11.3 | 33.1 | 43.3 | 20.9 | 64.3 | 51.6 | 69 |
| 30-34 | 14.9 | 8.7 | 23.7 | 10.3 | 29.5 | 39.8 | 25.2 | 38.2 | 63.5 | 62.7 | 71 |
| 35-39 | 10.0 | 7.6 | 17.5 | 15.8 | 22.7 | 38.6 | 25.8 | 30.3 | 56.1 | 68.7 | 54 |
| 40-44 | (5.0) | (5.4) | (10.3) | (12.7) | (38.4) | (51.0) | (17.7) | (43.7) | (61.4) | (83.1) | 47 |
| 45-49 | (3.8) | (4.6) | (8.4) | (0.0) | (35.7) | (35.7) | (3.8) | (40.3) | (44.1) | (80.9) | 48 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | * | * | * | * | 7 |
| Secondary | 16.6 | 6.9 | 23.5 | 15.6 | 21.2 | 36.8 | 32.2 | 28.1 | 60.3 | 61.0 | 353 |
| More than secondary | (9.2) | (6.2) | (15.4) | (8.1) | (16.2) | (24.3) | (17.2) | (22.4) | (39.7) | (61.3) | 26 |

Table 7.2 (continued)

| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\quad$ Lowest | 6.8 | 10.4 | 17.2 | 16.3 | 14.5 | 30.8 | 23.1 | 25.0 | 48.1 | 64.1 |
| Second | 14.0 | 6.8 | 20.8 | 16.9 | 22.3 | 39.2 | 30.8 | 29.2 | 60.0 | 65.3 |
| Middle | 23.5 | 7.6 | 31.1 | 9.8 | 21.1 | 30.9 | 33.2 | 28.7 | 61.9 | 49.9 |
| Fourth | 12.3 | 6.9 | 19.3 | 20.4 | 19.0 | 39.4 | 32.7 | 25.9 | 58.6 | 67.2 |
| Highest | 23.4 | 4.2 | 27.6 | 12.1 | 24.5 | 36.7 | 35.5 | 28.7 | 64.2 | 57.1 |
| Total |  |  |  |  |  |  |  | 79 |  |  |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Unmet need for spacing includes pregnant women whose pregnancy was mistimed; amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait two or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and who want no more children
${ }^{2}$ '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

Data on education are too small for comparison, so caution is advised when interpreting the results.

Table 7.2 also shows that the proportion of unmet needs for family planning is higher in the middle and higher wealth quintiles. Additionally, the proportion of unmet needs is highest for birth spacing than for birth limiting, except in the lowest wealth quintile. The proportion of met needs for family planning is highest in the second and fourth wealth quintiles. Surprisingly, there is a very low proportion of met needs for birth spacing ( 10 percent) compared with met needs for birth limiting ( 21 percent) in the middle wealth quintile.

### 7.3 IDEAL NUMBER OF CHILDREN

This section focuses on the respondent's ideal number of children, implicitly taking into account the number of children that the respondent already has. Women and men, regardless of marital status, were asked about the number of children they would choose to have if they could start afresh. Respondents who had no children were asked, 'If you could choose exactly the number of children to have in your whole life, how many would that be?' For respondents who had children, the question was rephrased as follows: '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?' Responses for women and men aged 15-49 are summarised in Table 7.3.

Generally, the average ideal number of children expressed by currently married men and women aged 15-49 were 3.6 and 4.6 , respectively. The mean ideal number increased with the number of living children. The average ideal number of children for all men and women was 3.1 and 4.1, respectively. As also shown, 22 percent of currently married women preferred 2 as an ideal number of children. Equally so, about 20 percent of currently married men expressed 2 as an ideal number of children.

## Table 7.3: Ideal number of children

Percent distribution of women and men aged 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children, Nauru 2007

| Ideal number of children | Number of living children |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5 | $6+$ |  |
| WOMEN ${ }^{1}$ |  |  |  |  |  |  |  |  |
| 0 | 8.2 | 7.1 | 9.0 | 10.7 | 10.0 | (2.0) | 7.0 | 7.9 |
| 1 | 14.5 | 15.8 | 2.7 | 7.8 | 0.0 | (4.1) | 3.3 | 9.3 |
| 2 | 35.9 | 22.8 | 20.0 | 3.3 | 6.1 | (25.0) | 5.5 | 22.3 |
| 3 | 10.2 | 10.5 | 15.4 | 15.9 | 0.0 | (3.3) | 2.4 | 9.2 |
| 4 | 10.5 | 10.3 | 14.8 | 20.5 | 28.4 | (4.0) | 2.8 | 12.2 |
| 5 | 8.6 | 7.8 | 11.2 | 12.1 | 11.0 | (27.0) | 5.8 | 10.5 |
| 6+ | 6.0 | 15.1 | 16.3 | 25.0 | 41.1 | (24.5) | 55.0 | 20.0 |
| Non-numeric responses | 6.1 | 10.5 | 10.5 | 4.8 | 3.4 | (10.0) | 18.2 | 8.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number | 229 | 86 | 74 | 61 | 52 | 50 | 66 | 618 |
| Mean ideal number children for: ${ }^{2}$ |  |  |  |  |  |  |  |  |
| All | 2.7 | 3.8 | 4.2 | 4.3 | 5.7 | 4.7 | 7.8 | 4.1 |
| Number | 215 | 77 | 66 | 58 | 51 | 45 | 54 | 566 |
| Currently married | 2.8 | (3.5) | 4.3 | 4.2 | (6.1) | (4.4) | (7.8) | 4.6 |
| Number | 63 | 47 | 58 | 55 | 42 | 40 | 47 | 351 |
| MEN ${ }^{3}$ |  |  |  |  |  |  |  |  |
| 0 | 13.4 | (8.3) | (8.8) | (12.7) | (16.0) | * | * | 14.5 |
| 1 | 12.2 | (0.0) | (0.0) | (0.0) | (11.8) | * | * | 7.2 |
| 2 | 25.5 | (38.3) | (11.8) | (15.8) | (7.8) | * | * | 19.9 |
| 3 | 13.2 | (13.9) | (20.9) | (5.2) | (0.0) | * | * | 10.8 |
| 4 | 6.7 | (9.1) | (7.2) | (10.1) | (18.8) | * | * | 7.9 |
| 5 | 6.2 | (0.0) | (7.9) | (20.8) | (3.0) | * | * | 8.1 |
| 6+ | 1.8 | (5.5) | (6.2) | (18.5) | (26.6) | * | * | 8.7 |
| Non-numeric responses | 21.0 | (24.8) | (37.2) | (16.8) | (16.0) | * | * | 22.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number | 160 | 31 | 25 | 30 | 24 | 21 | 21 | 311 |
| Mean ideal number children for:2 |  |  |  |  |  |  |  |  |
| All | 2.2 | (2.5) | * | * | * | * | * | 3.0 |
| Number | 126 | 23 | 16 | 25 | 20 | 16 | 14 | 240 |
| Currently married | (1.9) | * | * | * | * | * | * | 3.5 |
| Number | 30 | 19 | 15 | 24 | 20 | 16 | 14 | 138 |
| Mean ideal number children for men $15+{ }^{2}$ |  |  |  |  |  |  |  |  |
| All | 2.2 | (2.5) | * | (4.4) | (4.4) | * | * | 3.1 |
| Number | 133 | 24 | 20 | 30 | 22 | 19 | 19 | 272 |
| Currently married | (2.1) | (2.7) | * | (4.5) | (4.4) | * | * | 3.6 |
| Number | 36 | 20 | 20 | 29 | 22 | 19 | 19 | 164 |

[^8]
### 7.4 MEAN IDEAL NUMBER OF CHILDREN BY BACKGROUND CHARACTERISTICS

The mean ideal number of children among women aged 15-49 by background characteristics is presented in Table 7.4. As shown, the average ideal number of children increased steadily with women's age such that the mean ideal number of children expressed by married women aged $15-19$ was 2.6 and 6.3 for women aged 45-49. Data show some difference in the mean ideal number of children expressed by wealth quintile. The lowest mean ideal number of children is 3.5 for women in the middle and fourth wealth quintiles, while the highest mean ideal number of children of 4.8 is for women in the second wealth quintile.

Table 7.4: Mean ideal number of children
Mean ideal number of children for all women aged 15-49 by background characteristics, Nauru 2007

| Background characteristic | Mean | Number of women ${ }^{1}$ |
| :--- | :---: | :---: |
| Age |  |  |
| $15-19$ | 2.6 | 108 |
| $20-24$ | 3.9 | 124 |
| $25-29$ | 3.7 | 90 |
| $30-34$ | 4.1 | 78 |
| $35-39$ | 4.7 | 57 |
| 40-44 | 5.4 | 51 |
| 45-49 | 6.3 | 59 |
|  |  |  |
| Wealth quintile | 4.5 | 112 |
| Lowest | 4.8 | 114 |
| Second | 3.5 | 115 |
| Middle | 3.5 | 110 |
| Fourth | 4.2 | 114 |
| Highest | 4.1 | 566 |
| Total |  |  |

${ }^{1}$ Number of women who gave a numeric response.

### 7.5 FERTILITY PLANNING STATUS

The issue of unplanned and unwanted fertility was further investigated in the 2007 NDHS by asking women who had given birth in the five years before the survey whether the births were wanted at the time (planned), wanted but at a later time (mistimed), or not wanted at all (unwanted). For women who were pregnant at the time of the interview, this question was also asked with reference to the current pregnancy. The procedure required respondents to recall accurately their wishes at one or more points in the last five years. Care must be exercised in interpreting the results because an unwanted conception may have become a cherished child, leading to the rationalisation of responses to these questions.
According to Table 7.5 , about 43 percent of births in the five years preceding the survey were wanted at the time, 31 percent were wanted later (mistimed), and 25 percent were not wanted at the time they were conceived. This finding clearly indicates that there is a great demand for birth spacing and limiting that is roughly consistent with the number of unmet needs for birth spacing and limiting observed in Table 7.3.1 above.

Looking at fertility planning status by birth order and age of the mother at birth, data show that little variation was noted in the proportion of births that were wanted by birth order and age of mother at births. However, the proportion of wanted births is highest in birth order 2 followed by birth orders higher than 4 . As also shown, the proportion of mistimed births was highest in birth
order 3 followed by birth order 1, and lowest in birth order 2 . About 29 percent of all four or more births were not wanted.

Table 7.5 also indicates a higher proportion of births ( 41 percent) for young mothers aged less than 20 were mistimed. Wanted births mostly occur among women in the 20-29 age group. Women's tendency to want no more babies increases with age. Results of the 2007 NDHS show that 15 percent of young women (less than 20 years) do not want more children compared with 28 percent of older women (age group 30-34) who do not want more children. Again, this result reveals the need for birth spacing and even more so for birth limiting for older women.

## Table 7.5 Fertility planning status

Percent distribution of births to women aged 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, Nauru 2007

|  | Planning status of birth |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Birth order and <br> mother's age at birth | Wanted <br> then | Wanted <br> later | Wanted <br> no more | Missing | Total | Number of <br> births |
| Birth order |  |  |  |  |  |  |
| 1 | 41.2 | 37.2 | 20.8 | 0.8 | 100.0 | 95 |
| 2 | 51.0 | 23.3 | 23.0 | 2.7 | 100.0 | 87 |
| 3 | 35.1 | 38.7 | 26.2 | 0.0 | 100.0 | 61 |
| 4+ | 42.1 | 29.1 | 28.8 | 0.0 | 100.0 | 128 |
| Mother's age at birth |  |  |  |  |  |  |
| $<20$ | 39.7 | 41.3 | 15.2 | 3.8 | 100.0 | 62 |
| $20-24$ | 45.4 | 26.7 | 27.3 | 0.6 | 100.0 | 136 |
| $25-29$ | 45.2 | 31.7 | 23.1 | 0.0 | 100.0 | 94 |
| $30-34$ | 41.3 | 30.7 | 28.0 | 0.0 | 100.0 | 48 |
| $35-39$ | $*$ | $*$ | $*$ | $*$ | 100.0 | 22 |
| $40-44$ | $*$ | $*$ | $*$ | $*$ | 100.0 | 9 |
| Total |  |  |  |  |  |  |

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

### 7.6 WANTED FERTILITY RATES

Using information on whether births occurring in the five years prior to the survey were wanted or not, a total 'wanted' fertility rate was calculated. The wanted fertility rate measures the potential demographic impact of avoiding unwanted births. The wanted fertility rate is calculated in the same way as the conventional total fertility rate, except that unwanted births are excluded. A birth is considered wanted if the number of living children at the time of conception was less than the ideal number of children reported by the respondent. The gap between wanted and actual fertility shows how successful women are in achieving their reproductive intentions.

A comparison of the total wanted fertility rates and total fertility rates for the three years preceding the survey is presented in Table 7.7. Data reveal that if all unwanted births are eliminated, the total fertility rate in Nauru would be 2.8 children per woman instead of the actual total fertility rate of 3.4 children per woman. The overall gap between actual and wanted fertility ranges is 1.4.

## Table 7.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, Nauru 2007

| Background characteristic | Total wanted fertility rates | Total fertility rate |
| :--- | :---: | :---: |
| Total | 2.8 | 3.4 |

Note: Rates are calculated based on births to women aged 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.

### 7.7 KEY RESULTS

Unmet needs for contraception can lead to unintended pregnancies, which pose risks for both mother and child and contribute to high fertility levels. This section discusses major findings on the level and size of unmet needs of contraception according to the 2007 NDHS. Understanding the level or size of unmet needs of contraception and the background of women with unmet needs of family planning methods can help strengthen health services and family planning programmes in targeting subgroups that are in need of such services. Woman's fertility preferences and desire for having children are likely to be achieved provided that the required family planning services are available, affordable and accessible.

The results show that 23.5 percent of currently married women have an unmet need for family planning services; 16.4 percent have an unmet need for birth spacing, and 7.1 percent for birth limiting. The size of unmet needs of contraception indicates that many currently married women are having difficulties gaining full access to family planning methods. The needs of currently married women for both birth spacing and birth limiting are not met, which can lead to unwanted and unplanned births.

The 2007 NDHS also examined women's fertility preferences, their desire to limit childbearing, ideal number of children, fertility planning and wanted fertility rates. These are indications of contraception needs, particularly to enable women to have their desired number of children. Results can assist and provide overall direction of family planning programmes and services in targeting subgroups that are in need of such services. The following are the results.

1. About 22 percent of currently married women and men do not want any more children. Results indicate the desire to have two children for currently married women and men, although the desire is not met.
2. Results show that the mean ideal number of children for currently married women is 4.6 , whereas it is 3.6 for currently married men.
3. About 32 percent of births were mistimed and most young mothers (less than 20 years of age) are having mistimed births. About 25 percent of births are not being planned by women aged 15-49.
4. Data show that the desired total fertility rate is 2.8 per woman as compared with the actual total fertility rate of 3.4 for the three years preceding the survey. This implies that if all unwanted births are eliminated, the actual fertility rate for Nauru would have been 2.8 children per woman.

## CHAPTER 8 INFANT AND CHILD MORTALITY

This chapter presents estimates of levels, trends, and differentials of neonatal, postneonatal, infant and childhood mortality, as well as perinatal mortality in Nauru. The information presented in this chapter is important not only for the demographic assessment of the country's population, but also in the design and evaluation of health policies and programmes. Primary and preventative health services focus on improving the quality of life of Nauruan people, which includes the reduction of infant and childhood mortality and the incidence of high-risk pregnancies. They also serve the needs of the health ministry by identifying a category of the population, particularly babies and their mothers, who are at high risk of mortality.

### 8.1 DEFINITIONS, METHODOLOGY AND ASSESSMENT OF DATA QUALITY

Childhood mortality measures (or indicators) presented in this chapter are defined as follows:
Neonatal mortality: the probability of dying within the first month of life
Infant mortality: the probability of dying between birth and the first birthday
Postneonatal mortality: the arithmetic difference between infant and neonatal mortality
Child mortality: the probability of dying between exact age one and the fifth birthday
Under-5 mortality: the probability of dying between birth and the fifth birthday.
The data used in estimating these mortality rates were collected in the birth history section of the 2007 NDHS women's questionnaire. The section begins with questions about the respondent's childbearing experience (i.e. the number of sons and daughters who live in the household, those who live elsewhere, and those who have died). Next, for each live birth, information on the name, date of birth, sex, whether the birth was single or multiple, and survivorship status was recorded. For living children, information about their age and whether they resided with their mother was obtained. For children who had died, the respondent was asked to provide the child's age at death.

A retrospective birth history, such as that included in the 2007 NDHS is susceptible to several data collection errors. First, only surviving women aged 15-49 were interviewed; therefore, no data are available for children of women who had died. The resulting mortality estimates will be biased if the child mortality rate of surviving and non-surviving women differs substantially. Another possible error in data collection is under-reporting of events (births and deaths), especially in cases where deaths occur early in infancy. If such deaths are selectively omitted, the consequence will not only be a lower infant mortality rate and neonatal mortality rate, but also a low ratio of neonatal deaths to infant deaths and early neonatal death (within one week) to neonatal deaths. It is believed that under-reporting of early infant deaths may increase with the length of time since the child's death (e.g. an early infant death that occurred ten years before the survey may be more likely to be omitted than an early infant death two years before the survey). Thus, an examination of these patterns over time is critical.

### 8.1.1 Reporting of children's birth dates

Mis-stating the date of birth and the age at death of a child results in a distortion of the age pattern of death among children. This may affect the final indices obtained because of shifting ages above or below the borderline ages. Many DHS reports worldwide have reported evidence of age shifting or heaping to years outside of the required cut-off year to avoid administering lengthy birthhistory related questions. In the case of the 2007 NDHS, evidence from Appendix Table C. 4 shows that there was no serious shift in the reporting of births during the operations. This is not to say that this was not the case however, probably there were cases where interviewers shifted dates but not enough to show heaping in Table C.4. The table also shows that the date of birth of more than 9 out of 10 babies born were recorded in the 2007 NDHS.

### 8.1.2 Reporting of children's age at death

Another aspect that affects childhood mortality estimates is the accurate reporting of age at death. In general, these problems are less serious for periods in the recent past than for those in the more distant past. If the ages are misreported, it will bias the estimates, especially if the net effect of the age misreporting results in the transference of deaths from one age bracket to another. For example, a net transfer of deaths from under age 1 to age 1 year and older will decrease the estimate of infant mortality and increase the estimate of childhood mortality. To minimise errors in the reporting of age at death, the 2007 NDHS interviewers were instructed to record the age at death in days if the death took place within one month after birth, in months if the child died within 24 months, and in years if the child was two years or older.
The distribution of child deaths by age of the child at death is shown in Appendix Table C.5. The table shows that age heaping at ages 9 days, 14 days and 21 days - which are usually observed in other DHSs - are not a concern in the 2007 NDHS results. Although age heaping at 14 days and 21 days may not bias any indicator, the heaping at 9 days usually leads to lower estimates of early neonatal mortality and perinatal mortality, but because this is not the case in Nauru, the results can be used as indicators for policy and/or planning purposes. However, it caution must be exercised in using the mortality measures as indicators of levels of early age mortality because of the very low number of cases.

Appendix Table C. 6 presents the distribution of death under age 2 years by age at death in months over a 20-year period split into five-year groups. Neonatal deaths in the past 20 years constituted 71 percent of all infant deaths, which is considered to be quite high.

### 8.1.3. Sampling errors for child and infant mortality estimates

As discussed in Appendix B of this report, all estimates produced from the NDHS are affected by two types of errors: non-sampling and sampling. While this issue is addressed in detail in this appendix, it is worthwhile making a special mention of the sampling error associated with estimates of child and infant mortality in this chapter, due to their significant impact. Unfortunately, for any sample survey, when collecting information for a variable where the number of cases is quite minimal (the situation with child and infant mortality), sampling errors can become significantly large, and as such, great care should be used when using this information.

A brief description of the key estimates produced in this chapter, along with information to assist in determining their reliability is provided in the table below:

Table 8.1.3a: Five-year mortality rates for Nauru (refers to zero to four years before the NDHS, around 2003-2007)

|  | Estimate |  | $95 \%$ CI |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Indicator | $\boldsymbol{1 1 , 0 0 0}$ births | Std error | Lower | Upper | RSE (\%) |
| Neonatal mortality | 26.8 | 8.0 | 10.9 | 42.8 | 29.7 |
| Postneonatal mortality | 11.1 | 6.7 | 0.0 | 24.4 | 60.2 |
| Infant mortality | 37.9 | 9.6 | 18.7 | 57.2 | 25.4 |
| Child mortality | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| Under-5 mortality | 37.9 | 9.6 | 18.7 | 57.2 | 25.4 |

Table 8.1.3b: Ten-year mortality rates for Nauru (refers to zero to nine years before the NDHS, about 1998-2007)

|  | Estimate |  | $95 \%$ CI |  |  |
| :--- | :---: | :---: | ---: | ---: | ---: |
| Indicator |  | Std error | Lower | Upper | RSE (\%) |
| Neonatal mortality | 26.8 | 7.8 | 11.2 | 42.4 | 29.1 |
| Postneonatal mortality | 12.3 | 4.2 | 4.0 | 20.6 | 33.8 |
| Infant mortality | 39.1 | 9.4 | 20.3 | 57.9 | 24.1 |
| Child mortality | 1.6 | 1.6 | 0.0 | 4.9 | 2.1 |
| Under-5 mortality | 40.7 | 9.5 | 21.6 | 59.7 | 23.4 |

To help understand the reliability of estimates in the second column, the standard error (std error), 95 percent confidence interval ( 95 percent CI ) or relative standard error (RSE) can be used, although the last two options generally provide the quickest interpretation of an estimate's accuracy. To understand these, a brief description is provided below.
$\mathbf{9 5 \%}$ CI: 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 (the larger this range, the less reliable the estimate).

RSE (\%): This is the standard error expressed as a percentage of the estimate (the larger this value, the less reliable the estimate).

Generally speaking, estimates with RSEs above 10 percent are considered usable, but should be used with care, while estimates with RSEs above 25 percent, should not be considered reliable. Given that nearly all the estimates shown above have RSEs falling between 15 percent and 30 percent, it strongly suggests that estimates provided in this chapter should be used with great care.

### 8.2 EARLY CHILDHOOD MORTALITY RATES: LEVELS AND TRENDS

The 2007 Nauru DHS collected birth histories from 588 women. The early childhood mortality rates for the 15 -year period preceding the survey are presented below by five-year periods in Table 8.2.

Table 8.2: Early childhood mortality rates
Neonatal, postneonatal, infant, child, and under-5 mortality rates in five-year periods preceding the survey, Nauru 2007

| Years preceding the survey | Neonatal <br> mortality (NN) | Postneonatal <br> mortality (PNN) | Infant mortality <br> $(1 q 0)$ | Child mortality <br> $(4 q 1)$ | Under-5 <br> mortality (5q0) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $0-4(2003-2007)$ | 27 | 11 | 38 | 0 | 38 |
| $5-9(1998-2003)$ | 27 | 14 | 40 | 3 | 44 |
| $10-14(1993-1998)$ | 8 | 3 | 12 | 3 | 15 |

${ }^{1}$ Computed as the difference between the infant and neonatal mortality rates.
For the most recent period (i.e. zero to four years before the survey, reflecting roughly 2003-2007), the infant mortality rate was 38 deaths per 1,000 live births. This means that about 4 in every 100 babies born in Nauru do not live to their first birthday. Those surviving to their first birthday will also survive until reaching their fifth birthday. The overall under-5 mortality is therefore 38 deaths per 1,000 live births (same as the infant mortality rate), which implies that four in every one hundred Nauruan babies do not survive to their fifth birthday.

The first month of life is associated with the highest risk to survival. The neonatal mortality rate is 27 deaths per 1,000 live births, implying that nearly 3 out of every 100 infant deaths occur during the first month of life. As childhood mortality declines, postneonatal mortality usually declines faster than the neonatal mortality because neonatal mortality is frequently caused by biological factors that are not easily addressed by primary care interventions. In Nauru, postneonatal mortality is 11 per 1,000 births among infants during the five-year period before the survey.

According to the 2007 NDHS, mortality estimates in Table 8.2 for the period 1998-2003 increased from low levels observed for the period 1993-1998. For example, a high level increase is observed in neonatal deaths between 1993 and 1998 and between 1998 and 2003, from 8 deaths per 1,000 live births to 27 per 1,000 , and an increase in postneonatal deaths from 3 during the period 1993-1998 to 14 during the period 1998-2003. The infant mortality rate increased from 12 to 40 during the same period.

Data from the 2007 NDHS show that the situation of childhood mortality in Nauru perhaps improved in the period 2003-2007, compared with the earlier period 1998-2003. This improved situation is observed in postneonatal, infant, childhood and under-5 mortality. For example, the infant mortality rate decreased from 40 per 1,000 live births during the period 1998-2003 to

38 infant deaths per 1,000, while the rate for under-5 mortality decreased from 44 to 38 deaths per 1,000 births (See Fig. 8.1)

Figure 8.1: Mortality trends


### 8.3 HIGH-RISK FERTILITY BEHAVIOUR

The 2007 NDHS examined the relative importance of maternal fertility patterns associated with increased risk of mortality. Generally, infants and children have a greater probability of dying if they are born to mothers who are too old or too young, or if they are born after a short birth interval, or if they are of high birth order. In the analysis of the effects of high-risk fertility behaviour on child survival, a mother is classified as too young if she is less than age 18, and too old if she is over age 34 at the time of birth. A short birth interval is defined as a birth occurring less than 24 months after the previous birth, and a child is of high birth order if the mother has previously given birth to three or more children (i.e. if the child is of birth order four or higher).

Table 8.3 shows the percent distribution of births in the five-year period before the survey according to these elevated risk factors. The table also examines the relative risk of dying for children by comparing the proportion dead in each specified high-risk category with the proportion dead among children not in any high-risk category. Although first births are commonly associated with increased risk of mortality, they are not included in any high-risk category because they are considered an unavoidable risk.

Only 22 percent of births in Nauru were not in any high-risk category. An additional 20 percent of births are first order births to mothers aged $18-34$, which is considered an unavoidable risk category. The remaining 58.7 percent of births in Nauru are in at least one of the specified avoidable high-risk categories. Over 40 percent of births are in only one of the high-risk categories (mostly birth orders $>3$ is 19 percent and 17 percent for short birth intervals of $<24$ months), while 16 percent are in multiple high-risk categories. Births in multiple high-risk categories are mostly found in two combinations: 1) Birth intervals less than 24 months and birth orders higher than 3; and 2) age higher than 34 years and birth orders higher than 3.

The second column of Table 8.3 shows that the risk of dying for a child who falls in any avoidable high-risk category is 0.55 times that of a child not in any high-risk category, which means that the risk of dying is lower in the avoidable high-risk categories compared to births in the 'not in any high risk category'.

This outcome is certainly unexpected, and is due to the very low number of cases.

However, a child's risk of dying is considerably higher if the mother's age is less than 18 years, thus showing a risk ratio that is more than twice as high (2.47) than that of births not in any other high-risk category.
Table 8.3 also shows the potential for high-risk births among currently married women. A woman's current age, time elapsed since the last birth, and parity are used to determine the risk categories in which any birth she conceived at the time of the survey would fall. In the final data processing, the criteria for placing women into specific risk categories are adjusted to take into account gestation period.

One-quarter ( 25 percent) of currently married women in Nauru are not in any high-risk category, while over half (61 percent) have the potential of giving birth to a child exposed to a higher risk of mortality, with 28 percent of married women falling into multiple high-risk categories.

Table 8.3: High-risk fertility behaviour
Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Nauru 2007

| Risk category | Births in the 5 years preceding the survey |  | Percentage of currently married women ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
|  | Percentage of births | Risk ratio |  |
| Not in any high risk category | 21.7 | 1.00 | 25.0 |
| Unavoidable risk category |  |  |  |
| First order births between ages 18 and 34 years | 19.7 | 0.51 | 14.4 |
| Single high-risk category |  |  |  |
| Mothers's age <18 | 4.9 | 2.47 | 0.4 |
| Mothers's age > 34 | 1.4 | 0.00 | 10.9 |
| Birth interval <24 months | 17.5 | 0.62 | 8.4 |
| Birth order >3 | 18.8 | 0.21 | 13.1 |
| Subtotal | 42.6 | 0.63 | 32.8 |
| Multiple high-risk category |  |  |  |
| Age $<18$ \& birth interval <24 months ${ }^{2}$ | 0.2 | 0.00 | 0.5 |
| Age >34 \& birth interval <24 months | 0.2 | 0.00 | 0.7 |
| Age $>34$ \& birth order $>3$ | 5.5 | 0.00 | 17.8 |
| Age >34 \& birth interval <24 months \& birth order > 3 | 1.7 | 0.00 | 2.3 |
| Birth interval < 24 months \& birth order > ${ }^{3}$ | 8.3 | 0.61 | 6.5 |
| Subtotal | 16.0 | 0.32 | 27.8 |
| In any avoidable high-risk category | 58.7 | 0.55 | 60.6 |
| Total | 100.0 | na | 100.0 |
| Number of births/women | 322 | na | 386 |

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.
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 sterilised women.

### 8.4 KEY RESULTS

The following are key issues identified from the discussion in this chapter.

1. Data from the 2007 NDHS show a decline of infant mortality from 40 deaths per 1,000 births in the period 1998-2003 to 38 deaths per 1,000 births in the period 2003-2007. However, this mortality level and trend is not supported by data from the vital registration system, indicating a considerably higher level of early age mortality. In should be mentioned that levels and trends of early age mortality from the 2007 NDHS are based on very low numbers of respondents.
2. The 2007 NDHS examined the relative importance of maternal fertility patterns associated with increased risk of mortality. Generally, infants and children have a greater probability of dying if they are born to mothers who are too old or too young, if they are born after a short birth interval, or if they are of high birth order. In the analysis of the effects of high-risk fertility behaviour on child survival, a mother is classified as too young if she is less than age 18, and too old if she is over age 34 at the time of birth. A short birth interval is defined as a birth occurring less than 24 months after the previous birth, and a child is of high birth order if the mother had previously given birth to 3 or more children (i.e. if the child is of birth order 4 or higher). The results show that:

- only 22 percent of births in Nauru were not in any high-risk category;
- an additional 20 percent of births are first order births to mothers aged 18-34 years, considered an unavoidable risk category;
- the remaining 58 percent of births in Nauru are in at least one of the specified avoidable high-risk categories:
- Over 40 percent are in only one of the high-risk categories (mostly high birth order $>3$ is 19 percent and 17 percent for short birth intervals of $<24$ months), while 16 percent are in multiple high-risk categories;
- The births in multiple high-risk categories are mostly found in two combinations: 1) Birth interval less than 24 months and birth order higher than 3; and 2) age higher than 34 years and birth order higher than 3 .

However, the NDHS data show that the risk of dying is lower in the avoidable high-risk categories compared with births in the 'not in any high risk category'. Again, this unexpected outcome is due to the very low number of cases.

## CHAPTER 9 REPRODUCTIVE HEALTH

Reproductive health and family planning has been recognised as one of Nauru's priorities as detailed in the Nauru National Sustainable Development Strategy (NSDS), Public Health Operational Plan 2008 and Nauru's commitment to the MDGs.

Nauru's NSDS expresses commitment to a healthy population. The 2005-2025 Nauru NSDS, under its outputs and milestones for the MDGs (Nauru is a signatory to the Millennium Declaration), recognises the importance of contraception as a means of improving maternal health. The Public Health Operational Plan 2008, states the following outputs and milestones for strengthening and ensuring implementation and sustainability of reproductive health:

- Operate regular antenatal, postnatal and family planning clinics
- Operate regular baby clinic and immunisation programmes
- Operate STI, HIV and AIDS awareness programmes and screening and surveillance campaigns.
The MDGs that relate to reproductive health are:
- Reduce child mortality: Reduced by two-thirds, between 1990 and 2015, the under 5 mortality rate ;
- Improve maternal health: Reduced by three-quarters, between 1990 and 2015, the under 5 mortality ratio;
- Combat HIV and AIDS, malaria and other diseases: Have halted by 2015 and begun to reverse the spread of HIV and AIDS.
This chapter includes information related to antenatal, childbirth and postpartum care. Information on antenatal care, delivery and postnatal care can help to identify problems and subgroups of women who are not accessing these services. The 2007 NDHS obtained information on antenatal care from women who reported having a live birth in the five years preceding the survey.

Women were asked about the type of healthcare personnel who provided antenatal care, the number of times they attended, and the stage of pregnancy when they first attended. Women were also asked about the components of care including information given, testing and treatments.

Respondents were also asked about the place of the delivery for the birth, the health providers who delivered the child, and whether they had a natural birth or caesarean section.

Information obtained on postnatal care included timing of the postnatal checkup and the type of personnel who provided postnatal care.

Information is provided in association with background characteristics for women, including age at last childbirth, the birth order (first live birth through to six or more births), level of education, and wealth quintile for the household.

Overall, 323 women aged 15-49 reported having at least one live birth in the five years preceding the survey. Table 9.9 provides findings for responses on problems in accessing health care from all women aged 15-49 years ( 611 women).

All percentages shown in tables have been weighted to be proportional to the age and sex structure of the Nauruan adult women's population.

No statistical tests have been performed for the presented data, therefore, comparisons between population subgroups are general trends and observations, and should not be taken to be statistically significant differences. No comments or comparisons have been made for population subgroups with sample sizes of less than 50 respondents.

### 9.1 ANTENATAL CARE

The primary purpose of antenatal care is to identify and treat health problems that can occur during pregnancy. During antenatal care visits, women are screened for complications of pregnancy and advice is provided on a range of issues including place of delivery. Women with complications are also referred for specialist care. The NDHS collected information on antenatal care services for women who had given birth to a child in the five-year period prior to the survey (i.e. since 2002). If a woman received antenatal care from more than one healthcare provider, the provider with the highest level of qualifications was recorded.

Table 9.1 shows the reported types of health personnel who provided antenatal care by the mother's age at birth, birth order of the child, mother's level of education and wealth quintile for the household.

## Table 9.1: Antenatal care

Percentage distribution of women aged 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Nauru 2007

| Background characteristic | Doctor | Nurse/ midwife | Primary health care attendant | Traditional birth attendant | Other | No one | Total | Percentage receiving antenatal care from a skilled provider ${ }^{1}$ | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mother's age at birth |  |  |  |  |  |  |  |  |  |
| <20 | * | * | * | * | * | * | 100.0 | 95.5 | 23 |
| 20-34 | 51.9 | 41.8 | 0.5 | 0.5 | 0.0 | 5.3 | 100.0 | 94.2 | 162 |
| 35-49 | * | * | * | * | * | * | 100.0 | 95.7 | 21 |
| Birth order |  |  |  |  |  |  |  |  |  |
| 1 | (57.2) | (38.0) | (0.0) | (2.6) | (0.0) | (2.3) | 100.0 | (95.2) | 40 |
| 2-3 | 49.3 | 43.9 | 0.0 | 0.0 | 0.0 | 6.8 | 100.0 | 93.2 | 87 |
| 4-5 | 50.0 | 43.1 | 1.6 | 1.7 | 0.0 | 3.6 | 100.0 | 94.7 | 48 |
| $6+$ | (65.8) | (31.1) | (0.0) | (0.0) | (3.0) | (0.0) | 100.0 | (97.0) | 30 |
| Mother's education |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | 100.0 | 100.0 | 4 |
| Secondary | 55.0 | 39.1 | 0.0 | 1.0 | 0.5 | 4.4 | 100.0 | 94.1 | 193 |
| More than secondary | * | * | * | * | * | * | 100.0 | 100.0 | 9 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | (33.2) | (62.1) | (0.0) | (0.0) | (0.0) | (4.7) | 100.0 | (95.3) | 38 |
| Second | (66.6) | (29.3) | (0.0) | (0.0) | (2.2) | (1.9) | 100.0 | (95.9) | 42 |
| Middle | 56.2 | 31.3 | 1.6 | 2.1 | 0.0 | 8.8 | 100.0 | 89.1 | 48 |
| Fourth | (70.6) | (29.4) | (0.0) | (0.0) | (0.0) | (0.0) | 100.0 | (100.0) | 37 |
| Highest | (39.2) | (54.4) | (0.0) | (2.0) | (0.0) | (4.4) | 100.0 | (93.6) | 40 |
| Total | 53.4 | 40.7 | 0.4 | 0.9 | 0.4 | 4.2 | 100.0 | 94.5 | 205 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
${ }^{1}$ Skilled provider includes doctor, nurse, midwife, and auxiliary nurse/midwife.
Approximately one-half of the women reported that antenatal care was provided by a doctor ( 53 percent) and a further 40 percent reported that care was provided by a midwife or nurse. Only 4 percent of women reported that they did not seek antenatal care. This finding did not change in respect to the birth order for the pregnancy.

### 9.2 NUMBER OF ANTENATAL CARE VISITS AND TIMING OF FIRST VISIT

In line with guidelines by the World Health Organization (WHO), the Nauru Ministry of Health and Medical Services recommend that a woman having a normal pregnancy should attend regular antenatal care visits as outlined below. The first visit should take place during the first trimester. Information on antenatal care visits and the stage at which pregnant women seek antenatal care is presented in Table 9.2.

Frequency of visits (mothers without complications)

- 0-32 weeks: every four weeks
- 32-36 weeks: fortnightly
- 36-delivery: weekly

The results show that the median number of months of pregnancy at the first visit was about 6 months for those women with ANC care. Four in ten women reported that they attended on four or more occasions antenatal care during their most recent pregnancy in the last five years. A further 13 percent of women reportedly made between one and three antenatal care visits.

About 40 percent of women could not recall how many visits they had attended during their pregnancy. The majority of women reported waiting until the second or third trimester of their pregnancy before seeking antenatal care.

About one in five women attended for their first antenatal visit in the first four months of pregnancy ( 16.8 percent). Another one-third of women reported they were four to five months pregnant, and an additional one-third reported they were six to seven months pregnant at their first antenatal visit. One in ten women reported that they were in the final month of the pregnancy before seeking antenatal care.

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

Percentage distribution of women aged 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, Nauru 2007

| Number and timing of ANC visits | Total |
| :--- | :---: |
| Number of ANC visits |  |
| None | 6.5 |
| 1 | 6.3 |
| 2-3 | 7.0 |
| 4+ | 40.2 |
| Don't know/missing | 40.1 |
| Total | 100.0 |
| Number of months pregnant at time of first ANC visit |  |
| No antenatal care | 4.2 |
| <4 | 16.8 |
| 4-5 | 34.2 |
| 6-7 | 30.9 |
| 8+ | 10.2 |
|  |  |
| Total | 100.0 |
| Number of women | 205 |
| Median months pregnant at first visit (for those with ANC) | 5.7 |
| Number of women with ANC | 197 |

Total includes eight women with missing information on number of months pregnant at time of first ANC visit.

### 9.3 COMPONENTS OF ANTENATAL CARE

The National Obstetrics Guidelines provide details of what care should be provided by health service providers during antenatal care. Health workers have been trained to offer these services.

In Nauru, antenatal care routine checkups involve:

- Recording patient's medical history
- Clinical examination (e.g. height, weight, blood pressure, pulse, pregnancy examination)
- Blood examination
- Urine examination
- Vaccination (tetanus)
- Ultrasound (if necessary).

The vast majority of women who received antenatal care reported they had been weighed (97.3 percent), had their blood pressure measured (97.9 percent), urine sample taken ( 93.7 percent) and blood taken ( 95.6 percent) during their most recent pregnancy (Table 9.3).
Approximately 40 percent of women who received antenatal care reported that during their most recent pregnancy they were given information about the signs of complications during pregnancy. This finding did not differ according to birth order of the pregnancy.

For women who reported a live birth in the last five years, over one-third reported that they took iron tablets or syrup during their last pregnancy ( 37.0 percent) and a small proportion reported taking medication for intestinal parasites ( 3.1 percent).
The discussion of the relationship between women's background and the use of ANC could be biased due to the very small number of cases in each subgroup. Therefore, caution is advised when interpreting these results.
Table 9.3: Components of antenatal care
Among women aged 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Nauru 2007

| Background characteristic | Among women with a live birth in the last five years, the percentage who during the pregnancy of their last birth: |  |  | Among women who received antenatal care for their most recent birth in the last five years, the percentage with selected services: |  |  |  |  | Number of women with ANC for their most recent birth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Took iron tablets or syrup | Took intestinal parasite drugs | Number of women with a live birth in the last five years | Informed of signs of pregnancy complications | Weighed | Blood pressure measured | Urine sample taken | Blood sample taken |  |
| Mother's age at birth |  |  |  |  |  |  |  |  |  |
| <20 | * | * | 23 | * | * | * | * | * | 23 |
| 20-34 | 37.0 | 3.9 | 162 | 37.7 | 98.5 | 99.0 | 94.7 | 97.2 | 153 |
| 35-49 | * | * | 21 | * | * | * | * | * | 21 |
| Birth order |  |  |  |  |  |  |  |  |  |
| 1 | (36.6 | (0.0) | 40 | (44.2) | (92.6) | (91.5) | (87.4) | (85.2) | 39 |
| 2-3 | 36.2 | 4.3 | 87 | 34.4 | 99.1 | 99.1 | 95.8 | 97.7 | 81 |
| 4-5 | 34.4 | 3.6 | 48 | 40.4 | 96.6 | 100.0 | 93.3 | 100.0 | 47 |
| $6+$ | (42.2) | (2.7) | 30 | (46.2) | (100.0) | (100.0) | (97.4) | (96.7) | 30 |
| Mother's education |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | 4 | * | * | * | * | * | 4 |
| Secondary | 35.6 | 3.3 | 193 | 39.5 | 97.6 | 98.6 | 94.6 | 96.6 | 184 |
| More than secondary | * | * | 9 | * | * | * | * | * | 9 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | (36.1) | (9.4) | 38 | (40.0) | (97.9) | (97.9) | (93.7) | (97.9) | 36 |
| Second | (36.9) | (2.3) | 42 | (38.5) | (99.1) | (98.1) | (89.4) | (93.1) | 41 |
| Middle | 37.0 | 0.0 | 48 | (38.7) | (92.3) | (95.9) | (88.8) | (95.9 | 44 |
| Fourth | 43.4 | 2.1 | 37 | (41.0) | (97.9) | (97.9) | (97.9) | (95.3) | 37 |
| Highest | 30.6 | 2.4 | 40 | (39.9) | (100.0) | (100.0) | (100.0) | (96.0) | 38 |
| Total | 36.7 | 3.1 | 205 | 39.6 | 97.3 | 97.9 | 93.7 | 95.6 | 197 |

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

### 9.4 TETANUS TOXOID 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. If a woman has not received previous TT injections, then for full protection she should receive at least two doses of TT during pregnancy. However, if a woman was immunised before she became pregnant, she may not require TT injections during pregnancy, depending on the number of injections she has received and the timing of the last injection. According to WHO, in order for a woman to have lifetime protection against TT, five doses are required.

The 2007 NDHS collected information on whether women received at least two TT injections during their pregnancy and whether the pregnancy was protected against neonatal tetanus for the most recent live birth in the five years preceding the survey.

Less than one in five women ( 18.5 percent) reported receiving two or more TT injections during their most recent pregnancy. Table 9.4 shows that tetanus protection was less common for women as the birth order increased.

## Table 9.4: Tetanus toxoid injections

Among mothers aged 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections during the pregnancy for the last live birth, and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Nauru 2007

| Background characteristic | Percentage receiving two or more injections during last pregnancy | Percentage whose last birth was protected against neonatal tetanus ${ }^{1}$ | Number of mothers |
| :---: | :---: | :---: | :---: |
| Mother's age at birth |  |  |  |
| $<20$ | * | * | 23 |
| 20-34 | 18.5 | 23.8 | 162 |
| 35-49 | * | * | 21 |
| Birth order |  |  |  |
| 1 | (18.3) | (21.4) | 40 |
| 2-3 | 23.7 | 30.0 | 87 |
| 4-5 | 14.6 | 22.5 | 48 |
| $6+$ | (9.8) | (12.4) | 30 |
| Mother's education |  |  |  |
| Less than secondary | * | * | 4 |
| Secondary | 18.9 | 24.4 | 193 |
| More than secondary | * | * | 9 |
| Wealth quintile |  |  |  |
| Lowest | (17.0) | (28.6) | 38 |
| Second | (21.3) | (21.3) | 42 |
| Middle | (14.0) | (19.9) | 48 |
| Fourth | (18.3) | (25.2) | 37 |
| Highest | (22.2) | (26.2) | 40 |
| Total | 18.5 | 24.0 | 205 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. 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 three years of the last live birth), or three or more injections (the last within five 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.

Overall, one in four women reported their last pregnancy was protected against neonatal tetanus, through either the current or previous immunisations (see definition in Table 9.4). This increased from the first birth to the third births but then declining as birth order increased.

However, caution is also advisable when interpreting these results as the numbers are so small.

### 9.5 PLACE OF DELIVERY

Factors associated with a successful birth include the place of delivery, disinfection practices used within the birthing facility, available birthing equipment, and the skills and performance of the personnel who assist in the birthing. Table 9.5 shows the proportions of women who gave birth within the public and private health facilities, and the overall proportion who gave birth within a recognised healthcare facility by background characteristics.

Table 9.5: Place of delivery
Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Nauru 2007

| Background characteristic | Health facility |  | Missing | Total | Percentage delivered in a health facility | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public sector | Private sector |  |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |
| <20 | 88.0 | 7.6 | 4.3 | 100.0 | 95.7 | 54 |
| 20-34 | 93.4 | 5.9 | 0.7 | 100.0 | 99.3 | 239 |
| 35-49 | (97.3) | (2.7) | (0.0) | 100.0 | (100.0) | 28 |
| Birth order |  |  |  |  |  |  |
| 1 | 86.5 | 12.6 | 0.9 | 100.0 | 99.1 | 81 |
| 2-3 | 92.8 | 5.4 | 1.8 | 100.0 | 98.2 | 131 |
| 4-5 | 96.1 | 2.5 | 1.4 | 100.0 | 98.6 | 74 |
| $6+$ | (100.0) | (0.0) | (0.0) | 100.0 | (100.0) | 37 |
| Mother's education |  |  |  |  |  |  |
| Less than secondary | * | * | * | 100.0 | 100.0 | 5 |
| Secondary | 93.9 | 5.3 | 0.9 | 100.0 | 99.1 | 302 |
| More than secondary | * | * | * | 100.0 | 90.2 | 15 |
| Antenatal care visits ${ }^{1}$ |  |  |  |  |  |  |
| None | * | * | * | 100.0 | 100.0 | 13 |
| 1-3 | (100.0) | (0.0) | (0.0) | 100.0 | (100.0) | 27 |
| 4+ | 95.5 | 4.5 | 0.0 | 100.0 | 100.0 | 83 |
| Don't know/missing | 93.4 | 5.6 | 1.0 | 100.0 | 99.0 | 74 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 100.0 | 0.0 | 0.0 | 100.0 | 100.0 | 61 |
| Second | 100.0 | 0.0 | 0.0 | 100.0 | 100.0 | 69 |
| Middle | 89.0 | 8.8 | 2.2 | 100.0 | 97.8 | 69 |
| Fourth | 91.3 | 4.3 | 4.3 | 100.0 | 95.7 | 60 |
| Highest | 83.4 | 16.6 | 0.0 | 100.0 | 100.0 | 63 |
| Total | 92.8 | 5.9 | 1.3 | 100.0 | 98.7 | 322 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Includes only the most recent birth in the five years preceding the survey.

The vast majority of women who reported having a live birth in the last five years indicated that they had delivered the baby in a recognised health facility ( 98.7 percent). Of these, the majority reported giving birth in a public facility ( 92.8 percent). Because the only health facility in Nauru is the Republic of Nauru Hospital, women who gave birth in a private facility would have given birth off the island.

Table 9.5 shows that women who were having their first child were more likely to have their child in a private sector health facility (off island), compared with women who were having their four or later birth.

All women who were within the lowest and second to lowest wealth quintiles gave birth in a public health facility. In contrast, 16.6 percent of women from the highest wealth quintile gave birth in a private sector facility (off island).

### 9.6 ASSISTANCE DURING CHILDBIRTH

In addition to place of birth, assistance during childbirth is an important factor that influences the birth outcome, and the subsequent health of the mother and infant(s). The knowledge, skills and performance of the birth attendant impact on identification and management of complications of childbirth and compliance with hygienic practices.

Table 9.6 provides information on the person who assisted with the delivery of the child by background characteristics for women who reported having a live birth in the last five years.

Overall, the majority of women reported that their child was delivered by a skilled health provider ( 97.4 percent). One in thirteen women ( 7.5 percent) reported giving birth by caesarean section.

Approximately one in ten women aged less than 20 years reported that a relative or other person had assisted with the birth.

A higher proportion of women aged 20 and older reported that a nurse or midwife had assisted with the birth compared with those aged less than 20 years.

Table 9.6 shows a trend towards greater likelihood of a nurse or midwife assisting with births as the birth order increased, while the likelihood of a doctor assisting decreased with subsequent births.
Table 9.6: Assistance during delivery
Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider and percentage delivered by caesarean section, according to background characteristics, Nauru 2007

| Background characteristic | Person providing assistance during delivery |  |  |  | Percentage delivered by a skilled provider ${ }^{1}$ | Percentage delivered by C-section | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doctor | Nurse/ midwife | Relative/ other | Total |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |  |
| <20 | 36.6 | 54.0 | 9.4 | 100.0 | 90.6 | 6.0 | 54 |
| 20-34 | 23.0 | 75.6 | 1.4 | 100.0 | 98.6 | 7.0 | 239 |
| 35-49 | (35.0) | (65.0) | (0.0) | 100.0 | (100.0) | (15.1) | 28 |
| Birth order |  |  |  |  |  |  |  |
| 1 | 36.9 | 60.7 | 2.4 | 100.0 | 97.6 | 7.3 | 81 |
| 2-3 | 25.9 | 70.0 | 4.2 | 100.0 | 95.8 | 8.5 | 131 |
| 4-5 | 13.8 | 84.8 | 1.4 | 100.0 | 98.6 | 7.1 | 74 |
| $6+$ | (30.4) | (69.6) | (0.0) | 100.0 | (100.0) | (5.5) | 37 |
| Mother's education |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | 100.0 | * | * | 5 |
| Secondary | 26.6 | 71.1 | 2.3 | 100.0 | 97.7 | 7.8 | 302 |
| More than secondary | * | * | * | 100.0 | * | * | 15 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 24.0 | 73.4 | 2.6 | 100.0 | 97.4 | 7.9 | 61 |
| Second | 25.5 | 74.5 | 0.0 | 100.0 | 100.0 | 4.5 | 69 |
| Middle | 31.3 | 62.6 | 6.1 | 100.0 | 93.9 | 10.2 | 69 |
| Fourth | 29.2 | 69.1 | 1.7 | 100.0 | 98.3 | 1.2 | 60 |
| Highest | 21.7 | 75.8 | 2.5 | 100.0 | 97.5 | 13.7 | 63 |
| Total | 26.4 | 71.0 | 2.6 | 100.0 | 97.4 | 7.5 | 322 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.
Total includes four women with missing information on type of place of delivery who are not shown separately.

### 9.7 POSTPARTUM CARE

Postpartum care is important, both for the mother and for the child, to treat complications arising from the delivery as well as to provide the mother with important information on how to care for herself and her child. The postpartum period, also known as the puerperium, is defined as the time between delivery of the placenta and 42 days ( 6 weeks) following delivery. Timing of postpartum care is important. The first two days after delivery are critical, because most maternal and neonatal deaths occur during this period. Protocol for postnatal care hasn't been developed in Nauru obstetrics, health and medical services guidelines.

Of the 205 women who reported having a live birth in the last five years, about one in five births ( 17.5 percent) were not accompanied by a postnatal check. Only 30 percent of women reported having a postnatal check in the first four hours period following delivery. This finding is at odds with previous information where 98.7 percent of women reported giving birth in a health facility (Table 9.5), where care should have been provided for at least 24 hours after giving birth.

Table 9.7: Timing of first postnatal checkup
Among women aged 15-49 giving birth in the five years preceding the survey, the percentage distribution of the mother's first postnatal check-up for the last live birth by time after delivery, according to background characteristics, Nauru 2007

| Background characteristic | Timing after delivery of mother's first postnatal checkup |  |  |  |  | No postnatal checkup ${ }^{1}$ | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 4 hours | $\begin{gathered} 4-23 \\ \text { hours } \end{gathered}$ | 2 days | $\begin{array}{r} 3-41 \\ \text { days } \\ \hline \end{array}$ | Don't know/ missing |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |  |  |
| <20 | * | * | * | * | * | * | 100.0 | 23 |
| 20-34 | 27.1 | 11.1 | 27.9 | 3.9 | 12.8 | 17.2 | 100.0 | 162 |
| 35-49 | * | * | * | * | * | * | 100.0 | 21 |
| Birth order |  |  |  |  |  |  |  |  |
| 1 | (33.9) | (4.8) | (21.1) | (5.4) | (13.6) | (21.1) | 100.0 | 40 |
| 2-3 | 26.2 | 11.5 | 23.8 | 4.2 | 13.0 | 21.4 | 100.0 | 87 |
| 4-5 | 32.3 | 16.4 | 29.2 | 0.0 | 5.8 | 16.3 | 100.0 | 48 |
| $6+$ | 33.5 | 5.3 | 26.8 | 6.0 | 25.3 | 3.0 | 100.0 | 30 |
| Education |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | 100.0 | 4 |
| Secondary | 31.0 | 9.5 | 25.9 | 3.7 | 13.7 | 16.2 | 100.0 | 193 |
| More than secondary | * | * | * | * | * | * | 100.0 | 9 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | (33.4) | (4.2) | (27.1) | (3.4) | (21.2) | (10.8) | 100.0 | 38 |
| Second | (37.3) | (4.7) | (30.6) | (4.0) | (5.9) | (17.4) | 100.0 | 42 |
| Middle | (26.1) | (11.9) | (22.3) | (7.7) | (11.8) | (20.3) | 100.0 | 48 |
| Fourth | (27.7) | (19.4) | (19.4) | (0.0) | (12.1) | (21.4) | 100.0 | 37 |
| Highest | (27.0) | (12.1) | (25.6) | (2.4) | (16.1) | (16.8) | 100.0 | 40 |
| Total | 30.2 | 10.4 | 25.0 | 3.7 | 13.2 | 17.5 | 100.0 | 205 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases
${ }^{1}$ Includes women who received a checkup after 41 days.

The proportion of mothers receiving postnatal check-up within less than 4 hours increased from second birth order to more than six birth order. Women were more likely to have postnatal checkup as birth order increased. For example 21 percent had no postnatal check-up at birth order 2-3 and this declined to only 3 percent with no postnatal check-up at birth order of more than six.

### 9.8 TYPE OF PROVIDER FOR THE FIRST POSTPARTUM CHECKUP

The skills level of a provider is important as this determines the ability to diagnose problems and to recommend appropriate treatment or referral for women in the postnatal period.

Of the women who had a postnatal check, the vast majority reported that they had been attended to by a doctor, nurse or midwife. The findings in Table 9.8 are similar, irrespective of the mothers' age, birth order, education and wealth quintile.

Table 9.8: Type of provider of first postnatal check-up
Among women aged 15-49 giving birth in the five years preceding the survey, the percentage distribution by type of provider of the mother's first postnatal health check for the last live birth, according to background characteristics, Nauru 2007

| Background characteristic | Type of health provider of mother's first postnatal check-up |  |  | No postnatal checkup ${ }^{1}$ | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doctor/ nurse/ midwife | Other | Don't know/ missing |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |
| <20 | * | * | * | * | 100.0 | 23 |
| 20-34 | 80.6 | 1.2 | 1.1 | 17.2 | 100.0 | 162 |
| 35-49 | * | * | * | * | 100.0 | 21 |
| Birth order |  |  |  |  |  |  |
| 1 | (78.9) | (0.0) | (0.0) | (21.1) | 100.0 | 40 |
| 2-3 | 76.4 | 2.2 | 0.0 | 21.4 | 100.0 | 87 |
| 4-5 | 80.1 | 0.0 | 3.5 | 16.3 | 100.0 | 48 |
| $6+$ | (97.0) | (0.0) | (0.0) | (3.0) | 100.0 | 30 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | 100.0 | 4 |
| Secondary | 81.9 | 1.0 | 0.9 | 16.2 | 100.0 | 193 |
| More than secondary | * | * | * | * | 100.0 | 9 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | (89.2) | (0.0) | (0.0) | (10.8) | 100.0 | 38 |
| Second | (77.7) | (2.8) | (2.2) | (17.4) | 100.0 | 42 |
| Middle | 76.5 | 1.6 | 1.7 | 20.3 | 100.0 | 48 |
| Fourth | (78.6) | (0.0) | (0.0) | (21.4) | 100.0 | 37 |
| Highest | (83.2) | (0.0) | (0.0) | (16.8) | 100.0 | 40 |
| Total | 80.8 | 0.9 | 0.8 | 17.5 | 100.0 | 205 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Includes women who received a check-up after 41 days.

### 9.9 PROBLEMS ENCOUNTERED IN ACCESSING HEALTH CARE

Many factors can prevent women from receiving medical advice or treatment. Information on barriers to accessing services and treatment is particularly important in understanding and addressing the problems women may face in when seeking medical care.

The 2007 NDHS asked women about a range of problems that could reduce accessibility to health care. Women who responded that each of the potential problems for accessing health care listed in Table 9.9 were a 'big problem'. The proportions of women who agree that factors were a 'big problem' for are shown by background characteristics.

Over 90 percent of women reported that at least one of the factors outlined below was an important access issue for them. The most common concern was the availability of drugs ( 82.1 percent), followed by concerns about the availability of health providers ( 69.8 percent). In
addition, over four in ten women were concerned that there may not be a female health provider available ( 42.5 percent).

Distance to the health facility and 'having to take transport' were considered to be important issues for approximately half of the women who were interviewed.
One third of female respondents ( 34.3 percent) were concerned about having to access medical care on their own.

Over one-quarter of women ( 25.8 percent) reported that getting money for treatment was a big problem for them, and one in ten women were concerned about getting permission to attend for health care.

By background characteristics, more than half the number of young women aged 15-19 reported having problem in accessing health care on their own ( 66 percent) and were concerned that no female was provider available ( $64 \%$ ) at the health centre to assist them.
A problem of getting money for treatment increased as the age of women increased, while the problem of getting permission to go for treatment declined with an increasing age of women. Almost the same proportion of unemployed and employed women reported getting money for treatment.
Table 9.9: Problems in accessing health care
Percentage of women aged 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, Nauru 2007

| Background characteristic | Problems in accessing health care |  |  |  |  |  |  |  |  | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 |  |
| Age |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 15.6 | 23.8 | 53.1 | 50.8 | 66.3 | 64.2 | 79.4 | 87.4 | 97.3 | 117 |
| 20-34 | 10.1 | 24.9 | 45.4 | 49.8 | 32.0 | 39.7 | 70.7 | 83.5 | 94.2 | 312 |
| 35-49 | 7.3 | 28.0 | 41.9 | 47.7 | 18.3 | 33.6 | 62.4 | 76.6 | 84.7 | 189 |
| Number of living children |  |  |  |  |  |  |  |  |  |  |
| 0 | 12.5 | 24.2 | 50.0 | 48.8 | 55.3 | 54.7 | 72.5 | 82.0 | 93.2 | 245 |
| 1-2 | 7.9 | 29.6 | 41.8 | 52.1 | 26.7 | 36.5 | 71.5 | 84.5 | 93.9 | 155 |
| 3-4 | 9.7 | 26.4 | 37.2 | 42.8 | 11.6 | 28.4 | 63.0 | 77.2 | 86.1 | 106 |
| 5+ | 9.4 | 22.7 | 50.1 | 53.0 | 20.4 | 37.4 | 68.1 | 83.8 | 91.7 | 113 |
| Marital status |  |  |  |  |  |  |  |  |  |  |
| Never married | 12.0 | 24.4 | 49.5 | 51.0 | 57.6 | 58.3 | 74.3 | 83.4 | 95.6 | 186 |
| Married or living together | 9.4 | 25.2 | 43.4 | 46.6 | 22.0 | 33.7 | 66.3 | 81.2 | 90.1 | 386 |
| Divorced/separated/widowed | (10.8) | (34.6) | (51.3) | (66.3) | (43.3) | (51.7) | (80.8) | (85.2) | (91.5) | 46 |
| Employed last 12 months |  |  |  |  |  |  |  |  |  |  |
| Not employed | 14.5 | 26.0 | 50.6 | 54.5 | 46.6 | 50.5 | 72.5 | 84.9 | 95.7 | 279 |
| Employed | 6.8 | 25.4 | 41.8 | 45.2 | 24.2 | 35.9 | 67.6 | 79.8 | 88.7 | 339 |
| Education |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | * | * | * | * | 13 |
| Secondary | 10.7 | 24.2 | 45.3 | 49.4 | 34.4 | 43.8 | 70.4 | 83.0 | 93.1 | 555 |
| More than secondary | 4.1 | 41.1 | 47.0 | 48.2 | 28.3 | 28.1 | 64.6 | 71.7 | 77.8 | 50 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 16.9 | 21.9 | 56.0 | 55.6 | 46.0 | 52.9 | 76.1 | 84.7 | 95.1 | 127 |
| Second | 7.2 | 27.3 | 51.8 | 52.4 | 29.5 | 34.1 | 58.2 | 78.8 | 90.1 | 126 |
| Middle | 13.6 | 25.8 | 44.1 | 50.5 | 35.6 | 44.8 | 73.7 | 84.6 | 92.8 | 129 |
| Fourth | 8.3 | 26.9 | 42.8 | 48.6 | 28.7 | 43.4 | 70.0 | 79.0 | 91.1 | 116 |
| Highest | 4.8 | 26.6 | 33.3 | 39.0 | 30.8 | 36.7 | 71.0 | 83.3 | 90.0 | 119 |
| Total | 10.3 | 25.7 | 45.8 | 49.4 | 34.3 | 42.5 | 69.8 | 82.1 | 91.9 | 618 |

### 9.10 KEY RESULTS

This section summarises the major findings related to reproductive health issues in Nauru that can direct policy-makers, health programme managers and development partners to improve areas that are in needs of such services.

The majority of women who reported having a live birth in the last five years were attended to by a skilled health provider during antenatal care for their most recent birth ( 94.5 percent). However, the survey identified some issues for consideration regarding the timing and number of antenatal care visits. Only one in six women ( 16.8 percent) attended their first visit during the first trimester of pregnancy, and only 40 percent of women reported attending for the recommended four or more antenatal visits during their pregnancy. These findings highlight a need to develop strategies for encouraging women to attend for care earlier in their pregnancy and to attend more regularly during the pregnancy.

While the vast majority of women who attended antenatal care during their most recent pregnancy reported having received all of routine care (i.e. were weighed, had blood pressure measured, and urine and blood samples taken), only 40 percent reported being given information about the signs of complications of pregnancy. This finding indicates a need to determine whether women are routinely provided this information when attending for antenatal care.

One in four women ( 24 percent) indicated that their most recent birth in the last five years was protected against neonatal tetanus. If considered appropriate for Nauru, then procedures should be established to ensure immunisation against neonatal tetanus for pregnant women.

The vast majority of women ( 98.7 percent) who reported having a live birth in the last five years indicated that they had delivered the baby in a recognised health facility, and overall the majority ( 97.4 percent) reported they were attended by a skilled health provider. Of concern is that one is six women ( 17.5 percent) reported that they did not have a postnatal check. Further investigation would be valuable to ascertain whether some women are missing out on the postnatal check and if so, to determine strategies to overcome this problem.

Over 90 percent of all women who participated in the 2007 NDHS reported at least one problem with accessing health care in Nauru. The two most common concerns raised were the availability of medications ( 82.1 percent of respondents) and the availability of health providers ( 69.8 percent of respondents).

Other common problems included distance to the health facility ( 45.8 percent of respondents), having to take transport ( 49.4 percent of respondents), and concern about the availability of a female provider ( 42.5 percent of respondents). These issues should be considered when developing strategies for improving women's access to health care.

## CHAPTER 10 CHILD HEALTH

This chapter presents findings in several important areas that reflect or influence child health. Information on birth weight differentiated by maternal and household characteristics can assist in the design and implementation of programmes aimed at reducing neonatal and infant mortality. Many early childhood deaths can be prevented by immunising children against preventable diseases and by ensuring children receive prompt and appropriate treatment when they become ill. Information on treatment practices and health-seeking behaviour regarding the three most important syndromic childhood illnesses (acute respiratory infection, fever and diarrhoea) helps in assessing programmes that seek to reduce mortality associated with these illnesses. In addition to prevalence data for all three syndromes, information is also provided on antibiotic treatment and - in the case of diarrhoea - oral rehydration therapy and feeding practices. Appropriate sanitary practices can prevent diarrhoeal disease, and consequently the disposal of children's faecal matter is also examined.

The results must be interpreted with caution due to the small number of children covered by the survey. During the five years preceding the 2007 NDHS, slightly more than 300 children were born to the slightly more than 200 mothers surveyed. Conclusions cannot be drawn regarding the influence of a mother's education on child health, because almost all children had mothers with some secondary education. Only five children had mothers who lacked a secondary education, and only 13 had mothers with a post-secondary education.

### 10.1 BIRTH WEIGHT

Birth weight and size at birth are important indicators of a child's vulnerability to childhood illnesses and their chance of survival. Children with low birth weight (LBW, defined as less than 2.5 kg ), or children reported by their mother to be 'very small' or 'smaller than average' are considered to have a higher-than-average risk of early childhood death. For all births in the five years preceding the survey, birth weight (if available) was recorded, either from a written record or the mother's recall. Because birth weight may not be known for some babies, the mother's estimate of the baby's size at birth was also obtained (although subjective, such estimates can be a useful proxy for birth weight). Table 10.1 presents information on children's weight and size at birth, by maternal and household characteristics.
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, Nauru 2007

| Background characteristic | Percent distribution of births with a reported birth weight ${ }^{1}$ |  | Total | Number of births | Percentage of all births with a reported birth weight | Percent distribution of all live births by size of chil at birth |  |  |  | Total | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Less than } \\ 2.5 \mathrm{~kg} \end{gathered}$ | 2.5 kg or more |  |  |  | Very small | Smaller than average | Average or larger | Don't know/ missing |  |  |
| Mother's age at birth |  |  |  |  |  |  |  |  |  |  |  |
| <20 | 24.3 | 75.7 | 100.0 | 50 | 93.1 | 18.2 | 10.7 | 62.8 | 8.3 | 100.0 | 54 |
| 20-34 | 27.5 | 72.5 | 100.0 | 231 | 96.3 | 6.9 | 10.1 | 75.1 | 7.9 | 100.0 | 239 |
| 35-49 | (28.2) | (71.8) | 100.0 | 28 | (96.8) | (0.0) | (10.0) | (90.0) | (0.0) | 100.0 | 28 |
| Birth order |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 31.6 | 68.4 | 100.0 | 78 | 96.5 | 12.9 | 14.8 | 65.1 | 7.2 | 100.0 | 81 |
| 2-3 | 20.2 | 79.8 | 100.0 | 126 | 96.4 | 9.9 | 5.5 | 78.2 | 6.4 | 100.0 | 131 |
| 4-5 | 38.2 | 61.8 | 100.0 | 69 | 92.8 | 4.2 | 11.7 | 72.7 | 11.4 | 100.0 | 74 |
| $6+$ | (19.9) | (80.1) | 100.0 | 36 | (98.0) | (0.0) | (13.8) | (84.1) | (2.0) | 100.0 | 37 |
| Mother's smoking status |  |  |  |  |  |  |  |  |  |  |  |
| Smokes cigarettes/tobacco | 29.1 | 70.9 | 100.0 | 145 | 92.9 | 7.0 | 12.3 | 68.3 | 12.4 | 100.0 | 156 |
| Does not smoke | 25.2 | 74.8 | 100.0 | 163 | 98.5 | 9.3 | 8.2 | 80.0 | 2.4 | 100.0 | 166 |
| Mother's education |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | 100.0 | 5 | * | * | * | * | * | 100.0 | 5 |
| Secondary | 27.9 | 72.1 | 100.0 | 290 | 96.3 | 8.3 | 10.4 | 75.1 | 6.2 | 100.0 | 302 |
| More than secondary | * | * | 100.0 | 13 | * | * | * | * | * | 100.0 | 15 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 38.8 | 61.2 | 100.0 | 59 | 96.6 | 12.2 | 9.9 | 69.2 | 8.7 | 100.0 | 61 |
| Second | 28.8 | 71.2 | 100.0 | 67 | 96.7 | 7.7 | 15.5 | 74.2 | 2.7 | 100.0 | 69 |
| Middle | 23.0 | 77.0 | 100.0 | 65 | 94.4 | 7.3 | 16.0 | 66.6 | 10.0 | 100.0 | 69 |
| Fourth | 20.8 | 79.2 | 100.0 | 57 | 94.5 | 6.5 | 3.2 | 84.7 | 5.5 | 100.0 | 60 |
| Highest | 23.8 | 76.2 | 100.0 | 61 | 96.9 | 7.5 | 5.2 | 77.9 | 9.4 | 100.0 | 63 |
| Total | 27.0 | 73.0 | 100.0 | 309 | 95.8 | 8.2 | 10.2 | 74.3 | 7.2 | 100.0 | 322 |

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

[^9]Birth weight was reported for 96 percent of the $323^{1}$ children born to survey respondents, which is to be expected as the vast majority of deliveries take place in a health facility. Of these, 27 percent weighed less than 2.5 kg at birth (a high proportion by international standards). LBW was even more common among children born to poor mothers ( 39 percent weighed less than 2.5 kg ), ${ }^{2}$ and was also found among children born to currently smoking mothers ( 29 percent), ${ }^{3}$ but not among children born to young mothers ( 24 percent). ${ }^{4}$ LBW was also common among first-born children ( 32 percent) and children of birth order 4 or 5 ( 38 percent); among children of birth order 2 or 3, and the 36 children of birth order 6 for whom weight was reported, LBW was less prevalent ( 20 percent).

Table 10.1 includes information on the mother's assessment of the baby's size at birth, but it should be noted that young mothers are particularly likely to assess their child as 'very small' (this was done by 18 percent). The 'very small' category was rarely chosen for children of higher birth order (4 percent of children of birth order 4-5 were rated 'very small', and none of those of birth order $6+$ ). These figures do not correspond to the actual LBW proportions, suggesting a perception bias, with young mothers more likely to perceive their children (who are of low birth order) as being "very small", even when this may not be the case.

The large proportion of LBW children is not associated with teenage pregnancies, nor sufficiently through maternal smoking practices, and is not consistent with body mass and weight patterns of women and children weighed during the 2007 NDHS. Since the mother's recall and the mother's estimate of the baby's sizes at birth were also obtained, the data are not 100 percent accurate.

According to clinical staff, birth weight in Nauru has varied in recent history, in line with the general economic situation. LBW was most common around 2002 and 2003 (during a severe economic crisis) and has improved considerably since then. It would be interesting to analyse the proportion of LBW by year of birth.

### 10.2 VACCINATION COVERAGE

Universal immunisation of children against vaccine-preventable diseases is crucial in reducing infant and child mortality. Information on immunisation coverage is important for the monitoring and evaluation of the Expanded Programme on Immunisation (EPI).
At the time of the 2007 NDHS, the child vaccination schedule consisted of BCG vaccinations (for TB ) at age 1 month; DPT (protecting against diphtheria, pertussis and tetanus) and polio vaccinations at the ages of $2,4,6,18$ and 48 months; hepatitis $B$ vaccinations at birth, and 1 and 6 months; MMR at vaccinations at 15 months and measles vaccinations at one year. DPT and polio vaccinations are usually given together, unless one is not in stock. Because all births are registered, it is possible and common practice for 'Well Baby Clinic' staff to call mothers and make appointments for immunisation according to this schedule.
Nauru plans to introduce a new vaccination programme as recommended by WHO, with the following schedule to be initiated in early 2009.

[^10]| Immunisation schedule |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Birth | BCG | HepB |  |  |
| 4 weeks | - |  |  |  |
| 6 weeks |  | Penta1* |  |  |
| 10 weeks | Penta2 |  | OPV1** |  |
| 14 weeks | Penta3 |  | OPV2 |  |
| 12 months |  |  |  | MR1*** |
| 15 months |  |  |  |  |
| 18 months |  |  | DTP**** | OPV4 |

Treated at 1st contact, +4 weeks
*a vaccine used to prevent 5 diseases: diphtheria, tetanus, pertussis, hepatitis B and polio
**oral polio vaccine ***measles and rubella vaccine
**** vaccine against diphtheria, tetanus and pertussis (whooping cough)

The 2007 NDHS collected information on vaccination coverage for all living children born in the five years preceding the survey, either from vaccination cards shown to the interviewer (for 60 children) or, in three cases, from mothers' recall.

Table 10.2 shows the percentage of the 63 children aged $18-29$ months who received the various vaccinations at any time prior to the survey, and the percentage vaccinated by 12 months of age.

## Table 10.2: Vaccinations by source of information

Percentage of children aged 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 age 12 months, Nauru 2007

| Source of information | BCG | $\begin{gathered} \text { DPT } \\ 1 \end{gathered}$ | $\begin{gathered} \text { DPT } \\ 2 \end{gathered}$ | $\begin{gathered} \text { DPT } \\ 3 \end{gathered}$ | Polio 1 | $\begin{gathered} \text { Polio } \\ 2 \end{gathered}$ | $\begin{gathered} \text { Polio } \\ 3 \end{gathered}$ | Measle <br> s | All basic vaccina - tions ${ }^{1}$ | No vaccina - tions | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vaccinated at any time before survey |  |  |  |  |  |  |  |  |  |  |  |
| Vaccination card | 95.5 | 95.5 | 92.8 | 89.0 | 95.5 | 93.5 | 91.0 | 92.6 | 85.5 | 0.0 | 60 |
| Mother's report | * | * | * | * | * | * | * | * | * | * | 3 |
| Either source | 98.4 | 98.4 | 92.8 | 89.0 | 98.4 | 93.5 | 91.0 | 95.4 | 85.5 | 1.6 | 63 |
| Vaccinated by 12 months of age ${ }^{2}$ | 96.9 | 95.5 | 75.8 | 55.7 | 98.4 | 85.0 | 69.5 | 59.9 | 37.5 | 1.6 | 63 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases.
${ }^{1}$ BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).
${ }^{2}$ For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

In total, 86 percent of these children were fully vaccinated, with each single vaccination given to more than 90 percent (except DPT 3, which was given to 89 percent; see also Figure 10.1). Only 38 percent were fully vaccinated by 12 months of age, showing a pattern of slightly delayed immunisation.

Due to the small sample size no further analysis has been undertaken.

Figure 10.1: Percentage of children aged 18-29 months with specific vaccinations, Nauru 2007*


### 10.3 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is a leading cause of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the 2007 NDHS, the prevalence of ARI was estimated by asking mothers whether their children under age 5 had been ill in the two weeks preceding the survey, with a cough accompanied by short, rapid breathing that was chest-related. This syndrome is considered a proxy for pneumonia. It should be noted that the morbidity data collected are based on the mother's perception without validation by medical personnel.

Table 10.3 shows that 16 percent of children under age 5 years showed symptoms of ARI at some time in the two weeks preceding the survey. This figure is very high compared with data collected during the 2007 DHSs in other countries in the region (e.g. 2 percent in the Marshall Islands, 5 percent in Solomon Islands).

Table 10.3: Prevalence and treatment of symptoms of acute respiratory infection
Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey; among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider, and the percentage who received antibiotics as treatment, according to background characteristics, Nauru 2007

| Background characteristic | Children under age 5 |  | Children under age 5 with symptoms of ARI |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage with symptoms of ARI ${ }^{1}$ | Number of children | Percentage for whom advice or treatment was sought from a health facility or provider ${ }^{2}$ | Percentage who received antibiotics | Number of children |
| Sex |  |  |  |  |  |
| Male | 20.1 | 151 | (76.6) | (58.8) | 30 |
| Female | 12.2 | 158 | * | * | 19 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 24.2 | 59 | * | * | 14 |
| Second | 14.1 | 67 | * | * | 9 |
| Middle | 17.2 | 65 | * | * | 11 |
| Fourth | 6.0 | 59 | * | * | 4 |
| Highest | 18.8 | 61 | * | * | 11 |
| Total | 16.1 | 310 | 68.8 | 47.0 | 50 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) is considered a proxy for pneumonia.
${ }^{2}$ Excludes pharmacy, shop, and traditional practitioner.

The results indicate that the prevalence of ARI is twice as high ( 20 percent) among boys as among girls (12 percent). ARI prevalence shows no consistent association with household wealth.

Among mothers of the 50 affected children, 69 percent sought advice or treatment from a health facility, ${ }^{5}$ and 47 percent received antibiotics. Both proportions were higher for boys than for girls.

Due to the small sample size no further analysis has been undertaken.

### 10.4 FEVER

Fever is also a symptom of acute infections in children. Illnesses that cause fever contribute to high levels of malnutrition and mortality.

Table 10.4 shows the proportion of children under five with fever during the two weeks preceding the survey and the proportion of these for whom advice or treatment was sought, and antibiotics administered.

[^11]Table 10.4: Prevalence and treatment of fever
Among children under age 5, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs and the percentage who took antibiotic drugs, by background characteristics, Nauru 2007

| Background characteristic | Among children under age 5: |  | Children under age 5 with fever |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | (34.1) | 28 | * | * | 10 |
| 6-11 | (51.3) | 39 | * | * | 20 |
| 12-23 | 52.8 | 51 | (59.8) | (14.0) | 27 |
| 24-35 | 32.9 | 66 | * | * | 22 |
| 36-47 | 26.8 | 69 | * | * | 18 |
| 48-59 | 22.2 | 57 | * | * | 13 |
| Sex |  |  |  |  |  |
| Male | 38.7 | 151 | 61.8 | 31.7 | 59 |
| Female | 32.0 | 158 | 37.6 | 21.1 | 51 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 41.5 | 59 | * | * | 24 |
| Second | 32.1 | 67 | * | * | 21 |
| Middle | 36.7 | 65 | (44.8) | (28.2) | 24 |
| Fourth | 22.1 | 59 | * | * | 13 |
| Highest | 44.1 | 61 | (41.3) | (21.1) | 27 |
| Total | 35.3 | 310 | 50.6 | 26.8 | 109 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases
${ }^{1}$ Excludes pharmacy, shop, and traditional practitioner
A total of 35 percent of children under five were reported to have had a fever in the two weeks preceding the survey. As with ARI, the prevalence of fever in Nauru was much higher than that reported in the Marshall Islands ( 9 percent) and Solomon Islands (17 percent).

The prevalence of fever symptoms varies by age of child. Children in the age groups 6-11 and 12-23 months were most affected, and more than half had displayed symptoms of fever in the preceding two weeks. Boys had a higher prevalence ( 39 percent) than girls ( 32 percent). Fever prevalence was not correlated to household wealth, being high ( 42 percent) in the poorest and wealthiest (44 percent) quintiles.

About half of children with fever were taken to a health facility for advice or treatment. This proportion was much larger for boys ( 62 percent) than for girls ( 38 percent). ${ }^{6}$ Overall, antibiotics were given to 27 percent, with a higher proportion of boys ( 32 percent) receiving antibiotics than girls ( 21 percent).

Due to the small sample size no further analysis has been undertaken.

[^12]
### 10.5 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 pathogens often results from the use of contaminated water, unhygienic food preparation, and excreta disposal practices. In interpreting the findings of the 2007 NDHS, it should be borne in mind that prevalence of diarrhoea in Nauru varies with rainfall patterns.

### 10.5.1 Prevalence

Table 10.5 shows the proportion of children under age 5 with diarrhoea in the two weeks preceding the survey, by selected background characteristics. Overall, 21 percent had diarrhoea, which is more than double the 9 percent prevalence rate reported in both the Marshall Islands and Solomon Islands. Only one case of diarrhoea with blood was reported.

Table 10.5: Prevalence of diarrhoea
Percentage of children under age 5 who had diarrhoea in the two weeks preceding the survey, by background characteristics, Nauru 2007

|  | Diarrhoea in the two weeks <br> preceding the survey |  |  |
| :--- | :---: | :---: | :---: |
| Background <br> characteristic | All <br> diarrhoea | Diarrhoea <br> with blood | Number of <br> children |
| Age in months |  |  |  |
| <6 | $(5.7)$ | $(0.0)$ | 28 |
| 6-11 | 24.2 | 0.0 | 39 |
| 12-23 | 34.4 | 0.0 | 51 |
| $24-35$ | 22.3 | 0.0 | 66 |
| 36-47 | 17.7 | 1.5 | 69 |
| 48-59 | 16.1 | 0.0 | 57 |
| Sex |  |  |  |
| Male | 20.9 | 0.7 | 151 |
| Female | 20.8 | 0.0 | 158 |
| Source of drinking water ${ }^{1}$ |  |  |  |
| Improved | 20.0 | 0.4 | 279 |
| Not improved | $(28.9)$ | $(0.0)$ | 31 |
| Toilet facility ${ }^{2}$ |  |  |  |
| Improved, not shared | 21.4 | 0.5 | 223 |
| Non-improved or shared | 18.4 | 0.0 | 83 |
| Missing | $*$ | $*$ | 4 |
| Wealth quintile |  |  |  |
| Lowest | 20.9 | 0.3 | 310 |
| Second | 19.3 | 0.0 | 59 |
| Middle | 15.4 | 0.0 | 67 |
| Fourth | 26.3 | 0.0 | 65 |
| Highest | 17.9 | 0.0 | 59 |
| Total | 1.7 | 61 |  |

[^13]The prevalence of diarrhoea varies by the age of the child. As in most countries, it is highest ( 34 percent) in the $12-23$ month age group, but prevalence is high in all other age groups as well. Diarrhoea prevalence is below 15 percent only in children under 6 months of age.
There is no difference in the prevalence of diarrhoea between boys and girls.
A large majority ( 90 percent) of children live in households with an improved source of drinking water, and more than 70 percent in households with an improved and non-shared toilet facility, meaning all prevalence data for children in households without improved sanitation are based on small numbers. A non-improved drinking water source appears to increase the risk of diarrhoea, but no correlation is evident with the type of toilet facilities. There is also no consistent association between household wealth and diarrhoea prevalence; interestingly, children in the wealthiest households have a higher prevalence ( 25 percent) than those in the poorest households (19 percent).

### 10.5.2 Knowledge of ORS packets

A simple and effective response to dehydration caused by diarrhoea is a prompt increase in the child's fluid intake through some form of oral rehydration therapy, which may include the use of a solution prepared from packets of oral rehydration salts (ORS). To ascertain how widespread the knowledge of ORS is in Nauru, mothers aged 15-49 who gave birth in the five years preceding the survey were asked whether they knew about ORS packets.

Table 10.6 shows that a large majority ( 82 percent) of the mothers interviewed knew about ORS packets. ORS knowledge increases with household wealth, albeit not consistently, and with mother's age, from 74 percent in the 20-24 age group to 92 percent in the oldest age group.

Table 10.6: Knowledge of ORS packets or prepackaged liquids
Percentage of mothers aged 15-49 who gave birth in the five years preceding the survey who know about ORS packets or ORS pre-packaged liquids for treatment of diarrhoea by background characteristics, Nauru 2007

|  | Percentage of <br> women who know <br> about ORS packets <br> or ORS pre- | Number of |
| :--- | :---: | :---: |
| Background <br> characteristic | wackaged liquids | women |
| Age | * |  |
| $15-19$ | 73.8 | 13 |
| $20-24$ | 88.2 | 63 |
| $25-34$ | $(91.5)$ | 101 |
| $35-49$ |  | 29 |
| Wealth quintile | $(78.6)$ |  |
| Lowest | $(77.1)$ | 38 |
| Second | 79.6 | 42 |
| Middle | $(89.9)$ | 48 |
| Fourth | $(84.8)$ | 37 |
| Highest | 81.8 | 40 |
| Total |  | 205 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
ORS = oral rehydration salts

### 10.5.3 Treatment

Mothers of children with diarrhoea were asked about what was done to treat the illness. Table 10.7 shows their responses, by background characteristics.

About one-third of the 65 children with diarrhoea were taken to a health facility, with more than double the proportion of boys taken to a facility ( 47 percent) as girls ( 22 percent). Seventy percent received ORT or increased fluids. There were some differences by gender, probably due to health facility exposure: ORS packets or pre-packed liquids were given preferentially to boys (received by 32 percent of boys vs 15 percent of girls), while recommended home fluids were more often given to girls ( 43 percent, vs 17 percent of boys). Antibiotics were given only to boys.
The proportion of younger children (aged less than 24 months) taken to a health facility ( 39 percent) was higher than that of older children aged $24-59$ months ( 31 percent). However, a greater proportion of older children ( 75 percent) received appropriate treatment (ORT or increased fluids) than did younger children ( 65 percent).

## Table 10.7: Diarrhoea treatment

Among children under age 5 who had diarrhoea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, Nauru 2007

| Background characteristic | Percentage of children with diarrhoea for whom advice or treatment was sought from a health facility or provider ${ }^{1}$ | Oral rehydration therapy (ORT) |  |  |  |  | Other treatments |  |  | No treatment | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ORS packets or prepackaged liquid | Recommended home fluids (RHF) | Either ORS or RHF | Increased fluids | ORT or increased fluids | Anti- biotic drugs | Home remedy/ other | Missing |  |  |
| Age in months |  |  |  |  |  |  |  |  |  |  |  |
| <24 | (38.8) | (24.7) | (30.8) | (52.0) | (38.3) | (64.8) | (7.4) | (28.3) | (3.6) | (24.2) | 29 |
| 24-59 | (30.7) | (22.3) | (29.6) | (51.9) | (50.0) | (74.5) | (0.0) | (16.3) | (7.6) | (17.8) | 36 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |
| Male | (47.2) | (32.1) | (17.0) | (46.1) | (39.5) | (68.2) | (6.7) | (25.6) | (4.7) | (20.4) | 32 |
| Female | (21.9) | (14.9) | (42.7) | (57.6) | (49.9) | (72.2) | (0.0) | (17.8) | (6.9) | (20.9) | 33 |
| Total | 34.3 | 23.3 | 30.1 | 52.0 | 44.8 | 70.2 | 3.3 | 21.6 | 5.8 | 20.6 | 65 |

${ }^{1}$ Excludes pharmacy, shop and traditional practitioner.

### 10.5.4 Feeding

Mothers are encouraged to continue normal feeding of children with diarrhoea and to increase the amount of fluids. These practices help reduce dehydration and minimise the adverse consequences of diarrhoea on the child's nutritional status. Mothers of children with recent diarrhoea were asked whether they gave the child less, the same amount, or more fluids and food than usual. Table 10.8 shows the percent distribution of feeding practices for the 65 children under five who had diarrhoea in the two weeks preceding the DHS, by background characteristics.

In total, 45 percent of children were given more liquids than usual, while the majority received either the same amount ( 27 percent), somewhat less ( 9 percent) or even much less ( 13 percent) than usual. Responses were undetermined for 7 percent.

Regarding the amount of food offered, 22 percent were given the same amount as usual, 21 percent were given more, 24 percent somewhat less, and 25 percent much less than usual. One child received no food at all during their illness. For 6 percent the response was missing or 'don't know'.

Broken down by sex and age group, the proportion of girls ( 50 percent) and older children ( 50 percent) who were offered more liquids was greater than that of boys ( 40 percent) and younger children (38 percent). In particular, the proportion of younger children offered somewhat (14 percent) or much ( 20 percent) less in the way of liquids exceeded the proportion of older children ( 4 percent received somewhat less, and 8 percent received much less).

While younger children were more likely than older children to receive less food when affected by diarrhoea (and, accordingly, older children were more likely than younger children to receive more food), the gender association with food was the inverse of the association with liquids: 30 percent of boys with recent diarrhoea received more food than usual, but only 13 percent of girls.

In summary, 36 percent of affected children received the recommended liquid and food regime. This was the case for both boys and girls, and more likely for older (39 percent) than younger (32 percent) children.

Allowing for ORT as a valid replacement for an increase in liquids (in line with UNICEF's multiple luster indicator 35), 69 percent of affected children were appropriately managed; older children were more likely to be managed appropriately ( 71 percent) than were younger children (65 percent), and more girls ( 72 percent) received appropriate treatment than did boys (65 percent).

## Table 10.8: Feeding practices during diarrhoea

Percent distribution of children under age 5 who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhoea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhoea, by background characteristics, Nauru 2007

| Background characteristic | Amount of liquids offered |  |  |  |  | Total | Amount of food offered |  |  |  |  |  | Total | Percentage given increased fluids and continued feeding ${ }^{1,2}$ | Percentage who continued feeding and were given ORT and/or increased fluids ${ }^{3}$ | Number of children with diarrhoea |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | More | $\begin{aligned} & \text { Same } \\ & \text { as } \\ & \text { usual } \end{aligned}$ | Some what | $\begin{aligned} & \text { Much } \\ & \text { less } \end{aligned}$ | Don't know/ missing |  | More | $\begin{aligned} & \text { Same } \\ & \text { as } \\ & \text { usual } \end{aligned}$ | Somewhat less | Much less | Never gave food | Don't know/ missing |  |  |  |  |
| Age in months |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <24 | (38.3) | (24.0) | (13.7 | (20.4) | (3.6) | 100.0 | (17.2) | (21.3) | (26.6) | (28.5) | (2.8) | (3.6) | 100.0 | (32.1) | (64.8) | 29 |
| 24-59 | (50.0) | (28.5) | (4.3) | (7.5) | (9.7) | 100.0 | (24.2) | (23.3) | (22.3) | (22.6) | (0.0) | (7.6) | 100.0 | (38.5) | (71.3) | 36 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | (39.5) | (30.1) | (9.1) | (14.3) | (7.1) | 100.0 | (29.6) | (25.8) | (20.8) | (16.5) | (2.5) | (4.7) | 100.0 | (35.8) | (64.5) | 32 |
| Female | (49.9) | (23.1) | (7.9) | (12.2) | (6.9) | 100.0 | (12.9) | (19.2) | (27.4) | (33.5) | (0.0) | (6.9) | 100.0 | (35.5) | (72.2) | 33 |
| Total | 44.8 | 26.5 | 8.5 | 13.2 | 7.0 | 100.0 | 21.1 | 22.4 | 24.2 | 25.2 | 1.2 | 5.8 | 100.0 | 35.7 | 68.4 | 65 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases. Total includes 5 children with missing information on amount of liquids and food offered who are not shown
.
${ }^{2}$ Continue feeding practices includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode.
${ }^{3}$ Equivalent to UNICEF MICS Indicator 35 .

### 10.6 DISPOSAL OF CHILDREN'S STOOL

If human faeces are left uncontained, disease may spread by direct human or animal contact with the faeces. Proper disposal of children's stools is therefore extremely important in preventing the spread of disease. Table 10.9 presents information on the disposal of children's stools by mothers of youngest children under age 5 , by background characteristics.

Of the 190 mothers in the sample, less than half ( 48 percent) disposed of their youngest child's stools safely. This proportion generally increased with the child's age and household wealth, albeit not consistently: the highest wealth quintile had the lowest frequency ( 39 percent) of safe disposal.

Looking at different disposal methods, stools and/or nappies (diapers) were most commonly disposed of by being 'thrown into garbage' ( 43 percent). Not surprisingly this method decreased for older children, from 72 percent for children below 6 months to 7 percent for children 36-47 months. It is less common in households with improved, non-shared toilet facilities ( 40 percent) than in households with non-improved or shared toilet facilities ( 49 percent). However, analysed by household wealth, it is most common in the richest quintile ( 54 percent), perhaps due to the availability of nappies.

The second-most common practice ( 25 percent) was 'child used toilet or latrine', which increased among older children, is not influenced by the type of toilet facility, and is least common (17 percent) in the wealthiest quintile.
Table 10.9: Disposal of children's stools
Percent distribution of youngest children under age 5 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, Nauru 2007

| Background characteristic | Manner of disposal of children's stools |  |  |  |  |  |  |  |  | Percentage of children whose stools are disposed of safely | Number of mothers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Child used toilet or latrine | Put/rinsed into toilet or latrine | Buried | Put/rinsed into drain or ditch | $\begin{gathered} \text { Thrown } \\ \text { into } \\ \text { garbage } \\ \hline \end{gathered}$ | Rinsed away | Other | Missing | Total |  |  |
| Age in months |  |  |  |  |  |  |  |  |  |  |  |
| <6 | (10.4) | (6.7) | (4.9) | (2.9) | (72.0) | (0.0) | (2.9) | (0.0) | 100.0 | 22.1 | 27 |
| 6-11 | (8.5) | (10.6) | (0.0) | (5.9) | (63.6) | (5.6) | (3.2) | (2.5) | 100.0 | 19.1 | 36 |
| 12-23 | (5.6) | (10.6) | (6.3) | (9.1) | (63.8) | (2.4) | (0.0) | (2.2) | 100.0 | 22.4 | 41 |
| 24-35 | (36.7) | (27.2) | (4.0) | (0.0) | (25.3) | (6.7) | (0.0) | (0.0) | 100.0 | 67.9 | 40 |
| 36-47 | (51.6) | (32.2) | (2.8) | (0.0) | (7.1) | (0.0) | (6.2) | (0.0) | 100.0 | 86.7 | 29 |
| 48-59 | * | * | * | * | * | * | * | * | 100.0 | * | 17 |
| Toilet facility |  |  |  |  |  |  |  |  |  |  |  |
| Improved, not shared ${ }^{1}$ | 25.1 | 20.1 | 4.2 | 3.3 | 39.7 | 4.1 | 2.8 | 0.7 | 100.0 | 49.4 | 136 |
| Non-improved or shared | 25.3 | 15.2 | 3.5 | 4.0 | 48.7 | 0.0 | 1.5 | 1.8 | 100.0 | 44.0 | 51 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | (26.1) | (13.5) | (2.5) | (8.7) | (36.4) | (7.7) | (2.4) | (2.8) | 100.0 | (42.0) | 33 |
| Second | (20.3) | (18.9) | (3.9) | (2.7) | (46.7) | (5.3) | (0.0) | (2.2) | 100.0 | (43.1) | 41 |
| Middle | (29.1) | (16.4) | (8.1) | (3.0) | (39.1) | (0.0) | (4.4) | (0.0) | 100.0 | (53.6) | 44 |
| Fourth | (33.0) | (26.8) | (0.0) | (2.4) | (35.3) | (0.0) | (2.4) | (0.0) | 100.0 | (59.9) | 33 |
| Highest | (16.8) | (18.1) | (4.2) | (1.4) | (54.3) | (2.6) | (2.6) | (0.0) | 100.0 | (39.1) | 38 |
| Total | 24.9 | 18.6 | 4.0 | 3.5 | 42.6 | 3.0 | 2.4 | 1.0 | 100.0 | 47.5 | 189 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases. Total includes nine mothers with missing information on the type of toiet facility and who are not shown
${ }^{1}$ Non-shared facilities include the following: flush or pour flush into a piped sewer system/septic tankpit latrine; ventilated, improved pit (VIP) latine; pit latrine with a slab; and a composting toilet.

### 10.7 KEY RESULTS

The following major findings can be drawn from the discussion relating to child health in Nauru:

1. A child's birth weight and size is an important indicator of its vulnerability to childhood illnesses and chances of survival. The 2007 NDHS results show that a large proportion of children in Nauru ( 27 percent) are of low birth weight. Low birth weight is more common among later children (i.e. birth order 4 or 5), among mothers who smoke cigarettes, and among children from households in the poorest wealth quintile.
2. Universal immunisation of children against vaccine-preventable diseases is crucial to reducing infant and child mortality and also important for monitoring and evaluation of immunisation programmes. About 86 percent of all children were fully vaccinated, with each single vaccination given to more than 90 percent. However, the proportion that had received each single vaccination decreased among older children.
3. The 2007 NDHS indicates that 16 percent of children under age 5 years showed symptoms of acute respiratory infection (ARI) at some time in the two weeks preceding the survey. ARI is more common among male children and children from households in the poorest wealth quintile.
4. Among children under age 5,35 percent were reported to have had a fever in the two weeks preceding the survey. Fevers were more common among male children and those children living in poorer households.
5. Overall, one in five children under age 5 was reported to have had diarrhoea in the two weeks preceding the survey. The prevalence of diarrhoea was highest for children aged 12-23 months. More than 34 percent of mothers with children who experienced diarrhoea sought treatment and advice from a health facility. The majority of women aged 15-49 who gave birth in the five years preceding the survey reported knowledge of ORS packages or pre-packaged liquids.
6. Among youngest children living with their mother, only about half ( 48 percent) had their stool disposed of safely. The most common practice (which is considered unsafe) consisted of disposing of stool (presumably nappies) in the garbage (43 percent).

## CHAPTER 11 NUTRITION OF ADULTS AND CHILDREN

This chapter examines the nutritional status of men, women and children by assessing their anthropometric measurements, infant and child feeding practices, micronutrient intakes (of women and children), food consumption patterns of mothers, and the consequences of inadequate nutrition.

The prevalence of anaemia from haemoglobin testing of women and children are also discussed in this chapter. Haemoglobin testing was done by taking a finger-prick drop of blood from participants and using a portable HemoCue photometer to obtain the results. Consent was asked from a parent or guardian before taking blood from children.

Survey participants were invited to have their weight and height measured. These measurements were then used to calculate indicators of nutritional status, including body mass index (BMI), an indicator of thinness and fatness, and short stature. Low BMI $\left(<18.5 \mathrm{~kg} / \mathrm{m}^{2}\right)$ can be used as an indicator of chronic energy deficiency (CED) and the degrees of severity are defined as follows:

- mild CED is BMI $17-18.5 \mathrm{~kg} / \mathrm{m}^{2}$
- moderate CED is BMI $16.0-16.9 \mathrm{~kg} / \mathrm{m}^{2}$
- severe CED is $\mathrm{BMI}<16.0 \mathrm{~kg} / \mathrm{m}^{2}$

CED is an indicator of chronic malnutrition, which can impact negatively on productivity levels among adults, and is a risk factor for childhood morbidity and mortality. The causes of malnutrition include not eating enough nutritious food, poor food choices and feeding practices, parasitic infections, poor sanitation and other socio-cultural factors that influence food choices and feeding practices. Women and children are most at risk. Women with CED are more likely to give birth to low weight babies who are more likely to experience poor health outcomes.

Short stature in women (defined as height $<145 \mathrm{~cm}$ ) can be used to identify women with an increased risk of poor delivery outcomes. Short stature is associated with small pelvic size, which makes delivery difficult. The risk of delivering low birth weight babies is higher for shorter women.

High BMI ( $>25.00 \mathrm{~kg} / \mathrm{m}^{2}$ ) on the other hand is an indicator of overweight (BMI $25.0-29.9 \mathrm{~kg} / \mathrm{m}^{2}$ ) and obesity ( $\mathrm{BMI}>30 \mathrm{~kg} / \mathrm{m}^{2}$ ), which is associated with an increased risk of developing of noncommunicable diseases such as diabetes, heart diseases and some cancers.

### 11.1 NUTRITIONAL STATUS OF MEN

Table 11.1 presents the percentage of Nauruan men aged $15-49$ with specific BMI levels by background characteristics. Overall, the mean BMI was $31.6 \mathrm{~kg} / \mathrm{m}^{2}$, which is classified as obese ( $>30 \mathrm{~kg} / \mathrm{m}^{2}$ ). The 2004 STEPS survey ${ }^{7}$ showed the mean BMI for males aged $15+$ years was $31.6 \mathrm{~kg} / \mathrm{m}^{2}$, so it appears that the mean BMI among men has stabilised since 2004.

[^14]Table 11.1: Nutritional status of men
Among men aged 15-49, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Nauru 2007

| Background characteristic | Body Mass Index (BMI) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Normal | Thin |  |  | Overweight/obese |  |  | Number ofmen |
|  | Mean BMI | $\begin{gathered} \hline 18.5-24.9 \text { (Total } \\ \text { normal) } \end{gathered}$ | $\begin{gathered} <18.5 \\ \text { (Total thin) } \end{gathered}$ | $\begin{gathered} \text { 17.0-18.4 } \\ \text { (Mildly thin) } \end{gathered}$ | <17 (Moderately and severely thin) | $>=25.0$ (Total overweight or obese) | 25.0-29.9 (Over weight) | $\begin{aligned} & >=30.0 \\ & \text { (Obese) } \end{aligned}$ |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | 25.4 | 56.9 | 3.8 | 2.6 | 1.2 | 39.3 | 26.0 | 13.3 | 58 |
| 20-29 | 30.5 | 18.8 | 0.7 | 0.7 | 0.0 | 80.4 | 39.7 | 40.7 | 111 |
| 30-39 | 35.5 | 10.3 | 0.0 | 0.0 | 0.0 | 89.7 | 15.5 | 74.1 | 78 |
| 40-49 | (35.3) | (5.6) | (0.0) | (0.0) | (0.0) | (94.4) | (16.3) | (78.1) | 49 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 32.9 | 23.0 | 3.5 | 3.5 | 0.0 | 73.5 | 18.7 | 54.8 | 43 |
| Second | 31.9 | 20.7 | 0.0 | 0.0 | 0.0 | 79.3 | 30.8 | 48.5 | 64 |
| Middle | 30.3 | 18.2 | 1.2 | 0.0 | 1.2 | 80.6 | 34.4 | 46.2 | 59 |
| Fourth | 30.7 | 29.6 | 0.0 | 0.0 | 0.0 | 70.4 | 26.3 | 44.1 | 64 |
| Highest | 32.4 | 18.2 | 1.3 | 1.3 | 0.0 | 80.5 | 21.7 | 58.7 | 65 |
| Total 15-49 | 31.6 | 21.9 | 1.0 | 0.8 | 0.2 | 77.1 | 26.8 | 50.3 | 296 |
| 50+ | (32.0) | (11.0) | (0.0) | (0.0) | (0.0) | (89.0) | (34.8) | (54.2) | 40 |
| Total men 15+ | 31.6 | 20.6 | 0.9 | 0.7 | 0.2 | 78.5 | 27.7 | 50.8 | 336 |

[^15]Notes: An asterisk indicates that a tigure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
BMI is expressed as the ratio of weight in kiograms to the square of height in meters (kg/m2).

Overall, the prevalence of men who were overweight or obese was 77.1 percent, with 26.8 percent being overweight and 50.3 percent classified as obese (Fig. 11.1). The total prevalence of men with normal BMI was 21.9percent.
Overweight and obesity was detected as early as ages 20-29 years for men. The total prevalence of men classified as overweight or obese increased from 73.5 percent among men living in the least wealthy households ( 18.7 percent being overweight and 54.8 percent being obese) to 80.5 percent among those living in the wealthiest households ( 21.7 percent being overweight and 58.7 percent being obese).

Figure 11.1: Percentage of men 15-149 years by BMI category


Results show that BMI increases with age for Nauruan men. In Table 11.1 and Figure 11.2, 39.3 percent of men in the 15-19 age group were overweight or obese, of which 26 percent were overweight and 13.3 percent were obese, compared with 89.7 percent of men in the $30-39$ age group ( 15.5 percent of whom were overweight and 74.2 percent of whom were obese).

Figure 11.2: Percentage of Nauruan men by BMI category and age


There is little indication of CED among adult men, with less than 1 percent of adult men classified as thin.

### 11.2 NUTRITIONAL STATUS OF WOMEN

Table 11.2 presents the nutritional status of women aged 15-49 by height, BMI and background characteristics. Height and weight were used as indicators of nutritional status among women who were not pregnant or had given birth in the two months preceding the survey.

Table 11.2: Nutritional status of women
Among women aged 15-49, the percentage less than 145 cm tall, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Nauru 2007

| Background characteristic | Height |  |  | Body Mass Index (BMI) ${ }^{1}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage below 145 cm | Number of women | Mean BMI | Normal <br> 18.524.9 <br> (Total normal) | Thin |  | Overweight/obese |  |  | Number of women |
|  |  |  |  |  | <18.5 <br> (Total <br> thin) | $\begin{gathered} 17.0- \\ 18.4 \\ \text { (Mildly } \\ \text { thin) } \\ \hline \end{gathered}$ | $>=25.0$ <br> (Total overweight or obese) | $\begin{gathered} 25.0- \\ 29.9 \\ \text { (Over- } \\ \text { weight) } \\ \hline \end{gathered}$ | $\begin{gathered} >=30.0 \\ \text { (Obese) } \end{gathered}$ |  |
| Age |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 1.1 | 117 | 26.3 | 47.2 | 1.9 | 1.9 | 50.9 | 34.3 | 16.5 | 108 |
| 20-29 | 1.9 | 219 | 30.9 | 18.3 | 1.1 | 1.1 | 80.6 | 27.6 | 53.0 | 186 |
| 30-39 | 0.2 | 145 | 36.2 | 7.7 | 0.0 | 0.0 | 92.3 | 17.3 | 75.0 | 129 |
| 40-49 | 1.9 | 125 | 35.7 | 8.0 | 0.0 | 0.0 | 92.0 | 16.7 | 75.3 | 122 |
| Education |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | 12 | * | * | * | * | * | * | * | 10 |
| Secondary | 1.3 | 544 | 32.4 | 18.0 | 0.9 | 0.9 | 81.1 | 24.0 | 57.1 | 489 |
| More than secondary | 0.0 | 49 | (31.8) | (29.1) | (0.0) | (0.0) | (70.9) | (23.5) | (47.4) | 47 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 2.3 | 125 | 31.4 | 28.4 | 2.3 | 2.3 | 69.3 | 19.8 | 49.6 | 113 |
| Second | 2.0 | 119 | 33.4 | 12.3 | 1.5 | 1.5 | 86.2 | 21.0 | 65.2 | 109 |
| Middle | 0.0 | 128 | 32.1 | 18.0 | 0.0 | 0.0 | 82.0 | 30.3 | 51.7 | 109 |
| Fourth | 1.7 | 116 | 33.4 | 17.3 | 0.0 | 0.0 | 82.7 | 19.7 | 63.0 | 105 |
| Highest | 0.8 | 118 | 31.5 | 19.5 | 0.0 | 0.0 | 80.5 | 29.4 | 51.1 | 110 |
| Total | 1.3 | 606 | 32.3 | 19.2 | 0.8 | 0.8 | 80.1 | 24.1 | 56.0 | 546 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases. BMI is expressed as the ratio of weight in kilograms to the square of height in meters $\left(\mathrm{kg} / \mathrm{m}^{2}\right)$.
${ }^{1}$ Excludes pregnant women and women with a birth in the preceding two months.

## Height

Overall, only 1.3 percent of women were of short stature, observed mostly in women living in the least and second wealthy households ( 2.3 percent and 2.0 percent, respectively) and among women in their 20s (1.9 percent) and forties (1.9 percent).

## Body mass index

The results show that the mean BMI for Nauruan women aged 15-49 at the time of the survey was $32.3 \mathrm{~kg} / \mathrm{m}^{2}$, which is classified as obese ( $>30 \mathrm{~kg} / \mathrm{m}^{2}$ ), indicating that overall, Nauruan women aged $15-49$ were obese ( $>30 \mathrm{~kg} / \mathrm{m} 2$ ). The mean BMI for women was slightly higher than the mean BMI for men $\left(31.6 \mathrm{~kg} / \mathrm{m}^{2}\right)$.

The total prevalence of women identified as overweight or obese was 80.1 percent, with 24.1 percent being overweight and 56 percent being obese. The mean BMI among women aged $15-64$ in the 2004 STEPwise approach to surveillance survey (STEPS) was $32.5 \mathrm{~kg} / \mathrm{m}^{2}$.

BMI was observed to increase with age, from a mean BMI of 26.3 percent among women aged $15-19$ to 35.7 percent among women aged 45-49. Figure 3 shows that the proportion of women classified as obese increases with age, similar to the trend observed in adult men. The total prevalence of women classified as overweight or obese increased from 50.9 percent ( 34.4 percent overweight, 16.5 percent obese) among those aged $15-19$ to 92 percent ( 16.7 percent overweight, 75.3 percent obese) among those aged $40-49$. In contrast, the overweight category increased with the younger age groups and then declined as women reached older ages.

Figure 11.3: Percentage of Nauruan women by BMI and age


The total prevalence of women who were overweight or obese increased from 69.3 percent (19.8 percent overweight, 49.6 percent obese) among women who lived in the least wealthy households to 80.5 percent ( 29.4 percent overweight, 51.1 percent obese) among those who live in the wealthiest households.

Less than 50 percent of women were classified as having a BMI within the normal range $\mathrm{kg} / \mathrm{m}^{2}$ : ranging from 47.2 percent for women in the 15-29 age group, to just 8 percent for women in the 40-49 age group. Less than 1 percent of women were classified as mildly thin (identified as $17-18.5 \mathrm{~kg} / \mathrm{m}^{2}$ ), an indicator of mild CED.

### 11.3 NUTRITIONAL STATUS OF CHILDREN

The nutritional status of children is an important indicator of children's health and well-being. Poor nutrition in children under age 5 years is associated with an increased risk of morbidity and mortality. Usually there is a catch-up growth in older childhood or adolescence in children who experience growth retardation under age 3 years.
Poor nutrition in children is related to maternal malnutrition, low birth weight, inadequate breastfeeding and weaning diets, and high levels of infectious disease morbidity. Improvements in the nutritional status of children will reduce severity of common childhood illnesses and reduce the risk of death. Malnutrition in children leads to short stature in adults which is associated with reduced productivity and increased obstetrics risks for women.

In the 2007 NDHS, the nutritional status of children was assessed using weight and height measurements that were taken by standardised methods. Weight was measured using a digital scale that was accurate to the nearest 100 g , and height was measured using a portable measuring
board that was accurate to the nearest 1 mm . Children under age 2 years were measured lying down, and older children were measured standing upright.

Three anthropometric measurements were calculated from the weight and height measurements.

1. Height-for-age reflects achieved linear growth and deficits, which indicate long-term cumulative inadequate nutrition and poor health. Low height-for-age, or stunting, is frequently associated with poor overall economic conditions, which result in long-term, inadequate calorie intake and/or repeated exposure to illness, and other adverse conditions. Height-for-age is the recommended indicator that best reflects failure of a child to reach their linear growth potential. This indicator changes slowly over time and does not vary by season.
2. Weight-for-height reflects body weight relative to height. Low weight-for-height, or wasting, indicates a loss of weight or an insufficient weight gain relative to height. Wasting is generally associated with recent or ongoing severe weight loss. Weight loss in children resulting in low weight-for-height is usually due to recent illness and/or insufficient calorie intake (caused by food shortage, weaning practices or other events). This indicator can vary by season depending on the availability of food and the incidence of acute morbidity in the child population.
3. Weight-for-age is an indicator of body mass relative to chronological age. Weight-forage is primarily a composite of weight-for-height and height-for-age, and fails to distinguish tall, thin children from short, well-proportioned children. Because it is influenced by both the height and the weight of the child, it is more difficult to interpret. Low weight-for-age, or underweight, can be used as a general indicator of child health and mortality risk.
These indices were calculated by comparing the weight and height measurements, or combinations of these measurements, with WHO international growth references. These references are based on the observation that well-nourished child populations from different countries and ethnic groups have similar growth potential at least to 7 years of age. Environmental factors such as infectious diseases, inadequate and unsafe diet, poverty and socioeconomic status, rather than genetic predisposition, account for any deviations from the references. ${ }^{8}$

The anthropometric indicators of children's nutritional status used in this survey are expressed as standard deviations (SD), the deviations of the individual anthropometric measurements from the median value of the WHO growth references for that child's height or age, divided by the SD for the reference population. Children who were more than 2 SD below the reference median of the international growth reference for their age or height ( $<2 \mathrm{SD}$ ) were considered undernourished, and those more than $<3$ SD below were graded as severely undernourished.

Table 11.3 presents the overall nutritional status of Nauruan children less than age 5 years. The overall prevalence of stunting or low height-for-age (an indicator of chronic malnutrition) was significantly high ( 24.0 percent), compared with wasting ( 1.0 percent), or low weight-for-height (an indicator of a recent episode of illness or inadequate calorie intake), and 4.8 percent for underweight or low weight-for-age (a general indicator of children's health).

[^16]Table 11.3: Nutritional status of children
Percentage of children under age 5 years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-forage, by background characteristics, Nauru 2007

| Background characteristic | Height-for-age |  |  | Weight-for-height |  |  |  | Weight-for-age |  |  |  | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentag e below -3 SD | Percentage below-2 SD ${ }^{1}$ | Mean Zscore (SD) | Percentage below-3 SD | Percentage below -2 SD ${ }^{1}$ | Percentage above +2 SD | $\begin{aligned} & \text { Mean Z- } \\ & \text { score (SD) } \end{aligned}$ | Percentage below-3 SD | Percentage below - 2 SD | Percentage above +2 SD | Mean Zscore (SD) |  |
| Age in months |  |  |  |  |  |  |  |  |  |  |  |  |
| <6 | (0.0) | (3.4) | 0.4 | (0.0) | (0.0) | (4.2) | 0.3 | (0.0) | (0.0) | (0.0) | 0.1 | 24 |
| 6-8 | * | * | 1.1 | * | * | * | 0.2 | * | * | * | 0.6 | 15 |
| 9-11 | * | * | 0.6 | * | * | * | 0.1 | * | * | * | 0.3 | 13 |
| 12-17 | (11.7) | (17.3) | 1.2 | (0.0) | (2.8) | (10.2) | 0.4 | (0.0) | (5.6) | (1.7) | 0.3 | 27 |
| 18-23 | (0.0) | (15.4) | 0.5 | (0.0) | (6.0) | (9.3) | 0.1 | (0.0) | (1.7) | (9.3) | 0.1 | 23 |
| 24-35 | 10.3 | 31.6 | 1.5 | 1.2 | 1.2 | 0.0 | 0.3 | 1.2 | 3.1 | 1.9 | 0.6 | 51 |
| 36-47 | 11.4 | 28.4 | 1.5 | 0.0 | 0.0 | 2.6 | 0.3 | 0.0 | 7.1 | 0.0 | 0.6 | 63 |
| 48-59 | 7.2 | 26.7 | 1.5 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 2.5 | 0.0 | 0.8 | 51 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 9.3 | 22.1 | 1.1 | 0.5 | 2.2 | 4.6 | 0.2 | 1.8 | 6.9 | 2.2 | 0.5 | 126 |
| Female | 7.0 | 25.8 | 1.3 | 0.0 | 0.0 | 1.3 | 0.4 | 0.0 | 2.9 | 0.5 | 0.5 | 141 |
| Birth interval in months ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| First birth ${ }^{3}$ | 6.8 | 16.9 | 0.9 | 1.0 | 3.2 | 0.0 | 0.1 | 1.0 | 3.7 | 0.0 | 0.5 | 61 |
| <24 | 8.0 | 30.3 | 1.4 | 0.0 | 0.0 | 2.1 | 0.4 | 0.0 | 5.7 | 2.1 | 0.6 | 66 |
| 24-47 | 5.8 | 22.2 | 1.2 | 0.0 | 0.0 | 3.1 | 0.3 | 2.0 | 6.6 | 2.7 | 0.5 | 81 |
| 48+ | (11.5) | (24.5) | 1.2) | (0.0) | (2.5) | (3.3) | 0.3 | (0.0) | (5.0) | (0.0) | 0.4 | 30 |
| Mother's nutritional status |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal (BMI 18.5-24.9) | (8.1) | (25.3) | 1.4 | (0.0) | (0.0) | (1.5) | 0.4 | (0.0) | (2.4) | (1.5) | 0.5 | 32 |
| Overwieght/obese (BMI >= 25) | 6.9 | 21.5 | 1.1 | 0.3 | 1.4 | 2.2 | 0.3 | 1.1 | 6.0 | 1.5 | 0.5 | 200 |
| Mother's education ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | 0.9 | * | * | * | 0.0 | * | * | * | 0.5 | 3 |
| Secondary | 7.5 | 24.4 | 1.2 | 0.3 | 1.2 | 2.2 | 0.3 | 1.0 | 5.4 | 1.6 | 0.5 | 225 |
| More than secondary | * | * | 0.9 | * | * | * | 0.1 | * | * | * | 0.5 | 8 |

Table 11.3 (continued)

| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lowest | 18.8 | 52.2 | 2.0 | 0.0 | 0.0 | 2.0 | 0.3 | 3.4 | 6.7 | 0.0 | 1.0 | 49 |
| Second | 5.4 | 18.7 | 1.0 | 1.1 | 3.6 | 3.0 | 0.2 | 1.1 | 1.8 | 0.0 | 0.4 | 55 |
| Middle | 9.4 | 21.2 | 1.1 | 0.0 | 1.4 | 4.2 | 0.1 | 0.0 | 6.8 | 4.1 | 0.5 | 56 |
| Fourth | 4.1 | 11.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 6.8 | 0.0 | 0.3 | 47 |
| Highest | 3.8 | 18.0 | 1.1 | 0.0 | 0.0 | 4.2 | 0.5 | 0.0 | 2.5 | 2.1 | 0.3 | 60 |
| Total | 8.1 | 24.0 | 1.2 | 0.2 | 1.0 | 2.8 | 0.3 | 0.8 | 4.8 | 1.3 | 0.5 | 267 |

Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation (SD) units from the median of the WHO Child Growth Standards. Total includes six children with missing information on size at birth and six women with missing nutritional status information who are not shown separately.
Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.
${ }^{1}$ Includes children who are below -3 standard deviations (SD) from the International Reference Population median,
${ }^{2}$ and excludes children whose mothers were not interviewed.
${ }^{3}$ First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval
${ }^{4}$ Includes children whose mothers are deceased.

## Stunting in children

Low height-for-age, or stunted growth, reflects a failure to reach linear growth potential as a result of suboptimal health and/or nutritional conditions. On a population level, high level of stunting is associated with poor socioeconomic conditions and a high risk of frequent and early exposure to adverse conditions such as illness and/or inappropriate feeding practices. Childhood stunting leads to significant reduction in adult size. One of the main consequences of small adult size is reduced work capacity, which in turn has an impact on economic productivity. Maternal size is associated with specific reproductive outcomes. Short stature in women places an increased risk of delivery complications because of the pelvic size is small. Small maternal size also increases the risk of giving birth to low weight babies who themselves have an increased risk of becoming small sized adults.

Table 11.3 presents the prevalence of low height-for-age or stunting in children less than 5 years of age by gender, birth interval and maternal characteristics.

Overall, the mean Z-score for height-for-age was 1.2 , which was above zero, the expected value of the reference distribution. This shows that on average, Nauruan children under 5 were achieving their linear growth potential when compared to the WHO international growth references.

Overall, 24 percent of children under 5 were stunted (identified as $<-2$ SD below the mean) and 8.5 percent were severely stunted (identified as $<-3$ SD below the mean). Figure 4 shows that stunting appears to peak among children aged 3 . The prevalence of stunting was slightly higher among girls ( 25.8 percent) than among boys ( 22.1 percent), whereas, slightly more boys ( 9.3 percent) were severely stunted (identified as -3 SD below the mean) than girls ( 7 percent). Children who were born less than 24 months apart were more likely to be stunted ( 30.3 percent) than those who were born 24-47 months apart ( 22.2 percent) or first-born children ( 16.9 percent). Children in the least wealthy households were more likely to be severely stunted (18.8 percent) than children in the wealthiest households ( 3.8 percent).

Figure 11.4: Prevalence of stunting among children under age 5 years, Nauru 2007


The relationship between maternal nutritional status and stunting was based on limited data from mothers who were classified as overweight or obese. The mean Z-score (SD) for these mothers was 1.1. The results show that 21.5 percent of children born to these mothers were identified as stunted (below -2SD) and less than 10 percent were severely stunted ( 6.9 percent).

Likewise, the relationship between stunting and educational level of mother is unclear because most of the mothers surveyed had secondary school as the highest education achievement.

## Wasting in children

Low weight-for-height or wasting or thinness indicates, in most cases, a recent or severe weight loss that is often associated with acute starvation and/or a severe illness. Wasting may also be the result of chronic unfavourable living conditions.

Table 11.3 presents the prevalence of wasting among children less than age 5 years. Overall, the prevalence of wasting in children was very low, with 1.0 percent below -2SD and less than 1.0 percent as severely wasted (at 0.2 percent below -3 SD ). The mean Z-score for weight for height was 0.3 , which was slightly above zero, the expected reference value that would indicate that on average, Nauruan children were achieving their growth potential.

Boys were more likely to be wasted (with 2.2 percent below -2SD) than girls (with 0.0 percent below-2SD).

There was no relationship between educational level, maternal nutritional status and household wealth, and wasting in children. An inadequate number of survey participants contributed to the limitation of available data.

High weight-for-height can be considered an adequate indicator of obesity because the majority of individuals with high weight-for-height tend to be obese. The overall prevalence of childhood obesity ( $>2 \mathrm{SD}$ ) was 2.8 percent. Boys were more likely to be obese (with 4.6 percent above +2 SD ) than girls (with 1.3 percent above +2 SD ).

## Underweight in children

Table 11.3 presents the prevalence of low weight-for-age or underweight children.
Overall, 4.8 percent of children were underweight (identified as a percentage below -2SD from the mean Z-score) and 1.3 percent were well nourished (identified as +2 SD above the mean Z-score). The overall mean Z-score for weight-for-age was 0.5 , which is slightly above 0 - the expected reference value. These results seemed to indicate that on average, Nauruan children were achieving their expected body weight relative to their chronological age.

Boys were more likely to be underweight (with 6.9 percent below -2 SD ) than girls ( 2.9 percent below-2 SD).

### 11.4 INFANT AND YOUNG CHILD FEEDING PRACTICES

The survival, growth, development, health and nutritional status of children are closely linked to infant and young child feeding practices. The nutritional status of the mother during pregnancy and lactation also has as important impact on the health and nutritional status of the child. Exclusive breastfeeding is the recommended and most appropriate way to feed new-born babies until they are 6 months old. Breast milk provides optimal nutrition for the growing child by reducing exposure to environmental pathogens as well as offering protection from environmental contamination such as poor water quality.

WHO and UNICEF recommend that solid food should be given only after 6 months of age and that breastfeeding should continue into the second year of life. Prolonged breastfeeding also increases duration of postpartum infertility, thus breastfeeding acts as a natural contraceptive, impacting on the mother's fertility health and length of birth intervals.

### 11.4.1 Initial breastfeeding

Both the mother and child benefit from early initiation of breastfeeding. The suckling actions of the baby on the breast release the hormone oxytocin, which increases uterine contractions and improves the expulsion of the placenta, and reduces the risk of haemorrhage following delivery. The infant benefits from the first breast milk called colostrum, which is rich in nutrients and immunoglobulin that help protect against infections.

Table 11.4: 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 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, Nauru 2007

| Background characteristic | Breastfeeding among children born in last five years |  | Among last-born children ever breastfed |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage ever breastfed | Number of children born in last 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 pre-lacteal feed ${ }^{2}$ | Number of last-born children ever breastfed |
| Sex |  |  |  |  |  |  |
| Male | 95.1 | 159 | 75.2 | 86.3 | 14.5 | 101 |
| Female | 94.2 | 163 | 77.7 | 94.1 | 16.8 | 93 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 91.7 | 61 | (84.0) | (87.2) | (15.0) | 34 |
| Second | 97.2 | 69 | (73.3) | (89.1) | (6.2) | 41 |
| Middle | 96.7 | 69 | (74.6) | (91.8) | (10.6) | 46 |
| Fourth | 88.7 | 60 | (70.0) | (89.8) | (25.6) | 34 |
| Highest | 98.4 | 63 | (80.6) | (91.7) | (23.0) | 39 |
| Total | 94.7 | 322 | 76.4 | 90.1 | 15.6 | 194 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
Table is based on births in the last five years whether the children are living or dead at the time of interview.
Total includes one child with missing information on place of delivery who is not shown separately.
${ }^{1}$ 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.

Table 11.4 presents the prevalence of children born in the five years preceding the survey who were ever breastfed and the time of initiation of breastfeeding. Overall, among children born in the five years prior to the survey, the prevalence of those who were ever breastfed was 94.7 percent with 76.4 percent of these starting breastfeeding within one hour of birth. About nine out of ten of these children ( 90.1 percent) were reported to have started breastfeeding within one day of birth. An overall 15.6 percent of children were also given something other than breast milk during the first three days of life.

Girls were more likely to be given breast milk earlier ( 77.7 percent within one hour of birth, increasing to 94.1 percent within one day of birth) than boys ( 75.2 percent within one hour of birth, increasing to 86.3 percent within one day of birth). This could be related to the small sample size for last-born children ever breastfed.

Children born to mothers in wealthy households were more likely to be breastfed ( 98.4 percent) than those born in poorer households ( 91.7 percent).

### 11.4.2 Age of breastfeeding

One of the indicators of breastfeeding children is the percentage of children less than age 6 months who were exclusively breastfed. Due to the very low numbers of children in the survey, it was difficult to determine with a fair degree of certainty the prevalence of children who met WHO and UNICEF recommendations for exclusive breastfeeding for six months.

Table 11.5 presents the prevalence of children less than 3 years old who are currently breastfed and/or receiving complementary foods at the time of the survey. Even with the limited number of children in the survey, the results show that 2.8 percent of the total 28 children surveyed from birth to five months of age were not breastfed at all. About 67.2 percent were exclusively breastfed, with 3.8 percent consuming plain water, 11.9 percent consuming other liquids, 8.6 percent consuming other milk, and 5.7 percent consuming complementary foods in addition to breast milk.

It was unclear when the introduction of complementary foods took place. The percentage of children consuming complementary foods as well as breast milk increased from 5.7 percent among the $0-5$ months age group, to 67.7 percent in the $12-17$ month age group. About seven in ten children were exclusively breastfed, although this amount dropped dramatically to less than 1.0 percent.

Figure 11.5 shows the relationship between changes in exclusive breastfeeding prevalence corresponding to rapid increase in the introduction of complementary foods.

Figure 11.5: Breastfeeding status by age


The percentage of all children who were breastfed at the time of the survey was 97.2 percent for the $0-5$ month age group, dropping to 53 percent for the $24-35$ month age group.

The percentage of children using a bottle with a nibble at the time of the survey was 18.7 percent for the $0-5$ month age group, increasing to 37.4 percent for the $12-17$ month age group before tapering down to 21.1 percent for the 24-35 month age group.

Table 11.5: Breastfeeding status by age
Percent distribution of youngest children under age 3 years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under age 3 years using a bottle with a nipple, according to age in months, Nauru 2007

| Age in months | Percent distribution of youngest children under three living with their mother by breastfeeding status |  |  |  |  |  |  | Percentage currently breastfeeding | Number of youngest child under three years | Percentage using a bottle with a nipple ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Breastfeeding and consuming: |  |  |  |  |  |  |  |  |  |  |
|  | Not breastfeeding | Exclusively breastfed | Plain water only | Nonmilk liquids/ juice | Other milk | Complementary foods | Total |  |  |  |  |
| 0-5 | (2.8) | (67.2) | (3.8) | (11.9) | (8.6) | (5.7) | 100.0 | (97.2) | 27 | (18.7) | 28 |
| 6-8 | * | * | * | * | * | * | 100.0 | * | 21 | * | 23 |
| 9-11 | * | * | * | * | * | * | 100.0 | * | 15 | * | 16 |
| 12-17 | (32.3) | (0.0) | (0.0) | (0.0) | (0.0) | (67.7) | 100.0 | (67.7) | 24 | (37.4) | 26 |
| 18-23 | (35.1) | (0.0) | (0.0) | (0.0) | (0.0) | (64.9) | 100.0 | (64.9) | 17 | (35.3) | 26 |
| 24-35 | 47.0 | 0.0 | 0.0 | 0.0 | 0.0 | 53.0 | 100.0 | 53.0 | 40 | 21.1 | 66 |
| 12-23 | 33.5 | 0.0 | 0.0 | 0.0 | 0.0 | 66.5 | 100.0 | 66.5 | 41 | 36.4 | 51 |
| 6-9 | (31.1) | (4.4) | (0.0) | (0.0) | (0.0) | (64.5) | 100.0 | (68.9) | 31 | (55.0) | 32 |
| 20-23 | * | * | * | * | * | * | 100.0 | * | 10 | * | 17 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
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 should total 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 foods are classified in that category as long as they are breastfeeding as well.
${ }^{1}$ Based on all children under age 3 years

### 11.4.3 Duration and frequency of breastfeeding

Table 11.6 presents the median duration of any breastfeeding, exclusive breastfeeding and predominantly breastfeeding among children born in the three years preceding the survey, and the mean number of feeds per day/night by background characteristics.

WHO and UNICEF recommended exclusive breastfeeding for the first six months and continued breastfeeding for at least 24 months. The mean duration of any breastfeeding among Nauruan children born in the three years preceding the survey was 18.6 months. The mean duration for exclusive breastfeeding was 3.3 months and 4.0 months for predominantly breastfeeding. Clearly, Nauruan children did not meet WHO and UNICEF recommendations for exclusive breastfeeding for six months and continued breastfeeding into the second year of life with the introduction of complementary foods.

Table 11.6: 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 six months 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 background characteristics, Nauru 2007

| Background characteristic | Median duration (months) of breastfeeding among children born in the last three years ${ }^{1}$ |  |  | Frequency of breastfeeding among children under 6 months ${ }^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Any breastfeeding | Exclusive breastfeeding | Predominant breastfeeding 3 | Percentage breastfed 6+ times in last 24 hours | Mean number of day feeds | Mean number of night feeds | Number of children |
| Sex |  |  |  |  |  |  |  |
| Male | 14.6 | 3.1 | 3.2 | 100.0 | 5.7 | 4.3 | 9 |
| Female | 21.8 | 3.7 | 4.9 | 100.0 | 5.8 | 4.8 | 15 |
| Mother's education |  |  |  |  |  |  |  |
| Less than secondary | 10.5 | 5.5 | 5.5 | - | - | - | 0 |
| Secondary | 19.2 | 3.5 | 4.2 | 100.0 | 5.8 | 4.7 | 23 |
| More than secondary | 5.9 | 1.6 | 1.6 | 100.0 | 3.0 | 3.0 | 1 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 10.2 | 3.5 | 3.5 | 100.0 | 3.5 | 7.2 | 2 |
| Second | 8.6 | 5.7 | 5.7 | 100.0 | 6.0 | 4.6 | 10 |
| Middle | 21.0 | 2.4 | 3.6 | 100.0 | 6.5 | 2.2 | 2 |
| Fourth | 8.6 | 0.6 | 4.4 | 100.0 | 6.9 | 5.2 | 6 |
| Highest | 6.0 | 1.9 | 2.3 | 100.0 | 4.0 | 3.8 | 4 |
| Total | 18.6 | 3.3 | 4.0 | 100.0 | 5.7 | 4.6 | 23 |
| Mean for all children | 19.3 | 4.1 | 5.0 | - | - | - | - |

Note: Median and mean durations are based on current status. Includes children living and deceased at the time of the survey.
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.

It is also recommended that babies be breastfed or fed on demand approximately 8-12 times every 24 hours. Overall, the mean number of feeds presented in Table 11.6 was 10.3 times every 24 hours.

The median duration of breastfeeding among children born in Nauru in the last three years was higher for female children, with mothers having less or no education and among children living in the middle wealth households.

### 11.4.4 Types of complementary food consumed by children

UNICEF and WHO recommend introducing solid food to infants from the age of 6 months because the nutritional requirements of the child will not be adequately met by breast milk alone. In the transition to eating the family diet, children from the age of 6 months should be fed small quantities of solid and semi-solid foods (complementary foods) throughout the day. The risk of malnutrition during this transition period is very high due to improper and unsafe food handling practices.

Mothers whose youngest child is under 3 years of age were asked about the types of foods and liquids consumed by the child in the day or night preceding the interview. The results are presented in Table 11.7.

## Liquids

Overall 13.6 percent of breastfeeding children consumed infant formula, 44.2 percent consumed other milk, and 61.3 percent consumed other liquids. Among breastfed children aged $6-23$ months, 17.5 percent were fed infant formula, 57.7 percent consumed other milk, and 67.0 percent consumed other liquids.

Non-breastfed children were more likely to consume all other types of liquids and milks than breastfed children. The most commonly consumed liquid was 'other liquids' that do not include water.

## Solids or semi-solid foods

It is not clear from the survey when the introduction of semi-solid and solid foods took place as the data are not stratified by age or gender. Foods made from grains (energy rich foods that include rice) were consumed by 93.6 percent of breastfed children aged 6-23 months, by 71.5 percent of all breastfed children, and 96.6 percent of all non-breastfed children.

Protein-rich foods such as meat, fish, poultry and eggs were the second most commonly consumed solid or semi-solid foods by 79.6 percent of children aged $6-23$ months, by 60.7 percent of all children and 87.7 percent of all non-breastfed children. Vitamin A-rich foods such as pawpaw and pumpkin were next, consumed by 68 percent of children aged $6-23$ months, by 52.4 percent of all children, and by 70.1 percent of all non-breastfed children. These foods are very soft when cooked and thus are easily mashed to the right consistency.

Other commonly consumed foods include those made from other fruits and vegetables and fortified baby foods.

The percentage of non-breastfed children consuming any solid or semi-solids foods was slightly higher ( 98.3 percent) than those who were breastfed ( 73.5 percent).

A high percentage of non-breastfed children consumed high fat foods ( 74.7 percent) as well as sugary foods ( 49.4 percent), while 48.9 percent of all breastfed children consumed high fat foods and 33.1 percent consumed sugary foods. Over consumption of high fat and high sugar foods can contribute to overweight and obesity.

The best way to determine the nutrient adequacy of the diet is to undertake a comprehensive nutrition survey, using standard tools such as a comprehensive 24 -hour diet recall tool. Even though the information collected in this survey was useful in estimating the nutritional status of children, additional research is needed to confirm these results.
Table 11.7: Foods and liquids consumed by children in the day or night preceding the interview
Percentage of youngest children under age 3 years who are living with their mother, by food type consumed in the day or night preceding the interview, according to breastfeeding status and age, Nauru 2007

| Age in months | Liquids |  |  | Solid or semi-solid foods |  |  |  |  |  |  |  | Any solid or semisolid food | Food made with oil, fat and butter | Sugary foods | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Infant formula | Other milk | Other liquids ${ }^{2}$ | Fortified baby foods | Food made from grains ${ }^{3}$ | Fruits and vegetables rich in vitamin A | Other fruits and vegetables | Food made from roots and tubers | Food made from legumes and nuts |  | Cheese, yogurt, other milk product |  |  |  |  |
| BREASTFED CHILDREN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6-23 | 17.5 | 57.7 | 67.7 | 28.3 | 93.6 | 68.0 | 37.4 | 24.1 | 9.2 | 79.6 | 19.1 | 97.4 | 58.7 | 46.3 | 52 |
| Total | 13.6 | 44.2 | 61.3 | 17.4 | 71.5 | 52.4 | 28.9 | 18.9 | 10.3 | 60.7 | 15.4 | 73.5 | 48.9 | 33.1 | 100 |
| NON-BREASTFED CHILDREN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | (25.3) | (76.7) | (90.8) | (23.7) | (96.6) | (70.1) | (36.1) | (18.3) | (6.2) | (87.7) | (12.9) | (98.3) | (74.7) | (49.4) | 44 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
Breastreeding status and food consumed refer to a 24 -hour" period (yesterday and last night).
1Other mik includes fresh, tinned and powdered cow or other animal milk.
${ }^{2}$ I Includes fortified baby food.
${ }^{4}$ Includes pumpkin, red or yellow yams or squash, carrots, sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A.

### 11.4.5 Feeding practices according to the IYCF recommendations

The WHO Global Strategy on Infant and Young Child Feeding (IYCF) ${ }^{9}$ recommends the timely introduction of solid and/or semi-solid foods from age 6 months, increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding as best practice. These guidelines have been established by WHO.

Mothers with children aged 6-23 months living with them were asked about the kinds of foods and drinks they fed their children and how often children ate the food in the previous day or night. The list of foods in the questionnaire was categorised into seven groups. The minimum standards were defined with respect to food diversity (i.e. the number of food groups consumed) and feeding frequency (i.e. the number of times the child was fed), as well the consumption of breast milk or other milks or milk products. Breastfed children aged 6-8 months were considered to have met the minimum nutritional requirements if they consumed foods from at least three food groups ${ }^{10}$ as well as breast milk at least twice a day and at least three times per day for children aged 9-23 months. Non-breastfed children were considered to have met the minimum nutritional requirements if they consumed milk or milk products plus foods from at least four food groups (including milk products), and were fed at least four times per day.

Table 11.8 shows the percentage of children who were fed according to IYCF practices.
Among breastfed children aged 6-23 months, the total percentage who met the minimum IYCF requirements was 45.8 percent, compared with 20.7 percent of non-breastfed children and 37.7 percent of all children. Among non-breastfed children, 81.1 percent met the minimum requirements of consuming foods from $4+$ food groups, although they may not be have been eating enough of these foods because only 24.6 percent of them were eating them $4+$ times or more. A similar pattern was observed among all children; that is, although 80.8 percent were eating foods from $3+$ or $4+$ food groups, only 43.2 percent were meeting the minimum frequency of consumption of these foods. So all children appear to be meeting the requirements in terms of variety but may be in not enough quantities to ensure adequate nutrition for optimum health.

[^17]Table 11.8: Infant and young child feeding (IYCF) practices
Percentage of youngest children aged 6-23 months living with their mother who are fed according to three IYCF feeding practices based on number of food groups and times they are fed during the day or night preceding the survey by breastfeeding status and background characteristics, Nauru 2007

| Background characteristic | Among breastfed children 6-23 months, percentage fed: |  |  |  | Among non-breastfed children 6-23 months, percentage fed: |  |  |  |  | Among all children 6-23 months, percentage fed: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $3+$ food groups ${ }^{1}$ | Minimum times or more ${ }^{2}$ | Both 3+ food groups and minimum times or more | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { breastfed } \\ \text { children } \\ 5-23 \\ \text { months } \end{gathered}$ | $\begin{aligned} & \text { Milk or } \\ & \text { milk } \\ & \text { products }^{3} \end{aligned}$ | 4+ food groups | 4+ times or more | With 3 IYCF practices ${ }^{4}$ | Number of nonbreastfed children 6-23 months | Breastmilk or milk products ${ }^{3}$ | $3+$ or 4+ food groups ${ }^{5}$ | Minimum times or more ${ }^{6}$ | With all 3 IYCF practices | Number of all children 6-23 months |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | (79.0) | (45.1) | (37.7) | 28 | * | * | * | * | 16 | (94.8) | (85.1) | (35.9) | (31.3) | 45 |
| Female | (82.6) | (60.0) | (55.2) | 24 | * | * | * | * | 8 | (97.0) | (74.8) | (53.2) | (46.6) | 32 |
| Total | 80.6 | 52.0 | 45.8 | 52 | 86.6 | 81.1 | 24.6 | 20.7 | 25 | 95.7 | 80.8 | 43.2 | 37.7 | 77 | ${ }^{1}$ Food groups: a) infant formula, milk other than breast milk, cheese, yogurt or other milk products; b) foods made from grains, roots and tubers, includi 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 aged 6-8 months and at least three times a day for breastfed children aged 9-23 months.
${ }^{3}$ Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products.
${ }^{4}$ Non-breastfed children aged 6-23 months are considered to be fed with a minimum standard of three IYCF practices if they receive other milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food
${ }_{5} 3+$ food groups for breastfed children and $4+$ food groups for non-breastfed children.
${ }^{6}$ Fed solid or semi-solid food at least twice a day for infants aged 6-8 months, $3+$ times for other breastfed children, and $4+$ times for non-breastfed children.

### 11.5 FOOD CONSUMPTION PATTERNS OF WOMEN

The nutritional status of the mother during pregnancy and lactation has an important impact on the health and nutritional status of her child.

Table 11.9 presents the types of food consumed by mothers with young children in the day or night preceding the interview by background characteristics.

Overall, the most commonly consumed liquids mothers consumed were tea and coffee ( 86.7 percent), followed by milk ( 67 percent) and other liquids ( 66 percent).

The most commonly consumed solid or semi-solid food items by all mothers were foods made from grains ( 98.1 percent), followed by meat/fish/seafood/poultry/eggs ( 78.5 percent) and vitamin A-rich such as fruits and vegetables ( 76.9 percent). The diet of mothers consisted mostly of rice and fish.

The results showed that 86 percent of women were also consuming foods high in fat, and 55.8 percent were consuming high sugar foods. This has contributed to the high prevalence of obesity as shown in Table 11.1 Less than 50 percent of women were consuming other fruits and vegetables. The diet may be lacking in essential nutrients even though the energy content may be adequate. More research is needed to determine the nutritional status of women, especially of mothers.

Cheese and yoghurt and foods made from legumes (such as peas and dried beans) were the least consumed food groups.
Table 11.9: Foods consumed by mothers in the day or night preceding the interview
Among mothers aged 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, Nauru 2007

| Background characteristic | Liquids |  |  | Solid or semi-solid foods |  |  |  |  |  |  |  | Foods made with oil/ fat/ butter | Sugary foods | Number <br> of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Milk | Tea/ coffee | Other liquids | Foods made from grains | Foods made from roots/ tubers | Foods made from legumes | Meat/ fish/ shellfish/ poultry/ eggs | Cheesel yogurt | Vitamin A rich fruits/ vegetables ${ }^{1}$ | Other fruits/ vegetables | Other solid or semisolid food |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | * | * | * | * | * | * | * | 10 |
| 20-29 | 62.7 | 84.3 | 69.7 | 96.9 | 22.5 | 15.0 | 94.6 | 20.2 | 77.0 | 37.8 | 51.1 | 87.3 | 57.8 | 88 |
| 30-39 | (71.9) | (88.6) | (62.4) | (100.0) | (26.1) | (10.3) | (100.0) | (28.6) | (71.7) | (49.0) | (50.2) | (81.3) | (49.3) | 35 |
| 40-49 | * | * | * | * | * | * | * | * | * | * | * | * | * | 11 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | * | * | * | * |  | * | * | * | * | * | * | * | * | 26 |
| Second | (63.9) | (85.0) | (65.9) | (97.4) | (26.2) | (19.4) | (95.2) | (23.8) | (79.6) | (39.2) | (46.5) | (87.9) | (47.2) | 37 |
| Middle | (56.5) | (88.2) | (67.5) | (96.6) | (18.4) | (15.5) | (93.0) | (18.5) | (72.0) | (42.1) | (54.5) | (85.6) | (58.4) | 29 |
| Fourth | * | * | * | * | * | * | * | * | * | * | * | * | * | 21 |
| Highest | (72.6) | (89.2) | (64.3) | (97.5) | (17.1) | (5.8) | (100.0) | (14.5) | (78.6) | (50.2) | (45.1) | (84.3) | (61.5) | 31 |
| Total | 67.4 | 86.7 | 66.0 | 98.1 | 24.2 | 15.4 | 96.7 | 21.7 | 76.9 | 41.0 | 51.5 | 86.0 | 55.8 | 144 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.

Foods consumed in the last " 24 -hour" period (yesterday and last night).
Includes [list fruits and vegetables included in the questionnaire such a

### 11.6 MICRONUTRIENT INTAKES

### 11.6.1 Micronutrient intakes among children

Micronutrient deficiencies are a consequence of malnutrition. Malnutrition is a key indicator of child health, and contributes to child morbidity and mortality. The causes of malnutrition include not eating enough nutritious foods, poor feeding practices, parasitic infections, poor sanitation, and other socio-cultural factors that influence feeding practices. Vitamin and mineral deficiencies are also consequences of malnutrition. Vitamin A and iron status were the key micronutrients that were selected as indicators for this survey.

Vitamin A is an essential vitamin for keeping tissue cells in a healthy condition and protecting the body against infections, and is important for health eyes and eyesight. It has two forms. Retinol, which is readily absorbed by the body and found in breast milk, fatty fish, eggs, milk and milk products; and carotene, which is a provitamin because it must be converted into vitamin A by the liver before it can be used. Carotene is found in green leafy vegetables, red and yellow fruits such as papaya, pandanus and pumpkin.
Iron is key mineral essential for proper brain function. Low iron intake can also contribute to iron deficiency anaemia. Young children are at the highest risk for iron deficiency anaemia because they have very high requirements due to their rapid growth.

Mothers were asked whether they fed their children vitamin A-rich and iron-rich foods the day or night before the survey. They were also asked whether their children had received vitamin A or iron supplements in the six months before the survey. The results are presented in Table 11.10.

Overall, 90.6 percent of children were reported to have consumed foods rich in vitamin A in the last 24 hours during the survey. More than eight in ten children consumed foods rich in iron in the last 24 hours during the time of the survey. Non-breastfed children and children in the highest wealth households consumed more vitamin A-rich foods.

Uptake of supplements and de-worming programmes appear to be very low, which could be because these programmes are not considered a priority.

Micronutrient deficiency problems among young children less then 2 years of age is a serious concern that needs to be addressed. Some strategies for consideration may include dietary diversification through the promotion of locally grown foods, micronutrient supplementation, food fortification, and prevention and control of parasitic infections. It is unlikely that any one strategy will address this problem; an integrated multi-pronged approach is needed.

Table 11.10: Micronutrient intake among children
Among youngest children aged 6-35 months who were living with their mother, the percentage who consumed vitamin $A$-rich and iron-rich foods in the day or night preceding the survey, and among all children aged 6-59 months, the percentage who were given vitamin $A$ supplements in the six months preceding the survey, who were given iron supplements in the last seven days, and who were given de-worming medication in the six months preceding the survey, by background characteristics, Nauru 2007.

|  | Among youngest children aged 6-35 months <br> living with the mother |  |  | Among all children aged 6-59 months |
| :--- | :---: | :---: | :---: | :---: | :---: |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
Information on vitamin A and iron supplements and de-worming medication is based on the mother's recall.
Total includes four children aged 6-35 months and 36 children aged 6-59 months with missing information on breastfeeding status who are not shown separately
na $=$ not applicable
${ }^{1}$ Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil [if data are collected]
${ }^{2}$ Includes meat (including organ meat).
${ }^{3}$ De-worming for intestinal parasites is commonly done for helminthes and for schistosomiasis.

### 11.6.2 Micronutrient intakes of mothers

Table 11.11 presents the micronutrient intake patterns of mothers with young children.
Overall, a high percentage ( 98.8 percent) of mothers with a child under age 3 years were reported to have consumed vitamin A-rich foods, about 97 percent consumed iron-rich foods, and vitamin A supplements were provided to 7.2 percent of mothers postpartum as a matter of protocol. Given the very low percentage of women who reported to have suffered from night blindness during last
pregnancy, and the very high consumption of vitamin A-rich foods, it is unlikely that vitamin A deficiency is a problem. Further studies are required to adequately determine the extent of the problem. It could be that although the consumption of vitamin A-rich foods is high, other factors such as infections may be limiting the absorption of this vitamin.

### 11.7 ANAEMIA

Iron deficiency anaemia is a global public health problem and is the most common form of micronutrient deficiency in the world. Anaemia in developing countries is mainly due to the inadequate absorption of dietary iron, and the consequent iron deficiency leads to reduced production of haemoglobin and anaemia. In pregnant women, folate deficiency also plays a role in causing anaemia but to a lesser extent than iron deficiency. Iron deficiency anaemia is more common in young children and women of reproductive age, especially pregnant and breastfeeding mothers. These population subgroups are more susceptible to anaemia because of their increased iron needs due to growth, pregnancy and lactation. Women of reproductive age also have increased iron losses from menstrual blood flow.

The 2007 NDHS directly measured haemoglobin levels of all ever-married women aged 15-49 years and their children under age 5years. Hemocue instruments, which are portable haemoglobinometers, were used to measure the haemoglobin level of consenting survey participants in their homes. Those identified with severe anaemia were referred to their local health centre for treatment.
Table 11.11: Micronutrient intake among mothers
Among women aged 15-49 with a child under age 3 years living with her, the percentage of women who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among women aged 15-49 with a child born in the last five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child; among mothers aged 15-49 who, during the pregnancy of the last child born in the five years prior to the survey, the percentage who suffered from night blindness, the percentage who took iron tablets or syrup for a specific number of days, and the percentage who took de-worming medication; and among women aged 15-49 with a child born in the last five years, who live in households that were tested for iodised salt, the percentage who live in households with adequately iodised salt, by background characteristics, Nauru 2007

| Background characteristic | Among women with a child under age 3 years living with her |  |  | Among women with a child born in the last five years |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Percentage who received vitamin A dose postpartum ${ }^{3}$ | Percen suffere blindne pregnancy | ge who night during f last birth | Number of days women took iron tablets or syrup during pregnancy of last birth |  |  |  |  | Percentage of women who took deworming medication during pregnancy of last birth ${ }^{5}$ | Number of women |
|  | Percentage consumed vitamin Arich foods ${ }^{1}$ | Percentage consumed iron-rich foods ${ }^{2}$ | Number of women |  | Reported | Adjusted ${ }^{4}$ | None | <60 | 60-89 | 90+ | Don't know/ missing |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | 10 | * | * | * | * | * | * | * | * | 0.0 | 13 |
| 20-29 | 98.0 | 94.6 | 88 | 9.5 | 8.5 | 5.7 | 57.3 | 19.8 | 0.6 | 2.3 | 20.0 | 3.1 | 120 |
| 30-39 | (100.0) | (100.0) | 35 | 4.1 | 16.9 | 4.8 | 67.2 | 5.7 | 1.3 | 1.3 | 24.5 | 4.2 | 61 |
| 40-49 | * | + | 11 | * | * | * | * | * | * | * | * | 0.0 | 12 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | * | * | 26 | (2.1) | (19.5) | (14.4) | (59.2) | (12.8) | (2.1) | (0.0) | (26.0) | (9.4) | 38 |
| Second | (95.2) | (95.2) | 37 | (8.4) | (5.5) | (3.6) | (63.1) | (16.7) | (0.0) | (7.9) | (12.3) | (2.3) | 42 |
| Middle | 100.0 | 93.0 | 29 | 7.5 | 15.7 | 8.2 | 57.7 | 14.1 | 1.6 | 0.0 | 26.7 | 0.0 | 48 |
| Fourth | * | * | 21 | 11.2 | 5.8 | 0.0 | 56.6 | 19.3 | 0.0 | 4.8 | 19.3 | 2.1 | 37 |
| Highest | 100.0 | 100.0 | 31 | 6.4 | 13.9 | 4.9 | 69.4 | 10.8 | 0.0 | 0.0 | 19.7 | 2.4 | 40 |
| Total | 98.8 | 96.7 | 144 | 7.2 | 12.1 | 6.2 | 61.2 | 14.7 | 0.7 | 2.5 | 20.9 | 3.1 | 205 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil [if data are collected]. ${ }^{2}$ Includes meat (and organ meat), fish, poultry and eggs.
Women who reported night blindness but did not report difficulty with vision during the day.
${ }^{5}$ De-worming for intestinal parasites is commonly done for helminthes and for schistosomiasis.

### 11.7.1 Prevalence of anaemia in children

Iron anaemia impairs mental capacity, motor development and behaviours of children. Iron deficiency predisposes people to diseases through reduced immune functions. The apathy associated with anaemia in young children adversely affects their cognitive and social development. Children born to mothers who are iron deficient have reduced iron stores that may not be corrected by breastfeeding leading to early onset of anaemia. Low birth weight babies are born with reduced iron stores and have additional requirements for catch up growth. These additional iron requirements cannot be met by breast milk and if iron supplements are not provided for these babies, they will have an increased risk of early onset of anaemia.
Table 11.12 presents the prevalence of anaemia in children aged $6-59$ months by background characteristics.

Overall, 51.1 percent of all children were confirmed to be anaemic, with 24.6 percent considered to be mildly anaemic (identified as having a haemoglobin level of $10-10.9 \mathrm{~g} / \mathrm{dl}$ ), 25.6 percent as being moderately anaemic ( $7-9.9 \mathrm{~g} / \mathrm{dl}$ ), and about 1.0 percent as severely anaemic ( $<7 \mathrm{~g} / \mathrm{dl}$ ). This is consistent with what can be expected when although 85.2 percent of children consumed ironrich foods (Table 11.8), very few were given iron supplements or received de-worming medication. Also, consumption of vitamin C-rich foods, such and fruits and vegetables, was low (Table 11.13) and vitamin $C$ enhances iron absorption.

## Table 11.12: Prevalence of anaemia in children

Percentage of children aged 6-59 months classified as having anaemia, by background characteristics, Nauru 2007

| Background characteristic | Anaemia status by haemoglobin level |  |  | Any anaemia | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Mild (10.0- } \\ 10.9 \mathrm{~g} / \mathrm{dl}) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Moderate }(7.0- \\ 9.9 \mathrm{~g} / \mathrm{dl}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Severe (below } \\ 7.0 \mathrm{~g} / \mathrm{dl}) \end{gathered}$ |  |  |
| Age in months |  |  |  |  |  |
| 6-8 | * | * | * | * | 16 |
| 9-11 | * | * | * | * | 11 |
| 12-17 | (27.2) | (56.5) | (0.0) | (83.7) | 28 |
| 18-23 | (31.9) | (49.2) | (0.0) | (81.1) | 23 |
| 24-35 | 29.9 | 17.0 | 4.0 | 50.8 | 58 |
| 36-47 | 27.3 | 13.0 | 0.0 | 40.3 | 65 |
| 48-59 | 14.3 | 7.0 | 0.0 | 21.3 | 54 |
| Sex |  |  |  |  |  |
| Male | 26.7 | 30.6 | 0.0 | 57.2 | 124 |
| Female | 22.6 | 20.9 | 1.8 | 45.3 | 131 |
| Wealth quintile |  |  |  |  |  |
| Lowest | (15.7) | (35.5) | (0.0) | (51.3) | 46 |
| Second | 18.7 | 32.2 | 0.0 | 51.0 | 48 |
| Middle | 29.0 | 22.3 | 1.3 | 52.5 | 60 |
| Fourth | 30.2 | 15.1 | 1.7 | 47.1 | 45 |
| Highest | 27.7 | 23.7 | 1.4 | 52.8 | 56 |
| Total | 24.6 | 25.6 | 0.9 | 51.1 | 255 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
Table is based on children who slept in the household the night before the interview. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Haemoglobin in grams per deciliter (g/dl).

### 11.7.2 Prevalence of anaemia among women.

The fatigue resulting from anaemia impairs work performance and endurance, even for tasks that require only moderate levels of activity. Thus, anaemia can result in reduced household productivity especially where tasks require high levels of effort.
Severe anaemia in pregnancy has been shown to increase risk of maternal mortality, low birth weight, increased risk of preterm and low birth weight, and subsequent risk of infant anaemia.

Factors contributing to iron deficiency anaemia include inadequate dietary intake, poor absorption and smoking.

Table 11.13 presents the prevalence of anaemia in women.
The results show that 34.2 percent of women aged 15-49 years were identified as anaemic, of this, one in four women were mildly anaemic, 7.3 percent were moderately anaemic, and 1.4 percent were severely anaemic.

Younger women aged 15-19 were more likely to be anaemic ( 45.5 percent) than women aged 40-49 (35.9 percent). Women aged 30-39 were the least likely to be anaemic ( 21.4 percent).

Figure 11.6: Prevalence of anaemia among Nauruan women


Although the results show that pregnant women were found to be more anaemic ( 44.1 percent), this could be related to the small number of pregnant women at the time of the survey. Women who smoke have a higher prevalence of anaemia ( 36.9 percent) compared with non-smokers (31.2 percent).

Prevalence of anaemia decreases with increasing wealth, from 46 percent among women in poorer households to 30.2 percent among women in wealthier households.
As observed among children, although 96.7 percent of mothers consumed iron-rich foods (Table 11.11), very few were given iron supplements or received de-worming medication. Also, consumption of vitamin C-rich foods such as fruits and vegetables were low (Table1 11.11), and vitamin $C$ enhances iron absorption.

It is unlikely that any single strategy will address the issue of micronutrient deficiencies.

Table 11.13: Prevalence of anaemia in women
Percentage of women aged 15-49 with anaemia, by background characteristics, Nauru 2007

| Background characteristic | Anaemia status by haemoglobin level |  |  | Any anaemia | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mild anaemia (g/dl) | Moderate anaemia (g/dl) | Severe anaemia (g/dl) |  |  |
| Age |  |  |  |  |  |
| 15-19 | 34.3 | 8.1 | 3.1 | 45.5 | 116 |
| 20-29 | 26.6 | 8.7 | 0.4 | 35.7 | 219 |
| 30-39 | 17.1 | 4.4 | 0.0 | 21.4 | 143 |
| 40-49 | 25.3 | 7.5 | 3.1 | 35.9 | 127 |
| Number of children ever born |  |  |  |  |  |
| 0 | 24.9 | 7.5 | 1.5 | 33.9 | 237 |
| 1 | 28.6 | 2.3 | 1.1 | 32.0 | 71 |
| 2-3 | 27.6 | 9.9 | 2.3 | 39.8 | 131 |
| 4-5 | 21.5 | 6.7 | 1.1 | 29.2 | 92 |
| $6+$ | 26.3 | 7.8 | 0.0 | 34.1 | 74 |
| Maternity status |  |  |  |  |  |
| Pregnant | (27.5) | (16.6) | (0.0) | (44.1) | 49 |
| Breastfeeding | 32.8 | 8.9 | 0.0 | 41.6 | 102 |
| Neither | 23.7 | 6.0 | 1.8 | 31.5 | 454 |
| Smoking status |  |  |  |  |  |
| Smokes cigarettes/tobacco | 27.1 | 8.5 | 1.3 | 36.9 | 323 |
| Does not smoke | 23.7 | 6.0 | 1.4 | 31.2 | 281 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 34.2 | 9.0 | 2.8 | 46.0 | 125 |
| Second | 26.0 | 6.3 | 3.4 | 35.6 | 119 |
| Middle | 26.5 | 5.8 | 0.0 | 32.4 | 128 |
| Fourth | 20.3 | 6.0 | 0.0 | 26.3 | 116 |
| Highest | 20.0 | 9.5 | 0.7 | 30.2 | 117 |
| Total | 25.6 | 7.3 | 1.4 | 34.2 | 604 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
Prevalence is adjusted for altitude and for smoking status if known using formulas in CDC, 1998.

### 11.8 KEY RESULTS

Below are the main findings of the nutritional status of men, women and their children identified in the 2007 NDHS according to their anthropometric status, infant and child feeding practices, micronutrient intakes (of women and children), food consumption patterns (of mothers) and the consequences of inadequate nutrition.

1. The prevalence of men who were overweight or obese was 77.1 percent, implying that about eight in ten men were reported to be overweight or obese. Overweight and obese was detected as early as ages 20-29 years.
2. More women than men were classified as overweight or obese ( 80 percent), as opposed to77 percent of men. About half the number of women aged 15-49 were already overweight or obese. The prevalence increased with age, with almost every woman categorised as overweight or obese.
3. The results indicate that 4.8 percent of children were underweight. Male children were more likely to be underweight ( 6.9 percent) compared with female children ( 2.9 percent).
4. The majority of children born in the five years preceding the survey were ever breastfed ( 94.7 percent). Children born to mothers in wealthy households were more likely to be breastfed ( 98.4 percent) than those born in poorer households ( 91.7 percent). About
67.2 percent of children began breastfeeding at ages $0-5$ years. The mean duration of breastfeeding among children born in the last three years was 18.6 months.
5. Among breastfed children aged $6-23$ months, 45.8 percent met the minimum IYCF requirements. The IYCF recommends the timely introduction of solid and/or semi-solid foods from age 6 months.
6. The most commonly consumed solid or semi-solid foods among mothers aged 15-49 who had a child under age 3 years living with them, were foods made from grains ( 98 percent), followed by meat, fish/seafood, poultry and eggs ( 78.5 percent). Among youngest children aged 6-35 months living with their mother, 90.9 percent consumed foods rich in vitamin A in the last 24 hours.
7. The results show that half the number of children aged $6-59$ months were identified as anaemic, which was common among children aged 18-23 months and children living in the fourth wealthy quintile. One in three women aged 15-49 were also reported to have any anaemia during the survey.

## Chapter 12 HIV AND AIDS RELATED KNOWLEDGE, ATTITUDE AND BEHAVIOURS

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV), which depresses the immune system, making the body susceptible to and unable to recover from other opportunistic diseases that lead to death through secondary infections. The predominant mode of HIV transmission is through heterosexual contact, followed in magnitude by prenatal transmission, in which a mother passes the virus to her child during pregnancy, delivery or breastfeeding. Other modes of transmission include infected blood products and unsafe injections.

This chapter presents information on the level of awareness of HIV and AIDS, knowledge of HIV transmission and prevention, attitudes towards people living with HIV and AIDS, and sexual behaviour of Nauruans aged 15-49 (findings for men aged 50+ are also included). Coverage of HIV testing, self-reported prevalence of STIs and related symptoms, and medical injections is also included. This chapter focuses on HIV and AIDS knowledge and patterns of sexual activity among young people aged $15-24$ years, because young adults are considered to be a higher risk population and, subsequently, an important target group for HIV prevention efforts. The final section of the chapter focuses on perceptions of abstinence and faithfulness.

Overall, 611 women and 311 men aged 15-49 participated in this component of the 2007 NDHS. An additional 43 men aged 50 and over also participated. It should be noted that components of this chapter do not include all participants, and are restricted on the basis of sexual behaviour and other factors.

Findings presented in the tables are reported in association with background characteristics, including age group, marital status, education and wealth quintile. All percentages in tables have been weighted to be proportional to the age and sex structure of the Nauruan adult population.

No statistical tests have been performed on the data, therefore comparisons between population subgroups should not be considered to represent statistically significant differences. No comments or comparisons have been made for population subgroups with sample sizes of less than 50 respondents.

### 12.1 KNOWLEDGE OF AIDS

The 2007 NDHS collected information on knowledge of and behaviour related to HIV and AIDS. All eligible respondents were provided with some information about HIV and AIDS and asked whether they had heard of HIV or the disease known as AIDS prior to the interview.

Table 12.1 shows the proportion of women and men who reported that they had heard of HIV or AIDS, by age group, marital status, level of education and wealth quintile.

Overall, 73 percent of women and 83 percent of men aged 15-49 reported that they had heard of HIV and AIDS. There was a trend towards increased awareness with increased aged. Figure 12.1 shows the proportions of women and men who had heard of HIV and AIDS by age group. Awareness was highest for women aged 40-49 years ( 80.8 percent) and men aged $30-39$ years (94.1 percent).

Figure 12.1: Percentage of women and men aged 15-49 who reported that they have heard of AIDS by sex and age group, Nauru 2007


For men, awareness of HIV and AIDS was higher for those who reported that they were married or living with a partner ( 91 percent), than for those who had never married ( 72 percent). This trend was not seen among women.

Awareness of AIDS was almost universal for women who reported having a post-secondary education ( 96 percent) compared with women who completed only secondary school ( 72 percent).

Higher proportions of people from the highest wealth quintile reported having heard of AIDS than those from the lowest wealth quintile. For men, the vast majority from the highest quintile were aware of AIDS ( 97 percent) compared with men from the lowest wealth quintile ( 70 percent). About 84 percent of women from the highest wealth quintile were aware of AIDS compared with 66 percent within the lowest wealth quintile.

Table 12.1: Knowledge of AIDS
Percentage of women and men aged 15-49 who have heard of AIDS, by background characteristics, Nauru 2007

| Background characteristic | Women |  | Men |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Have heard of AIDS | Number of respondents | Have heard of AIDS | Number of respondents |
| Age |  |  |  |  |
| 15-24 | 68.6 | 247 | 72.0 | 117 |
| 15-19 | 68.6 | 117 | 61.6 | 60 |
| 20-24 | 68.6 | 131 | 82.8 | 57 |
| 25-29 | 66.2 | 96 | 90.2 | 56 |
| 30-39 | 78.5 | 146 | 94.1 | 87 |
| 40-49 | 80.8 | 128 | 82.3 | 51 |
| Marital status |  |  |  |  |
| Never married | 73.3 | 186 | 71.8 | 119 |
| Ever had sex | 73.3 | 122 | 77.9 | 98 |
| Never had sex | 73.4 | 64 | * | 21 |
| Married/living together | 72.4 | 386 | 90.7 | 183 |
| Divorced/separated/widowed | 77.9 | 46 | * | 9 |
| Education |  |  |  |  |
| Less than secondary | * | 13 | * | 20 |
| Secondary | 72.0 | 555 | 82.5 | 270 |
| More than secondary | 95.5 | 50 | * | 21 |
| Wealth quintile |  |  |  |  |
| Lowest | 65.9 | 127 | 70.7 | 45 |
| Second | 71.3 | 126 | 83.5 | 67 |
| Middle | 71.3 | 129 | 80.1 | 64 |
| Fourth | 74.2 | 116 | 79.6 | 64 |
| Highest | 83.4 | 119 | 96.6 | 72 |
| Total 15-49 | 73.1 | 618 | 83.2 | 311 |
| 50+ | na | na | 95.8 | 43 |
| Total men 15+ | na | na | 84.7 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
na = not applicable

### 12.2 KNOWLEDGE OF HIV PREVENTION METHODS

HIV education in Nauru focuses on three methods for preventing transmission of HIV through sexual contact: sexual abstinence, mutual monogamy and condom use.

Respondents who reported that they had heard of HIV or AIDS were asked three questions on how to reduce the risk of acquiring HIV: a) using a condom correctly every time a person has sexual intercourse, b) having one mutually monogamous sex partner who is not infected with HIV, and c) abstaining from sexual intercourse. Table 12.2 shows the proportions of women and men who correctly responded to each of these questions by their background characteristics. The table also shows the proportions of women and men who acknowledged that both using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of getting HIV. These proportions are presented as whole of population estimates, so people who had not heard of AIDS were included in the denominators of the proportions (i.e. were considered to have incorrectly answered these questions).

Knowledge of HIV prevention methods also increased with age for both sexes. Figure 12.2 shows the proportions of people who acknowledge each of the HIV prevention methods by sex of respondent. Knowledge of each method, and for combined knowledge of using condoms and limiting sex to one uninfected partner, was higher for men than for women (Fig. 12.2).

Figure 12.2: Percentage of women and men 15-49 years with knowledge of HIV prevention methods by sex, Nauru 2007


For young adults, a higher proportion of women and men aged 20-24 correctly answered each question compared with those aged 15-19 (Table 12.2).

For men, knowledge of HIV prevention was consistently higher for all three questions for those who were married or living with a partner compared with those men who had never married.
The percentage of men and women in the lowest wealth quintile who correctly answered the three questions was consistently lower compared than those in the other wealth quintiles.

## Table 12.2: Knowledge of HIV prevention methods

Percentage of women and men aged 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 ourse, by having one sex partner who is

| Background characteristic | Women |  |  |  |  | Men |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who say HIV can be prevented by |  |  |  |  | Percentage who say HIV can be prevented by |  |  |  |  |
|  | 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 <br> 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 | 46.8 | 44.8 | 35.9 | 45.8 | 247 | 58.0 | 63.4 | 52.1 | 55.7 | 117 |
| 15-19 | 40.1 | 40.4 | 29.9 | 38.1 | 117 | 48.5 | 56.1 | 45.1 | 46.4 | 60 |
| 20-24 | 52.8 | 48.7 | 41.2 | 52.7 | 131 | 68.0 | 70.9 | 59.3 | 65.4 | 57 |
| 25-29 | 58.3 | 52.4 | 49.1 | 53.3 | 96 | 74.8 | 72.4 | 63.6 | 75.7 | 56 |
| 30-39 | 61.6 | 62.1 | 53.9 | 58.2 | 146 | 82.8 | 77.7 | 69.7 | 72.4 | 87 |
| 40-49 | 66.5 | 67.5 | 58.9 | 66.1 | 128 | 49.8 | 59.4 | 42.7 | 62.3 | 51 |
| Marital status |  |  |  |  |  |  |  |  |  |  |
| Never married | 54.4 | 51.1 | 44.3 | 49.6 | 186 | 54.7 | 62.3 | 48.6 | 55.4 | 119 |
| Ever had sex | 56.6 | 50.5 | 45.0 | 49.1 | 122 | 60.4 | 68.8 | 54.8 | 60.5 | 98 |
| Never had sex | 50.1 | 52.3 | 43.0 | 50.4 | 64 | 28.3 | 32.3 | 19.7 | 31.5 | 21 |
| Married/living together | 56.0 | 56.3 | 48.3 | 55.8 | 386 | 74.4 | 71.7 | 62.9 | 71.2 | 183 |
| Divorced/separated/widowed | (64.9) | (56.5) | (46.8) | (58.2) | 46 | * | * | * | * | 9 |
| Education |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | 13 | * | * | * | * | 20 |
| Secondary | 54.9 | 53.4 | 46.1 | 52.5 | 555 | 67.2 | 67.8 | 58.0 | 65.4 | 270 |
| More than secondary | 78.7 | 79.4 | 64.2 | 79.9 | 50 | * | * | * | * | 21 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 49.3 | 40.3 | 37.8 | 44.8 | 127 | (52.8) | (56.0) | (48.6) | (52.0) | 45 |
| Second | 55.1 | 57.6 | 49.1 | 51.7 | 126 | 64.8 | 64.0 | 54.5 | 69.7 | 67 |
| Middle | 55.1 | 54.9 | 47.5 | 57.3 | 129 | 65.4 | 68.3 | 56.0 | 62.3 | 64 |
| Fourth | 61.7 | 54.2 | 47.8 | 57.8 | 116 | 66.9 | 64.6 | 56.2 | 59.2 | 64 |
| Highest | 60.4 | 67.7 | 53.3 | 59.4 | 119 | 78.1 | 83.8 | 68.7 | 76.7 | 72 |
| Total 15-49 | 56.2 | 54.8 | 47.0 | 54.1 | 618 | 66.7 | 68.4 | 57.6 | 65.1 | 311 |
| 50+ | na | na | na | na | 0 | (79.8) | (87.5) | (74.8) | (75.1) | 43 |
| Total men 15+ | na | na | na | na | 0 | 68.3 | 70.7 | 59.7 | 66.3 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ U Sing condomms every time they have sexual intercourse.
${ }^{2}$ Parner who has no other partners.

### 12.3 REJECTION OF MISCONCEPTIONS ABOUT HIV AND AIDS, AND COMPREHENSIVE KNOWLEDGE ABOUT HIV AND AIDS

Common misconceptions about HIV have included the belief that people infected with HIV always appear unwell; and that the virus can be transmitted by witchcraft or other supernatural means, through mosquito bites, or by sharing food with someone who has HIV. Incorrect beliefs about the disease and its transmission could reduce people's motivation to use sexual protection, and could result in increased stigma towards people with HIV. ${ }^{11}$

The prevalence of people with a comprehensive knowledge of HIV and AIDS is important for determining the progression towards whole of population awareness of key facts on the transmission and prevention of HIV and AIDS..$^{12}$ The indicator used to measure comprehensive knowledge of HIV and AIDS was built from several individual indicators reported earlier in this chapter, and has been defined as the percentage of respondents aged 15-49 who: a) agreed that people can reduce the chance of getting the AIDS virus by using a condom every time they have sex; b) agreed that people can reduce the chance of getting the AIDS virus by having sex with just one partner who is not infected and who has no other partners; c) agreed that people cannot get the AIDS virus from sharing food with a person who has AIDS; d) agreed that a healthy-looking person can have the AIDS virus; and e) rejected the two most common local misconceptions about AIDS transmission or prevention.
Table 12.3.1 shows the proportion of women who correctly answered the four questions on the transmission of HIV, and the proportion found to have a comprehensive knowledge of HIV and AIDS by age group, marital status, education level and wealth quintile.

Although knowledge levels differed among the four transmission questions, knowledge was highest for knowing that the AIDS virus cannot be transmitted by supernatural means ( 55.3 percent) and a healthy-looking person could have the AIDS virus ( 49.8 percent).
One-third of women were aware that the AIDS virus cannot be transmitted by mosquito bites ( 35.8 percent) and less than half knew that a person cannot become infected by sharing food with a person who has the AIDS virus ( 43.9 percent).

Less than one-quarter of women ( 22.7 percent) correctly acknowledged that a healthy-looking person could have the AIDS virus, and that the HIV virus cannot be transmitted by supernatural means or mosquito bites.

Fewer than one in five women aged 15-49 years were found to have a comprehensive knowledge of AIDS ( 18.3 percent). Comprehensive knowledge was lowest for women aged 15-19 ( 7.6 percent) and highest for women aged 30-39 ( 23.0 percent).
Higher proportions of women who were married and/or living with a partner (47.2 percent) correctly rejected the misconception that HIV can be transmitted by sharing food than did women who had never married ( 35.9 percent). However this trend was not apparent for the other three misconception questions.

Higher proportions of women with a post-secondary education correctly answered all four questions than women with only a secondary education. Knowledge in the post-secondary education group was particularly high for rejecting transmission by supernatural means ( 82.2 percent) and knowing that a healthy-looking person could have the AIDS virus (76.7 percent).

[^18]Low numbers of women from the lowest wealth quintile correctly answered all four questions or had a comprehensive knowledge of AIDS, compared with women from all other wealth quintiles.

## Table 12.3.1: Comprehensive knowledge about AIDS — Women

Percentage of women aged 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly rejected local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Nauru 2007

|  |  | Percentage of respondents who say that: |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
${ }^{1}$ Two most common local misconceptions are that HIV can be transmitted by supernatural means and witchcraft, and by mosquito bites.
${ }^{2}$ 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.

Table 12.3 .2 shows the proportions of men who correctly responded to the four questions on transmission of HIV, and who were found to have a comprehensive knowledge of HIV and AIDS by age group, marital status, level of education and wealth quintile.
For all men aged 15 and above, knowledge was highest for knowing that a healthy-looking person could be infected with HIV ( 61.4 percent) and that HIV cannot be transmitted by supernatural means ( 59.3 percent). Higher proportions of men aged 15-49 correctly answered both of these questions compared with women in the same age group. Figure 12.3.1 shows the comparative proportions of women and men aged 15-49 who correctly answered these four questions.

Figure 12.3.1: Percentage of women and men aged 15-49 with knowledge about the transmission of HIV by sex, Nauru 2007


One-third of men aged 15-49 (32.2 percent) were aware that the AIDS virus cannot be transmitted by mosquito bites and two in five men ( 41.3 percent) knew that a person cannot become infected by sharing food with a person who has the AIDS virus.

Overall, less than one-quarter of men aged 15-49 (22.2 percent) correctly acknowledged that a healthy-looking person can have the AIDS virus, and that the AIDS virus cannot be transmitted by supernatural means or mosquito bites.

Less than one in five men ( 16.9 percent) aged 15-49 have a comprehensive knowledge of AIDS. The proportion of males with a comprehensive knowledge of AIDS increases with age group.

A higher proportion of men who were married or living with a partner correctly answered all four questions and were found to have a comprehensive knowledge of AIDS compared with those who had never married.

Higher proportions of men from the highest wealth quintile correctly answered all four questions compared with men from the four other wealth quintiles.

Figure 12.3.2: Percentage of women and men aged 15-49 who have a comprehensive knowledge of HIV by six and age group, Nauru 2007


Table 12.3.2: Comprehensive knowledge about AIDS: Men
Percentage of men aged 15-49 who say that a healthy-looking person can have the AIDS virus 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, Nauru 2007

| Background characteristic | Percentage of respondents who say that: |  |  |  | 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 men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A healthylooking person can have the AIDS virus | 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 |  |  |  |
| Age |  |  |  |  |  |  |  |
| 15-24 | 45.7 | 22.5 | 48.9 | 29.8 | 12.6 | 9.6 | 117 |
| 15-19 | 36.4 | 16.5 | 34.0 | 25.3 | 7.8 | 7.8 | 60 |
| 20-24 | 55.4 | 28.9 | 64.4 | 34.6 | 17.6 | 11.5 | 57 |
| 25-29 | 67.8 | 33.7 | 54.4 | 47.1 | 18.8 | 12.9 | 56 |
| 30-39 | 63.2 | 32.5 | 71.6 | 52.9 | 26.4 | 23.9 | 87 |
| 40-49 | 69.7 | 48.1 | 65.6 | 47.0 | 40.9 | 26.3 | 51 |
| Marital status |  |  |  |  |  |  |  |
| Never married | 49.6 | 24.5 | 47.6 | 31.4 | 16.0 | 12.5 | 119 |
| Ever had sex | 57.4 | 27.5 | 50.9 | 37.0 | 19.4 | 15.2 | 98 |
| Never had sex | * | * | * | * | * | * | 21 |
| Married/living together | 64.4 | 36.4 | 65.7 | 48.5 | 26.5 | 19.8 | 183 |
| Divorced/separated/widowed | * | * | * | * | * | * | 9 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | (39.1) | (27.8) | (46.4) | (29.3) | (16.1) | (16.1) | 45 |
| Second | 61.8 | 27.1 | 58.8 | 36.1 | 19.2 | 11.5 | 67 |
| Middle | 56.8 | 29.1 | 58.1 | 38.0 | 18.5 | 11.5 | 64 |
| Fourth | 46.5 | 28.9 | 54.3 | 40.9 | 18.0 | 11.7 | 64 |
| Highest | 79.9 | 42.4 | 72.1 | 61.0 | 35.8 | 31.9 | 72 |
| Total 15-49 | 58.5 | 31.5 | 59.0 | 42.2 | 22.2 | 16.9 | 311 |
| 50+ | (82.8) | (36.9) | (61.4) | (34.5) | (27.3) | (23.9) | 43 |
| Total men 15+ | 61.4 | 32.2 | 59.3 | 41.3 | 22.8 | 17.8 | 354 |

[^19]
### 12.4 KNOWLEDGE ABOUT THE PREVENTION OF MOTHER-TOCHILD HIV TRANSMISSION

It is important for adults to know that HIV can be transmitted from mother to child, and that drugs are available that can reduce the risk of mother-to-child transmission (MTCT) from occurring. The 2007 NDHS assessed respondents' knowledge about whether women who have HIV and AIDS can pass the virus onto their babies during pregnancy, childbirth or breastfeeding, and prevention of MTCT through anti-retroviral therapy and by avoiding breastfeeding.

Survey respondents were first asked if HIV can be transmitted from a mother to a child. Those who acknowledged this were then asked whether the virus can be transmitted during pregnancy, during delivery, and/or during breastfeeding. Respondents were also asked if there are any special drugs that a doctor or nurse can give to a pregnant woman who is infected with HIV to reduce the risk of transmission to the baby.

Table 12.4 shows the proportions of women and men who knew that HIV can be transmitted by breastfeeding and that risk of HIV transmission can be reduced by the mother taking special drugs during pregnancy by age group, marital status, level of education and wealth quintile.

No statistics were provided on the proportions of women and men who knew that HIV can be passed from mother to baby and more specifically through pregnancy and delivery.

Similar proportions of women ( 40.2 percent) and men ( 39.3 percent) reported that HIV can be transmitted by breastfeeding. In contrast, higher proportions of women ( 16.2 percent) than men ( 8.4 percent) were aware that the risk of HIV transmission can be reduced by the mother taking special drugs during pregnancy.

Combined knowledge that HIV can be transmitted by breastfeeding and that risk of HIV transmission can be reduced by the mother taking special drugs during pregnancy, was low for women ( 11.9 percent) and men ( 8.4 percent) aged 15-49.

Figure 12.4 shows the proportions of women and men who had knowledge of MTCT of HIV by sex.

Figure 12.4: Percentage of women and men with knowledge of prevention of mother-to-child transmission of HIV, by sex and age group, Nauru 2007


The number of women who correctly answered each question on MTCT increased with age. Knowledge of reduced transmission by the mother taking special drugs during pregnancy was particularly low ( 5.5 percent) for young women aged 15-19 years.

For men, those who knew that HIV can be transmitted by breastfeeding was highest for men aged 20-24, while there was no definite age trend for knowledge of prevention through drug therapy during pregnancy.

Higher proportions of women with post-secondary education were aware of MTCT through breastfeeding and prevention through antiretroviral therapy compared with women with only a secondary education. However, the proportions who answered both questions correctly were similar for both groups.
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 the mother taking special drugs during pregnancy, by background characteristics, Nauru 2007

| Background characteristic | Women |  |  |  | Men |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 38.2 | 11.7 | 9.4 | 247 | 35.8 | 9.1 | 9.1 | 117 |
| 15-19 | 34.8 | 5.5 | 5.5 | 117 | 23.5 | 4.6 | 4.6 | 60 |
| 20-24 | 41.3 | 17.3 | 12.9 | 131 | 48.5 | 13.7 | 13.7 | 57 |
| 25-29 | 29.9 | 18.6 | 8.6 | 96 | 36.8 | 3.2 | 2.0 | 56 |
| 30-39 | 40.4 | 19.8 | 14.7 | 146 | 40.8 | 10.3 | 9.4 | 87 |
| 40-49 | 51.6 | 19.0 | 15.8 | 128 | 47.5 | 9.3 | 4.8 | 51 |
| Marital status |  |  |  |  |  |  |  |  |
| Never married | 43.1 | 12.5 | 10.4 | 186 | 33.6 | 9.8 | 9.8 | 119 |
| Ever had sex | 41.8 | 15.1 | 11.9 | 122 | 35.3 | 9.1 | 9.1 | 98 |
| Never had sex | 45.5 | 7.5 | 7.5 | 64 | * | * | * | 21 |
| Married/living together | 37.7 | 17.5 | 13.0 | 386 | 42.3 | 7.9 | 5.8 | 183 |
| Divorced/separated/widowed | (49.4) | (20.4) | (8.3) | 46 | * | * | * | 9 |
| Currently pregnant |  |  |  |  |  |  |  |  |
| Pregnant | (24.0) | (15.2) | (5.2) | 49 | na | na | na | na |
| Not pregnant or not sure | 41.6 | 16.3 | 12.4 | 569 | na | na | na | na |
| Education |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | 13 | 60.6 | 0.0 | 0.0 | 20 |
| Secondary | 39.8 | 15.7 | 11.9 | 555 | 36.7 | 7.5 | 6.1 | 270 |
| More than secondary | 54.4 | 26.5 | 13.9 | 50 | * | * | * | 21 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 41.5 | 13.8 | 11.5 | 127 | (46.9) | (0.0) | (0.0) | 45 |
| Second | 40.9 | 17.0 | 13.8 | 126 | 36.2 | 12.8 | 9.9 | 67 |
| Middle | 36.8 | 15.8 | 9.7 | 129 | 35.6 | 3.9 | 2.2 | 64 |
| Fourth | 41.0 | 16.5 | 13.3 | 116 | 47.8 | 11.3 | 11.3 | 64 |
| Highest | 41.1 | 18.2 | 11.0 | 119 | 32.9 | 11.0 | 9.9 | 72 |
| Total 15-49 | 40.2 | 16.2 | 11.9 | 618 | 39.3 | 8.4 | 7.2 | 311 |
| $50+$ | na | na | na | na | (65.8) | (27.0) | (25.0) | 43 |
| Total men 15+ | na | na | na | na | 42.5 | 10.6 | 9.3 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
na $=$ not taplicable

### 12.5 STIGMA ASSOCIATED WITH AND ATTITUDES TOWARD HIV AND AIDS

Respondents who had ever heard of HIV and AIDS were asked four questions to measure attitudes towards people living with HIV and AIDS: willingness to care for a family member with AIDS in the respondent's home, willingness to buy vegetables from a shopkeeper who has AIDS, whether a female teacher with the AIDS virus - and is not sick - should be allowed to continue teaching, and preference to keep secret that a family member is infected with the HIV virus.

Table 12.5 .1 shows the proportions of women who have accepting attitudes for each of the four questions and for all four questions by age group, marital status, level of education and wealth quintile.

Accepting attitudes were highest for willing to care for a family member ( 65.9 percent) and would not want to keep secret that a family member has the AIDS virus (47 percent), and were lowest for buying fresh vegetables from a shop keeper with the AIDS virus ( 27.9 percent) and a female teacher with the AIDS virus should be able to continue teaching ( 29 percent).

Less than one in ten ( 9.3 percent) women aged 15-49 gave accepting responses to all four statements.

The proportions of women with accepting attitudes for each of the four questions and for all four questions increased with age group.

Higher proportions of women who were married and/or living with a partner ( 52.6 percent) reported that they would not want to keep secret that a family member was infected with the AIDS virus compared with women who had never been married ( 34.6 percent).

Women with a post-secondary education were more likely to report that they would buy fresh vegetables from a shop keeper with the AIDS virus ( 40.9 percent) and that a female teacher with the AIDS virus should be able to continue teaching ( 42 percent). This is in contrast to women who completed only secondary school and who reported that they would buy fresh vegetables from a shop keeper with the AIDS virus ( 26.6 percent) and that a female teacher with the AIDS virus should be able to continue teaching ( 27.7 percent).

Willingness to care for a family member who has the AIDS virus was more commonly expressed by women from the two highest wealth quintiles compared with those from the two lowest wealth quintiles.

Table 12.5.1: Accepting attitudes toward those living with HIV and AIDS — Women
The percentage of women aged 15-49 who have heard of AIDS, and the percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, Nauru 2007

| Background characteristic | Percentage of respondents who: |  |  |  | Percentage expressing acceptance attitudes on all four indicators | Number of respondents who have heard of AIDS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Are willing to care for a family member with the AIDS virus in 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 was infected with the AIDS virus |  |  |
| Age |  |  |  |  |  |  |
| 15-24 | 61.3 | 19.6 | 20.7 | 37.4 | 5.0 | 170 |
| 15-19 | 58.6 | 14.0 | 16.4 | 37.8 | 2.6 | 80 |
| 20-24 | 63.8 | 24.7 | 24.5 | 37.0 | 7.2 | 90 |
| 25-29 | 64.4 | 32.7 | 42.2 | 37.4 | 7.6 | 64 |
| 30-39 | 70.9 | 32.9 | 29.4 | 52.7 | 11.6 | 115 |
| 40-49 | 68.8 | 32.9 | 34.2 | 62.4 | 14.8 | 103 |
| Marital status |  |  |  |  |  |  |
| Never married | 65.4 | 24.6 | 24.9 | 34.6 | 7.8 | 136 |
| Ever had sex | 68.3 | 26.8 | 23.9 | 29.8 | 8.5 | 90 |
| Never had sex | 59.7 | 20.3 | 26.9 | 43.8 | 6.5 | 47 |
| Married/living together | 67.6 | 27.3 | 29.7 | 52.6 | 9.8 | 279 |
| Divorced/separated/widowed | (54.6) | (45.3) | (39.5) | (50.1) | (10.9) | 36 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | 4 |
| Secondary | 65.5 | 26.6 | 27.7 | 46.6 | 8.4 | 400 |
| More than secondary | (71.3) | (40.9) | (42.0) | (49.2) | (17.7) | 48 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 58.6 | 29.2 | 22.7 | 40.2 | 5.3 | 84 |
| Second | 59.9 | 26.6 | 37.5 | 50.6 | 16.3 | 90 |
| Middle | 65.2 | 23.3 | 24.1 | 45.0 | 5.4 | 92 |
| Fourth | 74.0 | 27.6 | 25.7 | 58.4 | 9.5 | 86 |
| Highest | 71.2 | 32.5 | 34.2 | 41.5 | 9.8 | 99 |
| Total 15-49 | 65.9 | 27.9 | 29.0 | 47.0 | 9.3 | 452 |

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

Table 12.5.2 shows the proportions of men with accepting attitudes on the four questions and for all four questions by age group, marital status, level of education and wealth quintile.

Attitudes of men towards those with AIDS differed by question. Responses were highest for willing to care for a family member ( 65.7 percent) and would not want to keep secret that a family member had the AIDS virus ( 45.1 percent), and lowest for would buy fresh vegetables from a shop keeper with the AIDS virus ( 26.4 percent) and a female teacher with the AIDS virus should be able to continue teaching ( 20.2 percent).
Figure 12.5 shows that similar proportions of women and men aged 15-49 years expressed accepting attitudes for each of the four questions.

Figure 12.5: Percentage of women and men aged 15-49 with accepting attitudes to those living with HIV and AIDS by sex, Nauru 2007


Only one in fifteen men aged 15-49 (6.4 percent) had accepting attitudes with regard to all four statements.

The proportions of men with accepting attitudes for each of the four questions increased with age group.

Higher proportions of men who were married and/or living with a partner ( 25.3 percent) agreed that a female teacher with the AIDS virus and is not sick should be able to keep teaching compared with men who had never been married (11.9 percent).

Table 12.5.2: Accepting attitudes toward those living with HIV and AIDS: Men
The percentage of men aged 15-49 who have heard of HIV and AIDS, the percentage expressing specific accepting attitudes toward people with HIV and AIDS, by background characteristics, Nauru 2007

| Background characteristic | Percentage of respondents who: |  |  |  | Percentage expressing acceptance attitudes on all four indicators | Number of respondents who have heard of AIDS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 |  |  |
| Age |  |  |  |  |  |  |
| 15-24 | 59.1 | 20.9 | 9.9 | 37.2 | 3.2 | 84 |
| 15-19 | (49.7) | (15.4) | (6.3) | (37.0) | (2.3) | 37 |
| 20-24 | (66.3) | (25.2) | (12.8) | (37.3) | (3.9) | 47 |
| 25-29 | (77.2) | (28.8) | (20.5) | (45.6) | (4.6) | 51 |
| 30-39 | 63.5 | 24.6 | 23.9 | 47.7 | 5.5 | 82 |
| 40-49 | (69.7) | (38.2) | (33.2) | (55.1) | (16.6) | 42 |
| Marital status |  |  |  |  |  |  |
| Never married | 63.3 | 23.7 | 11.9 | 46.7 | 3.8 | 86 |
| Ever had sex | 66.8 | 26.0 | 13.3 | 44.5 | 4.3 | 77 |
| Never had sex | * | * | * | * | * | 9 |
| Married/living together | 66.9 | 28.9 | 25.3 | 43.4 | 7.9 | 166 |
| Divorced/separated/widowed | * | * | * | * | * | 7 |
| Education |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | * | 15 |
| Secondary | 65.0 | 24.6 | 19.2 | 41.6 | 5.0 | 222 |
| More than secondary | * | * | * | * | * | 21 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 32.3 | 16.2 | 14.3 | 52.3 | 1.2 | 32 |
| Second | 62.1 | 33.1 | 23.1 | 46.5 | 9.6 | 56 |
| Middle | 63.8 | 18.4 | 12.2 | 35.9 | 1.3 | 51 |
| Fourth | 70.1 | 24.5 | 22.4 | 48.4 | 7.2 | 51 |
| Highest | 82.3 | 33.1 | 24.9 | 44.9 | 9.2 | 69 |
| Total 15-49 | 65.7 | 26.4 | 20.2 | 45.1 | 6.4 | 259 |
| 50+ | (68.3) | (35.2) | (46.7) | (62.5) | (21.4) | 41 |
| Total men 15+ | 66.1 | 27.6 | 23.8 | 47.4 | 8.4 | 300 |

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

### 12.6 ATTITUDES ABOUT NEGOTIATING SAFER SEX

Monitoring people's attitudes about safer sex practices is important to help evaluate initiatives to reduce unsafe practices. Table 12.6 shows the proportions of women and men who responded that if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him, by age group, marital status, level of education and wealth quintile.

Overall, nearly nine in ten women ( 86.5 percent) and eight in ten men ( 78.3 percent) agreed that a wife is justified in refusing to have sexual intercourse with her husband if he has a sexually transmitted disease.

Lower proportions of both women and men aged 15-24 responded that a wife is justified to refuse sex with her husband if he has a sexually transmitted disease, compared with women and men aged 25-49.

Lower proportions of people who had never married responded that a wife is justified to refuse sex with her husband if he has a sexually transmitted disease, compared with those who had ever been married.

For women, those with a post-secondary education ( 95.2 percent) were more likely to respond that a wife is justified to refuse sex with her husband compared with those with a secondary education only ( 86.2 percent).

Table 12.6: Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men aged 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, Nauru 2007

| Background characteristic | Women |  | Men |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Refusing to have sexual intercourse | Number of women | Refusing to have sexual intercourse | Number of men |
| Age |  |  |  |  |
| 15-24 | 81.0 | 247 | 77.8 | 117 |
| 15-19 | 81.3 | 117 | 75.9 | 60 |
| 20-24 | 80.7 | 131 | 79.8 | 57 |
| 25-29 | 92.8 | 96 | 84.4 | 56 |
| 30-39 | 89.8 | 146 | 78.7 | 87 |
| 40-49 | 88.7 | 128 | 71.9 | 51 |
| Marital status |  |  |  |  |
| Never married | 80.9 | 186 | 73.2 | 119 |
| Ever had sex | 82.5 | 122 | 71.8 | 98 |
| Never had sex | 77.8 | 64 | * | 21 |
| Married/living together | 88.8 | 386 | 81.5 | 183 |
| Divorced/separated/widowed | (90.4) | 46 | * | 9 |
| Education |  |  |  |  |
| Less than secondary | * | 13 | * | 20 |
| Secondary | 86.2 | 555 | 79.6 | 270 |
| More than secondary | 95.2 | 50 | * | 21 |
| Total 15-49 | 86.5 | 618 | 78.3 | 311 |
| 50+ | na | 0 | (93.6) | 43 |
| Total men 15+ | na | 0 | 80.1 | 354 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases
na $=$ not applicable

### 12.7 MULTIPLE SEXUAL PARTNERS AND HIGHER-RISK SEX

Sexual behaviours that place people at greater risk of acquiring HIV and other STIs include unprotected vaginal and anal sex with two or more partners. ${ }^{13}$ Higher risk sex involves having sex with a person who is neither a spouse nor a cohabiting partner. In order to assess indicators on multiple sexual partners and higher risk sex, the 2007 NDHS included questions that ask both women and men age 15-49 years who had sexual intercourse in the past 12 months, the number of partners they have, those who had higher-risk sexual intercourse in the past 12 months and whether the condom was used or not.

[^20]Table 12.7.1 shows the proportions of women who reported having two or more sexual partners and higher-risk sex among those who reported having sex in the past 12 months, by age group, marital status and education level.

The prevalence of reporting two or more partners in the last 12 months decreased with age group, from 28.5 percent for women aged $15-19$ to 5.6 percent for women aged 40-49. A similar trend was shown for women who had higher-risk sex, decreasing from 45.4 percent for women aged 15-19 to 5.2 percent for those aged 40-49.

Overall, only 4.6 percent of women who reported having two or more partners in the last 12 months reported using a condom the last time they had sex. For women who reported having higher-risk sex in the last 12 months, 8.6 percent reported using a condom during their last sexual intercourse.

The average number of sex partners in a lifetime was highest for women aged 25-29 (9.8 partners).

Overall, the mean number of partners in a lifetime was higher for women who had never married ( 8.5 partners) compared with women who were married or living with a partner ( 6.4 partners).

## Table 12.7.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months - Women

Among women aged 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner, and the percentage who had higher-risk sex in the past 12 months; and among those having more than one partner in the past 12 months, the percentage reporting that that they used a condom at last sexual intercourse; and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse; and the mean number of sexual partners during her lifetime for women who ever had sexual intercourse, by background characteristics, Nauru 2007

| Background characteristic | Among respondents who had sexual intercourse in the past 12 months: |  |  | Among respondents who had 2+ partners in the past 12 months: |  | Among respondents who had higher risk intercourse in the past 12 months: 1 |  | Among respondents who ever had sexual intercourse |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who had 2+ partners in the past 12 months | Percentage who had higher-risk intercourse in the past 12 months ${ }^{1}$ | Number | Percentage who reported using a condom during last sexual intercourse | Number | Percentage who reported using a condom at last higherrisk intercourse 1 | Number | Mean <br> number of sexual partners in lifetime | Number |
| Age |  |  |  |  |  |  |  |  |  |
| 15-24 | 16.7 | 45.4 | 153 | 8.2 | 25 | 9.6 | 71 | 6.6 | 161 |
| 15-19 | 28.5 | 70.2 | 54 | * | * | (6.3) | 38 | 6.4 | 54 |
| 20-24 | 10.2 | 32.0 | 99 | * | * | (13.3) | 33 | 6.7 | 107 |
| 25-29 | 10.5 | 21.5 | 76 | * | * | * | 16 | 9.8 | 86 |
| 30-39 | 5.9 | 9.9 | 125 | * | * | * | 12 | 7.7 | 121 |
| 40-49 | 5.6 | 5.2 | 74 | * | * | * | 4 | 6.3 | 95 |
| Marital status |  |  |  |  |  |  |  |  |  |
| Never married | 36.4 | 100.0 | 79 | 4.1 | 29 | 9.9 | 80 | 8.5 | 104 |
| Married or living together | 2.6 | 2.3 | 327 | * | 9 | * | 8 | 6.4 | 322 |
| Divorced/separated/ widowed | * | * | 21 | * | 8 | * | 15 | 12.6 | 37 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | 10 | - | 0 | * | 4 | 9.7 | 10 |
| Secondary | 10.6 | 22.4 | 380 | 5.2 | 40 | * | 87 | 7.4 | 411 |
| More than secondary | (13.1) | (35.4) | 37 | 0.0 | 5 | * | 13 | 7.1 | 42 |
| Total 15-49 | 10.5 | 23.9 | 427 | 4.6 | 45 | 8.6 | 103 | 7.4 | 463 |

[^21]Table 12.7.2 shows the proportions of men who reported having two or more sexual partners and higher-risk sex among those who reported having sex in the past 12 months, by age group, marital status and education level.

One-third of sexually active men aged 15-49 (35.7 percent) reported having two or more sexual partners in the last 12 months. The prevalence of two of more sexual partners in the last 12 months was highest for men aged 15-24 ( 53.3 percent).

Over half of men aged 15-49 (51.5 percent) reported having higher-risk sex in the last 12 months. The reported prevalence of higher risk sex was particularly high for males aged 15-24 (80.0 percent).

Higher proportions of men who had never married (61.1 percent) reported having two or more sexual partners in the last 12 months compared with men who were married or living with a partner ( 23 percent).

One in ten males aged 15-49 years ( 10.2 percent) who reported having two or more sexual partners in the past 12 months indicated they used a condom the last time they had last sexual intercourse.

One in seven males aged 15-49 years ( 14.4 percent) who reported having higher risk sex in the past 12 months also reported that they used a condom the last time they had sex.

For men aged 15-49 years who had ever had sexual intercourse, the average number of partners was 15.2.

Figure 12.6: Percentage of people who reported having two or more partners in the last 12 months, by sex and age group, Nauru 2007

Table 12.7.2: Multiple sexual partners and higher-risk sexual intercourse in the past 12 months — Men
The percentage of men aged 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner, and the percentage who had higher-risk sex in the past 12 months; and the percentage having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the percentage of those having higher-risk sex in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse; and the mean number of sexual partners during his lifetime for men who ever had sex, by background characteristics, Nauru 2007

| Background characteristic | Among respondents who had sexual intercourse in the past 12 months: |  |  | Among respondents who had $2+$ partners in the past 12 months: |  | Among respondents who had higher-risk sex in the past 12 months: |  | Among respondents who ever had sex |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who had $2+$ partners in the past 12 months | Percentage who had higher-risk sex in the past 12 months ${ }^{1}$ | Number | Percentage who reported using a condom at last sexual intercourse | Number | Percentage who reported using a condom at last higher-risk intercourse ${ }^{1}$ | Number | Mean number of sexual partners in lifetime | Number |
| Age |  |  |  |  |  |  |  |  |  |
| 15-24 | 53.3 | 80.0 | 75 | (16.7) | 40 | 16.7 | 60 | 10.2 | 72 |
| 15-19 | (49.5) | (95.7) | 30 | * | 15 | (8.3) | 29 | 7.9 | 32 |
| 20-24 | (55.9) | (69.5) | 45 | (23.3) | 25 | (24.5) | 31 | 12.0 | 40 |
| 25-29 | 20.3 | 41.5 | 39 | * | 8 | * | 16 | 16.9 | 30 |
| 30-39 | 24.4 | 30.9 | 61 | * | 15 | * | 19 | 18.9 | 49 |
| 40-49 | (34.8) | (36.8) | 33 | * | 11 | * | 12 | 21.2 | 21 |
| Marital status |  |  |  |  |  |  |  |  |  |
| Never married | 61.1 | 100.0 | 68 | 13.5 | 41 | 17.3 | 68 | 12.0 | 67 |
| Married or living together | 23.0 | 26.7 | 136 | 6.4 | 31 | 10.5 | 36 | 17.1 | 101 |
| Divorced/separated/widowed | 37.3 | 73.3 | 5 | 0.0 | 2 | 0.0 | 4 | 20.9 | 5 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than secondary | 33.3 | 80.7 | 11 | 0.0 | 4 | 7.5 | 9 | 13.5 | 14 |
| Secondary | 38.2 | 52.0 | 181 | 9.8 | 69 | 12.8 | 94 | 14.6 | 145 |
| More than secondary | 10.1 | 26.7 | 17 | 48.7 | 2 | 62.3 | 4 | 23.1 | 13 |
| Total 15-49 | 35.7 | 51.5 | 209 | 10.2 | 75 | 14.4 | 108 | 15.2 | 172 |
| 50+ | 23.8 | 23.8 | 22 | 27.5 | 5 | 27.5 | 5 | 15.7 | 26 |
| Total men 15+ | 34.6 | 48.9 | 231 | 11.3 | 80 | 15.0 | 113 | 15.3 | 199 |

Note: An asterisk indicates that a tigure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.

[^22]
### 12.8 PAYMENT FOR SEXUAL INTERCOURSE

Sex workers are at a higher risk of acquiring HIV because of their increased number of sexual partners, including non-regular partners, and increased frequency of sexual intercourse. Men who have sexual intercourse with sex workers are at higher risk of acquiring the HIV virus if they do not use condoms. ${ }^{14}$ Male respondents were asked whether they have paid anyone in exchange for having sex in the past 12 months preceding the survey. Table 12.8 presents the percentage of men aged 15 and over who paid for sex in the 12-month period preceding the survey.

The only age group who reported paying for sex was males aged $25-29$ years ( 2.0 percent). These men also reported being married or living with a partner.

Table 12.8: Payment for sexual intercourse and condom use at last paid sexual intercourse - Men

Percentage of men aged 15-49 who paid for sex in the past 12 months, by background characteristics, Nauru 2007

|  | Paid for sex in the past 12 months |  |
| :--- | :---: | :---: |
| Background characteristic | Percentage who <br> paid for sex | No. of men |
| Age | 0.0 | 117 |
| 15-24 | 0.0 | 60 |
| $15-19$ | 0.0 | 57 |
| $20-24$ | 2.0 | 56 |
| $25-29$ | 0.0 | 87 |
| 30-39 | 0.0 | 51 |
| 40-49 |  |  |
| Marital status | 0.0 | 119 |
| Never married | 0.6 | 183 |
| Married or living together | $*$ | 9 |
| Divorced/separated/widowed |  |  |
| Wealth quintile | $(0.0)$ | 45 |
| Lowest | 0.0 | 67 |
| Second | 1.7 | 64 |
| Middle | 0.0 | 64 |
| Fourth | 0.0 | 72 |
| Highest | 0.4 | 311 |
| Total 15-49 | $0.0)$ | 43 |
| 50+ | 0.3 | 354 |
| Total men 15+ |  |  |

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

### 12.9 HIV TESTING

It is important for people to know their HIV status in order to avoid infecting others and to enable them to seek appropriate treatment if infected. All participants were asked if they knew where to go if they wanted to have an HIV test and if they have ever had an HIV test.

[^23]Tables 12.9.1 and 12.9.2 show the proportions of women and men who:

- reported ever being tested
- reported ever being tested and received their results
- reported being tested in the last 12 months
- reported being tested and received their results
- knew where to go to get an HIV test.

Two in five women aged 15-49 (41.9 percent) reported that they knew where to go to get an HIV test.

Overall, one in eight women reported that they had ever been tested for HIV (12.1 percent) and one in ten reported that they had received their results ( 10.2 percent).

The proportions of women who reported that they knew where to go to get an HIV test increased with age group, from one-third aged 15-24 (35 percent) to nearly half of all women aged 40-49 (48.9 percent).

The percentage of women who had ever had an HIV test, and those who had ever had a test and knew their results increased with age for those aged 15-39.

Lower proportions of women who had never married reported ever having an HIV test (7.6 percent) compared with women who were married and/or living with a partner (13.2 percent). A similar trend was shown for ever being tested and receiving results, with 6.5 percent for women who never married compared with 11.9 percent who were married and/or living with a partner.

Women with a post-secondary education ( 68.1 percent) were more likely to report that they knew where to get an HIV test compared with women who had only completed secondary education (40.1 percent). In addition, one-third of women with a post-secondary education (36.7 percent) reported ever being tested compared with one in ten women with only a secondary education (10.1 percent).

Women from the lowest wealth quintile were less likely to report they had ever had a test for HIV compared with women from other wealth quintiles.

## Table 12.9.1 Coverage of prior HIV testing - Women

Percentage of women aged 15-49 who knew where to get an HIV test, percentage distribution of women aged 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 aged 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Nauru 2007

| Background characteristic | Percentage who know where to get an HIV test | Percentage ever tested | Percentage ever tested and received results | Tested in the past 12 months and received results | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |
| 15-24 | 35.0 | 8.7 | 7.7 | 4.2 | 247 |
| 15-19 | 29.2 | 1.8 | 0.7 | 0.7 | 117 |
| 20-24 | 40.2 | 14.8 | 13.9 | 7.4 | 131 |
| 25-29 | 40.8 | 16.5 | 16.2 | 6.1 | 96 |
| 30-39 | 48.1 | 16.6 | 14.2 | 2.3 | 146 |
| 40-49 | 48.9 | 10.2 | 5.8 | 0.7 | 128 |
| Marital status |  |  |  |  |  |
| Never married | 39.7 | 7.6 | 6.5 | 3.7 | 186 |
| Ever had sex | 40.6 | 11.0 | 9.3 | 5.0 | 122 |
| Never had sex | 37.8 | 1.2 | 1.2 | 1.2 | 64 |
| Married/living together | 41.8 | 13.2 | 11.9 | 3.1 | 386 |
| Divorced/separated/widowed | (51.7) | (20.4) | (10.2) | (4.3) | 46 |
| Education |  |  |  |  |  |
| Less than secondary | 15.1 | * | 0.0 | * | 13 |
| Secondary | 40.1 | 10.1 | 8.7 | 2.8 | 555 |
| More than secondary | 68.1 | 36.7 | 28.9 | 9.7 | 50 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 29.3 | 7.6 | 7.0 | 3.8 | 127 |
| Second | 47.9 | 12.8 | 8.7 | 3.2 | 126 |
| Middle | 40.2 | 10.6 | 10.1 | 4.5 | 129 |
| Fourth | 41.8 | 18.7 | 16.3 | 2.5 | 116 |
| Highest | 50.8 | 11.2 | 9.2 | 2.6 | 119 |
| Total 15-49 | 41.9 | 12.1 | 10.2 | 3.3 | 618 |

Overall, higher proportions of men ( 53.4 percent) than women (41.9 percent) reported they knew where to go to get an HIV test.

For men, one in six reported that they had ever been tested for HIV (15.6 percent) and one in ten reported that they had received their results (10.3 percent).

The proportion of men who reported they knew where to go to get an HIV test increased with age for men. Only 45 percent of men aged 15-24 reported that they knew where to get a test, compared with more than two-thirds of men aged 30-39 (69.8 percent).

The percentage of men who had ever had an HIV test, and those who had ever had a test and knew their results also increased with age for those aged 15-39.

Men from the highest wealth quintile were more likely to report they knew where to go for a test, have ever been tested, and ever had a test and received results, compared with men from other wealth quintiles.

## Table 12.9.2 Coverage of prior HIV testing - Men

Percentage of men aged 15-49 who know where to get an HIV test, percentage distribution of men aged 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 aged 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Nauru 2007

| Background characteristic | Percentage who know where to get an HIV test | Percentage ever tested | Percentage ever tested and received results | Tested in the past 12 months and received results | Number of men |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |
| 15-24 | 44.7 | 5.6 | 5.2 | 3.6 | 117 |
| 15-19 | 40.2 | 4.2 | 4.2 | 4.2 | 60 |
| 20-24 | 49.4 | 7.1 | 6.3 | 2.9 | 57 |
| 25-29 | 54.8 | 20.9 | 10.7 | 1.6 | 56 |
| 30-39 | 69.8 | 26.9 | 17.9 | 4.3 | 87 |
| 40-49 | 44.0 | 13.2 | 8.7 | 2.2 | 51 |
| Marital status |  |  |  |  |  |
| Never married | 49.3 | 11.7 | 10.4 | 5.8 | 119 |
| Ever had sex | 54.9 | 14.2 | 12.6 | 7.1 | 98 |
| Never had sex | 23.1 | * | 0.0 | * | 21 |
| Married/living together | 56.2 | 17.3 | 10.5 | 1.4 | 183 |
| Divorced/separated/widowed | 52.9 | * | 5.2 | * | 9 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 30.8 | (11.8) | 8.7 | (2.5) | 45 |
| Second | 46.4 | 13.0 | 6.2 | 0.7 | 67 |
| Middle | 49.7 | 13.7 | 10.0 | 4.6 | 64 |
| Fourth | 57.6 | 13.5 | 7.7 | 2.0 | 64 |
| Highest | 74.0 | 23.9 | 18.0 | 5.9 | 72 |
| Total 15-49 | 53.4 | 15.6 | 10.3 | 3.2 | 311 |
| 50+ | 67.4 | 0 | 0 | 0 | 43 |

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

### 12.10 PREGNANT WOMEN COUNSELLED AND TESTED FOR HIV

Antenatal women need to know their HIV status in order to seek treatment and avoid MTCT if infected.

Of the 116 women who reported giving birth in the two years preceding the survey, 4.4 percent reported that they had received HIV counselling during antenatal care, 7.3 percent reported that they had been offered and accepted an HIV test during antenatal care and received the results from their test, 1.7 percent reported that they had been counselled, offered and accepted an HIV test during antenatal care and received the results from their test.

Due to the small numbers in subgroups for background characteristics, comparisons have not been made.

Table 12.10: Pregnant women counselled and tested for HIV
Among all women aged 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 the percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, Nauru 2007

| 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: |  | Percentage who were counselled, were offered and accepted an HIV test, and who received results ${ }^{2}$ | Number of women who gave birth in the last two years ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Received results | Did not receive results |  |  |
| Age |  |  |  |  |  |
| 15-24 | 4.7 | 3.8 | 0.0 | 2.0 | 58 |
| 25-29 | (3.5) | (7.0) | (0.0) | (3.5) | 22 |
| 30-39 | (5.6) | (10.7) | (0.0) | (0.0) | 28 |
| 40-49 | * | * | * | * | 8 |
| Education |  |  |  |  |  |
| Less than secondary | * | * | * | * | 2 |
| Secondary | 4.8 | 7.9 | 0.0 | 1.8 | 107 |
| More than secondary | * | * | * | * | 7 |
| Total 15-49 | 4.4 | 7.3 | 1.4 | 1.7 | 116 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ In this context, 'counselled' means that someone talked with the respondent about all three of the following topics: a) babies getting the AIDS virus from their mother, b) preventing the virus, and c) 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.

### 12.11 SEXUALLY TRANSMITTED INFECTION PREVALENCE AND SYMPTOMS

STIs can cause acute illness, infertility, long-term disability, and even death if not diagnosed and treated appropriately. Second Generation Surveillance surveys ${ }^{15}$ in six Pacific Island countries in 2004-2005 showed a high prevalence of STIs among pregnant women, whom are considered to be representative of the general population in countries with low incidences of HIV. Chlamydia was the most prevalent STI, with prevalence ranging from $7.3-40.7$ percent for women aged less than 25 years from the six countries. Three percent of pregnant women overall had seropositivity for syphilis (includes previous and current infections) and 1.7 percent of women had gonorrhoea. These findings highlight the importance of awareness of STIs in Pacific Island countries.

The 2007 NDHS included questions to help estimate the prevalence of STIs and symptoms of STIs for women and men who reported having sexual intercourse in the 12 months prior to the survey. All respondents who ever had sex were asked if they had had an STI or symptoms of an STI (including bad-smelling and/or abnormal genital discharge and genital sore or ulcer) in the 12 months preceding the survey.

Table 12.13 presents the proportions of women aged $15-49$ and the proportion of men aged 15 years and older who reported having had an STI and/or symptoms of an STI in the past 12 months, by age group, marital status and education level.

Overall, only 2.3 percent of women and 1.3 percent of men reported that they were diagnosed with an STI in the previous 12 months. However, the prevalence of symptoms for STIs in the previous 12 months was much higher for both sexes.

[^24]For women, abnormal genital discharge was the most prevalent STI symptom, with 13.6 percent of women aged 15-49 reporting having this symptom in the previous 12 months.

Approximately 3.0 percent of women and men reported having a genital sore or ulceration in the previous 12 months.
Table 12.11: Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms
The percentage of women and men aged 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Nauru 2007

| Background characteristic | Women |  |  |  |  | Men |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | STI | Bad- smelling/ abnormal genital discharge | Genital sore/ulcer | STI/genital discharge/ sore or ulcer | Number of respondents who ever had sexual intercourse | STI | Bad -smelling/ abnormal genital discharge | Genital sorefulcer | STI/genital discharge/ sore or ulcer | Number of respondents who ever had sexual intercourse |
| Age |  |  |  |  |  |  |  |  |  |  |
| 15-24 | 3.5 | 16.9 | 3.4 | 20.2 | 185 | 1.4 | 3.2 | 3.6 | 6.0 | 97 |
| 15-19 | 0.0 | 15.2 | 1.2 | 16.4 | 63 | (0.0) | (3.8) | (2.2) | (6.0) | 40 |
| 20-24 | 5.3 | 17.9 | 4.5 | 22.1 | 122 | 2.4 | 2.8 | 4.5 | 6.1 | 57 |
| 25-29 | 1.7 | 19.1 | 3.5 | 19.1 | 96 | 1.2 | 1.2 | 1.2 | 1.2 | 56 |
| 30-39 | 2.6 | 9.6 | 4.2 | 14.3 | 145 | 2.0 | 2.0 | 5.2 | 7.1 | 87 |
| 40-49 | 0.8 | 9.1 | 2.1 | 11.6 | 128 | (0.0) | (2.9) | (3.8) | (6.7) | 50 |
| Marital status |  |  |  |  |  |  |  |  |  |  |
| Never married | 2.4 | 12.5 | 1.7 | 14.6 | 122 | 0.5 | 2.2 | 4.0 | 5.6 | 98 |
| Married or living together | 2.2 | 13.5 | 3.7 | 17.0 | 386 | 1.3 | 2.1 | 3.6 | 5.3 | 183 |
| Divorced/separated/ widowed | (2.7) | (16.9) | (4.4) | (16.9) | 46 | 10.4 | 10.4 | 0.0 | 10.4 | 9 |
| Education |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | * | * | * | * | 12 | * | * | * | * | 20 |
| Secondary | 2.3 | 13.4 | 2.8 | 16.5 | 497 | 1.0 | 2.2 | 3.8 | 5.4 | 249 |
| More than secondary | (2.8) | (14.9) | (7.3) | (16.6) | 46 | * | * | * | * | 21 |
| Total 15-49 | 2.3 | 13.6 | 3.3 | 16.5 | 554 | 1.3 | 2.4 | 3.6 | 5.5 | 290 |
| 50+ | na | na | na | na | na | (0.0) | (0.0) | (0.0) | (0.0) | 43 |
| Total men $15+$ | na | na | na | na | na | 1.1 | 2.1 | 3.2 | 4.8 | 333 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
na $=$ not applicable

### 12.12 PREVALENCE OF MEDICAL INJECTIONS

The use of clean, unused syringes and needles is an important public health measure for preventing the transmission of blood-borne infections, including HIV. The 2007 NDHS asked respondents to recall information on medical injections in the last 12 months. Respondents who reported having at least one medical injection in the last 12 months were asked how many injections they had and whether syringe and needle for the last injection were taken from a new unopened packet.

Approximately one-fifth of 618 women ( 18.2 percent) and one-quarter of 311 men ( 22.4 percent) aged 15-49 reported that they had received a medical injection in the previous 12 months.

The average number of injections was 0.8 for women and 0.6 for men.
The majority of the 112 women who had a medical injection reported that the syringe and needle were taken from a new unopened package ( 93.7 percent). In contrast, only two-thirds of men aged 15-49 reported that the syringe and needle were taken from a new unopened package.

Table 12.12 Prevalence of medical injections
Percentage of women and men aged 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 12 months; and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new unopened package, by age, Nauru 2007

| Age | Women |  |  |  |  | Men |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who received a medical injection in the last 12 months | Average number of medical injections per person in the last 12 months | Number of respondents | For last injection, syringe and needle taken from a new, unopened package | Number of respondents receiving medical injections in the last 12 months | Percentage who received a medical injection in the last 12 months | Average number of medical injections per person in the last 12 months | Number of respondents | For last injection, syringe and needle taken from a new, unopened package | Number of respondents receiving medical injections in the last 12 months |
| 15-24 | 19.4 | 0.6 | 247 | 96.7 | 48 | 23.7 | 0.6 | 117 | (59.6) | 28 |
| 25-29 | 22.2 | 0.6 | 96 | * | 21 | 20.5 | 0.5 | 56 | * | 12 |
| 30-39 | 15.3 | 1.2 | 146 | * | 22 | 20.3 | 0.6 | 87 | * | 18 |
| 40-49 | 16.1 | 0.6 | 128 | * | 21 | 25.5 | 0.8 | 51 | * | 13 |
| Total 15-49 | 18.2 | 0.8 | 618 | 93.7 | 112 | 22.5 | 0.6 | 311 | 67.5 | 70 |
| Total men 15+ | na | na | na | na | na | 22.4 | 0.7 | 354 | 68.9 | 79 |

Notes: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
Medical injections are those given by a doctor, nurse, pharmacist, dentist or other health worker.
$n a=$ not applicable.

### 12.13 COMPREHENSIVE KNOWLEDGE ABOUT AIDS AND CONDOM SOURCES AMONG YOUTH

Knowledge of HIV transmission is important for young people in order to avoid placing themselves at risk of contracting this infection through high-risk behavours. Comprehensive knowledge about AIDS was defined as knowing that:

- people can reduce their chances of acquiring the AIDS virus if condoms are used consistently during sexual intercourse or by having just one uninfected faithful partner,
- a healthy-looking person can have the AIDS virus, and
- HIV cannot be transmitted by mosquito bites, supernatural means, or by sharing foods with a person infected with the virus.
Table 12.13 shows the proportions of young women and men who had a comprehensive knowledge of HIV and who knew of a recognised condom source.

Of the 247 women aged 15-24, only one in eight were found to have a comprehensive knowledge of AIDS, while over half reported that they knew of a condom source ( 58.8 percent).

Of the 117 men aged $15-24$, one in ten were found to have a comprehensive knowledge of AIDS while more than two-thirds reported that they knew of a condom source ( 69.8 percent).

Higher proportions of young women and men aged 20-24 were found to have a comprehensive knowledge of AIDS than those aged 15-19.

Young women and men aged 20-24 were also more likely to know where to source condoms compared with those aged 15-19.

Table 12.13: Comprehensive knowledge about AIDS and of a source of condoms among youth Percentage of young women and young men aged 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Nauru 2007

| Background characteristic | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage with comprehensive knowledge of AIDS ${ }^{1}$ | Percentage who know a condom source ${ }^{2}$ | Number of respondents | Percentage with comprehensive knowledge of AIDS ${ }^{1}$ | Percentage who know a condom source ${ }^{2}$ | Number of respondents |
| Age |  |  |  |  |  |  |
| 15-19 | 7.6 | 49.5 | 117 | 7.8 | 62.4 | 60 |
| 20-24 | 18.4 | 67.2 | 131 | 11.5 | 77.4 | 57 |
| Marital status |  |  |  |  |  |  |
| Never married | 11.3 | 55.2 | 143 | 11.6 | 66.2 | 84 |
| Ever had sex | 11.3 | 54.3 | 81 | 15.2 | 72.6 | 64 |
| Never had sex | 11.3 | 56.3 | 62 | * | * | 20 |
| Ever married | 16.1 | 63.9 | 104 | (4.6) | (78.8) | 33 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | (12.7) | 57.3 | 49 | * | * | 14 |
| Second | 17.3 | 55.5 | 53 | (5.5) | (64.5) | 29 |
| Middle | 9.8 | 58.5 | 54 | * | * | 18 |
| Fourth | 17.4 | 58.0 | 44 | (2.8) | (73.6) | 29 |
| Highest | (9.8) | 65.3 | 48 | (24.7) | (76.8) | 27 |
| Total | 13.3 | 58.8 | 247 | 9.6 | 69.8 | 117 |

[^25]
### 12.14 AGE AT FIRST SEXUAL INTERCOURSE AMONG YOUTH

Early engagement in sexual behaviour is an indication of early exposure to the risk of early pregnancy (especially for young women) and the risk of acquiring HIV and STIs for both sexes.

Because HIV transmission occurs predominantly through heterosexual intercourse between an infected and non-infected person, age at first intercourse marks the time at which most individuals are first exposed to the risk of acquiring HIV. Early pregnancy can contribute to high levels of fertility, and maternal, infant and child death in the country.

Table 12.14 shows the percentage of young women and men who reported having sexual intercourse younger than 15 and 18 years of age, by background characteristics.

The prevalence of sexual intercourse before age 15 was two times higher for young men ( 31.3 percent) than for women ( 14.8 percent). Young men were also more likely to have had sex before age 18 ( 76.1 percent) than young women ( 64.2 percent).

For young women, those who had ever married ( 23.5 percent) were more likely to report that they had sex before age 15 compared with those who had never married ( 8.6 percent).

There was a trend towards increased likelihood of sex before age 15 for women who did not know where to source a condom compared with those who reported that they did know of a condom source.

Table 12.14: Age at first sexual intercourse among youth
Percentage of young women and young men aged 15-24 who had sexual intercourse before age 15 and percentage of young women and young men aged 18-24 who had sexual intercourse before age 18, by background characteristics, Nauru 2007

| Background characteristic | Women |  |  |  | Men |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who had sexual intercourse before age 15 | Numbe of women (15-24) | Percentage who had sexual intercourse before age 18 | Number of women (18-24) | Percentage who had sexual intercourse before age 15 | Number of men (15-24) | Percentage who had sexual intercourse before age 18 | Number of men (18-24) |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | 14.9 | 117 | na | na | 34.8 | 60 | na | na |
| 20-24 | 14.8 | 131 | 65.8 | 131 | 27.6 | 57 | 80.1 | 57 |
| Marital status |  |  |  |  |  |  |  |  |
| Never married | 8.6 | 143 | 53.2 | 91 | 30.9 | 84 | (78.7) | 48 |
| Ever married | 23.5 | 104 | 74.7 | 95 | (32.3) | 33 | (72.1) | 31 |
| Knows condom source ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Yes | 12.4 | 146 | 61.3 | 123 | 34.8 | 82 | 80.1 | 61 |
| No | 18.3 | 102 | 69.7 | 63 | (23.2) | 35 | * | 19 |
| Total | 14.8 | 247 | 64.2 | 187 | 31.3 | 117 | 76.1 | 79 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases. na $=$ not available
${ }^{1}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

### 12.15 CONDOM USE AT FIRST SEXUAL INTERCOURSE AMONG YOUTH

The 2007 NDHS included a question to estimate the extent to which condoms were used at first sexual intercourse among young women and men aged 15-24. The results are presented in Table 12.17 .

Overall, one in ten young women and one in fourteen young men reported using a condom at first intercourse. There were no definite age trends apparent for condom use at first sex for either sex.

Condom use at first sex was nearly three times higher for young women who knew where to source condoms ( 14.2 percent) compared with those who did not where to source condoms (5.4 percent).

Table 12.15 Condom use at first sexual intercourse among youth
Among young women and young men aged 15-24 who have ever had sexual intercourse, percentage who used a condom the first time they had sexual intercourse, by background characteristics, Nauru 2007

| Background characteristic | Women |  | Men |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Percentage who used a condom at first sexual intercourse | Number of women who have ever had sexual intercourse | Percentage who used a condom at first sexual intercourse | Number of men who have ever had sexual intercourse |
| Age |  |  |  |  |
| 15-19 | 12.6 | 63 | (5.4) | 40 |
| 20-24 | 9.7 | 122 | 8.3 | 57 |
| Marital status |  |  |  |  |
| Never married | 10.8 | 81 | 6.4 | 64 |
| Ever married | 10.6 | 104 | (8.3) | 33 |
| Knows condom source1 |  |  |  |  |
| Yes | 14.2 | 111 | 6.1 | 72 |
| No | 5.4 | 75 | (10.0) | 24 |
| Total | 10.7 | 185 | 7.1 | 97 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

### 12.16. PREMARITAL SEXUAL INTERCOURSE AND CONDOM USE

Premarital sexual intercourse in this report has been defined as a sexual relationship reported among never married women and men. The survey asked young unmarried respondents about condom use at last sexual intercourse.

Table 12.16 shows the proportions of never married women and men aged 15-24 who reported:

- never having had sexual intercourse,
- having had sexual intercourse in the last 12 months, and
- condom use during the last sexual intercourse for those who reported having sex in the last 12 months.
A higher proportion of young men ( 59.8 percent) than women (42.8 percent) reported having had sexual intercourse in the last 12 months.

One in seven young men (14.7 percent) who reported having sex in the last 12 months also reported using a condom at last sex, compared with one in ten young women ( 9.6 percent).
Table 12.16: Premarital sexual intercourse and condom use during premarital sexual intercourse among youth
Among never-married women and men aged 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at last sexual intercourse, by background characteristics, Nauru 2007

| Background characteristic | Women |  |  |  |  | Men |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who have never had sexual intercourse | Percentage who had sexual intercourse in past 12 months | Number of nevermarried women | Percentage who used condom at last sexual intercourse | Number of never married women who have had sexual intercourse in the past 12 months | Percentage who have never had sexual intercourse | Percentage who had sexual intercourse in the past 12 months | Number of nevermarried men | Percentage who used condom at last sexual intercourse | Number of never married men who have had sexual intercourse in the past 12 months |
| Age |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 57.5 | 36.9 | 93 | (6.9) | 34 | 36.5 | 52.1 | 53 | 8.6 | 28 |
| 20-24 | 17.0 | 53.8 | 50 | (13.0) | 27 | (2.3) | (73.2) | 31 | * | 22 |
| Knows condom source ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |
| Yes | 44.2 | 43.4 | 79 | (10.1) | 34 | 16.8 | 67.2 | 56 | (17.4) | 37 |
| No | 42.3 | 42.2 | 64 | (8.8) | 27 | 38.5 | (45.2) | 28 | * | 13 |
| Total | 43.3 | 42.8 | 143 | 9.6 | 61 | 24.1 | 59.8 | 84 | 14.7 | 50 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

### 12.17 HIGHER-RISK SEX AMONG YOUTH

Young adults are at increased risk of engaging in temporary sexual relationships that can expose them to STIs and HIV infection. Higher-risk sex is defined as having sex with two or more partners in the last 12 months. Condom use among young adults plays an important role in the prevention of transmission of HIV and other STIs, as well as unwanted pregnancies. Knowledge of a reliable condom source is an important requirement for consistent condom use (Tables 12.17.1 and 12.17.2).

Overall, about half of women aged 15-24 (45.4 percent) who had sexual intercourse in the past 12 months reported having higher-risk intercourse. A very low proportion of this group reported using a condom ( 9.8 percent).

A higher proportion of young women aged 15-19 (70.2 percent) had higher-risk intercourse in the past 12 months as compared with other age groups. All never married women interviewed reported having higher risk intercourse while about one in every ten reported using a condom at the last higher-risk intercourse.

Table 12.17.1: Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months Women

Among young women aged 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Nauru 2007

|  | Respondents 15-24 who had <br> sexual intercourse in the <br> past 12 months: | Respondents 15-24 who had <br> higher risk intercourse in the <br> past 12 months: |  |
| :--- | :---: | :---: | :---: |
| Percentage who <br> had higher-risk <br> intercourse in <br> the past 12 <br> months ${ }^{1}$ | Number of <br> respondents | Percentage who <br> reported using a <br> condom at last <br> higher-risk <br> intercourse ${ }^{1}$ | Number of <br> respondents |
| characteristic | 70.2 | 54 |  |
| Age | $*$ | 20 | $(6.3)$ |
| 15-19 | $(64.5)$ | 34 | $*$ |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent.
${ }^{2}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

In contrast, the majority of men aged 15-24 ( 80 percent) who had sexual intercourse in the past 12 months reported having higher-risk intercourse. About one in five used a condom. This is in contrast to 45 percent of women aged 15-49 who had sexual intercourse in the past 12 months.

Table 12.17.2: Higher-risk sexual intercourse among youth, and condom use at last higher-risk intercourse in the past 12 months - Men

Among young men aged 15-24, the percentage who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months; and among those having higher-risk intercourse in the past 12 months, the percentage reporting that used a condom at last higher-risk intercourse, by background characteristics, Nauru 2007

|  | Respondents 15-24 who had sexual <br> intercourse in the <br> past 12 months: | Respondents 15-24 who had higher <br> risk intercourse in the <br> past 12 months: |  |
| :--- | :---: | :---: | :---: |
|  | Percentage who <br> had higher-risk <br> intercourse in <br> the past <br> 12 months ${ }^{1}$ | Number of <br> respondents | Percentage who <br> reported using <br> a condom at <br> last higher-risk <br> intercourse ${ }^{1}$ |
| Background <br> characteristic | Number of <br> respondents |  |  |
| Age | $(95.7)$ | 30 |  |
| 15-19 | $*$ | 18 | 8.3 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent.
${ }^{2}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

### 12.18 ALCOHOL USE AND SEX AMONG YOUTH

Engaging in sex under the influence of alcohol can impair judgment, compromise power relations, and increase risky sexual behaviour. Respondents who had sex in the past 12 months were asked if they had sexual intercourse when they were 'drunk', and whether they or their partner had been 'drunk' when they had sexual intercourse in the last 12 months. Table 12.18 presents the findings for these questions for women and men aged 15-24 by background characteristics.

The prevalence of women and men having had sex in the last 12 months when they were drunk was twice as high for young men ( 32.3 percent) as it was for young women ( 15.1 percent). These proportions were higher when respondents were asked if they or their partner were drunk during sexual intercourse in the last 12 months.

Young men aged 20-24 were more likely to have had sex when they were drunk in the last 12 months ( 48.3 percent) than younger men aged $15-19$ years ( 17.0 percent).

A higher proportion of young women who had never married reported having sex when they or their partner were 'drunk' compared with ever married respondents.

Table 12.18: Alcohol use and sexual intercourse among youth
Among all young women and young men aged 15-24, the percentage who had sexual intercourse in the past 12 months while they were drunk and the percentage who had sexual intercourse in the past 12 months while being drunk or with a partner was drunk, by background characteristics, Nauru 2007

| Background characteristic | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who had sexual intercourse in the past 12 months when drunk | Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk | Number of respondents | Percentage who had sexual intercourse in the past 12 months when drunk | Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk | Number of respondents |
| Age |  |  |  |  |  |  |
| 15-19 | 10.3 | 15.4 | 117 | 17.0 | 21.5 | 60 |
| 15-17 | 5.5 | 11.1 | 61 | (14.2) | (21.3) | 38 |
| 18-19 | 15.5 | 20.0 | 56 | , | * | 22 |
| 20-24 | 12.6 | 14.9 | 131 | 48.3 | 49.8 | 57 |
| 20-22 | 13.5 | 16.1 | 82 | (48.9) | (51.4) | 37 |
| 23-24 | 11.1 | 12.7 | 49 | * | * | 21 |
| Marital status |  |  |  |  |  |  |
| Never married | 16.6 | 20.7 | 143 | 34.9 | 38.0 | 84 |
| Ever married | 4.6 | 7.5 | 104 | (25.9) | (28.6) | 33 |
| Knows condom source ${ }^{1}$ |  |  |  |  |  |  |
| Yes | 13.1 | 16.8 | 146 | 38.0 | 41.9 | 82 |
| No | 9.3 | 12.7 | 102 | 19.2 | 20.3 | 35 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | (13.3) | (15.0) | 49 | * | * | 14 |
| Second | 8.7 | 11.7 | 53 | 24.8 | 27.5 | 29 |
| Middle | 14.5 | 19.1 | 54 | * | * | 18 |
| Fourth | 13.4 | 17.4 | 44 | (22.8) | (29.4) | 29 |
| Highest | (7.7) | (12.4) | 48 | (51.6) | (54.9) | 27 |
| Total 15-24 | 11.5 | 15.1 | 247 | 32.3 | 35.4 | 117 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

### 12.19 RECENT HIV TESTING AMONG YOUTH

Table 12.19 shows the proportions of sexually active young women and men aged 15-24 who reported having an HIV test in the last 12 months, by age group, marital status and knowledge of where to source condoms.

Among youth who had been sexually active in the last 12 months, 1 in 17 women and 1 in 22 men reported having had an HIV test in the past 12 months.

For young women, 1 in 10 who knew where to source condoms reported they had an HIV test in the last 12 months, while none of the 61 women who did not know where to source condoms were tested.

## Table 12.19: Recent HIV tests among youth

Among young women and young men aged 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, Nauru 2007

|  | Women |  | Men |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Percentage who <br> have been tested <br> for HIV and <br> received results <br> in the past <br> 12 months | Number of <br> women | Percentage who <br> have been tested <br> for HIV and <br> received results in <br> the past <br> 12 months |  | | Number of |
| :---: |
| mackground |
| characteristic |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases.
${ }^{1}$ For this table, the following responses are not considered to be a source for condoms: friends, family members and home.

### 12.20 PERCEPTIONS AND BELIEFS ABOUT ABSTINENCE AND FAITHFULNESS

Figure 12.7 shows the proportions of women and men aged 15-49 years who agreed with a number of statements on abstinence and faithfulness.

Higher proportions of men ( 54.9 percent) than women ( 42.5 percent) agreed that young men should wait until they are married to have sexual intercourse.

Two-thirds of women ( 69.6 percent) and men ( 67.4 percent) agreed that young women should wait until they are married to have sexual intercourse.

Most women ( 86.6 percent) and men ( 84.8 percent) agreed that married men should only have sex with their wives. In contrast, only one-quarter of women ( 26.1 percent) and one-third of men ( 36.4 percent) reported that most married men they knew only had sex with their wives.

The majority of women ( 92.3 percent) and men ( 88.9 percent) agreed that married women should only have sex with their husbands. However, less than one-half of women ( 48.8 percent) and men (39.5 percent) reported that most married women they knew only had sex with their husbands.

Figure 12.7: Perceptions and beliefs about abstinence and faithfulness, Nauru 2007


### 12.21 WOMEN AND MEN SEEKING TREATMENT FOR STIS

Figure 12.8 shows the proportions of women and men aged 15-49 who reported that they had an STI or had symptoms of an STI in the last 12 months and had sought advice or treatment.

Of the 91 women who reported having an STI or symptoms of an STI in the last 12 months, nearly two-thirds reported that they did not seek any advice or treatment. Of those who went for treatment, the majority obtained advice and/or treatment from a clinic or hospital, or from a private doctor or other health professional.

Figure 12.8: Women with an STI or symptoms of an STI, by source of advice and treatment


## STI treatments and/or advice

### 12.22 ABSTINENCE, BEING FAITHFUL AND CONDOM USE AMONG YOUNG WOMEN AND MEN

Figure 12.9 shows information on sexual abstinence, number of sexual partners, and condom use for young women and men aged 15-24.

The proportion of youth who reported never having had sex was higher for women than for men. For youth aged 15-19, less than one-half of women reported never having had sex (45.9 percent) compared with one-third of men ( 32.7 percent). Among youth aged 20-24, 6.5 percent of women reported never having had sex compared with only 1.2 percent of men.

A lower proportion of women aged 15-19 (8.1 percent) reported that they have had sex but not in the last 12 months, compared with men in that same age group ( 16.6 percent).

Very few young people who reported having had sex in the last 12 months also reported not using a condom the last time they had sex. This finding was consistent for young people who reported having only one partner and for those with more than one partner in the last 12 months.

Figure 12.9: Abstinence, being faithful and condom use among young women and men, Nauru 2007


### 12.23 KEY RESULTS

Overall, 73 percent of women and 83 percent of men aged 15-49 reported that they had heard of HIV and AIDS. The proportions of women and men with knowledge of HIV and AIDS increased with age.

Knowledge of preventing the sexual transmission of HIV was consistently higher for men than for women. However, just under one-half of women and nearly one-third of men did not know or acknowledge that using condoms correctly, limiting sexual intercourse to one uninfected partner, and abstaining from sexual intercourse are methods of preventing the sexual transmission of HIV.

Misconceptions about the transmission of HIV through other non-sexual means were widespread for both women and men. Knowledge was lowest for transmission through mosquito bites and sharing food with a person who has AIDS, for both sexes. Significant proportions of respondents did not acknowledge that a healthy-looking person could have the AIDS virus and that AIDS cannot be transmitted by supernatural means.

In concurrence with findings on knowledge of transmission and misconceptions, accepting attitudes toward those living with HIV were generally not widespread.

While nearly two-thirds of women and men agreed that they would be willing to care for a family member with the AIDS virus in their own home, less than one-half of people reported that they would want to keep it secret that a family member was infected with HIV and AIDS.

Comprehensive knowledge of HIV and AIDS was limited, with only 18.3 percent of women and 16.9 percent of men aged 15-49 correctly answering the five questions used to assess their knowledge. Knowledge was particularly poor among young people aged 15-19, with less than 8.0 percent of women and men in this age group assessed as having a comprehensive knowledge.

The majority of Nauruans had positive attitudes towards negotiating safer sex, with 86.6 percent of women and 78.3 percent of men agreeing that a woman is justified in refusing to have sex with her husband if he has a sexually transmitted disease.

One in ten women ( 10.5 percent) and one-third of men ( 35.7 percent) who reported having had sex in the last 12 months also indicated they had two or more partners in the last 12 months. Of these, less than 5.0 percent of women and 10.0 percent of men had used a condom at last sex.

Payment for sex among men was very uncommon in Nauru, with only two men indicating that they had paid for sex in the last 12 months.

Overall, 3.0 percent of women and 3.0 percent men reported they had been tested for HIV in the last 12 months and had received their results. Approximately one in ten women and men had ever been tested for HIV and received their results.

Of the 116 women who had given birth in the previous two years, only 1.7 percent reported that they had been counselled, offered and accepted an HIV test and received the results.

While only 2.3 percent of women and 1.3 percent of men reported that they were diagnosed with an STI in the last 12 months, the proportions reporting STI symptoms were much greater. Overall, 13.6 percent of women reported having an offensive smelling and/or abnormal genital discharge (the most common symptom) and 5.5 percent of men reported having a genital discharge, sore or ulcer in the last 12 months.

One in seven women and one in three men aged 15-24 reported that they had sex before age 15 . Condom use at first sex was also very low with 14.2 percent of women and 6.1 percent of men.

One-third of men and one in ten women aged 15-24 reported that they had sex when drunk in the last 12 months.

These findings indicate opportunities for:

- increasing the level of knowledge of transmission and misconceptions for HIV and STIs within the community, particularly among young adults aged $15-24$;
- promoting safe sex and the use of condoms; and
- increasing the proportions of people who seek medical treatment for symptoms of STIs and who know their HIV status.


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## APPENDIX A: SAMPLE IMPLEMENTATION

Table A.1: Sample implementation
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, Nauru 2007

| Result | Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yaren | Boe | Aiwo | Buad | Denigomodu | Nibok | Uaboe | Baitasi | Ewa | Anetan | Anabar | Ijuw | Anibare | Meneng | Location |  |
| Selected households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed (C) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 90.5 | 100.0 | 100.0 | 100.0 | 93.8 | 100.0 | 84.0 | 97.3 |
| Household present but no competent respondent at home (HP) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 0.8 |
| Household absent (HA) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 6.3 | 0.0 | 4.0 | 1.0 |
| Dwelling vacantladdress not a dwelling (DV) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 0.5 |
| Dwelling destroy (DD) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.3 |
| Other (0) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of sampled households | 26 | 27 | 40 | 27 | 22 | 21 | 19 | 22 | 21 | 23 | 22 | 18 | 16 | 46 | 50 | 400 |
| Household response rate (HRR) ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 93.3 | 99.2 |
| Eligible women |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed (EWC) | 97.5 | 96.5 | 94.1 | 95.7 | 100.0 | 97.3 | 93.9 | 100.0 | 100.0 | 100.0 | 94.7 | 93.5 | 94.4 | 89.7 | 78.9 | 94.4 |
| Not at home (EWNH) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 0.2 |
| Refused (EWR) | 2.5 | 3.5 | 3.9 | 4.3 | 0.0 | 2.7 | 6.1 | 0.0 | 0.0 | 0.0 | 5.3 | 6.5 | 0.0 | 9.0 | 19.3 | 4.9 |
| Incapacitated (EWI) | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 1.3 | 1.8 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 40 | 57 | 51 | 46 | 37 | 37 | 33 | 42 | 30 | 42 | 38 | 31 | 36 | 78 | 57 | 655 |
| Eligible women response rate (EWRR) ${ }^{2}$ | 97.5 | 96.5 | 94.1 | 95.7 | 100.0 | 97.3 | 93.9 | 100.0 | 100.0 | 100.0 | 94.7 | 93.5 | 94.4 | 89.7 | 78.9 | 94.4 |
| Overall response rate (ORR) ${ }^{3}$ | 97.5 | 96.5 | 94.1 | 95.7 | 100.0 | 97.3 | 93.9 | 100.0 | 100.0 | 100.0 | 94.7 | 93.5 | 94.4 | 89.7 | 73.7 | 93.6 | ${ }^{1}$ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

100 *
${ }^{2}$ Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:
100 *EWC
${ }^{3}$ The overall response rate (ORR) is calculated as: ORR $=$ HRR * EWRR/100
Table A.1M: Sample implementation
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, Nauru 2007

| Result | Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yaren | Boe | Aiwo | Buad | Denigomodu | Nibok | Uaboe | Baitasi | Ewa | Anetan | Anabar | ljuw | Anibare | Meneng | Location |  |
| Selected households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed (C) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 90.9 | 100.0 | 100.0 | 100.0 | 87.5 | 100.0 | 96.0 | 98.5 |
| Household present but no competent respondent at home (HP) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 0.5 |
| Household absent (HA) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.5 | 0.0 | 0.0 | 0.5 |
| Other (0) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of sampled households | 13 | 13 | 20 | 14 | 11 | 11 | 9 | 11 | 11 | 12 | 11 | 9 | 8 | 23 | 25 | 201 |
| Household response rate (HRR) ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 96.0 | 99.5 |
| Eligible men |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed (EMC) | 95.8 | 94.3 | 82.1 | 94.3 | 100.0 | 100.0 | 93.8 | 93.1 | 94.1 | 100.0 | 84.0 | 91.3 | 73.7 | 84.2 | 80.0 | 90.3 |
| Not at home (EMNH) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 | 0.0 | 2.9 | 0.8 |
| Refused (EMR) | 0.0 | 5.7 | 17.9 | 5.7 | 0.0 | 0.0 | 6.3 | 3.4 | 0.0 | 0.0 | 16.0 | 4.3 | 15.8 | 15.8 | 17.1 | 7.9 |
| Partly completed (EMPC) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Incapacitated (EMI) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.5 |
| Other (EMO) | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of men | 24 | 35 | 28 | 35 | 22 | 17 | 16 | 29 | 17 | 29 | 25 | 23 | 19 | 38 | 35 | 392 |
| Eligible men response rate (EMRR) ${ }^{2}$ | 95.8 | 94.3 | 82.1 | 94.3 | 100.0 | 100.0 | 93.8 | 93.1 | 94.1 | 100.0 | 84.0 | 91.3 | 73.7 | 84.2 | 80.0 | 90.3 |
| Overall response rate (ORR) ${ }^{3}$ | 95.8 | 94.3 | 82.1 | 94.3 | 100.0 | 100.0 | 93.8 | 93.1 | 94.1 | 100.0 | 84.0 | 91.3 | 73.7 | 84.2 | 76.8 | 89.9 |
| ${ }^{1}$ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as: $\frac{100 * C}{C+H P+P+R+D N F}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{2}$ Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as: 100 * EWC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EWC + EWNH + EWP + EW <br> ${ }^{3}$ The overall response rate ORR = HRR * EWRR/100 | EWPC ) is calo | + EWO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

APPENDIX B: ESTIMATES OF SAMPLING ERRORS

## ESTIMATES OF SAMPLING ERRORS

The main objective of a demographic household survey (DHS) is to provide estimates of a number of basic demographic and health variables. This is done through interviews with a scientifically selected probability sample that is chosen from a well-defined population. In this case, women of reproductive age (15-49). Estimates from a sample survey are affected by two types of errors: 1) non-sampling errors and 2) 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 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 2007 Nauru Demographic and Health Survey (NDHS) to minimise 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 2007 NDHS 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.

Sampling errors are the errors that result from taking a sample of the covered population through a particular sample design. Non-sampling errors are systematic errors that would be present even if the entire population was covered (e.g. response errors, coding and data entry errors).

For the entire covered population and for large subgroups, the DHS sample is generally sufficiently large to provide reliable estimates. For such populations, the sampling error is small and less important than the non-sampling error. However, for small subgroups, sampling errors become very important in providing an objective measure of reliability of the data.

## Variables for reporting sampling error

Sampling errors will be displayed for total, urban and rural and each sample domain only. No other panels should be included in the sampling error table. The choice of variables for which sampling error computations will be done depends on the priority given to specific variables. However, it is recommended that sampling errors be calculated for at least the following variables.

Table B.1: List of selected variables for sampling errors, [country and year]

| Variable | Estimate | Base Population |
| :---: | :---: | :---: |
| Urban | Proportion | All women |
| Literate | Proportion | All women |
| No education | Proportion | All women and all men |
| Secondary education | Proportion | All women and all men |
| Net attendance ratio | Ratio | Children aged 7-12 years (modify age according to country) |
| Never married | Proportion | All women and all men |
| Currently married | Proportion | All women and all men |
| Married before age 20 | Proportion | Women aged 20-49 and men aged 20-54 |
| Had sexual intercourse before age 18 | Proportion | All women and all men |
| Currently pregnant | Proportion | All women |
| Children ever born | Mean | All women and all men |
| Children surviving | Mean | All women |
| Children ever born to women aged 40-49 | Mean | Women aged 40-49 |
| Total fertility rate (3 years) | Rate | All women |
| Know any contraceptive method | Proportion | Currently married women and currently married men |
| Ever used any contraceptive method | Proportion | Currently married women |
| Currently using any contraceptive method | Proportion | Currently married women |
| Currently using pill | Proportion | Currently married women |
| Currently using IUD | Proportion | Currently married women |
| Currently using female sterilization | Proportion | Currently married women |
| Currently using periodic abstinence | Proportion | Currently married women |
| Used public sector source | Proportion | Current users of modern methods |
| Want no more children | Proportion | Currently married women and currently married men |
| Want to delay birth at least 2 years | Proportion | Currently married women and currently married men |
| Ideal family size | Mean | All women and all men |
| Perinatal mortality (0-4 years) | Ratio | Number of pregnancies of 7+ months |
| Neonatal mortality (0-4 years) | Rate | Children exposed to the risk of mortality |
| Post-neonatal mortality (0-4 years) | Rate | Children exposed to the risk of mortality |
| Infant mortality (0-4 years) | Rate | Children exposed to the risk of mortality |
| Infant mortality (5-9 years) | Rate | Children exposed to the risk of mortality |
| Infant mortality (10-14 years) | Rate | Children exposed to the risk of mortality |
| Child mortality (0-4 years) | Rate | Children exposed to the risk of mortality |
| Under-five mortality (0-4 years) | Rate | Children exposed to the risk of mortality |
| Mothers received tetanus injection for last birth | Proportion | Women with at least one live birth in five years before survey |
| Mothers received medical assistance at delivery | Proportion | Births occurring 1-59 months before interview |
| Having diarrhea in two weeks before survey | Proportion | Children aged 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 aged 12-23 months |
| Received BCG | Proportion | Children aged 12-23 months |
| Received DPT (3 doses) | Proportion | Children aged 12-23 months |
| Received Polio (3 doses) | Proportion | Children aged 12-23 months |
| Received measles | Proportion | Children aged 12-23 months |
| Height-for-age (-2SD) | Proportion | Children aged 0-59 months |
| Weight-for-height (-2SD) | Proportion | Children aged 0-59 months |
| Weight-for-age (-2SD) | Proportion | Children aged 0-59 months |
| Anaemic | Proportion | Children aged 6-59 months |
| Anaemic | Proportion | All women |
| BMI <18.5 | Proportion | All women |
| Had 2+ sexual partners in past 12 months | Proportion | All women and all men |
| Had higher-risk intercourse (with a non-marital, noncohabitating partner) in past 12 months | Proportion | All women and all men who had sexual intercourse in past 12 months All women and all men who had higher-risk intercourse in past 12 |
| Condom use at last higher-risk intercourse | Proportion | months |
| Condom use at last higher-risk intercourse (youth) | Proportion | All women and all men aged 15-24 who had higher-risk intercourse in past 12 months |
| Abstinence among youth (never had intercourse) | Proportion | Women aged 15-24 and men aged 15-24 |
| Sexually active in past 12 months among never-married youth | Proportion | Women aged 15-24 and men aged 15-24 |
| Paid for sexual intercourse in past 12 months | Proportion | All men |
| Had an injection in past 12 months | Proportion | All women and all men |
| Had HIV test and received results in past 12 months | Proportion | All women and all men |
| Accepting attitudes towards people with HIV | Proportion | All women and all men who have heard of HIV/AIDS |
| HIV prevalence (15-49) | Proportion | All women and all men who were tested for HIV |
| HIV prevalence (15-54) \{15-59] | Proportion | All men aged 15-54 who were tested for HIV |

Notes:

1. Unless otherwise noted, all women are for women aged 15-49 and all men are for men aged15-49.
${ }^{2}$. In countries where only currently married women are asked about current pregnancy, the base population for the proportion currently pregnant should be currently married women instead of all women. Sampling errors by urban and rural domains are shown for the period 0-9 years before the survey for the neonatal, postneonatal, infant, and child mortality rates.

In the 2007 NDHS Report of the survey results, sampling errors for selected variables have been presented in a tabular format. The sampling error tables should include:
............ Variable name
$\mathrm{R}: \quad$ Value of the estimate;
SE: $\quad$ Sampling error of the estimate;
$\mathrm{N}: \quad$ Unweighted number of cases on which the estimate is based;
WN : Weighted number of cases;
DEFT: Design effect value that compensates for the loss of precision that results from using cluster rather than simple random sampling;

SE/R: Relative standard error (i.e. ratio of the sampling error to the value estimate);
R-2SE: Lower limit of the $95 \%$ confidence interval;
R+2SE: Upper limit of the $95 \%$ confidence interval (never $>1.000$ for a proportion).
Sampling error is usually measured in terms of the standard error for a particular statistic (e.g. mean, percentage), 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 $95 \%$ of all possible samples of identical size and design.

If the sample of respondents had been selected by simple random sampling, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2007 NDHS sample was the result of a multistage stratified design and, consequently, it is necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2007 NDHS is the integrated sample survey analysis (ISSA) sampling error module. This module uses the Taylor linearisation 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 linearisation 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.

$$
S E^{2}(r)=\operatorname{var}(r)=\frac{1-f}{x^{2}} \sum_{h=1}^{H}\left[\frac{m_{h}}{m_{h}-1}\left(\sum_{i=1}^{m_{h}} z_{h i}^{2}-\frac{z_{h}^{2}}{m_{h}}\right)\right]
$$

in which

$$
z_{h i}=y_{h i}-r x_{h i}, \text { and } z_{h}=y_{h}-r x_{h}
$$

where $\quad h \quad$ represents the stratum that varies from 1 to H ,
$m_{h} \quad$ is the total number of clusters selected in the $h^{\text {th }}$ stratum,
$y_{h i} \quad$ is the sum of the weighted values of variable $y$ in the $i^{t h}$ cluster in the $h^{t h}$ stratum,
$x_{h i} \quad$ is the sum of the weighted number of cases in the $i^{t h}$ cluster in the $h^{t h}$ stratum, and
$f \quad$ 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 formulae. Each replication considers all but one cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2007 NDHS, there were 15 non-empty clusters. Hence, 15 replications were created. The variance of a rate $r$ is calculated as follows.

$$
S E^{2}(r)=\operatorname{var}(r)=\frac{1}{k(k-1)} \sum_{i=1}^{k}\left(r_{i}-r\right)^{2}
$$

in which

$$
r_{\mathrm{i}}=k r-(k-1) r_{(i)}
$$

where $\quad r$ is the estimate computed from the full sample of 15 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 14 clusters ( $i^{\text {th }}$ cluster excluded), and
$k \quad$ is the total number of clusters.
In addition to the standard error, the ISSA software program computes the design effect (DEFT) for each estimate, 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. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2007 NDHS are calculated for selected variables considered to be of primary interest for the women's and men's surveys. The results are presented in this appendix for the country as a whole. 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. 4 present the value of the statistic (R), its standard error (SE), the number of unweighted ( N ) and weighted ( WN ) cases, the DEFT, the relative standard error ( $\mathrm{SE} / \mathrm{R}$ ), and the $95 \%$ confidence limits ( $\mathrm{R} \pm 2 \mathrm{SE}$ ) 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 (example, as calculated for children ever born to women aged 40-49) can be interpreted as follows: the overall average from the national sample is 4.398 and its standard error is 0.302 . Therefore, to obtain the $95 \%$ confidence limits, one adds and subtracts twice the standard error to the sample estimate (i.e. $4.398 \pm 2 \times 0.302$ ). There is a high probability ( $95 \%$ ) that the true average number of children ever born to all women aged 40-49 is between 3.795 and 5.001.

Sampling errors are analysed for the national women's sample and for two separate groups of estimates: 1) means and proportions and 2) complex demographic rates. The $S E / R$ for the means and proportions range between $8.0 \%$ and $17.7 \%$; the highest relative standard errors are for estimates of very low values (e.g. currently using Female sterilisation). In general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. However, for mortality rates, the average relative standard error for the five-year period mortality rates is generally higher than those
related to the 10 year estimates. There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable want no more children, the relative standard errors as a percent of the estimated mean for the all women would be different to that of women with different educational and wealth quintile backgrounds.


Table B.3: Sampling of errors for total men in Nauru

| Variable | R | SE | N-UNWE | N-WEIG | DEFT | SE/R | R-2SE | R+2SE |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  | 0 | 0 | 354 | 354 | -Nan | -Nan | 0 | 0 |
| Urban residence | 0.002 | 0.002 | 354 | 354 | 0.848 | 1.025 | 0 | 0.006 |  |
| No education | 0.93 | 0.022 | 354 | 354 | 1.591 | 0.023 | 0.887 | 0.973 |  |
| Secondary education or higher | 0.343 | 0.022 | 354 | 354 | 0.876 | 0.064 | 0.299 | 0.388 |  |
| Never married | 0.611 | 0.016 | 354 | 354 | 0.598 | 0.025 | 0.58 | 0.643 |  |
| Currently married/in union | 0.685 | 0.028 | 293 | 294 | 1.045 | 0.042 | 0.628 | 0.741 |  |
| Sex before age 18 | 0.987 | 0.013 | 216 | 216 | 1.625 | 0.013 | 0.961 | 1.012 |  |
| Knows any contraceptive method | 0.983 | 0.013 | 216 | 216 | 1.465 | 0.013 | 0.957 | 1.009 |  |
| Knowing any modern contraceptive method | 0.592 | 0.049 | 216 | 216 | 1.469 | 0.083 | 0.494 | 0.691 |  |
| Ever used condom | 0.321 | 0.027 | 216 | 216 | 0.851 | 0.084 | 0.267 | 0.376 |  |
| Want no more children | 0.136 | 0.035 | 216 | 216 | 1.515 | 0.261 | 0.065 | 0.206 |  |
| Want to delay birth at least two years | 3.069 | 0.243 | 273 | 272 | 1.475 | 0.079 | 2.582 | 3.556 |  |
| Ideal family size | 0.064 | 0.017 | 260 | 259 | 1.094 | 0.261 | 0.03 | 0.097 |  |

## Table B.4: Sampling error for 5 years of mortality rates, Nauru

| Variable | R | SE | N | WN | DEFT | CV | R-2SE | R+2SE |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Neonatal mortality (last 0-4 years) | 26.845 | 7.973 | 334 | 323 | 0.899 | 0.297 | 10.899 | 42.791 |
| Post-neonatal mortality (last 0-4 years) | 11.082 | 6.673 | 337 | 327 | 1.126 | 0.602 | 0.000 | 24.428 |
| Infant mortality (last 0-4 years) | 37.927 | 9.629 | 334 | 323 | 0.862 | 0.254 | 18.669 | 57.186 |
| Child mortality (last 0-4 years) | 0.000 | 0.000 | 325 | 316 |  |  | 0.000 | 0.000 |
| Under-five mortality (last 0-4 years) | 37.927 | 9.629 | 334 | 323 | 0.862 | 0.254 | 18.669 | 57.186 |

Table B. 5: Sampling error for 10 years of mortality rates, Nauru

|  | R | SE | N | WN | DEFT | CV | R-2SE | R+2SE |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Variable | 26.825 | 7.800 | 646 | 647 | 1.109 | 0.291 | 11.226 | 42.425 |
| Neonatal mortality (last 0-9 years) | 12.296 | 4.152 | 646 | 648 | 1.025 | 0.338 | 3.992 | 20.601 |
| Post-neonatal mortality (last 0-9 years) | 39.122 | 9.412 | 647 | 648 | 1.110 | 0.241 | 20.297 | 57.947 |
| Infant mortality (last 0-9 years) | 1.610 | 1.644 | 632 | 636 | 0.990 | 1.021 | 0.000 | 4.899 |
| Child mortality (last 0-9 years) | 40.669 | 9.528 | 648 | 649 | 1.101 | 0.234 | 21.612 | 59.726 |
| Under-five mortality (last 0-9 years) |  |  |  |  |  |  |  |  |

APPENDIX C: DATA QUALITY TABLES

Table C.1: Household age distribution
Single-year age distribution of the de facto household population by sex (weighted), Nauru 2007

| Age | Women |  | Men |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| 0 | 36 | 3.1 | 35 | 3.0 |
| 1 | 23 | 1.9 | 28 | 2.4 |
| 2 | 38 | 3.3 | 27 | 2.4 |
| 3 | 38 | 3.3 | 34 | 2.9 |
| 4 | 30 | 2.5 | 24 | 2.0 |
| 5 | 28 | 2.3 | 34 | 2.9 |
| 6 | 34 | 2.9 | 27 | 2.3 |
| 7 | 27 | 2.3 | 32 | 2.8 |
| 8 | 23 | 1.9 | 31 | 2.7 |
| 9 | 34 | 2.8 | 26 | 2.2 |
| 10 | 25 | 2.1 | 31 | 2.6 |
| 11 | 28 | 2.3 | 30 | 2.6 |
| 12 | 21 | 1.8 | 30 | 2.5 |
| 13 | 37 | 3.2 | 40 | 3.4 |
| 14 | 33 | 2.8 | 28 | 2.4 |
| 15 | 15 | 1.3 | 17 | 1.4 |
| 16 | 22 | 1.8 | 31 | 2.7 |
| 17 | 27 | 2.3 | 22 | 1.9 |
| 18 | 27 | 2.3 | 25 | 2.2 |
| 19 | 27 | 2.3 | 24 | 2.1 |
| 20 | 25 | 2.1 | 19 | 1.7 |
| 21 | 32 | 2.7 | 26 | 2.3 |
| 22 | 34 | 2.9 | 19 | 1.6 |
| 23 | 32 | 2.7 | 25 | 2.1 |
| 24 | 25 | 2.1 | 23 | 2.0 |
| 25 | 16 | 1.3 | 24 | 2.1 |
| 26 | 21 | 1.8 | 21 | 1.8 |
| 27 | 24 | 2.0 | 21 | 1.8 |
| 28 | 19 | 1.6 | 21 | 1.8 |
| 29 | 16 | 1.3 | 19 | 1.6 |
| 30 | 16 | 1.3 | 16 | 1.4 |
| 31 | 23 | 2.0 | 19 | 1.6 |
| 32 | 19 | 1.6 | 17 | 1.5 |
| 33 | 13 | 1.1 | 20 | 1.7 |
| 34 | 16 | 1.4 | 14 | 1.2 |
| 35 | 11 | 1.0 | 15 | 1.2 |
| 36 | 13 | 1.1 | 21 | 1.8 |
| 37 | 7 | 0.6 | 14 | 1.2 |
| 38 | 14 | 1.1 | 11 | 0.9 |
| 39 | 16 | 1.3 | 13 | 1.1 |
| 40 | 20 | 1.7 | 17 | 1.4 |
| 41 | 8 | 0.7 | 13 | 1.1 |
| 42 | 9 | 0.8 | 9 | 0.8 |
| 43 | 13 | 1.1 | 14 | 1.2 |
| 44 | 7 | 0.6 | 14 | 1.2 |
| 45 | 13 | 1.1 | 11 | 1.0 |
| 46 | 17 | 1.5 | 9 | 0.8 |
| 47 | 8 | 0.7 | 12 | 1.0 |
| 48 | 20 | 1.7 | 6 | 0.5 |
| 49 | 10 | 0.8 | 8 | 0.7 |
| 50 | 12 | 1.0 | 14 | 1.2 |
| 51 | 6 | 0.5 | 5 | 0.4 |
| 52 | 12 | 1.0 | 9 | 0.8 |

## Table C. 1 (continued)

| Age | Women |  | Men |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| 53 | 8 | 0.6 | 11 | 1.0 |
| 54 | 9 | 0.8 | 9 | 0.8 |
| 55 | 4 | 0.3 | 6 | 0.5 |
| 56 | 7 | 0.6 | 3 | 0.3 |
| 57 | 5 | 0.4 | 7 | 0.6 |
| 58 | 3 | 0.3 | 7 | 0.6 |
| 59 | 2 | 0.1 | 5 | 0.4 |
| 60 | 2 | 0.1 | 3 | 0.2 |
| 61 | 3 | 0.3 | 2 | 0.1 |
| 62 | 0 | 0.0 | 2 | 0.2 |
| 63 | 1 | 0.1 | 0 | 0.0 |
| 64 | 1 | 0.1 | 0 | 0.0 |
| 65 | 0 | 0.0 | 1 | 0.1 |
| 66 | 1 | 0.1 | 2 | 0.2 |
| 67 | 1 | 0.1 | 1 | 0.1 |
| 69 | 2 | 0.1 | 1 | 0.1 |
| $70+$ | 12 | 1.1 | 8 | 0.7 |
| Don't know/missing | 3 | 0.2 | 5 | 0.4 |
| Total | 1,181 | 100.0 | 1,168 | 100.0 |

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before.

## Table C.2.1: Age distribution of eligible and interviewed women

De facto household population of women aged 10-54, interviewed women aged 15-49, and the percentage of eligible women who were interviewed (weighted), by five-year age groups, Nauru 2007

|  | Household <br> population of <br> women aged <br> $10-54$ | Interviewed women aged 15-49 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Age group | 145 | Number | Percent | Percent of <br> eligible women <br> interviewed |
| $\mathbf{1 0 - 1 4}$ | 117 | na | na | na |
| $\mathbf{1 5 - 1 9}$ | 148 | 111 | 18.8 | 94.6 |
| $20-24$ | 95 | 125 | 21.3 | 84.3 |
| $25-29$ | 87 | 91 | 15.5 | 95.7 |
| $30-34$ | 60 | 84 | 14.3 | 96.5 |
| $25-39$ | 57 | 57 | 9.8 | 95.4 |
| $40-44$ | 68 | 57 | 9.7 | 100.0 |
| $45-49$ | 46 | 62 | 10.6 | 92.1 |
| $50-54$ | 633 | na | na | na |
| $15-49$ | 588 | 100.0 | 92.9 |  |

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.
na $=$ not applicable

## Table C.2.2: Age distribution of eligible and interviewed

 menDe facto household population of men aged 10-64, interviewed men aged 15-59, and percent of eligible men who were interviewed (weighted), Nauru 2007

|  | Household <br> population of | Interviewed men aged 15-59 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Age group | Percent of <br> eligible men <br> interviewed |  |  |  |
| $10-14$ | 76 | Number | Percent | na |
| $\mathbf{1 5 - 1 9}$ | 65 | 58 | na | na |
| $20-24$ | 59 | 54 | 17.3 | 89.4 |
| $25-29$ | 58 | 54 | 16.1 | 90.5 |
| $30-34$ | 46 | 41 | 16.1 | 92.7 |
| $25-39$ | 43 | 40 | 12.4 | 90.0 |
| $40-44$ | 27 | 24 | 12.0 | 93.5 |
| $45-49$ | 27 | 24 | 7.1 | 86.5 |
| $50-54$ | 24 | 20 | 7.1 | 87.9 |
| $55-59$ | 12 | 11 | 5.9 | 80.6 |
| $60-64$ | 3 | na | 3.4 | 93.7 |
| $15-59$ | 362 | 334 | na | na |

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.
na $=$ not applicable

Table C.3: Completeness of reporting
Percentage of observations missing information for selected demographic and health questions (weighted), Nauru 2007

|  | Percentage with <br> missing <br> information | Number of cases |
| :--- | :---: | :---: |
| Subject | 0.10 | 920 |
| Month Only (births in last 15 years) | 0.31 | 920 |
| Month and Year (births in last 15 years) | 0.00 | 31 |
| Age at Death (deceased children born in the last 15 years) | 0.83 | 432 |
| Age/date at first union ${ }^{1}$ (ever married women) | 2.73 | 232 |
| Age/date at first union (ever married men) | 0.38 | 618 |
| Respondent's education (all women) | 0.56 | 354 |
| Respondent's education (all men) | 6.46 | 310 |
| Diarrhea in last two weeks (living children 0-59) | 5.90 | 315 |
| Height (living children 0-59 from Household Questionnaire) | 6.02 | 315 |
| Weight (living children 0-59 from Household Questionnaire) | 6.42 | 315 |
| Height or weight (living children 0-59 from Household Questionnaire) | 9.86 | 283 |
| Anemia (living children 6-59 months from Household Questionnaire) | 8.54 | 633 |
| Anemia (all women from the Household Questionnaire) | 100.00 | 375 |
| Anemia (all men from the Household Questionnaire) |  |  |

${ }^{1}$ Both year and age missing.
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), Nauru 2007

| Calendar year ${ }^{1}$ | Number of births |  |  | Percentage with complete birth date ${ }^{1}$ |  |  | Sex ratio at birth ${ }^{2}$ |  |  | Calendar year ratio ${ }^{3}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | L | D | T | L | D | T | L | D | T | L | D | T |
| 0 | 51 | 3 | 53 | 100.0 | 100.0 | 100.0 | 91.7 | 131.3 | 93.4 | na | na | na |
| 1 | 54 | 3 | 56 | 100.0 | 100.0 | 100.0 | 168.2 | - | 181.0 | na | na | na |
| 2 | 62 | 4 | 66 | 100.0 | 100.0 | 100.0 | 89.7 | 97.2 | 90.1 | 101.2 | 205.1 | 104.3 |
| 3 | 69 | 1 | 70 | 100.0 | 100.0 | 100.0 | 101.0 | - | 104.4 | 112.4 | 39.9 | 109.1 |
| 4 | 61 | 2 | 63 | 100.0 | 100.0 | 100.0 | 58.9 | 60.1 | 59.0 | 95.5 | 209.8 | 97.2 |
| 5 | 58 | 1 | 59 | 100.0 | 100.0 | 100.0 | 178.2 | - | 181.9 | 94.5 | 28.4 | 91.8 |
| 6 | 62 | 3 | 65 | 100.0 | 100.0 | 100.0 | 76.7 | 61.3 | 75.9 | 90.8 | 173.8 | 93.1 |
| 7 | 79 | 3 | 82 | 100.0 | 100.0 | 100.0 | 96.8 | 105.5 | 97.1 | 130.2 | 82.4 | 127.4 |
| 8 | 59 | 4 | 63 | 100.0 | 61.4 | 97.5 | 146.2 | 158.8 | 146.9 | 88.9 | 190.2 | 92.1 |
| 9 | 54 | 1 | 55 | 97.6 | 100.0 | 97.7 | 75.1 | 0.0 | 72.1 | 96.5 | 61.4 | 95.2 |
| 0-4 | 296 | 12 | 308 | 100.0 | 100.0 | 100.0 | 95.2 | 181.0 | 97.6 | na | na | na |
| 5-9 | 311 | 13 | 324 | 99.6 | 87.3 | 99.1 | 106.8 | 95.6 | 106.3 | na | na | na |
| 10-14 | 264 | 6 | 270 | 100.0 | 85.5 | 99.7 | 100.2 | 32.7 | 97.9 | na | na | na |
| 15-19 | 212 | 17 | 229 | 99.8 | 78.5 | 98.3 | 90.1 | 48.9 | 86.3 | na | na | na |
| $20+$ | 235 | 22 | 256 | 97.5 | 87.0 | 96.6 | 84.9 | 132.6 | 88.2 | na | na | na |
| All | 1,317 | 70 | 1,387 | 99.4 | 87.1 | 98.8 | 96.0 | 92.5 | 95.8 | na | na | na |

NA = not applicable
${ }^{1}$ Both year and month of birth given.
${ }^{2}(\mathrm{Bm} / \mathrm{Bf}) \times 100$, where Bm and Bf are the numbers of male and female births, respectively.
${ }^{3}[2 B x(B x-1+B x+1)] \times 100$, where $B x$ 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), Nauru 2007

|  | Number of years preceding the survey |  |  |  | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Age at death (days) | $\mathbf{0 - 4}$ | $\mathbf{5 - 9}$ | $\mathbf{1 0 - 1 4}$ | $\mathbf{1 5 - 1 9}$ | $\mathbf{0 - 1 9}$ |
| $<1$ | 3 | 3 | 2 | 8 | 16 |
| 1 | 2 | 2 | 0 | 0 | 4 |
| 2 | 0 | 2 | 0 | 2 | 4 |
| 9 | 0 | 1 | 0 | 0 | 1 |
| 14 | 1 | 1 | 0 | 0 | 1 |
| 21 | 2 | 0 | 0 | 1 | 4 |
| 24 | 1 | 0 | 0 | 0 | 1 |
| Total 0-30 | 9 | 9 | 2 | 12 | 31 |
| Percent early neonatal ${ }^{1}$ | 53.2 | 79.1 | 100.0 | 89.0 | 77.1 |

${ }^{1}=6$ 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, Nauru 2007

|  | Number of years preceding the survey |  |  |  | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Age at death (months) | $\mathbf{0 - 4}$ | $\mathbf{5 - 9}$ | $\mathbf{1 0 - 1 4}$ | $\mathbf{1 5 - 1 9}$ | $\mathbf{0 - 1 9}$ |
| $<$ 1a $^{\text {a }}$ | 9 | 9 | 2 | 12 | 31 |
| 1 | 0 | 1 | 0 | 0 | 1 |
| 3 | 1 | 2 | 0 | 0 | 2 |
| 4 | 1 | 0 | 0 | 0 | 1 |
| 5 | 2 | 0 | 0 | 0 | 2 |
| 6 | 0 | 1 | 0 | 0 | 1 |
| 8 | 0 | 0 | 0 | 2 | 2 |
| 9 | 0 | 0 | 0 | 1 | 1 |
| 11 | 0 | 0 | 1 | 0 | 1 |
| $24+$ | 0 | 0 | 0 | 1 | 1 |
| Total 0-11 | 12 | 13 | 3 | 14 | 42 |
| Percent neonatal ${ }^{1}$ | 71.0 | 69.0 | 71.9 | 83.0 | 74.5 |

[^26]Table C.7: Nutritional status of children
Percentage of children under age 5 years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Nauru 2007

| Background characteristic | Height-for-age |  |  | Weight-for-height |  |  |  | Weight-for-age |  |  |  | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage below -3 SD | Percentage below -2 SD ${ }^{1}$ | Mean Zscore (SD) | Percentage below -3 SD | Percentage below -2 SD ${ }^{1}$ | Percentage above +2 SD | Mean Zscore (SD) | Percentage below -3 SD | Percentage below-2 SD ${ }^{1}$ | Percentage above + 2 SD | Mean Zscore (SD) |  |
| Age in months |  |  |  |  |  |  |  |  |  |  |  |  |
| <6 | 0.0 | 0.0 | 0.1) | 0.0 | 0.0 | 10.1 | 0.7 | 0.0 | 0.0 | 4.8 | 0.6 | 20 |
| 6-8 | 11.0 | 21.1 | 1.0) | 0.0 | 0.0 | 0.0 | 0.3 | 11.0 | 19.2 | 0.0 | 0.5) | 15 |
| 9-11 | 0.0 | 23.9 | 0.7) | 0.0 | 0.0 | 0.0 | 0.0) | 0.0 | 5.9 | 0.0 | 0.6) | 13 |
| 12-17 | 8.9 | 17.8 | 1.2) | 0.0 | 2.8 | 6.5 | 0.1 | 2.8 | 11.7 | 1.7 | 0.7) | 27 |
| 18-23 | 0.0 | 15.4 | 0.7) | 0.0 | 6.0 | 9.3 | 0.2) | 0.0 | 1.7 | 9.3 | 0.5) | 23 |
| 24-35 | 1.5 | 25.4 | 1.1) | 1.2 | 1.2 | 0.0 | 0.1) | 1.2 | 7.3 | 1.9 | 0.8) | 51 |
| 36-47 | 8.8 | 20.1 | 1.3) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.2 | 0.0 | 0.8) | 63 |
| 48-59 | 7.2 | 26.7 | 1.4) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 0.0 | 0.8) | 51 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 5.4 | 19.0 | 1.0) | 0.5 | 2.2 | 2.6 | 0.0) | 2.5 | 10.5 | 2.3 | 0.7) | 122 |
| Female | 5.3 | 21.8 | 1.1) | 0.0 | 0.0 | 2.0 | 0.2 | 0.0 | 4.9 | 1.2 | 0.6) | 141 |
| Birth interval in months ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| First birth | 4.0 | 14.2 | 0.8) | 1.0 | 3.3 | 0.0 | 0.2) | 1.0 | 3.8 | 0.0 | 0.7) | 60 |
| <24 | 4.2 | 25.3 | 1.3) | 0.0 | 0.0 | 3.6 | 0.1 | 0.0 | 10.3 | 2.1 | 0.7) | 66 |
| 24-47 | 4.7 | 18.2 | 1.0) | 0.0 | 0.0 | 3.2 | 0.1 | 2.1 | 7.6 | 3.9 | 0.6) | 79 |
| 48+ | 9.1 | 19.0 | 1.1) | 0.0 | 2.5 | 0.0 | 0.1 | 2.5 | 9.5 | 0.0 | 0.6) | 30 |
| Size at birth ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Very small | 15.6 | 38.0 | 1.8) | 0.0 | 4.1 | 0.0 | 0.2) | 4.1 | 17.0 | 0.0 | 1.3) | 19 |
| Small | 3.5 | 30.1 | 1.6) | 0.0 | 0.0 | 2.2 | 0.0) | 0.0 | 13.1 | 2.2 | 1.0) | 21 |
| Average or larger | 3.3 | 14.6 | 0.9) | 0.3 | 1.1 | 2.5 | 0.1 | 1.3 | 4.9 | 2.3 | 0.5) | 179 |
| Missing | 11.3 | 11.3 | 1.1) | 0.0 | 0.0 | 0.0 | 0.4) | 0.0 | 11.3 | 0.0 | 1.0) | 3 |
| Mother's interview status |  |  |  |  |  |  |  |  |  |  |  |  |
| Interviewed | 4.9 | 19.3 | 1.0) | 0.3 | 1.2 | 2.1 | 0.0 | 1.3 | 7.6 | 1.9 | 0.6) | 236 |
| Not interviewed, and not in the household ${ }^{4}$ | 8.9 | 31.1 | 1.3) | 0.0 | 0.0 | 3.7 | 0.2 | 0.0 | 6.1 | 0.0 | 0.7) | 27 |

Table C. 7 (continued)

| Background characteristic | Height-for-age |  |  | Weight-for-height |  |  |  | Weight-for-age |  |  |  | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { children } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage below -3 SD | Percentage below - 2 SD ${ }^{1}$ | $\begin{gathered} \text { Mean Z- } \\ \text { score } \\ \text { (SD) } \end{gathered}$ | Percentage below-3 SD | Percentage below- $2 \mathrm{SD}^{1}$ below - 2 SD $^{1}$ | Percentage above +2 SD | $\begin{gathered} \text { Mean Z. } \\ \text { score } \\ \text { (SD) } \end{gathered}$ | Percentage <br> below - 3 SD | Percentage below- $2 \mathrm{SD}^{1}$ below - 2 SD | Percentage above +2 SD | $\begin{gathered} \text { Mean Z- } \\ \text { score (SD) } \end{gathered}$ |  |
| Mother's nutritional status ${ }^{5}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal (BMI <br> 24.9) | 4.5 | 13.6 | 1.3) | 0.0 | 0.0 | 1.5 | 0.1 | 0.0 | 7.0 | 1.5 | 0.7) | 31 |
| Overweight/ob (BMI >= 25) | 4.5 | 19.7 | 1.0) | 0.3 | 1.4 | 2.2 | 0.0 | 1.5 | 8.0 | 2.0 | 0.6) | 199 |
| Missing | 19.8 | 32.3 | 1.9) | 0.0 | 0.0 | 0.0 | 0.1) | 0.0 | 0.0 | 0.0 | 1.3) | 6 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |
| Yaren | 0.0 | 21.4 | 1.0) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.6) | 13 |
| Boe | 0.0 | 13.3 | 0.6) | 0.0 | 0.0 | 6.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1) | 30 |
| Aiwo | 5.0 | 20.0 | 1.2) | 0.0 | 0.0 | 5.0 | 0.2 | 0.0 | 5.0 | 0.0 | 0.6) | 26 |
| Buad | 0.0 | 13.6 | 0.6) | 0.0 | 0.0 | 0.0 | 0.1) | 0.0 | 4.5 | 9.1 | 0.4) | 21 |
| Denigomodu | 0.0 | 9.5 | 0.6) | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2) | 18 |
| Nibok | 0.0 | 6.7 | 0.9) | 0.0 | 0.0 | 0.0 | 0.2) | 0.0 | 6.7 | 0.0 | 0.8) | 11 |
| Uaboe | 0.0 | 0.0 | 0.8) | 9.1 | 9.1 | 0.0 | 0.1) | 9.1 | 9.1 | 0.0 | 0.6) | 7 |
| Baitasi | 5.0 | 15.0 | 0.9) | 0.0 | 5.0 | 5.0 | 0.2) | 5.0 | 10.0 | 5.0 | 0.7) | 15 |
| Ewa | 7.7 | 23.1 | 1.3) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.7) | 10 |
| Anetan | 0.0 | 14.3 | 1.0) | 0.0 | 0.0 | 0.0 | 0.2) | 0.0 | 0.0 | 0.0 | 0.8) | 17 |
| Anabar | 7.1 | 25.0 | 1.5) | 0.0 | 0.0 | 0.0 | 0.1) | 0.0 | 10.7 | 0.0 | 1.1) | 21 |
| ljuw | 0.0 | 29.4 | 1.3) | 0.0 | 0.0 | 5.9 | 0.0) | 0.0 | 5.9 | 5.9 | 0.8) | 8 |
| Anibare | 7.7 | 23.1 | 1.3) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 15.4 | 0.0 | 0.7) | 5 |
| Meneng | 9.1 | 13.6 | 0.9) | 0.0 | 4.5 | 4.5 | 0.2 | 0.0 | 9.1 | 4.5 | 0.4) | 30 |
| Location | 22.2 | 55.6 | 2.1) | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 27.8 | 0.0 | 1.3) | 30 |
| Mother's education ${ }^{6}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Less than secondary | 0.0 | 0.0 | 0.8) | 0.0 | 0.0 | 0.0 | 0.3) | 0.0 | 0.0 | 0.0 | 0.8) | 3 |
| Secondary | 5.2 | 20.1 | 1.1) | 0.3 | 1.2 | 2.2 | 0.1 | 1.4 | 7.7 | 2.0 | 0.6) | 223 |
| More than secondary | 0.0 | 9.3 | $0.8)$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 0.0 | 0.6) | 8 |

Table C. 7 (continued)

| Background characteristic | Height-for-age |  |  | Weight-for-height |  |  |  | Weight-for-age |  |  |  | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { children } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage below -3 SD | Percentage below -2 SD ${ }^{1}$ | Mean Zscore (SD) | Percentage below -3 SD | Percentage below-2 SD ${ }^{1}$ | Percentage above +2 SD | Mean Zscore (SD) | Percentage below -3 SD | Percentage below-2 SD ${ }^{1}$ | Percentage above +2 SD | $\begin{aligned} & \text { Mean Z- } \\ & \text { score (SD) } \end{aligned}$ |  |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 19.4 | 39.8 | 1.8) | 0.0 | 0.0 | 2.1 | 0.0 | 3.5 | 16.7 | 0.0 | 1.1) | 48 |
| Second | 0.0 | 15.4 | 0.9) | 1.1 | 3.7 | 0.0 | 0.0 | 1.1 | 1.9 | 0.0 | 0.5) | 53 |
| Middle | 3.8 | 19.8 | 1.0) | 0.0 | 1.4 | 2.4 | 0.1) | 1.4 | 10.6 | 4.1 | 0.7) | 56 |
| Fourth | 2.5 | 10.6 | 0.8) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 7.0 | 2.1 | 0.4) | 46 |
| Highest | 2.5 | 17.8 | 0.9) | 0.0 | 0.0 | 5.9 | 0.2 | 0.0 | 2.5 | 2.1 | 0.4) | 60 |
| Total | 5.4 | 20.5 | 1.1) | 0.2 | 1.0 | 2.2 | 0.1 | 1.2 | 7.5 | 1.7 | 0.6) | 263 |

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO Child Growth Standards. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.
${ }_{1}$ Includes children who are below -3 standard deviations (SD) from the International Reference Population median.
${ }^{2}$ Excludes children whose mothers were not interviewed.
${ }^{3}$ First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.
${ }^{4}$ Includes children whose mothers are deceased.
${ }^{5}$ Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (body mass index) is presented in Table 11.10.
${ }^{6}$ For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

APPENDIX D: PEOPLE INVOLVED IN THE 2007 NDHS

| Name | Title |
| :---: | :---: |
| Ipia Gadabu | DHS Project Owner/Chairman |
| Maree Bacigalupo | DHS Project Owner/Chairwoman |
| Lyn Teleni | Project Manager |
| Ramrakha Detenamo | Statistics Project Coordinator |
| Lindsay Thoma | Data Management and Processing |
| Dr Sithu Win Tin | Director of Public Health |
| Isabella Dageago | Public Health, Baby Clinic |
| Febrina Buramen | Public Health |
| Rosella Radi | Pre-post natal care presenter |
| Estha Karl | Family planning presenter |
| Celestine Eoaeo | Maternal child health care present |
| Simron Botelanga | Public Health |
| Graeme Brown | SPC Manager - Statistics and Demography Programme (Former) |
| Gerald Haberkorn | SPC Manager - Statistics and Demography Programme (current) |
| Arthur Jorari | SPC Population and Development Specialist |
| Andreas Demmke | SPC Population Specialist (Demographic Analysis) |
| Leilua Taulealo | SPC Data Processing Officer |
| Kaobari Matikarai | SPC DHS Technical Officer |
| Elizabeth Go | Macro Consultant |
| Han Raggers | Macro Consultant |
| Kendrick Solodi | SPC Bio measurement trainer |
| Dr Justus Benzler | SPC Public Health |
| Kathryn Couchler | SPC Public Health |
| Karen Fukuoka | SPC Public Health |
| Lisa Adam | Supervisor |
| Cherrilyn Silk | Supervisor |
| Richene Kam | Field Editor |
| Bervena Adeang | Field Editor |
| Louisaida Detabane | Enumerator |
| Laurie Kanimea | Enumerator |
| Zinnia Grundler | Enumerator |
| Virginia Abraham | Enumerator |
| Nancy Demaunga | Enumerator |
| Rina Hartman | Bio measurements |
| Dozono Gobure | Male Enumerator |
| Besuila Tanaera | Bio measurements |
| Audrey Tannang | Enumerator |
| Siolita Ephram | Enumerator |
| Tina Waidabu | Enumerator |
| Eva Gadabu | Bio measurements |
| Giedo Garabwan | Enumerator |
| Shere-lei Apad | Bio measurements |

## APPENDIX E: NAURU DHS QUESTIONNAIRES

HOUSEHOLD QUESTIONNAIRE

REPUBLIC OF NAURU
BUREAU OF STATISTICS



## Introduction and Consent

Hello. My name is $\qquad$ and I am working with the Bureau of Statistics.
We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. The survey usually takes between 10 and 15 minutes to complete.

As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential. We hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey? May I begin the interview now?

Date: $\qquad$
RESPONDENT AGREES TO BE INTERVIEWED . . 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ... $2 \rightarrow$ END

|  |  |  |  |  |  |  | IF AGE 15 OR OLDER |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LINE NO. | USUAL RESIDENTS AND VISITORS | RELATIONSHIP TO HEAD OF HOUSEHOLD | SEX | RESID | ENCE | AGE | MARITAL STATUS |  | ELIGIBILIT |  |
|  | 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. <br> Amagada, oiyame ko eget engame ngabuna ebak aeora mek ino bwiem, me eratequo ngabuna mek ina ngago abum, auweiyeda ean tubwut ewak. 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? <br> Eken amie tsiet kamie (NAME) ea tubut ewak? <br> SEE CODES BELOW. | Is <br> (NAME) <br> male or female? <br> Ngune <br> (NAME) <br> en oa <br> emwan? | Does (NAME) usually live here? Tei daien mek ine (NAME)? | Did <br> (NAME) <br> stay <br> here <br> last <br> night? <br> (NAME) <br> mek ine <br> abum? | How old is (NAME) on his/her last birthday? Egen an obweni (NAME) ngago dogin am dain in pudu? | What is (NAME'S) current marital status? <br> Ngea NAME mere oa ekeow <br> 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED <br> 4 = NEVER- <br> MARRIED AND NEVER LIVED TOGETHER | CIRCLE <br> LINE <br> NUMBER <br> OF ALL <br> WOMEN <br> AGE <br> 15-49 | CIRCLE <br> LINE <br> NUMBER <br> OF ALL <br> MEN <br> AGE <br> 15 or over | CIRCLE <br> LINE <br> NUMBER <br> OF ALL <br> CHILDREN <br> AGE 0-5 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 01 |  |  | $\begin{array}{cc} M & F \\ 1 & 2 \end{array}$ |  | $\begin{array}{ll} Y & N \\ 1 & 2 \end{array}$ | IN YEARS |  | 01 | 01 | 01 |
| 02 |  |  | 12 | 12 | 12 | $\square$ |  | 02 | 02 | 02 |
| 03 |  |  | 12 | 12 | 12 |  |  | 03 | 03 | 03 |
| 04 |  |  | 12 | 12 | 12 | $1$ |  | 04 | 04 | 04 |
| 05 |  |  | 12 | 12 | 12 | $\square$ | $\square$ | 05 | 05 | 05 |
| 06 |  |  | 12 | 12 | 12 |  | $\square$ | 06 | 06 | 06 |
| 07 |  |  | 12 | 12 | 12 | $\square$ | $\square$ | 07 | 07 | 07 |
| 08 |  |  | 12 | 12 | 12 | $1$ |  | 08 | 08 | 08 |
| 09 |  |  | 12 | 12 | 12 |  |  | 09 | 09 | 09 |
| 10 |  |  | 12 | 12 | 12 | $1$ |  | 10 | 10 | 10 |

[^27]|  |  |  |  |  |  |  | $\begin{aligned} & \text { IF AGE } 15 \\ & \text { OR OLDER } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { LINE } \\ & \text { NO. } \end{aligned}$ | USUAL RESIDENTS AND VISITORS | RELATIONSHIP TO HEAD OF HOUSEHOLD | SEX | RESIL | ENCE | AGE | MARITAL STATUS |  | ELIGIBILIT |  |
|  | 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. <br> Amagada, oiyame ko eget engame ngabuna ebak aeora mek ino bwiem, me eratequo ngabuna mek ina ngago abum, auweiyeda ean tubwut ewak. 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? <br> Eken amie tsiet kamie (NAME) ea tubut ewak? <br> SEE CODES BELOW. | Is <br> (NAME) <br> male or female? <br> Ngune <br> (NAME) en oa emwan? | Does (NAME) usually live here? Tei daien mek ine (NAME)? | Did <br> (NAME) <br> stay <br> here <br> last <br> night? <br> (NAME) mek ine abum? | How old is (NAME) on his/her last birthday? Egen an obweni (NAME) ngago dogin am dain in pudu? | What is (NAME'S) current marital status? <br> Ngea NAME mere oa ekeow <br> 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ <br> SEPARATED <br> 3 = WIDOWED <br> 4 = NEVER- <br> MARRIED <br> AND <br> NEVER <br> LIVED <br> TOGETHER | CIRCLE <br> LINE <br> NUMBER <br> OF ALL <br> WOMEN <br> AGE <br> 15-49 | CIRCLE <br> LINE <br> NUMBER <br> OF ALL <br> MEN <br> AGE <br> 15 or over | CIRCLE <br> LINE <br> NUMBER <br> OF ALL <br> CHILDREN <br> AGE 0-5 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 11 |  |  | $\begin{array}{cc} M & F \\ 1 & 2 \end{array}$ |  |  | IN YEARS |  | 11 | 11 | 11 |
| 12 |  |  | 12 | 12 | 12 |  |  | 12 | 12 | 12 |
| 13 |  |  | 12 | 12 | 12 |  |  | 13 | 13 | 13 |
| 14 |  | $1$ | 12 | 12 | 12 |  |  | 14 | 14 | 14 |
| 15 |  |  | 12 | 12 | 12 |  | $0$ | 15 | 15 | 15 |
| 16 |  |  | 12 | 12 | 12 |  |  | 16 | 16 | 16 |
| 17 |  |  | 12 | 12 | 12 |  |  | 17 | 17 | 17 |
| 18 |  |  | 12 | 12 | 12 |  | I | 18 | 18 | 18 |
| 19 |  |  | 12 | 12 | 12 |  | $\qquad$ | 19 | 19 | 19 |
| 20 |  |  | 12 | 12 | 12 | $\square$ | $\square$ | 20 | 20 | 20 |
| TICK HERE IF CONTINUATION SHEET USED |  |  |  |  |  | CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD |  |  |  |  |
| listing. Are there any other persons such as small |  | YES |  | $\begin{aligned} & \text { TO } \\ & -\mathrm{E} \end{aligned}$ | $7$ | $02=$ WIFE/HUSBAND/ PARTN <br> 03 = SON OR DAUGHTER |  | 08 08 SROT | HER OR SI | STER <br> EPDAUGHTEI |
| 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? |  |  |  |  |  | $\begin{aligned} 04= & \text { SON-IN-LAW OR } \\ & \text { DAUGHTER-IN-LAW } \\ 05= & \text { GRANDCHILD } \end{aligned}$ |  | 11 = ADOPTED OR FOSTER CHILD <br> 12 = ROOMER OR BOARDER <br> 13 = HOUSEMATE OR ROOMMATE |  |  |
| Inga iu engame ngabuna gona eo amen bwiem me ta dogin <br> ura engame ngabuna gona dabwain puok anewak, engame pumwe mekura oa <br> dangom ngabuna eo dogin mek ine? <br> 2C) Are there any guests or temporary visitors <br> $06=$ PARENT <br> 14 = OTHER NON-RELATIVE |  |  |  |  |  |  |  |  |  |  |
| 2C) Are there any guests or temporary visitors <br> staying here, or anyone else who stayed here last night, who have not been listed? Inga iu eratequo oa ngamain kwad ia ar mek ine ngabuna eo ere egen? TABLE |  |  |  |  |  | $\begin{aligned} & 06=\text { PARENT } \\ & 07=\text { PARENT-IN-LAW } \end{aligned}$ |  | $14=$ OTHER NON-RELATIVE <br> $98=$ DON'T KNOW |  |  |




## Household Characteristics

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
| :---: | :---: | :---: | :---: |
| 101 | What is the main source of drinking water for members of your household? <br> Ngon edegen I wam bokot eren dogin ngamain am ewak? |  |  |
| 102 | What is the main source of water used by your household for other purposes such as cooking and handwashing? <br> Ngon edegen I wam ebok dogin am ewak ngana ouwononan itsitsin me idudu ebe? |  | $\begin{aligned} & \longrightarrow 106 \\ & \longrightarrow 106 \end{aligned}$ |
| 103 | Where is that water source located? Mek I ngune engan wam ebok? |  | $106$ |
| 104 | How long does it take to go there, get water, and come back? <br> Egen raquin ia wo nim nuwaw ina, kida ebok me redoda? | MINUTES $\square$ <br> DON'T KNOW <br> 998 |  |
| 105 | Who usually goes to this source to fetch the water for your household? <br> ljegen ngea eodogi nanga bita engat ebok bwe enim eren ebok dogin amie wak? |  |  |

\begin{tabular}{|c|c|c|c|c|}
\hline 106 \& Do you do anything to the water to make it safer to drink? Tsimine imin ia wo riring a bitune ebok bwe enim omo ia inim? \& \begin{tabular}{l}
YES \\
NO \\
DON'T KNOW
\end{tabular} \& 1
2
8 \& \[
108
\] \\
\hline 107 \& \begin{tabular}{l}
What do you usually do to make the water safer to drink? Eken wo eodogi riring a bitune ebok bwe enim omo ia bwait inim? \\
Anything else? \\
Eken bet? \\
RECORD ALL MENTIONED.
\end{tabular} \& \begin{tabular}{l}
BOIL \\
ADD BLEACH/CHLORINE STRAIN THROUGH A CLOTH USE WATER FILTER (CERAMIC/ \\
SAND/COMPOSITE/ETC.) SOLAR DISINFECTION LET IT STAND AND SETTLE \\
OTHER \(\qquad\) \\
DON'T KNOW \\
(SPECIFY)
\end{tabular} \& A
B
C
D
E
F
X
Z \& \\
\hline 108 \& \begin{tabular}{l}
What kind of toilet facility do members of your household usually use? \\
Ekegen engan an maga jen ngamain am wak ouwonon?
\end{tabular} \& \begin{tabular}{l}
FLUSH OR POUR FLUSH TOILET \\
FLUSH TO PIPED SEWER SYSTEM \\
FLUSH TO SEPTIC TANK \\
FLUSH TO PIT LATRINE \\
FLUSH TO SOMEWHERE ELSE \\
FLUSH, DON'T KNOW WHERE \\
PIT LATRINE \\
VENTILATED IMPROVED PIT LATRINE \\
PIT LATRINE WITH SLAB \\
PIT LATRINE WITHOUT SLAB/ OPEN PIT \\
COMPOSTING TOILET \\
BUCKET TOILET \\
NO FACILITY/BUSH/FIELD \\
OTHER \\
(SPECIFY)
\end{tabular} \& 11
12
13
14
15

21
22
23
31
41
51 \& $\longrightarrow 111$ <br>

\hline 109 \& Do you share this toilet facility with other households? Wo epoa engame ibun bitune bwain amie maga ijemie? \& $$
\begin{aligned}
& \text { YES } \\
& \text { NO }
\end{aligned}
$$ \& \& $\rightarrow 111$ <br>

\hline 110 \& How many households use this toilet facility? Egen ebwakit ewak ouwonon ngune bitune ewak in bwiya? \& | NO. OF HOUSEHOLDS IF LESS THAN 10 |
| :--- |
| 10 OR MORE HOUSEHOLDS DON'T KNOW | \& \& <br>


\hline 111 \& | Does your household have: |
| :--- |
| Tsimine ian am ewak: | \&  \& NO

2
2
2
2
2
2
2
2
2
2
2
2
2
2
2
2
2 \& <br>
\hline
\end{tabular}

| 112 | What type of fuel does your household mainly use for cooking? <br> Eken bwait tsitsin am ewak ouwonon dogit itsitsin? |  | $\boldsymbol{H}^{115}$ |
| :---: | :---: | :---: | :---: |
| 113 | In this household, is food cooked on an open fire, an open stove or a closed stove? <br> lan bitune ewak, itsim ane eat iay, stove ngea pwaida men oa stove ngea tsima men? PROBE FOR TYPE. |  | $\rightarrow^{115}$ |
| 114 | Does this (fire/stove) have a chimney, a hood, or neither of these? <br> Ngune iey/stove, tsimine won bwait emeta ebadejii, tubun oa eko bet ion ean murowe? |    <br> CHIMNEY $\ldots \ldots \ldots \ldots \ldots \ldots \ldots$ 1 <br> HOOD   <br> NEITHER $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ 2 <br>  $\ldots \ldots \ldots \ldots \ldots$  |  |
| 115 | Is the cooking usually done in the house, in a separate building, or outdoors? <br> Am tsitsin iriring ow iat ewa, iat ewak ion, oa aton it ewak? |  | $\forall \rightarrow{ }^{117}$ |
| 116 | Do you have a separate room which is used as a kitchen? Tsimine wam daroom ekae ngea e ouwononat ewak in cook |  |  |
| 117 | MAIN MATERIAL OF THE FLOOR. |  |  |
| 118 | MAIN MATERIAL OF THE ROOF. |  |  |


| 119 | MAIN MATERIAL OF THE EXTERIOR WALLS. | NATURA NO W PALM RUDIME PLYW CARD REUS FINISHE CEME STON BRICK CEME WOOD OTHER | 11 <br> 12 <br> 21 <br> 22 23 <br> 31 <br> 32 <br> 33 <br> 34 <br> 35 <br> 96 |  |
| :---: | :---: | :---: | :---: | :---: |
| 120 | How many rooms in this household are used for sleeping? Egen ebwakit daroom ian am wak eouwononat imijimij? | ROOMS |  |  |
| 121 | Does any member of this household own:Inga won ngamain am ewak mungane?A watch? $\quad$ I cruck in be?A bicycle? $\quad$ E kaperoA motorcycle or motor scooter? E pokoboko <br> A car or truck? Oto oa I truck <br> A boat with a motor? Da bot me won mota? | WATCH BICYCLE MOTORC CAR/TRU BOAT W | NO 2 2 2 2 2 |  |
| 122 | Does any member of this household own any agricultural land? Inga ngamain am ewak ia tsimine eben bwien ngana ouwononat kero imin ero? | $\begin{aligned} & \text { YES } \\ & \text { NO } \end{aligned}$ |  | $\rightarrow 124$ |
| 123 | How many hectares of agricultural land do members of this household own? <br> Egen ngaben won hectare $n$ eben en kero imin ero ngana won ngamain am ewak? | HECTAR (100 sqk 95 OR M DON'T K | $\begin{array}{\|l\|} \hline \\ \hline 95 \\ 98 \\ 98 \end{array}$ |  |
| 124 | Does this household own any livestock, other farm animals, or poultry? Tsimine wamie imin gokoro $t$ farm oa domo me imit ibun? | $\begin{aligned} & \text { YES } \\ & \text { NO } \end{aligned}$ | $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | $\rightarrow 126$ |
| 125 | How many of the following animals does this household own? <br> Egen ebakit imin gokoro ngana won ngamain am wak? | PIGS <br> DUCKS <br> CHICKEN |  |  |
| 126 | Does any member of this household have a bank account? Inga ngamain am ewak ia tsimine won bank account? | $\begin{aligned} & \text { YES } \\ & \text { NO } . \end{aligned}$ | 1 <br> 2 |  |

SAMPLE SELECTION FOR THE DOMESTIC VIOLENCE:
RANDOMLY SELECT ONE EVER-MARRIED ELIGIBLE WOMAN PER SAMPLE HOUSEHOLD.


1. Sampling eligible woman for the Domestic Violence questions:
a. Woman with Marital Status as 1, 2, 3 (Column 8)
b. Woman aged 15-49. (Column 9)
2. Select one if more than one in a household, e.g. SELECT AT RANDOM 1 OUT OF_- $\mathbf{3}$

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5


|  |  | CHILD 4 | CHILD 5 | CHILD 6 |
| :---: | :---: | :---: | :---: | :---: |
| 202 | LINE NUMBER FROM COLUMN 11 <br> NAME FROM COLUMN 2 | LINE <br> NUMBER | LINE <br> NUMBER <br> NAME $\qquad$ | LINE <br> NUMBER <br> NAME $\qquad$ |
| 203 | What is (NAME'S) birth date? <br> IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH AND YEAR. |  | DAY .........    <br>     <br> MONTH $\ldots .$.    <br> YEAR    | DAY .......... <br>  <br> MONTH $\ldots \ldots$ <br> YEAR |
| 204 | CHECK 203: <br> CHILD BORN IN JANUARY 2002 OR LATER | YES $\ldots \ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots \ldots$ $\ldots$ <br> (GO TO 203 FOR NEXT  <br> CHILD OR, IF NO  <br> MORE, GO TO 216)  | YES $\ldots \ldots \ldots \ldots \ldots \ldots$ NO $\ldots \ldots \ldots \ldots \ldots$ (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 216) | YES $\ldots \ldots \ldots \ldots \ldots$ NO $\ldots \ldots \ldots \ldots \ldots$ (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 216) |
| 205 | WEIGHT IN KILOGRAMS | KG. ... $\square \square \square$ | KG. ... $\square$ | KG. .. $\square$. |
| 206 | HEIGHT IN CENTIMETERS | CM. $\square$ $\square$ |  | CM. $\square$ |
| 207 | MEASURED LYING DOWN OR STANDING UP? | LYING DOWN . . . . . . 1 <br> STANDING UP . . . . . 2 | LYING DOWN . . . . . . . 1 <br> STANDING UP . . . . . 2 | LYING DOWN ........ 1 <br> STANDING UP . . . . . 2 |
| 208 | RESULT OF WEIGHT AND HEIGHT MEASUREMENT | MEASURED $\ldots . .$. 1  <br> NOT PRESENT $\ldots .$. 2  <br> REFUSED $\ldots$. $\ldots$. 3 <br> OTHER $\ldots .$. $\ldots .$. 6 | MEASURED $\ldots . .$. 1   <br> NOT PRESENT $\ldots$. 2   <br> REFUSED $\ldots$ $\ldots$. 3  <br> OTHER $\ldots$ $\ldots$ ... 6 | MEASURED $\ldots . .$. 1  <br> NOT PRESENT $\ldots$. 2  <br> REFUSED $\ldots$ $\ldots .$. 3 <br> OTHER $\ldots$ $\ldots$ $\ldots$. |
| 209 | CHECK 203: <br> IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS? | 0-5 MONTHS ........ (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 216) OLDER . . . . . . . . . . . | O-5 MONTHS ........ (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 216) OLDER . . . . . . . . . . | $0-5$ MONTHS ....... 1 <br> (GO TO 203 FOR NEXT  <br> CHILD OR, IF NO  <br> MORE, GO TO 216)  <br> OLDER . . . . . . . . . . 2 |
| 210 | LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED. | LINE <br> NUMBER $\square$ | LINE    <br> NUMBER $\ldots$   | LINE NUMBER ... |
| 211 | READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN. |  |  |  |
| 212 | RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET ${ }^{(\circ)}$. | G/DL $\square$ $\square$ | G/DL . $\square \square \square$ | G/DL . $\square . \square$ |
| 213 | FOR INFANTS LESS THAN 1 YEAR OLD: PRICKED IN FINGER OR HEEL? |  | FINGER . . . . . ....... 1 HEEL . . . . . . . . . . 2 | FINGER $\ldots \ldots . . . . . .$. HEEL . . . . . . . . . . . 2 |
| 214 | RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT. | MEASURED $\ldots . .$. 1  <br> NOT PRESENT $\ldots .$. 2  <br> REFUSED $\ldots . . .$. 3  <br> OTHER $\ldots .$. ... 6 | MEASURED $\ldots . .$. 1 <br> NOT PRESENT $\ldots .$. 2 <br> REFUSED $\ldots . . .$. 3 <br> OTHER $\ldots . . . . . .$. 6 | MEASURED $\ldots . .$. 1  <br> NOT PRESENT $\ldots .$. 2  <br> REFUSED $\ldots$. $\ldots$. 3 <br> OTHER $\ldots .$. $\ldots .$. 6 |
| 212 |  | GO BACK TO 203 IN NEXT CO COLUMN OF ADDITIONAL QU GO TO 216. | UMN IN THIS QUESTIONNAIR STIONNAIRE(S); IF NO MORE | OR IN THE FIRST HILDREN, |

TICK HERE IF CONTINUED IN ANOTHER QUESTIONNAIRE.

| 216 | CHECK COLUMN 9 AND COLUMN 2. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 217. <br> IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S). <br> A FINAL OUTCOME FOR THE BLOOD PRESSURE MEASUREMENT MUST BE RECORDED IN 219, THE WAIST AND HIPS MEASUREMENT IN 222, WEIGHT AND HEIGHT IN 224a AND ANEMIA TEST PROCEDURE IN 230 FOR EACH ELIGIBLE WOMAN. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | WOMAN 1 |  | WOMAN 2 |  | WOMAN 3 |  |
| 217 | LINE NUMBER (COLUMN 9) NAME (COLUMN 2) | LINE NUMBER <br> NAME |  | LINE <br> NUMBER <br> NAME |  | LINE <br> NUMBER <br> NAME |  |
| 218 | BLOOD PRESSURE IN MMHG | SYSTOLIC <br> DIASTOLIC |  | SYSTOLIC <br> DIASTOLIC |  | SYSTOLIC <br> DIASTOLIC |  |
| 219 | RESULT OF <br> BLOOD <br> PRESSURE <br> MEASUREMENT | MEASURED <br> NOT PRESENT <br> REFUSED <br> OTHER | . 11 $\cdots$. $\cdots$ $\cdots$ | MEASURED <br> NOT PRESENT <br> REFUSED <br> OTHER | $\begin{array}{lll} \ldots & 1 \\ \cdots & r_{2} \\ \cdots \cdots & 3 \\ \ldots \ldots & 6 \end{array}$ | MEASURED <br> NOT PRESENT <br> REFUSED <br> OTHER | $\begin{array}{r} 1 \\ .2 \\ .3 \\ .6 \end{array}$ |
| 220 | WEIGHT <br> IN KILOGRAMS | KG. |  | KG. | $\square$ | KG. |  |
| 221 | HEIGHT <br> IN CENTIMETERS | См. . | , | CM. . . | , | CM. | - |
| 222 | RESULT OF <br> WEIGHT AND, <br> HEIGHT <br> MEASUREMENTS | MEASURED <br> NOT PRESENT <br> REFUSED <br> OTHER | $\begin{array}{ll} \ldots \cdots & 1 \\ \ldots \cdots & 2 \\ \ldots \cdots & 3 \\ \ldots \ldots & 6 \end{array}$ | MEASURED <br> NOT PRESENT REFUSED OTHER |  | MEASURED <br> NOT PRESENT REFUSED OTHER | $\begin{aligned} & \ldots . r^{1} \\ & \cdots \cdots V^{2} \\ & \ldots \ldots . \end{aligned}$ |
| 223 | AGE: CHECK COLUMN 7. | 15-17 YEARS 18-49 YEARS | $\begin{array}{ll} \cdots \cdots \cdot & 1 \\ \cdots \cdots & 2 \\ 228) \end{array}$ | 15-17 YEARS $18-49$ YEARS | $\begin{array}{ll}\ldots \ldots & 1 \\ \ldots \ldots . . & 2\end{array}$ | 15-17 YEARS 18-49 YEARS |  |
| 224 | MARITAL STATUS: CHECK COLUMN 8. | CODE 4 (NEVER IN OTHER | $\begin{array}{ll} \cdots \ldots & 1 \\ \cdots \ldots \ldots & 2 \\ 228) \end{array}$ | CODE 4 (NEVER IN UN OTHER | $\begin{array}{ll} \text { ION } \ldots \ldots & 1 \\ \ldots \ldots \ldots & 2 \\ \text { TO 228) } \end{array}$ | CODE 4 (NEVER IN OTHER |  |
| 225 | RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED. | LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT |  | LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT |  | LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT | T |
| 226 | READ ANEMIA TEST CONSENT STATEMENT. FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/OTHER ADULT IDENTIFIED IN 227 BEFORE ASKING RESPONDENT'S CONSENT. | GRANTED <br> PARENT/OTHER RESP <br> ADULT REFUSED RESPONDENT <br> REFUSED $\qquad$ <br> (SIGN) <br> (IF REFUSED, G | TO 231). | GRANTED <br> PARENT/OTHER RESP <br> ADULT REFUSED RESPONDENT REFUSED $\qquad$ <br> (SIGN) <br> (IF REFUSED, G |  | GRANTED <br> PARENT/OTHER RES ADULT REFUSED RESPONDENT REFUSED $\qquad$ <br> (SIGN) <br> (IF REFUSED, G |  |
| CONSENT STATEMENT FOR ANEMIA TEST <br> READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 228 IF RESPONDENT CONSENTS TO THE ANEMIA TEST AND CODE '3' IF SHE REFUSES. <br> FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE QUESTION 227) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 228 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT. |  |  |  |  |  |  |  |
| As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. |  |  |  |  |  |  |  |
| The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential. |  |  |  |  |  |  |  |
| You Will | can say yes to the test, you allow (NAME OF A | or you can say no. It is up OLESCENT) to take the | you to decide emia test? |  |  |  |  |


|  |  | WOMAN 1 |  | WOMAN 2 |  | WOMAN 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 227 | LINE NUMBER (COLUMN 9) <br> NAME (COLUMN 2) | LINE NUMBER <br> NAME |  | LINE NUMBER <br> NAME |  | LINE <br> NUMBER <br> NAME $\qquad$ |
| 228 | PREGNANCY <br> STATUS: CHECK <br> 226 IN WOMAN'S <br> QUESTIONNAIRE OR ASK: <br> Are you pregnant? | $\begin{aligned} & \text { YES } \\ & \text { NO } \\ & \text { DK } \end{aligned}$ | $\begin{aligned} & 1 \\ & 2 \\ & 8 \end{aligned}$ | $\begin{aligned} & \text { YES } \\ & \text { NO } \\ & \text { DK } \end{aligned}$ | $\begin{aligned} & 1 \\ & 2 \\ & 8 \end{aligned}$ |  |
| 229 | RECORD HEMOGLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET | G/L ..... |   $\square$ | G/L |  | G/L |
| 231 | RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT. | MEASURED <br> NOT PRESENT <br> REFUSED <br> OTHER |  | MEASURED <br> NOT PRESENT <br> REFUSED <br> OTHER |  |  |

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR MEN AGE 15 OR OVER


WOMEN'S QUESTIONNAIRE

REPUBLIC OF NAURU
BUREAU OF STATISTICS


INTERVIEWER RESULTS

*RESULT CODES:

| 1 | COMPLETED | 4 | REFUSED |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | NOT AVAILABLE | 5 | PARTLY COMPLETED | 7 | OTHER |  |
| 3 | POSTPONED | 6 | INCAPACITATED |  |  |  |


| LANGUAGE OF INTERVIEW | 1 ENGLISH | 2 NAURUAN | 3 OTHER |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | 1 ENGLISH | 2 NAURUAN | 3 OTHER |
| LANGUAGE OF RESPONDENT | 2 NO |  |  |  |
| TRANSLATOR USED? 1 YES |  |  |  |  |


| SUPERVISOR |  | FIELD EDITOR |  | OFFICE <br> EDITOR | KEYED BY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NAME |  |  |  |  |  |
| DATE |  | DATE |  |  |  |

## INFORMED CONSENT

Hello. My name is $\qquad$ and I am working with Nauru Bureau of Statistics. 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 between 30 and 60 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 since your views are important.
At this time, do you want to ask me anything about the survey?
May I begin the interview now?
Ekamawir. Anga...... a makur epoa Nauru Burea of Statistics. Ama nim riring survey ngune oudot en me eman angoget imin ngana towe itsimor. Ama nan ibiboki kor ia wo totow am buok ian bitune. Bitune survey nan buok edogor iwidoduwa ranga et tsimoret engame Edae in riring bitune survey inan obu animoe oa angamae minute. Am dorer inat eranga okor bwe engame re nim eo tsiet Tamo ikido wo eo teng onei wo nim opan me ar nan erowi. Tsin ia wo eo teng en onuwaiw bitune aeo bwibwit mwim ar gona otoki eow ina, ino ar egada. Mi ita ngana ma tobei ngana wo nan otoki am dae, bwe tsimine kor woun am kamarar. Ngage inga am kido wo teng oudo ngana towe bitune survey.


| 108 | What is the highest year you completed at that level? <br> Eken bita magit ogoda eobweni ngea wo egada ean bita level? | YEAR |  |
| :---: | :---: | :---: | :---: |
| 109 | CHECK 107: |  | 113 |
| 110a | Now I would like you to read this sentence to me. A kongaw bwe wo nim retsin ei mungane edorer erre eow ine. SHOW CARD IN ENGLISH TO RESPONDENT. <br> IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: <br> Can you read any part of the sentence to me? <br> Wo gona retsin ei edorer ibun ean mungane oa ekeow? |  | $\longrightarrow 111$ |
| 110b | SHOW CARD IN NAURUAN TO RESPONDENT. <br> IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: <br> Can you read any part of the sentence to me? <br> Wo gona retsin ei edorer ibun ean mungane oa ekeow? |  |  |
| 111 | Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)? <br> Inga ia wo edegeri ekereri ngana enim buok engame egona dar me retsin? Eo adu primary school? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . |  |
| 112 | CHECK 110a and 110b: |  | 114 |
| 113 | Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all? <br> Aworit egen am retsin newspaper oa magazine, eo goeow iaran iaran, aiworin iat 1 week, oad ea iat 1 wek, ekeow okor? |  |  |
| 114 | Do you listen to the radio almost every day, at least once a week, less than once a week or not at all? <br> Aworit egen am kaiot e radio, eo goeow, iaran iaran, aiworin iat 1 week, oad ea aiworin iat week oa ekeow okor? |  |  |
| 115 | Do you watch television almost every day, at least once a week, less than once a week or not at all? <br> Aworit egen am tero TV, eo goeow iaran iaran, aiworin iat 1 week, oad ea aiworin iat 1 week, ekeow okor. |  |  |
| 116 | What is your religion? Ekegen am makur in tueb? |  |  |
| 117 | What is your ethnicity? Auwe ngamen i? |  |  |


| 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? <br> Ngage a teng oudonuw ebakin naim ian tsimorum. Inga ia ogiten tsimine am karig? |  | $\longrightarrow 206$ |
| 202 | Do you have any sons or daughters to whom you have given birth who are now living with you? <br> Inga ngaim emwan oa en ngabuna wo opuduan me ar eo meken iturum ngage? |  | $\longrightarrow 204$ |
| 203 | How many sons live with you? <br> Egen ngaim emwan mek iturum? <br> And how many daughters live with you? <br> Egen ngaim en mek iturum? <br> IF NONE, RECORD '00'. | SONS AT HOME <br> DAUGHTERS AT HOME |  |
| 204 | Do you have any sons or daughters to whom you have given birth who are alive but do not live with you? <br> Inga ngaim emwan oa en ngabuna wo opuduan me tsimor me mek itangum? |  | $\longrightarrow 206$ |
| 205 | How many sons are alive but do not live with you? <br> Egen ngaim emwan tsimor me re eo mek itangum? <br> And how many daughters are alive but do not live with you? <br> Egen ngaim en tsimor me re eo mek itangum? <br> 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? <br> Inga ngaim emwan oa en pudu me tsimor me imur eman? <br> IF NO, PROBE: Any baby who cried or showed signs of life but did not survive? <br> Inga ngaim pudu me eong oa omeata itema $n$ tsimor me og ma re iman? | YES $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ <br> NO $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ | $\longrightarrow 208$ |
| 207 | How many boys have died? Egen naim emwan ia re eman? And how many girls have died? Egen naim en ia re eman? IF NONE, RECORD '00'. | BOYS DEAD <br> GIRLS DEAD |  |
| 208 | SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'. | TOTAL $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \square$ |  |
| 209 | CHECK 208: <br> Just to make sure that I have this right: you have had in TOTAL $\qquad$ births during your life. Is that correct? A nim aea ia emwi imin: ouga n ebakin $\qquad$ am karig ian tsimorim. Eimwi ngune? $\text { YES } \square \quad \text { NO } \square \longrightarrow \begin{aligned} & \text { PROBE AND } \\ & \text { CORRECT } \\ & \text { 201-208 AS } \\ & \text { NECESSARY. } \end{aligned}$ |  |  |
| 210 | CHECK 208: <br> ONE OR MORE <br> NO BIRTHS BIRTHS |  | $\longrightarrow 226$ |


| 211 Now I would RECORD <br> (IF THERE | $\begin{aligned} & \text { e to rec } \\ & \text { ES OF } \\ & \text { E MORE } \end{aligned}$ | the na THE HAN 1 | of all your bir HS IN 212. RTHS, USE AN |  | ll alive or S AND TR QUESTI | S ON RE, ST | he first one ARATE LIN ING WITH | had. <br> SECOND ROW |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 212 <br> What name was given to your (first/next) baby? <br> Eken egen nea adamonin/karoworin ngaim? <br> (NAME) | 213 <br> Were any of these births twins? Inga eara ia ibiyoro? | 214 <br> Is <br> (NAME) <br> a boy or a girl? <br> En oa emwan? | 215 <br> In what month and year was (NAME) born? Eken maramen oa eobweni pudu ean? PROBE: <br> What is his/her birthday? <br> Eken ngea an dae in pudu ametune/ eitune? | 216 <br> Is <br> (NAME) <br> still alive? <br> Tsimor ngune ouge egen? | 217 <br> IF ALIVE: <br> How old was (NAME) at his/her last birthday? <br> Egen an obweni bita dogin an dae in pudu? <br> RECORD <br> AGE IN COMPLETED YEARS. | 218 <br> IF ALIVE: <br> Is (NAME) <br> living with <br> you? <br> Meg <br> tangam <br> ngune <br> (egen) | 219 <br> IF ALIVE: <br> RECORD HOUSE- <br> HOLD LINE <br> NUMBER OF <br> CHILD <br> (RECORD '00' <br> IF CHILD NOT <br> LISTED IN <br> HOUSE- <br> HOLD). | 220 <br> IF DEAD: <br> How old was (NAME) when he/she died? <br> Egen an obweni $\qquad$ eman. la aiquen egen an maram? <br> IF '1 YR', PROBE: <br> How many months old was (NAME)? <br> Egen an maram? <br> RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS. | 221 <br> Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth? Inga iu ngaim ngabuna pudu jugagan $\qquad$ me odu memak eoning ngabuna ima imur. |
| 01 | SING 1 <br> MULT 2 | BOY 1 <br> GIRL 2 |  |  | AGE IN YEARS | $\begin{aligned} & \text { YES .... } 1 \\ & \text { NO .... } 2 \end{aligned}$ |  | DAYS.... 1 <br> MONTHS ... 2 <br> YEARS ... 3 |  |
| 02 | $\begin{array}{ll} \text { SING } & 1 \\ \text { MULT } & 2 \end{array}$ | BOY 1 <br> GIRL 2 |  |  | AGE IN YEARS | $\begin{gathered} \text { YES } \ldots . \\ \text { NO } \ldots . \end{gathered}$ |  | DAYS.... 1 <br> MONTHS ... 2 <br> YEARS ... 3 |  |
| 03 | $\begin{array}{ll} \text { SING } & 1 \\ \text { MULT } & 2 \end{array}$ | BOY 1 <br> GIRL 2 |  |  | AGE IN <br> YEARS | $\begin{gathered} \text { YES .... } 1 \\ \text { NO .... } 2 \end{gathered}$ |  |  |  |
| 04 | SING 1 <br> MULT 2 | BOY 1 <br> GIRL 2 |  |  | AGE IN YEARS | $\begin{aligned} & \text { YES } \ldots .1 \\ & \text { NO } \ldots . .2 \end{aligned}$ |  | $\begin{array}{ll} \text { DAYS .... } & 1 \\ \text { MONTHS ... } & 2 \\ \text { YEARS ... } & 3 \end{array}$ |  |
| 05 | SING 1 <br> MULT 2 | BOY 1 <br> GIRL 2 |  |  | AGE IN YEARS | $\begin{aligned} & \text { YES .... } 1 \\ & \text { NO .... } 2 \end{aligned}$ |  | DAYS.... 1 <br> MONTHS ... 2 <br> YEARS... 3 |  |
| 06 | SING 1 <br> MULT 2 | BOY 1 <br> GIRL 2 |  |  | AGE IN YEARS | $\begin{gathered} \text { YES } \ldots . .1 \\ \text { NO .... } \\ \hline \end{gathered}$ |  |  |  |
| 07 | SING 1 <br> MULT 2 | BOY 1 <br> GIRL 2 |  |  | AGE IN <br> YEARS | $\begin{gathered} \text { YES } \ldots . .1 \\ \text { NO .... } 2 \end{gathered}$ |  | DAYS .... 1 <br> MONTHS ... 2 <br> YEARS ... 3 |  |





SECTION 3. CONTRACEPTION


| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
| :---: | :---: | :---: | :---: |
| 304 | Have you ever used anything or tried in any way to delay or avoid getting pregnant? Inga imin ia wo ogiten ouwonon me riring bwe wo nim eo ijeng? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . . . . . | $\longrightarrow 306$ |
| 305 | ENTER '0' IN THE CALENDAR IN EACH BLANK MONTH. |  | $\rightarrow 333$ |
| 306 | What have you used or done? Eket imin wo ouwonon oa wo riring? 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. Ngage a teng oudonuw angogen bita adamonin am riring bitune me emedena kegen wo ouwonon bwe wo eo ijeng How many living children did you have at that time, if any? Egen ebwakin ngaim eat edae ean ngage ia tsimine? IF NONE, RECORD '00'. | NUMBER OF CHILDREN . . . . $\square$ |  |
| 308 | CHECK 302 (01): <br> WOMAN NOT <br> WOMAN STERILIZED STERILIZED |  | $\rightarrow 311 \mathrm{~A}$ |
| 309 | CHECK 226: <br> NOT PREGNANT <br> PREGNANT OR UNSURE |  | 322 |
| 310 | Are you currently doing something or using any method to delay or avoid getting pregnant? <br> Ngage ngauwe wo ouwonot imin bwe wo nim eo ijeng? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . . | $\rightarrow 322$ |
| 311 | Which method are you using? <br> Ekegen ngea wo ouwonon? <br> CIRCLE ALL MENTIONED. <br> IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST. <br> CIRCLE 'A' FOR FEMALE STERILIZATION. |  |  |
| 312 | RECORD IF CODE C FOR PILL IS CIRCLED IN 311. | PACKAGE SEEN <br> BRAND NAME $\qquad$ $\square$ <br> PACKAGE NOT SEEN | $\rightarrow 314$ |
| 313 | Do you know the brand name of the (pills/condoms) you are using? <br> Wo tsiet egen oangam adaparo oa rubber wo ouwonon? RECORD NAME OF BRAND. |  |  |




| 325 | CHECK 311/311A: <br> CIRCLE METHOD CODE: <br> IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST. |  | $\begin{array}{\|l}  \\ \\ \longrightarrow \\ \\ \\ \\ 329 \\ \longrightarrow 329 \\ \longrightarrow 329 \\ \longrightarrow 335 \\ \longrightarrow \end{array}$ |
| :---: | :---: | :---: | :---: |
| 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? <br> Eat edae ngaga wo ouwonoten bita medenan e panaw angogen baka $n$ bitune emedena? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . . . 2 | $\longrightarrow 328$ |
| 327 | Were you ever told by a health or family planning worker about side effects or problems you might have with the method? Inga ia amen makur iat arak/amen buok engame re nim ngaea maren aura karig ia re ereri eaw baka in mungana emedena nan gona metaw. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . } 1 \\ & \text { NO . . . . . . . . . . . . . . . } \end{aligned}$ | $\rightarrow 329$ |
| 328 | Were you told what to do if you experienced side effects or problems? <br> Inga ia epanaw imin wo nim riring ia emetaw mungana ekejeija atsin eat bita emedenan am oduok am karig? |  |  |
| 329 | CHECK 326: | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 1$ NO . . . . . . . . . . . . . . 2 | $\longrightarrow 331$ |
| 330 | Were you ever told by a health or family planning worker about other methods of family planning that you could use? Inga pana em atsin turit amen makur ei angoget praneiyen ebakin am karig eorit emedena wo gonan ouwonon? |  |  |
| 331 | CHECK 311/311A: <br> CIRCLE METHOD CODE: <br> IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST. |  | $\xrightarrow{\longrightarrow} 335$ |


| 332 | Where did you obtain CURRENT METHOD the last time? Wo otsin I bitune emedena wo tuk ean ngaga? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. |  | $\longrightarrow 335$ |
| :---: | :---: | :---: | :---: |
| 333 | Do you know of a place where you can obtain a method of family planning? <br> Wo tsiet etang ino wo nan gona medenan in pranei am karig? |  | $\longrightarrow 335$ |
| 334 | Where is that? <br> I ngune etang? <br> Any other place? <br> Inga iu etang? <br> PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). <br> IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. | PUBLIC SECTOR <br> GOVT. HOSPITAL .................. A <br> MOBILE CLINIC $\qquad$ <br> PRIMARY HEALTH CARE ........ C <br> OTHER SOURCE <br> COMMUNITIES <br> FRIEND/RELATIVE. $\qquad$ <br> OVERSEAS $\qquad$ F <br> SHOPS. $\qquad$ G <br> OTHER $\qquad$ X |  |
| 335 | In the last 12 months, were you visited by a primary health care who talked to you about family planning? <br> Ata me aro maramen nuwawen inga ia nangaw Primary Health Care engame bwe enim dorer aw angogen praneiyen am karig? |  |  |
| 336 | In the last 12 months, have you visited a health facility for care for yourself (or your children)? <br> Ian ata ma aro maramen nuwawen inga ia amen makur iat arak nangaw bwe re nim buokuw me ngaim? |  | $\longrightarrow 401$ |
| 337 | Did any staff member at the health facility speak to you about family planning methods? <br> Inga amen makur iat arak ia pan aw dogin praneiy en am karig? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO ................................ 2  |  |

SECTION 4. PREGNANCY AND POSTNATAL CARE







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 2002 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. <br> (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 502 | LINE NUMBER FROM 212 | LAST BIRTH       <br> LINE       <br> NUMBER $\ldots \ldots \ldots$.      <br>        | NEXT-TO-LAST BIRTH <br> LINE <br> NUMBER $\square$ | SECOND-FROM-LAST BIRTH LINE <br> NUMBER |
| 503 | FROM 212 <br> AND 216 |  |  |  |
| 504 | Do you have a card where (NAME'S) vaccinations are written down? Inga wam card ino eare eow ian won tabwab ngaim? <br> IF YES: <br> May I see it please? Gona aea magada? <br> (THE NURSE SHOULD COLLECT THE CARD FROM THE BABY CLINIC) |  |  |  |
| 505 | Did you ever have a vaccination card for (NAME)? Tsimine oa ekeow record in won tabab ngaim (EGEN)? |  |  |  | (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.



| NO. | QUESTIONS AND FILTERS | LAST BIRTH <br> NAME $\qquad$ | NEXT-TO-LAST BIRTH <br> NAME $\qquad$ | \|SECOND-FROM-LAST BIRTH <br> NAME $\qquad$ |
| :---: | :---: | :---: | :---: | :---: |
| 507 | Has (NAME) received any vaccinations that are not recorded on this card? <br> Inga won tobab (NAME) ngana ogiten obu me eo eare? <br> RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINES. |  | YES ................ . 1 <br> (PROBE FOR <br> VACCINATIONS AND <br> WRITE ‘66' IN THE <br> CORRESPONDING <br> DAY COLUMN IN 506) <br> (SKIP TO 510) $\square$ | YES $\qquad$ <br> (PROBE FOR <br> VACCINATIONS AND <br> WRITE '66' IN THE CORRESPONDING <br> DAY COLUMN IN 506) <br> (SKIP TO 510) $\square$ <br> NO .............. 2 <br> DON'T KNOW |
| 508 | Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases? Inga ia (NAME) obu etobab bwe enim eo bo eat earak? |  |  |  |
| 509 | Please tell me if (NAME) received any of the following vaccinations: Pana ame ko ia (NAME) ogiten obu etobab ngane ouge: <br> A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar? <br> Ngea BCG bwait TB. Ngune etobab ean beta ngea inan meta itema n? | YES . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . 2 <br> DON'T KNOW . . . . 8 | YES . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . 2 <br> DON'T KNOW . . . . 8 | YES . . . . . . . . . . . . 1 <br> NO . . . . . . . . . 2 <br> DON'T KNOW . . . 8 |
| 509B | Sabin (Polio vaccine), that is, drops in the mouth? <br> Sabin (Polio tabab) e dropeiy ian mwim. | $\begin{gathered} \text { YES } \ldots \ldots \ldots \\ \text { NO } \ldots \ldots \ldots \\ \text { (SKIP TO 509E) } \\ \text { DON'TKNOW } \end{gathered}$ |  | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ 2 <br> (SKIP TO 509E) 1 <br> DON'TKNOW  |
| 509C | Was the first sabin (polio vaccine) received in the first two weeks after birth or later? Ngea adamonit sabin etotow ian mungana aro I week iruwin an pudu eoning oa imur eken? | FIRST 2 WEEKS . . . . . 1 LATER . . . . . . . . . . 2 | $\begin{aligned} & \text { FIRST } 2 \text { WEEKS . . . . } \\ & \text { LATER . . . . . . . . . . . } \\ & 2 \end{aligned}$ | FIRST 2 WEEKS . . . 1 <br> LATER . . . . . . . . . 2 |
| 509D | How many times was the polio vaccine received? <br> Aworit egen an etotow me ogog ngune bitune polio tabab? | NUMBER OF TIMES $\square$ | NUMBER OF TIMES $\square$ | NUMBER <br> OF TIMES |
| 509E | A DPT vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops? Bita DPT tabwab ngea e tabwab ean onam oa obum, ngea eat edae etotow tsitobo dain polio drops? |  |  |  |
| 509F | How many times was a DPT vaccination received? <br> Aworit egen bitune DPT tabab wo obu? | NUMBER OF TIMES $\square$ | NUMBER OF TIMES $\square$ | NUMBER OF TIMES $\square$ |
| 509G | A HB VAX vaccination against Hepatitis B infection? Bita HB VAX tabab enim bo ea Hep B earak? |  | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ 2 <br> (SKIP TO 509I) $\underbrace{}_{1}$ <br> DON'T KNOW $\ldots \ldots$ 8 |  |
| 509H | How many time was a HB VAX vaccination received? <br> Aworit egen ngea HB VAX tabab wo obu? | NUMBER <br> OF TIMES $\square$ | NUMBER OF TIMES $\square$ | NUMBER <br> OF TIMES |
| 5091 | A measles injection or an MR injection - that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles? <br> E tabab bet measles oa MR tabab ngea egotoi ean bwaim, ia ado am maram oa engab bet -bwe e nim adug ameta/ eita ia enim gona measles? | YES $\ldots \ldots . . . . .$. 1 <br> NO . . . . . . . . . . . $2^{2}$ <br> DON'T KNOW . . . . . 8 |  |  |


| 510 | In the last seven days, did (NAME) take iron pills, or iron syrup (like this/any of these)? <br> SHOW COMMON TYPES OF PILLSISYRUPS lan mungana aeiu ibum nuwawen, (NAME) obu iron adparo, oa ren ebok reno ngana tsitobo bitune/mungane? |  | YES $\ldots \ldots \ldots \ldots$ $\ldots$ <br> NO ........................... 2 <br> DON'T KNOW ...... 8 | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO ....................... 2 <br> DON'T KNOW $\ldots .$. 8 |
| :---: | :---: | :---: | :---: | :---: |
| 511 | Has (NAME) taken any drug for intestinal worms in the last six months? <br> Inga ia (NAME) obu drug dogit emwe n yeta ian mungano ango maramen nuwawen? | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO ........................... 2 <br> DON'T KNOW ...... 8 | YES $\ldots \ldots \ldots \ldots \ldots$ 1 <br> NO ............................. 8 <br> DON'T KNOW ..... 8 | YES $\ldots \ldots \ldots \ldots \ldots$ 1 <br> NO ......................... 2 <br> DON'T KNOW $\ldots \ldots$ 8 |
| 512 | Has (NAME) had diarrhea in the last 2 weeks? <br> Inga ia (NAME) boeow ian mungane aro week nuwawen? |  |  |  |
| 513 | Was there any blood in the stools? Inga era ian bwiyan? |  | YES . . . . . . . . . . . . . 1 <br> NO .............. 2 <br> DON'T KNOW ...... 8 |  |
| 514 | Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). <br> Ngage a teng tsiet ngabet eren (NAME) eoija ngaga oreita beoeow (epoa ikimaman inen)? <br> Was he/she given less than usual to drink, about the same amount, or more than usual to drink? <br> IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less? Ngea amea/eita oning eken nimen, tsitobo oa ouwak eken ea ngago? PROBE: Ngea ameta/eita e oija nimen oning eken ea ngago oa oning okor ea ngago? | MUCH LESS $\ldots . . . .$. 1  <br> SOMEWHAT LESS .. 2 <br> ABOUT THE SAME .. 3 <br> MORE ............. 4  <br> NOTHING TO DRINK 5  <br> DON'T KNOW ....... 8  | MUCH LESS ....... 1  <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . 3 <br> MORE ............. 4  <br> NOTHING TO DRINK 5  <br> DON'T KNOW ...... 8  | MUCH LESS ...... 1 <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . 3 <br> MORE <br> NOTHING TO DRINK 5 <br> 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? <br> IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less? Ngaga beoeow, ameta/eita e oija ijeiji oning eken ea ngago, tsitobo, ouwak eken ea ngago, oa eo oija ijeiji? | MUCH LESS $\ldots . . .$. 1  <br> SOMEWHAT LESS .. 2 <br> ABOUT THE SAME .. 3 <br> MORE ............. 4  <br> STOPPED FOOD . 5 <br> NEVER GAVE FOOD  6 <br> DON'T KNOW ........ 8  | MUCH LESS ....... 1  <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . 3 <br> MORE .............. 4  <br> STOPPED FOOD . 5 <br> NEVER GAVE FOODD 6  <br> DON'T KNOW ...... 8  | MUCH LESS ...... 1  <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . . 3  <br> MORE ............ 4  <br> STOPPED FOOD . 5 <br> NEVER GAVE FOOD 6  <br> DON'T KNOW ..... 8  |
| 516 | Did you seek advice or treatment for the diarrhea from any source? <br> Wo kanaani edor in mwan oa ekagamwe dogin an beoeo ino e kona I puok? | $\begin{aligned} & \text { YES } \ldots \ldots \ldots \ldots \ldots \\ & \text { NO ................ } \\ & \begin{array}{l} 2 \\ (\text { SKIP TO } 521) \longleftarrow \end{array} \end{aligned}$ |  |  |
| 517 | Where did you seek advice or treatment? <br> I ino wo kona ipuok oa ekagame <br> Anywhere else? <br> I bet? <br> PROBE TO IDENTIFY EACH <br> TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). |  | PUBLIC SECTOR GOVT HOSPITAL MOBILE CLINICS PRIMARY HEALTH CARE <br> OTHER SOURCE TRADITIONAL PRACTITIONER FRIEND/RELATIVE OTHER $\qquad$ x (SPECIFY) | PUBLIC SECTOR GOVT HOSPITAL MOBILE CLINICS <br> PRIMARY HEALTH CARE <br> OTHER SOURCE TRADITIONAL PRACTITIONER FRIEND/RELATIVE E OTHER $\qquad$ x |


| 518 | CHECK 517: |  | TWO ORONLY <br> MORE ONE <br> CODES CODE <br> CIRCLED CIRCLED <br>  (SKIP TO 520) | TWO ORONLY <br> MORE ONE <br> CODES CODE <br> CIRCLED CIRCLED <br>   |
| :---: | :---: | :---: | :---: | :---: |
| 519 | Where did you first seek advice or treatment? <br> Edegen I ino wo adamonin kanaani puok oa kagamwe? <br> USE LETTER CODE FROM 517. | FIRST PLACE . ... $\square$ | FIRST PLACE .... $\square$ | FIRST PLACE . . $\square$ |
| 520 | How many days after the diarrhea began did you first seek advice or treatment for (NAME)? <br> Eget ibum nuwaw erowin an beoeo ngaga adamonin am kanaani puok oa kagamwe? IF THE SAME DAY, RECORD '00'. | DAYS ..... $\square$ | DAYS ..... $\square$ | DAYS |
| 521 | Does (NAME) still have diarrhea? <br> Ngea (NAME) oreita beoeow? |  |  | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ 2 <br> DON'T KNOW $\ldots \ldots$ 8 |
| 522 | Was he/she given any of the following to drink at any time since he/she started having the diarrhea: Ngune ametune/eitune e oija mungane bwe enim nim ngaga boeow? <br> a) A fluid made from a special packet called ORS PACKET? Eren e amwamwo atsin packet ngea ORS PACKET? <br> b) A pre-packaged ORS liquid? ORS eren ngea ogiten pack eiy? <br> c) A local government-recommended homemade fluid? Eren ngea recommendeiy atsin turit edogor? |  YES NO <br>  DK  <br> FLUID FROM   <br> ORS PKT . . 1 2 8 <br> ORS LQD . . 1 2 8 <br> HOMEMADE   | YES NO DK <br> FLUID FROM   <br> ORS PKT .. 1 2 8 <br> ORS LQD...1 2 8 <br> HOMEMADE <br> FLUID ... 1 2 8 |  YES NO DK <br> FLUID FROM    <br>     <br> ORS PKT . . 1 2 8 <br> ORS LQD . . 1 2 8 <br> HOMEMADE    <br> FLUID ... 1 2 8 |
| 523 | Was anything (else) given to treat the diarrhea? <br> Inga iu imin e oija bwe enim otsimor atsin eat eboeow? |  | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ $\ldots \ldots \ldots$ <br> (SKIP TO $525 \star$  <br> DON'T KNOW $\ldots \ldots$ 8 | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ 2 <br> (SKIP TO 525) $1_{1}$ <br> DON'T KNOW $\ldots \ldots$ 8 |
| 524 | What (else) was given to treat the diarrhea? Inga iu imin ngana e oija bwe enim otsimor atsin ean an beoeow? <br> Anything else? <br> Inga iu imin? <br> RECORD ALL TREATMENTS GIVEN. |  |  |  |
| 525 | Has (NAME) been ill with a fever at any time in the last 2 weeks? <br> Ngune (NAME) fever oa ekeow tamo edae ian mungana aro I week nuwawen? | YES $\ldots \ldots \ldots \ldots$ $\ldots$ 1 <br> NO .......................... 2  <br> DON'T KNOW ...... 8  |  YES $\ldots \ldots \ldots \ldots \ldots$ $\ldots$ <br> NO $\ldots \ldots \ldots \ldots$ $\ldots$  <br> DON'T KNOW . . . . . 8  |  YES $\ldots \ldots \ldots \ldots$ $\ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ 2   <br> DON'T KNOW $\ldots$. 8  |


| 526 | Has (NAME) had an illness with a cough at any time in the last 2 weeks? <br> Ngune (NAME) arakei ebobo tamo edae ian mungana aro week nuwawen? |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 527 | When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing? Ngago (NAME) arakei ebobo, ameta/eita wipo an kanano ea ngago,ebo me wipo oa eo gona kanano? |  |  | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots \ldots$ 2 <br> $(S K I P ~ T O ~ 530)$ 4  <br> DON'T KNOW $\ldots \ldots$ 8 |
| 528 | Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose? <br> Bita an wipo me eiya an kanano dogin egaturae ian baran oa tsima ian bodin oa ke bererin bodin? |  |  |  |
| 529 | CHECK 525: <br> HAD FEVER? |  |  |  |
| 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? <br> IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less? <br> A teng en tsiet ngaben nimwen NAME epo kimaman inen) ngaga oreita arak eiy fever/ebeobeo). Oija ameta/eita eren oning a beonin, tsitobo ngaben oa ouwak eken ea bita beonin? PROBE: E oija ameta/eita oning eken ea beonin oa oning kor? | MUCH LESS $\ldots . .$. 1  <br> SOMEWHAT LESS .. 2 <br> ABOUT THE SAME . 3 <br> MORE ............ 4  <br> NOTHING TO DRINK 5  <br> DON'T KNOW ....... 8  | MUCH LESS $\ldots . .$. 1  <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . 3 <br> MORE ............ 4  <br> NOTHING TO DRINK 5  <br> DON'T KNOW ...... 8  | MUCH LESS $\ldots .$. 1  <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . . 3  <br> MORE ............ 4  <br> NOTHING TO DRINK 5  <br> DON'T KNOW ..... 8  |
| 531 | When (NAME) had a <br> (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? <br> Ngaga (NAME) fever/beobeo,e oija angan oning ken ea beonin, tsitobo ngaben, ouwak ea ngago oa eko ijeiji oija? <br> IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less? <br> E oija ijeiji oning eken ea beonin oa oning okor? | MUCH LESS $\ldots . . .$. 1  <br> SOMEWHAT LESS .. 2 <br> ABOUT THE SAME .. 3 <br> MORE ............. 4  <br> STOPPED FOOD .. 5 <br> NEVER GAVE FOOD 6  <br> DON'T KNOW ....... 8  | MUCH LESS $\ldots . .$. 1  <br> SOMEWHAT LESS . 2 <br> ABOUT THE SAME . 3 <br> MORE ............. 4  <br> STOPPED FOOD . 5 <br> NEVER GAVE FOOD 6  <br> DON'T KNOW ...... 8  | MUCH LESS $\ldots . .$. 1  <br> SOMEWHAT LESS . . 2  <br> ABOUT THE SAME . . 3  <br> MORE ............ 4  <br> STOPPED FOOD . 5 <br> NEVER GAVE FOOD 6  <br> DON'T KNOW ..... 8  |
| 532 | Did you seek advice or treatment for the illness from any source? Wo kanaani ipuok me ekagamwe tamo ino wo gona? | YES $\ldots \ldots \ldots \ldots \ldots$NO $\ldots \ldots \ldots \ldots$1 <br> $($ SKIP TO 537$)$ | YES $\ldots \ldots \ldots \ldots \ldots{ }^{2} \ldots \ldots \ldots \ldots$ NO $\ldots \ldots \ldots \ldots$ (SKIP TO 537$)_{k}$ |  |


| 533 | Where did you seek advice or treatment? <br> Edegen I ino wo kanaani puok oa ekagamwe? <br> Anywhere else? <br> Tsimine bet iu etang? <br> PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). | PUBLIC SECTOR  <br> GOVT HOSPITAL A <br> MOBILE CLINICS B <br> PRIMARY HEALTH  <br> CARE C <br> OTHER SOURCE  <br> FRIENDS/RELATIVE D <br> TRADITIONAL  <br> PRACTITIONER E <br> OVERSEAS.......... F <br> OTHER  <br> (SPECIFY)  | PUBLIC SECTOR <br> GOVT HOSPITAL . A <br> MOBILE CLINICS B <br> PRIMARY HEALTH CARE <br> OTHER SOURCE <br> FRIENDS/RELATIVE TRADITIONAL <br> PRACTITIONER <br> OVERSEAS. $\qquad$ F <br> OTHER $\qquad$ X | ```PUBLIC SECTOR GOVT HOSPITAL . A MOBILE CLINICS B PRIMARY HEALTH CARE \\ OTHER SOURCE \\ FRIENDS/RELATIVE D TRADITIONAL PRACTITIONER OVERSEAS.......... F \\ OTHER``` $\qquad$ <br> ```XNone``` |
| :---: | :---: | :---: | :---: | :---: |
| 534 | CHECK 533: |  |  |  |
| 535 | Where did you first seek advice or treatment? <br> I ino wo geduwa amo bwe wo nim kanaani ipuok me kagamwe? <br> USE LETTER CODE FROM 533. | FIRST PLACE . . . $\square$ | FIRST PLACE .... | FIRST PLACE . . $\square$ |
| 536 | How many days after the illness began did you first seek advice or treatment for (NAME)? <br> Eget ibum iruwin an auweiyeda arakin (NAME) ngaga wo kanani edor in puok me kagamwe? <br> IF THE SAME DAY, RECORD 'OO'. | DAYS .... $\square$ | DAYS .... $\square$ | DAYS |
| 537 | Is (NAME) still sick with a (fever/ cough)? <br> Ngea (NAME) oreita arak eiy fever oa ebobeo? | FEVER ONLY $\ldots . .$. 1  <br> COUGH ONLY $\ldots .$. 2  <br> BOTH FEVER AND   <br> COUGH $\ldots . .$. 3 <br> NO, NEITHER $\ldots .$. 4 <br> DON'T KNOW $\ldots .$. 8 | FEVER ONLY $\ldots .$. 1 <br> COUGH ONLY $\ldots$. 2 <br> BOTH FEVER AND   <br> COUGH . . . . . . 3  <br> NO, NEITHER .... 4 <br> DON'T KNOW $\ldots$. 8 | FEVER ONLY $\ldots .$. 1 <br> COUGH ONLY $\ldots$ 2 <br> BOTH FEVER AND   <br> COUGH $\ldots . .$. 3 <br> NO, NEITHER $\ldots$. 4 <br> DON'T KNOW $\ldots$. 8 |
| 538 | At any time during the illness, did (NAME) take any drugs for the illness? <br> Ngaga oreita arak, inga ia NAME ko kagamwe dogin bitune arakin? | YES . . . . . . . . . . . . 1 <br> NO . . . . . . . 2 <br> (GO BACK TO 503  <br> IN NEXT COLUMN;  <br> OR, IF NO MORE  <br> BIRTHS, GO TO 543)  <br> DON'T KNOW . . . . . 8 | YES . . . . . . . . . . . . 1 <br> NO . . . . . . . . 2 <br> (GO BACK TO 503  <br> IN NEXT COLUMN;  <br> OR, IF NO MORE  <br> BIRTHS, GO TO 543)  <br> DON'T KNOW . . . . 8 | YES . . . . . . . . . . . . 1 <br> NO . . . . . . . 2 <br> (GO TO 503 IN  <br> NEXT-TO-LAST  <br> COLUMN OF NEW  <br> QUESTIONNAIRE;  <br> OR, IF NO MORE  <br> BIRTHS, GO TO 543)  <br> DON'T KNOW . . . . 8 |
| 539 | What drugs did (NAME) take? Eken angan kagamwe an? <br> Any other drugs? <br> Inga iu angan kagamwe? <br> RECORD ALL MENTIONED. |  |  |  |
| 540 | CHECK 539: CODE A CIRCLED? |  |  |  |
| 541 | Did you already have the antibiotic pill/syrup at home when the child became ill? Ogiten tsimine wam antibiotic adparo/bokot ekagamwe ino bwiem ngaga arak bita ngaim? |  |  | YES $\ldots \ldots \ldots \ldots$ 1 <br> NO $\ldots \ldots \ldots .$. 2 <br> DON'T KNOW $\ldots \ldots$ 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: <br> NUMBER OF CHILDREN BORN IN 2002 OR LATER LIVING WITH THE RESPONDENT <br> ONE OR MORE |  |  |
| 544 | The last time (NAME OF YOUNGEST CHILD) passed stools, what was done to dispose of the stools? Ngaga dogin an bita (DOGIN NGAIM) magayen, eket iriringa a buriowet ibwiya? | CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED <br> INTO TOILET OR LATRINE . . . . . . . 02 PUT/RINSED <br> INTO DRAIN OR DITCH . ....... . 03 <br> THROWN INTO GARBAGE ........... 04 <br> BURIED .............................. 05 <br> LEFT IN THE OPEN . . . . . . . . . . . . . . . . . 06 <br> OTHER $\qquad$ 96 <br> (SPECIFY) |  |
| 545 | CHECK 522(a) AND 522(b), ALL COLUMNS: |  | 547 |
| 546 | Have you ever heard of a special product called [LOCAL NAME FOR ORS PACKET] or a pre-packaged ORS liquid you can get for the treatment of diarrhea? Inga ia wo kaiot angoget ekagamwe ion (LOCAL NAME oa bokot ORS ngea ogiten packeiy ngea wo gona kani bwe dogin okirowanet ebeoeow? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . . . . |  |
| 547 | CHECK 215 AND 218, ALL ROWS: <br> HAS AT LEAST ONE CHILD <br> DOES NOT HAVE ANY CHI BORN IN 2004 OR LATER BORN IN 2004 OR <br> AND LIVING WITH HER |  | 601 |
|  |  |  |  |
| 548 | Now I would like to ask you about liquids or foods <br> (NAME FROM 547) had yesterday during the day or at night. <br> A nim odonuw angagot ijeiji me eren ngan (547)on <br> nene ngaga eao oa ngago bumen. <br> Did (NAME FROM 547) (drink/eat): <br> *547) nim oa on? <br> Plain water? Ebok <br> Commercially produced infant formula? <br> Nimet eoning iat diribod? <br> Any baby food E.G., Cereal? <br> Angat eoning cereal mimwin? <br> Any (other) porridge or gruel? <br> Ibun tekei oatmeal oa gruel? |  YES NO DK <br>     <br> PLAIN WATER $\ldots \ldots \ldots \ldots$ 1 2 8 <br> FORMULA $\ldots \ldots \ldots \ldots$ 1 2 8 <br> BABY CEREAL $\ldots \ldots \ldots$. 1 2 8 <br> OTHER PORRIDGE/GRUEL. . 1 2 8 |  |

Now I would like to ask you about (other) liquids or foods that (NAME FROM 547)/you may have had yesterday during the day or at night. I am interested in whether your child/you had the item even if it was combined with other foods.
Ngage a teng odonuw angoget ijeiji oa eren ibun ngana (547) gokae ngago nene n ijeao oa ngaga bum. Nga teng tsiet ia ngaim/auwe on oa nim mungane ijong epoa ijeiji ibun?

Did (NAME FROM 547)/you drink (eat):
a) Milk such as tinned, powdered, or fresh animal milk?

Ikimama, diribod, poweder, fresh kimama n imin gokoro?
b) Tea or coffee?

I tea oa ecabe?
c) Any other liquids?

Eren ibun?
d) Bread, rice, noodles, or other foods made from grains?
Brot, rade, noodles, oa ijeiji ibun atsin ean baban?
e) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?
Demamikin, carrot, kumara ngana yellow oa orange ian?
f) White potatoes, white yams, manioc, cassava, or any other foods made from roots?
Pateta burubur, yam burubur, cassava oa ijeiji ngana ngon ean aworot imin ero?
g) Any dark green, leafy vegetables?

Tamo vedetable ngana green me ouwak ren?
h) Ripe and green mangoes, papayas

Mangoes ngana green me mer, da babaiya?
i) Any other fruits or vegetables?

Fruit me vedetable inon
j) Liver, kidney, heart or other organ meats?

Aein,kidney, dirikon or ibun duwon ngana organs?
k) Any meat, such as beef, pork, lamb, goat, chicken, or duck?
Duwon, ikumo, schafe, goat, domo, oa deruk?
I) Eggs?

Epet domo?
m) Fresh or dried fish or shellfish?

Fresh oa iu kamedeto, shellfish?
n) Any foods made from beans, peas, lentils, or nuts? ljeiji ngon ean bean, peas lentils, ebwabwa?
o) Cheese, yogurt or other milk products? Cheese, yogurt oa imin ngon eat ikimama?
p) Any oil, fats, or butter, or foods made with any of these? Oil, epat, bada oa ijeiji ngon ean mungane?
q) Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits? ljeiji kouga me duga, chocolate, canty.
r) Any other solid or semi-solid food? ljeiji ngana oaio oa ken oaio duwora?

| 550 | CHECK 548 (LAST 2 CATEGORIES: BABY CEREAL OR OTHE 549 (CATEGORIES d THROUGH r FOR CHILD): <br> AT LEAST ONE "YES' | IDGE/GRUEL) <br> T A SINGLE "YE | $\rightarrow 601$ |
| :---: | :---: | :---: | :---: |
| 551 | How many times did (NAME FROM 547) eat solid, semisolid, or soft foods yesterday during the day or at night? <br> Egen ebwakin an (547)on ijeiji enawewe, gain enawewe, oa meroro ngago nene $n$ ieao oa ngaga bum? <br> IF 7 OR MORE TIMES, RECORD ‘ 7 '. | NUMBER OF TIMES <br> DON'T KNOW |  |

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
| :---: | :---: | :---: | :---: |
| 601 | Are you currently married or living together with a man as if married? <br> Ngage wo mere oa mek epo a emwan ion tsitobo ngaga wo mere? |  | $\longrightarrow 604$ |
| 602 | Have you ever been married or lived together with a man as if married? <br> Inga ia wo ogiten mere oa wo mek epo a engame ion tsitobo ia wo mere? | YES, FORMERLY MARRIED $\ldots$ ... <br> YES, LIVED WITH A MAN 1  <br> NO . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2  | $\rightarrow 609$ |
| 603 | What is your marital status now: are you widowed, divorced, or separated? <br> Ekegen ejom iat mere, iman agem, divorce oa wo bao? | WIDOWED . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 DIVORCED . . . . . . . . . . . . . . . . . . . . . . 3 | $606$ |
| 604 | Is your husband/partner living with you now or is he staying elsewhere? <br> Ngea agem/dangam mek turim ngage oa mek eat etang ion? | LIVING WITH HER ..................... . 1 STAYING ELSEWHERE . . . . . . . . . . 2 |  |
| 605 | RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. <br> IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'. | NAME <br> LINE NO. |  |
| 606 | Have you been married or lived with a man only once or more than once? <br> Inga ia wo mere oa wo mek epo a emwan ion eworin oa ebwaka eworin? |  |  |
| 607 | CHECK 606: |  | $\longrightarrow 609$ |
| 608 | How old were you when you first started living with him? Egen am obweni ngaga wo auweidaten mek epoa ameta? | AGE ....................... |  |
| 609 | CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING | KE EVERY EFFORT TO ENSURE PRIVACY. |  |
| 610 | Now I need to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. Ngage a teng oudonuw ikudo ibun angoget an moromori ejad bwe a nim gona tsiet eken angogen imin iat itsimor ngune. How old were you when you had sexual intercourse for the very first time? <br> Egen am obweni ngaga wo adamonin am ejad? | NEVER HAD SEXUAL <br> INTERCOURSE <br> AGE IN YEARS $\qquad$ $\square$ <br> FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER ............... 95 |  |




| 626 | Is this person older than you, younger than you, or about the same age? <br> Engab aw, eoning aw oa tsitobo amur obweni ngune bitune engame? |  | OLDER $\ldots . . .$. 1 <br> YOUNGER $\ldots \ldots$ 2 <br> SAME AGE $\ldots$. 3 <br> DON'T KNOW ... 8 <br> (SKIP TO 628$)$  |  |
| :---: | :---: | :---: | :---: | :---: |
| 627 | Would you say this person is ten or more years older than you or less than ten years older than you? Wo nan ouge ngune engame gona atae eobweni engab aw oa wad a atae eobweni engab aw? | $\begin{array}{lll} \text { TEN OR MORE } \\ \text { YEARS OLDER } & \cdot & 1 \\ \text { LESS THAN TEN } & & \\ \text { YEARS OLDER } & \cdot & 2 \\ \text { OLDER, UNSURE } & \\ \text { HOW MUCH } & \ldots & 3 \end{array}$ | TEN OR MORE <br> YEARS OLDER . 1 LESS THAN TEN <br> YEARS OLDER . 2 OLDER, UNSURE <br> HOW MUCH ... 3 | TEN OR MORE   <br> YEARS OLDER $\ldots$ 1 <br> LESS THAN TEN   <br> YEARS OLDER $\ldots$ 2 <br> OLDER, UNSURE   <br> HOW MUCH $\ldots$. 3   |
| 628 | The last time you had sexual intercourse with this person, did you or this person drink alcohol? <br> Ngago dogin am ejadi bitune engame mwar mungi oa ijok? | YES $\ldots \ldots \ldots \ldots \ldots$NO $\ldots \ldots \ldots \ldots$1 <br> $($ SKIP TO 630$)$ | YES $\ldots \ldots \ldots \ldots \ldots$ NO $\ldots \ldots \ldots \ldots 2$ $($ SKIP TO 630$) \longleftarrow$ | YES $\ldots \ldots \ldots \ldots \ldots \ldots$NO $\ldots \ldots \ldots \ldots$SKIP TO 631$)$ |
| 629 | Were you or your partner drunk at that time? <br> Auwe me ameta dangam mwar pwe memur ean bita edae? ljegen ngea pwe men? IF YES: Who was drunk? | RESPONDENT ONLY 1 <br> PARTNER ONLY ... 2 <br> RESPONDENT AND <br> PARTNER BOTH . 3 <br> NEITHER ......... 4 | RESPONDENT ONLY 1 PARTNER ONLY... 2 RESPONDENT AND <br> PARTNER BOTF. 3 <br> NEITHER.......... . 4 | $\begin{array}{ll}\text { RESPONDENT ONLY } & 1 \\ \text { PARTNER ONLY .... } & 2 \\ \text { RESPONDENT AND } \\ \text { PARTNER BOTH .. } & 3 \\ \text { NEITHER ......... } & 4\end{array}$ |
| 630 | Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months? Irurun bitune engame amero mina engame, inga bet ia wo ejadi engame ion ian mungano ata me aro maramen nuwawen? |  | YES $\ldots \ldots \ldots \ldots . . \ldots$ (GO BACK TO $619 \_\downarrow$ IN NEXT COLUMN) NO .............2 (SKIP TO 632) |  |
| 631 | In total, with how many different people have you had sexual intercourse in the last 12 months? Memak, egen ebwakit engame ekekae wo ejadi ian mungano ata me aro maramen nuwawen? <br> IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.' |  |  | NUMBER OF PARTNERS LAST 12 MONTHS $\square$ DON'T KNOW ... 98 |


| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
| :---: | :---: | :---: | :---: |
| 632 | In total, with how many different people have you had sexual intercourse in your lifetime? <br> Egen ebwakin memak engame ekekae wo ogiten ejadi ian tsimorim? <br> IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.' | NUMBER OF PARTNERS IN LIFETIME $\square$ <br> DON'T KNOW |  |
| 633 | Do you know of a place where a person can get condoms? Wo tsiet etang ino engame gona kani condom oa rubber? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . . . . . . . 2 | $\rightarrow 701$ |
| 634 | Where is that? <br> Edegen I ngana? <br> Any other place? <br> Inga iu etang? <br> PROBE TO IDENTIFY EACH TYPE OF SOURCE AND <br> CIRCLE THE APPROPRIATE CODE(S). | PUBLIC SECTOR <br> GOVERNMENT HOSPITAL ........ A <br> MOBILE CLINIC ........ B <br> PRIMARY HEALTH CARE ........ C <br> OTHER SOURCE <br> COMMUNITIES........................... D <br> FRIEND/RELATIVE. $\qquad$ <br> OVERSEAS. $\qquad$ <br> SHOPS. $\qquad$ G <br> OTHER $\qquad$ X |  |
| 635 | If you wanted to, could you yourself get a condom? la ouga bwe am teng, wo gona oa ekeow ta auwe kani wam condom? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . 8 |  |

SECTION 7. FERTILITY PREFERENCES

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
| :---: | :---: | :---: | :---: |
| 701 | CHECK 311/311A:  <br> NEITHER  <br> STERILIZED $\square \quad$HE OR SHE <br> STERILIZED$\square$ |  | 713 |
| 702 | CHECK 226: <br> NOT PREGNANT OR UNSURE <br> Now I have some questions about the future. <br> Would you like to have (a/another) child, or would you prefer not to have any (more) children? <br> Ngage etsimine aeo ikudo ibun dogin itsimor ijamwan. Wo teng ia enim tsimine ngaim (ionftuk ion) oa wo teng eken ia wo eo tuk tsimine (bet) ngaim? <br> PREGNANT <br> Now I have some questions about the future. <br> After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children? <br> Ngage etsimine aeo ikudo ibun dogin itsimor ijamwan. Erowin bitune ngaim ngune wo obereiy bwe enim pudu, inan wo teng ia tuk tsimine ngaim ion, oa wo teng eken ia tuk eken an an tsimine ngaim? |  |  |
| 703 | CHECK 226: <br> NOT PREGNANT OR UNSURE <br> How long would you like to wait from now before the birth of (a/another) child? <br> Egen raquon am teng ober atsin ngage ea an tuk pudu ngaim (ion)? <br> PREGNANT <br> After the birth of the child you are expecting now, how long would you like to wait before the birth of another child? <br> la pudu ngaim ngune, inan egen raquon am inan ober ia an tuk pudu ngaim ion? | MONTHS $\qquad$ 1 YEARS $\square$ <br> SOON/NOW <br> SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE ................ 995 <br> OTHER $\qquad$ 996 (SPECIFY) DON'T KNOW $\qquad$ 998 |  |
| 704 | CHECK 226: <br> NOT PREGNANT <br> PREGNANT OR UNSURE |  | 709 |
| 705 | CHECK 310: USING A CONTRACEPTIVE METHOD? <br> CURRE | LY <br> NG | 713 |
| 706 | CHECK 703: <br> 24 OR MORE MONTHS OR 02 OR MORE YEARS | 23 MONTHS 00-01 YEAR | 709 |


| 707 | CHECK 702: <br> WANTS TO HAVE A/ANOTHER CHILD <br> You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. <br> Wo ogiten pan ngaga wo wo eo teng (ia/t enim tuk )tsimine ngaim eat edae eo raquo, me ta dogin wo eo ouwonon imin bwe wo enim eo ijeng? <br> Can you tell me why you are not using a method? <br> Wo gona paname dogin ngaga wo eo ouwonon emedena/imin bwait eo ijeng? <br> Any other reason? Inga iju dogin? <br> WANTS NO MORE/ NONE <br> You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. <br> Wo ogiten pan naga wo eo teng (iu) eoning, me ta dogin wo eo ouwonon emedena/imin bwe wo nim eo ijeng? <br> Can you tell me why you are not using a method? Wo gona paname dogin ngaga wo ouwonon emedena/imin bwait eo ijeng? <br> Any other reason? Inga iu dogin? <br> RECORD ALL REASONS MENTIONED. |  |  |
| :---: | :---: | :---: | :---: |
| 708 | CHECK 310: USING A CONTRACEPTIVE METHOD? <br> NOT CURRENTLY USING | YES, <br> TLY USING $\square$ | 713 |
| 709 | Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future? <br> la wo tsiet, wo inan ouwonon imin ngana inan oaku oa gorotsinin <br> ijeng, ean tamo edae ngana rewo ian obwom? |  | 711 713 |
| 710 | Which contraceptive method would you prefer to use? Ekegen emedena oa imin bwait oadug ijeng ngea wo inan epo tubum ia wo nim ouwonon? |  |  |
| 711 | What is the main reason that you think you will not use a contraceptive method at any time in the future? <br> Ekeken dogin am inan eo ouwonon imin bwait eo ijeng iat edae ngana rewo ian obwom? |  |  |


| 712 | Would you ever use a contraceptive method if you were married? la wo mere, wo inan ouwonon oa ijok imin ngana gona oadug ijeng? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . . . . . . . . . . 2 <br> DON'T KNOW . . . . . . . . . . .  |  |
| :---: | :---: | :---: | :---: |
| 713 | CHECK 216: <br> HAS LIVING CHILDREN <br> NO LIVING CHILDREN <br> If you could go back to the time <br> If you could choose exactly the you did not have any children number of children to have in and could choose exactly the your whole life, how many number of children to have in would that be? your whole life, how many would that be? <br> la wo gona redo a edae <br> la wo gona ijij ebakin ngaim wo ngago eko ngaim, me wo enim gona ian tsimorim, inan gona ijij ebakin ngaim ian egen ebakin ngabuna? tsimorim, inan egen ebakin ngabuna ngaim? <br> PROBE FOR A NUMERIC RESPONSE. |  | $\begin{array}{r} \longrightarrow 715 \\ \\ \\ \\ \longrightarrow 715 \end{array}$ |
| 714 | 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? <br> Ean amebune eoning, inan egen emwan, egen ien, me inan egen ngabune eko woun ia ien oa emwan? |  |  |
| 715 | In the last few months have you heard about family planning: lan mungana maramen nuwawen, inga ia wo kaiot angoget onanianen epon amenbwini? <br> On the radio? Atsin iat eradio? <br> On the television? Atsin iat tv? <br> In a newspaper or magazine? <br> Atsin iat dabuok in imwinen oa magazine? |  |  |
| 716 |  | ㄱ | 801 |
| 717 |  |  | 719 721 |
| 718 | Does your husband/partner know that you are using a method of family planning? <br> Ameta agem/dangom tsiet oa ekeo ngaga wo ouwonon medenan onanianen epon amen bwiem? |  |  |
| 719 | Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together? <br> la wo pan ngea ouwononen bwait eo ijeng mek ia، ian ben agem/dangom oa mwar buokin kamarareiy bitune? | MAINLY RESPONDENT ........... <br> MAINLY HUSBAND/PARTNER ...... 2 <br> JOINT DECISION .................... 3 <br> OTHER $\qquad$ <br> (SPECIFY) |  |
| 720 | CHECK 311/311A:  <br> NEITHER  <br> STERILIZED $\square \square$ HE OR SHE $\quad \square \quad$ STERILIZED $\quad \square$ |  | 801 |
| 721 | Does your husband/partner want the same number of children that you want, or does he want more or fewer than you want? Ngea amea agem/dangom, epo an kamarar ebakin ngaimur,oa ebak eken an teng ngei, oa oad eken eaw? | SAME NUMBER $\ldots \ldots \ldots \ldots$ $\ldots$ 1 <br> MORE CHILDREN $\ldots \ldots \ldots$ $\ldots$ $\ldots$ <br> FEWER CHILDREN $\ldots \ldots \ldots$ $\ldots$  <br> DON'T KNOW . . . . . . . . . . . . . . . . . 8  |  |

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK


| \|812 | CHECK 811: <br> WORKS IN <br> DOES NOT WORK <br> AGRICULTURE IN AGRICULTURE |  | 814 |
| :---: | :---: | :---: | :---: |
| 813 | 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? Oouwaken am makur ean eben bwiem oa eben bwien amen bwiem, oa wo makur ean bwiet engame ion? <br> Do you do this work for a member of your family, for someone else, or are you self-employed? <br> Wo riring ngune emakur dogin amen bwiem, dogit engame ion, oa ta auwe makur aw? |  |  |
| 815 | Do you usually work at home or away from home? Wo makur atsin bwiem oa wo goeow ea bwiem? |  |  |
| 816 | Do you usually work throughout the year, or do you work seasonally, or only once in a while? <br> Wo makur ea an magada eobweni, oa wo makur ean kiwiwit tekekeow, oa eworin iat edae eken? | THROUGHOUT THE YEAR . . . . . . . . 1  <br> SEASONALLYIPART OF THE YEAR . 2 <br> ONCE IN A WHILE $\ldots . . . . . . . . . . . . . . . ~$ 3 |  |
| 817 | Are you paid in cash or kind for this work or are you not paid at all? I pumweanuw emak oa eo pumwew kor? |  |  |
| 818 | ```CHECK 601: CURRENTLY MARRIED/LIVING NOT IN UNION WITH A MAN``` |  | 827 |
| 819 | CHECK 817: <br> CODE 1 OR 2 <br> CIRCLED <br> OTHER |  | 822 |
| 820 | Who usually decides how the money that you earn will be used: you, your husband/partner, or you and your husband/partner jointly? ljegen mwit angogen owononen bita moromum, auwe, ameta agem/ dangam oa amurur arumen ajuk? |  |  |
| 821 | 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? <br> la wo pan, ngea moromum ouwak eken ea moromun agem, kadudu eken ea moromum, oa ar tsitobo dad? |  | 823 |






| 936 | Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV? Wo inan tuwab vegetables atsin turin amen karowiow ion ngea wo tsiet bwe gona HIV? |  |  |
| :---: | :---: | :---: | :---: |
| 937 | Would you share a meal with a person if you knew that this person had HIV? Wo gona ijeiji epo a engame ngea wo tsiet bwe gona HIV? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . . .  |  |
| 938 | If a member of your family got infected with HIV, would you want it to remain a secret or not? la engame ian am ewak gona HIV, wo nan teng ia engame eo tsiet oa ekeow? | YES, REMAIN A SECRET $\ldots . .$. ... 1 <br> NO . . . . . . . . . . . . . . . . . . . . 2   <br> DK/NOT SURE/DEPENDS . . . . . . . 8   |  |
| 939 | If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household? la engame ran am ewak arak bwe dogin AIDS, wo nan epo tubwum bwe wo nim ranga ameta oa eita ian am ewak? |  |  |
| 940 | In your opinion, if a female teacher has HIV but is not sick, should she be allowed to continue teaching in the school? lan am aea, ia enimen kereri gona HIV me eo arak, eimwi bwe enim oija bwe enim ta agoro an kereri ian bita ekereri oa ijok? | SHOULD BE ALLOWED . . . . . . . . . . . 1 <br> SHOULD NOT BE ALLOWED . . . . . 2 <br> DK/NOT SURE/DEPENDS . . . . . . 8 |  |
| 941 | Should the names of all persons with HIV be displayed in a public place for everyone to see? Et ia mungana egon engame memak ngabuna HIV e nim omeata ian met engame bwe engame enim aia? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 |  |
| 942 | Should all persons with HIV live apart from the general community? Engame ngabuna HIV enim mek goeowa epon ngame memak? | YES $\ldots \ldots \ldots$ NO . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 DON' KNOW . . . . . . . . |  |
| 943 | Should it be a criminal offence to knowingly pass HIV onto someone else? Eimwi bwe enim eiy idura ia engame ababareow HIV ea engame ion? |  |  |
| 944 | Should all newcomers to Nauru be required to take a test for HIV? Eimwi bwe engame tsimedu orre Naeoro enim test dogin HIV? | YES $\ldots \ldots \ldots \ldots$  <br> NO . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> DON'T KNOW . . . . . . . . .  |  |
| 945 | 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? Inga engame wo tsiet ngea eo oija ibuok atsin iat earak ian mungana ata me aro maramen nuwawen bwe dogin e jouwa ameta oa eita ngaga HIV? |  | $\rightarrow 950$ |
| 946 | 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? Wo tsiet o ijok engame ngea e eo omeatu iat an epwepwo tekawa, etondak, oa an maramari tekawa ian mungano ata me aro maramen nuwawen bwe dogin e jouwa ameta oa eita ngaga gona HIV? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . . . |  |
| 947 | 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? Wo tsiet oa ijok engame ngea ogiten amamodo ian mungana ata me aro maramen nuwawen bwe e jouwa (ameta oa eita) ngaga HIV? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 NO . . . . . . . . . . . . . . . |  |
| 948 | CHECK 945, 946, AND 947: <br> NOT A SINGLE | ${ }_{\text {EST }}$ | 950 |
| 949 | Do you personally know someone who has or is suspected to have HIV or AIDS? Wo tsiet oa ijuk engame ngea gona oa ejouwa bwe gona HIV oa AIDS? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 NO . . . . . . . . . . . . . . |  |


| 950 | Do you agree or disagree with the following statement: People with HIV or AIDS should be ashamed of themselves. Wo epo oa eo epo tubwum ean bitune edorer: Engame ngabuna gona HIV oa AIDS nim guduqurongeiy ura. | AGREE . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> DISAGREE . . . . . . 8 <br> DON'T KNOW/NO OPINION  |  |
| :---: | :---: | :---: | :---: |
| 951 | Do you agree or disagree with the following statement: <br> People with HIV or AIDS should be blamed for bringing the disease into the community. <br> Epo oa eo epo tubwum ea bitune edorer: Engame ngabuna HIV oa AIDS enim obu ikudura bwe dogin aeora oreat earak iat tekawa. |  |  |
| 952 | CHECK 901: | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 |  |
| 953 | CHECK 610: <br> HAS HAD SEXUAL <br> HAS NOT HAD SEXUAL INTERCOURSE INTERCOURSE |  | $\rightarrow 961$ |
| 954 | CHECK 952: HEARD ABOUT OTHER SEXUALLY TRANSMITTED | ECTIONS? <br> NO $\square$ | $\rightarrow 956$ |
| 955 | Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact? <br> Ngage a teng en kudo ijuw angogen tsimorim ian mungana ata me aro maramen nuwawen. lan mungana ata me aro maramen nuwawen, inga ia wo kaiot angoget earak ngana egona atsin ean an ejad engame? |  |  |
| 956 | Sometimes women experience a bad smelling abnormal genital discharge. <br> During the last 12 months, have you had a bad smelling abnormal genital discharge? <br> Tsimine edae ngea en inan arowonga bot duwora ngea mamutsi atsin ean bokon duwora. lan mungana ata me aro maramen maramen nuwawen inga ia wo arowonga bitune bokot duwom ngea mamutsi bon? |  | - |
| 957 | Sometimes women have a genital sore or ulcer. <br> During the last 12 months, have you had a genital sore or ulcer? Tsimine edae ngea en etsimine eone or ekamwu ean wangora mwin. lan mungana ata me aro maramen nuwawen inga ia wo kamu oa one ina eam? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |
| 958 |  |  | $\rightarrow 961$ |
| 959 | The last time you had (PROBLEM FROM 955/956/957) did you seek any kind of advice or treatment? Ngago dogin an metaw bitune earak epatow ituga, wo kanaani edorer in mwan oa ekagamwe oa ekeow? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 1$ NO................................. 2 | $\rightarrow 961$ |


| 960 | Where did you go? <br> Wo nuwaw edegen i? <br> Any other place? <br> I bet? <br> PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). |  |
| :---: | :---: | :---: |
| 961 | 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? <br> Ngabuna ageni eo epwo tubwura eat imin memak. la eita agen tsiet ngaga ngea ameta agen tsimine araken ngea ei eita inan gona eow ean aeor ejad, eimwi eita oa ijok ia eo teng ia enim ejadi amea? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . . . . . . . . . . . 8 |
| 962 | Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood? <br> la ijurung oa ogi eita agen eimwi oa ijok eita ia eo teng ejadi ameta agen? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . . . . . . . . 8 |
| 963 | Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women? Eimwi ia eita en eo teng ejadi agen bwe dogin tsiet ngaga ameta agen oreit ejadi en bet ibun? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . . . . . . . . . . . . 8 |
| 964 | Do you believe that young men should wait until they are married to have sexual intercourse? <br> Wo eijo ean ngaga ngabuna eoning in mwan enim ober bwe ar enim mere ian obwen aeora ejad? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . 8 <br> DK/NOT SURE/DEPENDS  |
| 965 | Do you think that most young men you know wait until they are married to have sexual intercourse? Wo tsiet oa ijok ngaga ebakin eoning in mwan ngabuna wo tsiet ober ea aeora mere bwe ar nim ejad? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . . . . . 8 |
| 966 | Do you believe that men who are not married and are having sex should only have sex with one partner? Wo tuebon ngaga emwan ngabuna eo mere me oreita ejad enim ejad dangora ta aiquen? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . .  <br> DK/NOT SURE/DEPENDS ....$^{2}$ |
| 967 | Do you think that most men you know who are not married and are having sex, have sex with only one partner? Wo tsiet ngaga ebakin emwan ngabuna wo tsiet ngaga ar mere me oreita kewinan ejad, enim ejadi dangora ta aiquen? |  |
| 968 | Do you believe that married men should only have sex with their wives? <br> Wo o oejo ean bita ngaga emwan ngabuna mere enim ta ejadi ageora? |  |
| 969 | Do you think that most married men you know have sex only with their wives? <br> Wo tsiet ngaga ebakin emwan ngabuna mere ngabuna wo tsiet ta ejadi kor ageora? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . . 8 |
| 970 | Do you believe that young women should wait until they are married to have sexual intercourse? <br> Wo tuebon oa ijok ngaga eoning in en enim ober bwe ar enim mere ian obwen aeora ejad? | YES . . . . . . . . . . . . . . . . . . . . . . . 1  <br> NO . . . . . . . . . . . . . . . . 2  <br> DK/NOT SURE/DEPENDS ..... 8 |
| 971 | Do you think that most young women you know wait until they are married to have sexual intercourse? Wo tsiet oa ijok ia ebakit eoning in en wo tsiet ober bwe ar enim mere ian obwen aeora ejad? |  |
| 972 | Do you believe that women who are not married and are having sex should only have sex with one partner? Wo tuebon oa ijok ngaga en ngabuna eo mere me oreita ejad enim ta ejadi dangora ta aiquen? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . 8 |
| 973 | Do you think that most women you know who are not married and are having sex have sex with only one partner? Wo tsiet oa ijok ngaga ebakin en ngabuna wo tsiet bwe eo mere me oreita kewinan ejad enim ejadi dangora ta aiquen? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . . . 8 |
| 974 | Do you believe that married women should only have sex with their husbands? <br> Wo tuebon ngaga en ngabuna mere enim ta ejadi ageora? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . . . . 8 |
| 975 | Do you think that most married women you know have sex only with their husbands? <br> Wo tsiet oa ijok ngaga ebakit en ngabuna mere ngabuna wo tsiet ejadi ta ageora? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 <br> NO . . . . . . . . 8 <br> DK/NOT SURE/DEPENDS . . . .  |



| 1006 | Can tuberculosis be cured? <br> Gona oa ijok otsimor/okirowan ngune tuberculosis? |  |  |
| :---: | :---: | :---: | :---: |
| 1007 | If a member of your family got tuberculosis, would you want it to remain a secret or not? la ran am ewak gona tuberculosis, wo inan teng oa ijok ia eko engame enim tsiet angogen oa ekeow? |  |  |
| 1008 | 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? <br> Ngage a teng en ia a nim odonuw ikudo ibun touwe tsimorum. Inga ia wo tabwab ian mungano ata me aro maramen nuwawen? <br> IF YES: How many injections have you had? <br> Egen ebwakin tabwab ngana wo ogen obu? <br> 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 | $\longrightarrow 1012$ |
| 1009 | Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? <br> Ean mungane tabwabweiyem, egen ebwakin etotow eow turin docta, enurse, amen eat ekagamwe, amen kuda imwi, oa engame bet ion makur iat earak? <br> IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD ' 90 '. <br> IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. | NUMBER OF INJECTIONS | $\longrightarrow 1012$ |
| 1010 | The last time you had an injection given to you by a health worker, where did you go to get the injection? <br> Ngago dogin am tabwab ngea oijaw atsin turin amen makur iat earak, edegen I ino wo nuwaw bwe wo nim tabwab? <br> PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. <br> IF THE RESPONDENTS UNABLE TO DETERMINE THE SOURCE, JUST WRITE THE NAME OF THE PLACE | PUBLIC SECTOR <br> GOVERNMENT HOSPITAL ...... 11 <br> MOBILE CLINICS ........ 12 <br> PRIMARY HEALTH CARE ......... 13 <br> OTHER $\qquad$ 96 |  |
| 1011 | Did the person who gave you that injection take the syringe and needle from a new, unopened package? <br> Ngea bita engame tabwabweiyuw oni bita tabwab me bodin atsin iat packet ngea tsimeduw me eo baita men? |  |  |
| 1012 | Do you currently smoke cigarettes? Wo oreita tsiw dabaike? |  | $\longrightarrow 1014$ |
| 1013 | In the last 24 hours, how many cigarettes did you smoke? lan mungano anarama me aeoq hour nuwawen, egen ebakin dabaike wo tsiw? | CIGARETTES ............... |  |
| 1014 | Do you currently smoke or use any other type of tobacco? Wo oreita tsiw oa tsiw dabaike ibun? |  | $\longrightarrow 1016$ |
| 1015 | What (other) type of tobacco do you currently smoke or use? Ekegen erin dabaike ngea wo oreita tsiw oa ouwonon? RECORD ALL MENTIONED. |  |  |


| 1016 | 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? <br> Ebak dugun an en eo kanaani puok or ekagamwe iat earak. la wo arak me wo teng ia wo nim kanaani edor in mwan oa ekagamwe, inan gaturae oa keyeiya oa ijok ngane?: <br> Getting permission to go? <br> Kerom bwe enim nuwaw? <br> Getting money needed for treatment? <br> Kani emak bwe dogin pumwet ekagamwe? <br> The distance to the health facility? <br> Goeow in earak? <br> Having to take transport? <br> Enim kanaani towon? <br> Not wanting to go alone? <br> Eo teng teiy ia nuwaw? <br> Concern that there may not be a female health provider? <br> Worry bwe ngam eko en enim buok ina iat earak? <br> Concern that there may not be any health provider? <br> Worry be ngam eko engame ia enim buok iat earak? <br> Concern that there may be no drugs available? <br> \|Worry ngam eko ekagamwe? | PERMISSION TO GO <br> GETTING MONEY <br> DISTANCE <br> TAKING TRANSPORT <br> GO ALONE <br> NO FEMALE PROV. <br> NO PROVIDER <br> NO DRUGS | BIG PROB- <br> LEM $\text { . } 1$ <br> . 1 <br> .. 1 <br> . 1 <br> .. 1 <br> 1 <br> 1 <br> 1 | NOT A BIG PROBLEM <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1017 | Now I would like to ask you about alcohol and drug use. Remember that your responses are completely anonymous and confidential and will not be released to anyone. During the last 12 months, how often did you have drinks containing alcohol, such as beer, wine, liquor, spirits, homebrew(Moonshine), toddy(Kaokioki), yeast(Ebeda)? Ngage a teng kudo iuw angoget demungi me ouwononet drugs? Wo omaran ngaga tamo am dorer eat meta angogen me eko engame inan tsiet angogen. Ian mungano ata me aro maramen nuwawen, egen ebwakin am ren erit damungi. <br> a. Never Eko edae <br> b. Monthly or less? Ead eken ea maramen <br> c. 2 to 4 times a month? <br> Awarin aruwuri ea awuri ian maramen <br> d. 2 to 3 times a week? <br> Awarin aruwuri ea aijuwuri <br> e. 4 or more times a week? Aworin awori oa ebak bet iat week <br> f. Don't know Eki <br> g. No answer / refused <br> Eko edor/eo teng dor | NEVER <br> < 2 PER MONTH <br> 2-4 PER MONTH <br> 2-3 PER WEEK <br> 4+ PER WEEK <br> DON'T KNOW <br> NO ANSWER/REFUSE |  | $\begin{array}{ll} \ldots & 0 \\ \ldots & 1 \\ \ldots & 2 \\ & \\ \ldots & 3 \\ \ldots & 4 \\ & \\ \ldots & 8 \\ \ldots & 7 \end{array}$ | 1020 |
| 1018 | During the last 12 months, how many standard drinks containing alcohol did you have on a typical day when drinking? A standard drink is a can of beer, a glass of wine, a shot of liquor, etc. <br> lan mungano ata me aro maramen nuwawen, egen ebwakin eren normal ngaben ngana damungi ian iat ibwum? Ngea normal eren ei diribodit beer, daguradit wine, shot of liquor? <br> f. 1 or 2? aiquen oa aro <br> e. 3 or 4? aiju oa aeoq <br> d. 5 or 6 ? aijimo oa ango <br> c. 7, 8 or 9? aeiu, aoju oa ado <br> b. 10 to 19 ? atai ea ata me ado <br> a. 20 or more? anaramae oa ebwaka bet <br> g. Don't know <br> h. No answer / refused <br> Eko edorleo teng dor | NUMBER OF STANDA <br> 1 OR 2 <br> 3 OR 4 <br> 5 OR 6 <br> 7, 8 OR 9 <br> 10 TO 19 <br> 20 OR MORE <br> DON'T KNOW <br> NO ANSWER/REFUS | DRINK |  |  |
| 1019 | During the last 12 months, how often did you have five or more standard drinks at one time? <br> drinking? A standard drink is a can of beer, a glass of wine, a shot of liquor, etc. <br> lan mungano ata me aro maramen nuwawen, auwurit ebwakin am ren aijimo oa ebak bet eren iat edae aiquen? <br> Ngea standard eren ei diribodin beer, dagarudin wine oa shot of liquor .... <br> a. Never Eko edae <br> b. Less than monthly? Uada ian maramen <br> c. Monthly? <br> lan maramen eaoeow eaoeow <br> d. Weekly? <br> lat I week eaeow eaeow <br> e. Daily or almost daily? <br> Yaran yaran <br> f. Don't know <br> Eki <br> g. No answer / refused <br> Eko dor/Eo teng dor | NEVER <br> LESS THAN MONTHL <br> MONTHLY <br> WEEKLY <br> DAILY OR ALMOST D <br> DON'T KNOW <br> NO ANSWER/REFUSE |  | $\begin{array}{ll} \ldots & 0 \\ \ldots & 1 \\ \ldots & 2 \\ \ldots & 3 \\ \ldots & 4 \\ \ldots & 8 \\ \ldots & 7 \\ \hline \end{array}$ |  |


| Next I would like to ask you about use of the following items. <br> Ngage a teng en oudonuw ouwononen mungane imin Have you ever tried...? <br> Inga ia wo ouwonon? <br> IF YES, ASK: <br> Did you use it in the last 30 days? <br> a. Betel nut? <br> b. Kava? <br> grog <br> c. Marijuana/Cannibis <br> d. Ectasy/E/Eccies? <br> e. Inhalants including gas? <br> f. Speed/Base/Other amphetamines? <br> g. Ice/Crystal meth? <br> h. Cocaine/Crack/Freebasing? <br> i. Heroin? <br> j. LSD/Acid/Hallucinogens? <br> k. Steroids (non-medical use)? <br> I. Viagra/Cialis/Sex enhancers? | NEVER <br> TRIED <br> 1 1 1 1 1 1 1 1 1 1 1 1 | EVER <br> TRIED <br>  <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 <br> 2 | USED IN <br> LAST 30 <br> DAYS <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 | NO ANSWER, REFUSED <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 <br> 7 |
| :---: | :---: | :---: | :---: | :---: |
| $1021 \begin{aligned} & \text { Some people have tried injecting drugs using a syringe. In } \\ & \text { the last } 12 \text { months, have you injected drugs (not including } \\ & \text { injections for medial reasons or treatment of an illness)? } \\ & \text { Engame ibun keweweiy tabwabweiyan ura drug atsin iat } \\ & \text { tabwab. lan mungano ata me aro maramen nuwawen inga ia } \\ & \text { wo tabwab eiy anuw drug (eo mungana bwait abi earak) }\end{aligned}$ | YES <br> NO NO AI | WER, | JSED | $\begin{array}{ll} \ldots . & 1 \\ \ldots . & 2^{2} \\ \ldots . & 8 \end{array}$ |
| 1022 RECORD THE TIME. <br>   | HOUR <br> MINU |  |  |  |

SECTION 11. DOMESTIC VIOLENCE



| 1112 | Does (did) your husband/partner drink alcohol? Ngea ameta agem/dangom mungi oa ngago? |  | $\rightarrow 1114$ |
| :---: | :---: | :---: | :---: |
| 1113 | How often does (did) he get drunk: often, only sometimes, or never? <br> Aworit egen an ren, oa pwe men: ebak edae, eat edae ibun, oa ekeow kor? |  |  |
| 1114 | From the time you were 15 years old has anyone other than your (current/last) husband/partner hit, slapped, kicked, or done anything else to hurt you physically? <br> Atsin ngago ata me aijimo am obweni, inga engame irurun ameta age/dangam ngage/ngago ogew, ijatowuw, tudeiuyuw, oa riring aw imin ngana nim amaga robodom? |  | $\rightarrow_{1117}$ |
| 1115 | Who has hurt you in this way? ljen ngea amagaw ian bitune emedena? <br> Anyone else? <br> Engame bet ibun? <br> RECORD ALL MENTIONED. | MOTHER/STEP-MOTHER FATHER/STEP-FATHER SISTER/BROTHER DAUGHTER/SON OTHER RELATIVE FORMER HUSBAND/PARTNER CURRENT BOYFRIEND FORMER BOYFRIEND MOTHER-IN-LAW FATHER-IN-LAW OTHER IN-LAW TEACHER EMPLOYER/SOMEONE AT WORK POLICE |  |
| 1116 | In the last 12 months, how often have you been hit, <br> slapped, kicked, or physically hurt by this/these person(s): often, only sometimes, or not at all? <br> lan mungano ata me aro maramen nuwawen, aworit egen ogewem, ijatowem, tudeiyem oa amagaw atsin turin bitune amebune engame: eat edae ibun, mek oa mek, oa ekeow kor? |  |  |
| 1117 | CHECK 201, 226, AND 229: <br> EVER BEEN PREGNANT <br> NEVER BEEN <br> (YES ON 201 PREGNANT R 226 OR 229) |  | - 1120 |
| 1118 | Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant? Inga ia engame ogiten ogew, ijatowuwu, tudeiyuw oa imit bet ibun ngana inan amaga robodom ngaga wo oreit ijeng? | YES $\ldots \ldots \ldots \ldots \ldots \ldots \ldots$  <br> NO $\ldots$ $\ldots$ | $\rightarrow 1120$ |
| 1119 | Who has done any of these things to physically hurt you while you were pregnant? <br> ljegen ngea riring mungane bwe e nim amaga robodom ngaga wo oreit ijeng? <br> Anyone else? <br> Engame bet iu? <br> RECORD ALL MENTIONED. | CURRENT HUSBAND/PARTNER MOTHER/STEP-MOTHER FATHER/STEP-FATHER SISTER/BROTHER DAUGHTER/SON OTHER RELATIVE FORMER HUSBAND/PARTNER CURRENT BOYFRIEND FORMER BOYFRIEND MOTHER-IN-LAW FATHER-IN-LAW OTHER IN-LAW TEACHER EMPLOYER/SOMEONE AT WORK POLICE/SOLDIER |  |
| 1120 | The first time you had sexual intercourse, would you say that you had it because you wanted to, or because you were forced to have it against your will? <br> Ngaga adamonin am ejad, wo kona pan ngaga wo riring bwe dogin wo teng oa dogin e force eiyuw wo nim ejad? |  |  |
| 1121 | In the last 12 months, has anyone other than your (current/last) husband/partner forced you to have sexual intercourse against your will? <br> lan mungano ata me aro maramen nuwawen, inga engame irurun ameta agem ngage/dogin force eiy uw bwe wo nim ejad ngaga bet wo eo teng? |  |  |
| 1122 | CHECK 1120 AND 1121: $\begin{aligned} & 1120=\text { '1' OR '3' } \\ & \text { AND } \\ & 1121=\text { '2' OR '3' } \end{aligned} \quad \square \quad \text { OTHER }$ |  | 1127 |
| 1123 | CHECK 1105(h) and 1105(i): <br> 1105(h) IS NOT ' 1 ' <br> AND 1105(i) IS NOT '1' |  | $\rightarrow 1128$ |


| 1124 | At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts? <br> Inga edae ian tsimorim, ian am oning oa engab, inga engame ia force eiy wo nim ejad oa riring erit ejad ngana ekae ken? |  | $1128$ |
| :---: | :---: | :---: | :---: |
| 1125 | How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts? Egen am obweni ngaga adamonin force eiyem bwe wo nim ejad oa riring dedeit ijeng ngana ekae eken? | AGE IN COMPLETED YEARS <br> DON=T KNOW |  |
| 1126 | Who was the person who was forcing you at that time? Ijen ngea engame forceiyuw ngaga ean bita edae? |  |  |
| 1127 | CHECK 1105A (a-i), 1114, 1118, 1121 AND 1124: <br> AT LEAST ONE <br> NOT A SINGLE 'YES' 'YES' |  | +1131 |
| 1128 | Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help to stop (the/these) person(s) from doing this to you again? <br> la wo kamarareiy mungana imin metaw ian tsimorim irurun mungane ar ogiten pan angogen, ngana wo kwokwon kanaani ipuok bwe e nim oduog ameta/amebune engame ean aeora enim tuk riring aw imin iu eworin? |  | $\rightarrow 1130$ |
| 1129 | From whom have you sought help? <br> Tangan ijegen ngea wo kanaani puok? <br> Anyone else? <br> Engame bet ijen? <br> RECORD ALL MENTIONED. |  | $\left[\left[\rightarrow^{1131}\right.\right.$ |
| 1130 | Have you ever told any one else about this? Inga ia wo pana engame bitune? |  |  |
| 1131 | As far as you know, did your father ever beat your mother? la wo tsiet, ameta etongim oge oa kanakeiy oa ijok inem? |  |  |
| THAN ANSW | K THE RESPONDENT FOR HER COOPERATION AND REASSUR IERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE T | HER ABOUT THE CONFIDENTIALITY OF HER THE DOMESTIC VIOLENCE MODULE ONLY |  |
| 1132 | DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY? |  |  |
| 1133 | INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPL | ETING THE DOMESTIC VIIOLENCE MODULE |  |
| 1134 | RECORD THE TIME. | HOUR <br> MINUTES |  |

## INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW
COMMENTS ABOUT RESPONDENT:
$\qquad$
$\qquad$
$\qquad$

$\qquad$

COMMENTS ON SPECIFIC QUESTIONS:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

ANY OTHER COMMENTS:
$\qquad$

SUPERVISOR'S OBSERVATIONS
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
NAME OF SUPERVISOR:
DATE: $\qquad$

EDITOR'S OBSERVATIONS
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
NAME OF EDITOR:
DATE: $\qquad$

INSTRUCTIONS:
WOMAN'S BIRTH CALENDAR
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
PILL
IUD
5 INJECTABLES
IMPLANTS
CONDOM
FEMALE CONDOM
9 DIAPHRAGM
J FOAM OR JELLY
K LACTATIONAL AMENORRHEA METHOD
L RHYTHM METHOD
M WITHDRAVVAL
X OTHER
(SPECIFY)


MEN'S QUESTIONNAIRE

DEMOGRAPHIC HEALTH SURVEY MAN'S QUESTIONNAIRE

REPUBLIC OF NAURU
BUREAU OF STATISTICS


INTERVIEWER RESULTS


## INFORMED CONSENT

Hello. My name is $\qquad$ and I am working with Nauru Bureau of Statistics. We are
conducting a national survey to ask men and women 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 20 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 since your views are important.

At this time, do you want to ask me anything about the survey? May I begin the interview now?


| 110a | Now I would like you to read this sentence to me. SHOW CARD IN ENGLISH TO RESPONDENT. <br> IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me? | CANNOT READ AT ALL ABLE TO READ ONLY PARTS OF SENTENCE .......................... 2 ABLE TO READ WHOLE SENTENCE. . 3 | $\longrightarrow 116$ |
| :---: | :---: | :---: | :---: |
| 110b | SHOW CARD IN NAURUAN TO RESPONDENT. <br> IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me? |  |  |
| 111 | Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)? |  |  |
| 112 | CHECK 110a AND 110b: <br> CODE '2', '3' <br> CODE '1' OR '5' <br> OR '4' CIRCLED CIRCLED |  | $\rightarrow 114$ |
| 113 | Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all? |  |  |
| 114 | Do you listen to the radio almost every day, at least once a week, less than once a week or not at all? |  |  |
| 115 | Do you watch television almost every day, at least once a week, less than once a week or not at all? |  |  |
| 116 | What is your religion? |  |  |
| 117 | What is your ethnicity? |  |  |

SECTION 2. REPRODUCTION

| NO. | QUESTIUNS 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. <br> Have you ever fathered any children with any woman? |  | $\xrightarrow{\longrightarrow} 206$ |
| 202 | Do you have any sons or daughters that you have fathered who are now living with you? |  | $\rightarrow 204$ |
| 203 | How many sons live with you? <br> And how many daughters live with you? <br> IF NONE, RECORD ‘00'. | SONS AT HOME <br> DAUGHTERS AT HOME |  |
| 204 | Do you have any sons or daughters that you have fathered who are alive but do not live with you? |  | $\rightarrow 206$ |
| 205 | How many sons are alive but do not live with you? <br> And how many daughters are alive but do not live with you? <br> IF NONE, RECORD '00'. | SONS ELSEWHERE <br> DAUGHTERS ELSEWHERE |  |
| 206 | Have you ever fathered a son or a daughter who was born alive but later died? <br> IF NO, PROBE: Any baby who cried or showed signs of life but did not survive? |  | $\xrightarrow{\longrightarrow} 208$ |
| 207 | How many boys have died? <br> And how many girls have died? <br> IF NONE, RECORD ‘00'. | BOYS DEAD <br> GIRLS DEAD |  |
| 208 | SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'. | TOTAL CHILDREN ......... |  |
| 209 |  | $\begin{aligned} & \text { HAD } \\ & \text { REN } \\ & \hline \end{aligned}$ | $212$ $301$ |
| 210 | Did all of the children you have fathered have the same biological mother? |  | $\rightarrow 212$ |
| 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: <br> AT LEAST ONE <br> LIVING CHILD $\square$ | NG | $\rightarrow 301$ |


| 214 | How many years old is your (youngest) child? | AGE IN YEARS |  |
| :---: | :---: | :---: | :---: |
| 215 | CHECK 214:(YOUNGEST) CHILD <br> IS AGE 0-3 YEARS $\square \quad$ OTHER $\square$ |  | $\rightarrow 301$ |
| 216 | What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD <br> (NAME OF (YOUNGEST) CHILD) |  |  |
| 217 | When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups? |  | $\xrightarrow{\rightarrow} 219$ |
| 218 | Were you ever present during any of those antenatal check-ups? |  |  |
| 219 | Was (NAME) born in a hospital or health facility? | $\left.\begin{array}{lllll}\text { HOSPITAL/HEALTH FACILITY } & \ldots & 1 \\ \text { OTHER } & \ldots & \ldots & \ldots & \ldots\end{array}\right]$ | $\rightarrow 221$ |
| 220 | What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility? |  |  |
| 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? |  |  |

SECTION 3. CONTRACEPTION

| NO. | QUESTIONS AND FILTERS | CODING CAT | ORIES | SKIP |
| :---: | :---: | :---: | :---: | :---: |
| 301 | Now I w ould like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Ngage a teng en dorereiy angoget atateen I karig oa emedenan oa erit imin ngana buok in oduok ijeng? <br> Which ways or methods have you heard about? <br> Ekeget emedena wo ogiten kaiot angogen? <br> FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: <br> Have you ever heard of (METHOD)? Wo kaiot in angoget METHOD) <br> CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. <br> THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF <br> EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD <br> IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR METHODS 02, 07, 09, 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. En gona detow bwe ang anim eo gauwei tsimine ngaiura? | YES . . . . . . . . . . . . . 1 NO . . . . . . . . 2 |  |  |
| 02 | MALE STERILIZATION Men can have an operation to avoid having any more children. <br> Emwan e gona detow bwe ang enim eo gauwei tsimine ngaiura? | $\begin{aligned} & \text { YES . . . . . . . . . . . } \\ & \text { NO . . . . . . . . . . } \end{aligned}$ | Have you ever had an operation to avoid having any more children? |  |
| 03 | PILL Women can take a pill every day to avoid becoming pregnant. <br> En gona ko adaparo iaran iaran bwe ar enim eo ijeng? | $\begin{aligned} & \text { YES . . . . . . . . . . . . . } 1 \\ & \text { NO . . . . . . . . . . . } 2 \end{aligned}$ |  |  |
| 04 | IUD Women can have a loop or coil placed inside them by a doctor or a nurse E gona omeatu I loop oa coil ian an bwer en. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . } 1 \\ & \text { NO . . . . . . . . . . . } 2 \end{aligned}$ |  |  |
| 05 | INJECTABLES Women can have an injection by a health their upper provider that stops them from becoming pregnant for one or more months. E gona tabwab eiy en bwe ar enim eo gauweiy ijeng ean aiquen oa aro maramen. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . } 1 \\ & \text { NO . . . . . . . . . . . } 2 \end{aligned}$ |  |  |
| 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. Docta oa enurse gona totu ian bwet en imin ngana inan oduok ijeng dogin aiquen oa aro eobweni. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . . } 1 \\ & \text { NO . . . . . . . . . . } 2 \end{aligned}$ |  |  |
| 07 | CONDOM Men can put a rubber sheath on their penis before sexual ntercourse. <br> Emwan gona totu a dorera erubber oa condom ian obwen aeora ejad. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . . }{ }^{1}{ }^{2} \eta \\ & \text { NO . . . . . . . } \end{aligned}$ | YES. NO | 1 <br> 2 |
| 08 | FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse. En gona reiy ijan aeora mwin ian obwen aeora ejad. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . . . } 1 \\ & \text { NO . . . . . . . . . . } 2 \end{aligned}$ |  |  |
| 09 | LACTATIONAL AMENORRHEA METHOD (LAM) (2) | YES . . . . . . . . . . . . . . 1 NO . . . . . . . . . 2 |  |  |
| 10 | RHY THM METHOD Every month that a w oman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnan lat maramen eaeow eaeow en gona eo ijeng eow ean aeora edegeri edae eat calendar ino ar eab gona ijeng. | YES $\ldots \ldots \ldots \ldots{ }^{1}$ NO $\ldots \ldots \ldots \ldots{ }^{2} \neq \ldots$ | $\begin{aligned} & \text { YES . } \\ & \text { NO . } \end{aligned}$ | $1$ $2$ |
| 11 | WITHDRAWAL Men can be careful and pull out before climax. Emwan gona a ker ret duwora atonin rabadat eita en. | $\begin{aligned} & \text { YES . . . . . . . . . . . . . . }{ }^{1} \\ & \text { NO } \quad . . . . . . . . . . \end{aligned}$ | $\begin{aligned} & \text { YES . } \\ & \text { NO . } \end{aligned}$ | $\begin{array}{ll} . & 1 \\ \ldots & 2 \end{array}$ |
| 12 | EMERGENCY CONTRACEPTION As an emergency measure after sexual intercourse, w omen 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 w omen or men can use to avoid pregnancy? | YES $\ldots \ldots \ldots \ldots \ldots 1$ <br> (SPECIFY) <br> NO $\ldots \ldots \ldots \ldots \ldots .2$ |  |  |



SECTION 4. MARRIAGE AND SEXUAL ACTIVITY



| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES |  | SKIP |
| :---: | :---: | :---: | :---: | :---: |
| 426 | CHECK 420 (ALL COLUMNS): <br> AT LEAST ONE PARTNER <br> NO PARTNERS IS PROSTITUTE $\square$ ARE PROSTITUTE |  |  | $\rightarrow 428$ |
| 427 | CHECK 420 AND 418 (ALL COLUMNS): <br> CONDOM USED WIT <br> EVERY PROSTITUTE <br> OTHER $\square$ |  |  | $\begin{array}{r} \rightarrow \quad 430 \\ \rightarrow \quad 431 \end{array}$ |
| 428 | In the last 12 months, did you pay anyone in exchange for having sexual intercourse? | $\begin{aligned} & \text { YES } \\ & \text { NO } \end{aligned}$ | 2 | $\rightarrow 431$ |
| 429 | The last time you paid someone in exchange for having sexual intercourse, was a condom used? (2) | $\begin{aligned} & \text { YES } \\ & \text { NO } \end{aligned}$ | 1 | $\rightarrow 431$ |
| 430 | Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months? | YES . . . . . . . . . . . . . . . . . . . . . . NO . . . . . . . . . . . . . . . . | 1 2 8 |  |
| 431 | In total, with how many different people have you had sexual intercourse in your lifetime? <br> IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. <br> IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.' | NUMBER OF PARTNERS <br> IN LIFETIME <br> DON'T KNOW |  |  |
| 432 | CHECK 418, MOST RECENT PARTNER (FIRST COLUMN): |  |  | - 438 |
| 433 | You told me that a condom was used the last time you had sex. May I see the package of condoms you were using at that time? <br> RECORD NAME OF BRAND IF PACKAGE SEEN. | PACKAGE SEEN <br> BRAND NAME $\qquad$ dOES NOT HAVE/NOT SEEN |  | $\rightarrow 435$ |
| 434 | Do you know the brand name of the condom used at that time? <br> RECORD NAME OF BRAND. | BRAND NAME $\overline{(S P E C I F Y)}$ <br> DON'T KNOW |  |  |
| 435 | How many condoms did you get the last time? | NUMBER OF CONDOMS DON'T KNOW |  |  |
| 436 | The last time you obtained the condoms, how much did you pay in total, including the cost of the condom(s) and any consultation you may have had? | COST <br> FREE <br> DON'T KNOW |  |  |



SECTION 5. FERTILITY PREFERENCES

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
| :---: | :---: | :---: | :---: |
| 501 | CHECK 302: |  | $\rightarrow 505$ |
| 502 | Is your wife/partner currently pregnant? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 |  |
| 503 | CHECK 502:NO WIFE/PARTNERPREGNANT ORDON'T KNOW $\quad$WIFE/ |  | $\square \rightarrow 505$ |
| 504 | CHECK 502: <br> WIFE/PARTNER <br> WIFE/PARTNER <br> NOT PREGNANT <br> PREGNANT <br> OR DON'T KNOW <br> How long would you like to wait After the birth of the child you from now before the birth of are expecting now, how long (a/another) child? would you like to wait before the birth of another child? |  |  |
| 505 | CHECK 203 AND 205: <br> HAS LIVING CHILDREN <br> NO LIVING CHILDREN <br> If you could go back to the time <br> If you could choose exactly the you did not have any children number of children to have in and could choose exactly the your whole life, how many number of children to have in would that be? your whole life, how many would that be? <br> PROBE FOR A NUMERIC RESPONSE. |  |  |
| 506 | 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? |  |  |

SECTION 6. EMPLOYMENT AND GENDER ROLES


SECTION 7. HIV/AIDS


| 708 | Can people get the AIDS virus by sharing food with a person who has AIDS? |  |  |
| :---: | :---: | :---: | :---: |
| 709 | Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all? |  |  |
| 710 | Can people get the AIDS virus from the saliva of someone who HIV or AIDS? |  |  |
| 711 | Can people get HIV by having injections with a needle or syringe that has already been used by someone else? |  |  |
| 712 | Can only gay men get HIV? |  |  |
| 713 | Can people get HIV because of witchcraft or other supernatural means? |  |  |
| 714 | Is it possible for a healthy-looking person to have HIV? |  |  |
| 715 | Can HIV, the virus that causes AIDS, be transmitted from a mother to her baby: <br> During pregnancy? <br> During delivery? <br> By breastfeeding? |   YES NO DK <br> DURING PREG. $\ldots$. 1 2 8 <br> DURING DELIVERY $\ldots$ 1 2 8 <br> BREASTFEEDING $\ldots$ 1 2 8 |  |
| 716 | CHECK 715: <br> AT LEAST ONE 'YES' | $\mathrm{ER} \quad \square$ | $\rightarrow 718$ |
| 717 | 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? |  |  |
| 718 | Have you heard about special drugs that people infected with HIV can get from a doctor or a nurse to help them live longer? |  |  |
| 719 | CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, | KE EVERY EFFORT TO ENSURE PRIVACY. |  |
| 720 | I don't want to know the results, but have you ever been tested to see if you have HIV? |  | $\longrightarrow 725$ |
| 721 | When was the last time you were tested? |  |  |
| 722 | 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 $\ldots . . . . . . . .$. 1  <br> OFFERED AND ACCEPTED $\ldots .$. 2 <br> REQUIRED . . . . . . . . . . . . . . . . . . . . 3  |  |


| 723 | I don't want to know the results, but did you get the results of the test? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . . . . . . . . . . . .  |  |
| :---: | :---: | :---: | :---: |
| 724 | Where was the test done? <br> PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. |  | $\square \rightarrow 727$ |
| 725 | Do you know of a place where people can go to get tested for HIV? |  | $\longrightarrow 727$ |
| 726 | Where is that? <br> Any other place? <br> PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). |  |  |
| 727 | Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV? |  |  |
| 728 | Would you share a meal with a person if you knew that this person had HIV? |  |  |
| 729 | If a member of your family got infected with HIV, would you want it to remain a secret or not? | YES, REMAIN A SECRET $\ldots . . . . .$. 1 <br> NO . . . . . . . . . . . . . . . . . . . 2  <br> DK/NOT SURE/DEPENDS $\ldots . . .$. 8 |  |
| 730 | If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household? |  |  |
| 731 | 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 $\ldots . . . . . . . .$. 1  <br> SHOULD NOT BE ALLOWED $\ldots .$. 2 <br> DK/NOT SURE/DEPENDS ....... 8 |  |
| 732 | Should the names of all persons with HIV be displayed in a public place for everyone to see? |  |  |
| 733 | Should all persons with HIV live apart from the general community? |  |  |
| 734 | Should it be a criminal offence to knowingly pass HIV onto someone else? |  |  |
| 735 | Should all newcomers to Nauru be required to take a test for HIV? |  |  |
| 736 | 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? |  | $\longrightarrow 741$ |
| 737 | 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? |  |  |
| 738 | 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 <br> NO . . . . . . . . . . . . . . .  |  |


| 739 | AT LEAST ONE 'YES'$\square$ |  | 741 |
| :---: | :---: | :---: | :---: |
| 740 | Do you personally know someone who has or is suspected to have HIV or AIDS? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 <br> NO . . . . . . . . . . . . . . . . . . . . . 2 |  |
| 741 | Do you agree or disagree with the following statement: People with HIV or AIDS should be ashamed of themselves. |  |  |
| 742 | Do you agree or disagree with the following statement: People with HIV or AIDS should be blamed for bringing the disease into the community. |  |  |
| 743 | CHECK 701:  <br> HEARD ABOUT NOT HEARD <br> AIDS ABOUT AIDS <br> Apart from AIDS, have Have you heard about infections <br> you heard about other <br> infections that can be <br> transmitted through <br> sexual contact? <br> sexual contact?  |  |  |
| 744 | CHECK 410: <br> HAS HAD SEXUAL <br> HAS NOT HAD SEXUAL INTERCOURSE INTERCOURSE |  | $\rightarrow 752$ |
| 745 | CHECK 743: HEARD ABOUT OTHER SEXUALLY TRANSMITTED | NFECTIONS? <br> NO $\square$ | $\rightarrow 747$ |
| 746 | Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact? | YES $\ldots$ ... ... <br> NO . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1   <br> DON'T KNOW . . . . . . . . . . . . 8   |  |
| 747 | Sometimes men experience an abnormal discharge from their penis. <br> During the last 12 months, have you had an abnormal discharge from your penis? |  |  |
| 748 | 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? |  |  |
| 749 | CHECK 746, 747, AND 748: <br> HAS HAD AN INFECTION (ANY 'YES') $\square \begin{array}{r}\text { HAS NOT HAD AN } \\ \text { INFECTION OR }\end{array}$ |  | $\rightarrow 752$ |
| 750 | The last time you had (PROBLEM FROM 746/747/748), did you seek any kind of advice or treatment? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 NO . . . . . . . . . . . . . | $\longrightarrow 752$ |
| 751 | Where did you go? <br> Any other place? <br> PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). | PUBLIC SECTOR <br> GOVERNMENT HOSPITAL ....... A <br> MOBILE CLINIC <br> PRIMARY HEALTH CARE ... C <br> OTHER SOURCE <br> LOCAL <br> PRACTITIONER ............................... D <br> OVERSEAS. $\qquad$ <br> OTHER $\qquad$ x |  |


| 752 | Husband and wives do not always agree in 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? |  |
| :---: | :---: | :---: |
| 753 | Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood? |  |
| 754 | Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women? |  |
| 755 | Do you believe that young men should wait until they are married to have sexual intercourse? |  |
| 756 | Do you think that most young men you know wait until they are married to have sexual intercourse? |  |
| 757 | Do you believe that men who are not married and are having sex should only have sex with one partner? |  |
| 758 | Do you think that most men you know who are not married and are having sex have sex with only one partner? |  |
| 759 | Do you believe that married men should only have sex with their wives? |  |
| 760 | Do you think that most married men you know have sex only with their wives? |  |
| 761 | Do you believe that young women should wait until they are married to have sexual intercourse? |  |
| 762 | Do you think that most young women you know wait until they are married to have sexual intercourse? |  |
| 763 | Do you believe that women who are not married and are having sex should only have sex with one partner? |  |
| 764 | Do you think that most women you know who are not married and are having sex have sex with only one partner? |  |
| 765 | Do you believe that married women should only have sex with their husbands? |  |
| 766 | Do you think that most married women you know have sex only with their husbands? |  |

SECTION 8. OTHER HEALTH ISSUES

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES |  | SKIP |
| :---: | :---: | :---: | :---: | :---: |
| 801 | Have you ever heard of an illness called tuberculosis or TB? | $\begin{aligned} & \text { YES } \\ & \text { NO } \end{aligned}$ |  | $\rightarrow 808$ |
| 802 | CHECK Q. 110a and 110b: <br> CODE '2', '3', or '4" <br> CODE '1' CIRCLED <br> CIRCLED IN <br> IN 110a \& 110b <br> 110a OR 110b OR <br> OR CODE '5' <br> CIRCLED IN 110a |  |  | 804 |
| 803 | The following is a list of sources of information on tuberculosis or TB. Have you ever done any of the following? <br> a. Heard messages about TB on the radio? <br> b. Seen messages about TB on TV? <br> c. Read messages about TB in newspapers or magazines? |  YES  <br>    <br> RADIO $\ldots \ldots \ldots \ldots \ldots$ 1  <br> TV $\ldots \ldots \ldots \ldots \ldots$ 1  <br> NEWSPAPER/MAGAZINE .  | $\begin{gathered} \mathrm{NO} \\ \hline \\ 2 \\ 2 \\ 2 \end{gathered}$ |  |
| 804 | The following is a list of sources of information on tuberculosis or TB. Have you ever done any of the following? <br> a. Heard messages about TB on the radio? <br> b. Seen messages about TB on TV? <br> c. Read messages about TB in newspapers or magazines? <br> d. Seen messages about TB on billboards, signs or posters? <br> e. Seen leaflets, brochures, or booklets on TB? <br> f. Gotten information on TB from the internet? <br> h. Participated in an TB peer education program? <br> i. Participated in another type of TB education program such as a wokshop or school program? <br> j. Attended a community event about TB? <br> k. Received information about TB from an outreach work, that is someone who came to your community and about TB? <br> I. Discussed TB with other persons such as friends, family members, or work colleagues? |  | NO 2 2 2 2 2 2 2 2 2 2 2 |  |
| 805 | How does tuberculosis spread from one person to another? <br> PROBE: Any other ways? <br> RECORD ALL MENTIONED. | THROUGH THE AIR WHEN COUGHING OR SNEEZING THROUGH SHARING UTENSILS THROUGH TOUCHING A PERSON WITH TB <br> THROUGH FOOD <br> THROUGH SEXUAL CONTACT <br> THROUGH MOSQUITO BITES <br> OTHER | A <br> B <br> C <br> D <br> E <br> F <br> X |  |
| 806 | Can tuberculosis be cured? | YES <br> NO <br> DON'T KNOW | 1 2 8 |  |
| 807 | If a member of your family got tuberculosis, would you want it to remain a secret or not? | YES, REMAIN A SECRET <br> NO <br> DON'T KNOW/NOT SURE/ DEPENDS | 1 2 8 |  |
| 808 | 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? <br> IF YES: How many injections have you had? <br> IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD ' 90 '. <br> IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. | NUMBER OF INJECTIONS <br> NONE | 00 | $\rightarrow 812$ |


| 809 | Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? <br> IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. <br> IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. | NUMBER OF INJECTIONS <br> NONE <br> 00 | $\longrightarrow 812$ |
| :---: | :---: | :---: | :---: |
| 810 | The last time you had an injection given to you by a health worker, where did you go to get the injection? <br> PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. |  |  |
| 811 | Did the person who gave you that injection take the syringe and needle from a new, unopened package? |  |  |
| 812 | Do you currently smoke cigarettes? | YES . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 1$ NO . . . . . . . . . . . . . . | $\longrightarrow 814$ |
| 813 | In the last 24 hours, how many cigarettes did you smoke? | CIGARETTES . ............ |  |
| 814 | Do you currently smoke or use any other type of tobacco? | YES $\ldots .$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 1$ NO . . . . . . . . . . . . . . . | $\rightarrow 816$ |
| 815 | What (other) type of tobacco do you currently smoke or use? <br> RECORD ALL MENTIONED. |  |  |
| 816 | Now I would like to ask you about alcohol and drug use. Remember that your responses are completely anonymous and confidential and will not be released to anyone. <br> During the last 12 months, how often did you have drinks containing alcohol, such as beer, wine, liquor, spirits, homebrew, toddy, yeast? Would you say? <br> a. Never <br> b. Monthly or less? <br> c. 2 to 4 times a month? <br> d. 2 to 3 times a week? <br> e. 4 or more times a week? <br> f. Don't know <br> g. No answer / refused |  | $\longrightarrow 820$ |



## INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

COMMENTS ON SPECIFIC QUESTIONS:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

ANY OTHER COMMENTS:
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EDITOR'S OBSERVATIONS
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[^0]:    ${ }^{1}$ The international system of promoting political, economic and social advancement of the territories and their development towards self-government and self-determination.
    ${ }^{2}$ A sovereign wealth fund developed by the government of the Republic of Nauru in which the government invested money from the state owned mining company, Nauru Phosphate Corporation.

[^1]:    ${ }^{3}$ Financial borrowing from other commercial banks or similar financial institutions and countries.

[^2]:    ${ }^{4}$ A census and survey processing system that was designed for entering, editing, tabulating and mapping census and survey data.

[^3]:    ${ }^{1}$ Completed 6 years at the primary level.
    ${ }^{2}$ Completed 5 years at the secondary level.
    Total includes 3 persons with missing information on age who are not shown separately.

[^4]:    ${ }^{1}$ Completed 6 years at the primary level.
    ${ }^{2}$ Completed 5 years at the secondary level.
    Total includes 5 persons with missing information on age who are not shown separately.

[^5]:    ${ }^{5}$ In this report, 'married' refers to those in a formal or official marriage, while 'living together' refers to those in informal or consensual unions. In the remainder of the report, marriage refers to both categories (i.e. formal and informal unions).
    ${ }^{6}$ Refers to the unweighted number of cases in this case the number of women and men adjusted for the sampling weights and the non-responds adjustments.
    ${ }^{7}$ Refers to the actual number of cases in this instance, the actual number of women and men in the sample.

[^6]:    Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
    na $=$ not applicable
    Total for women includes one woman with missing information on religion who is not shown separately.

[^7]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on 25-49 unweighted cases

[^8]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures 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 (or if any wife is pregnant for men with more than one current wife).

[^9]:    ${ }^{1}$ Based on either a written record or the mother's recall.

[^10]:    ${ }^{1}$ Where the sum of the children (or other analysed entities, e.g. mothers) across the different categories in a differentiated analysis of a background variable is greater than the reported total in the bottom line (here: 323 children by birth order vs 322 ), the former count has been used. All counts are potentially modified through statistical weighting.
    ${ }^{2}$ In this chapter the term 'poor mother' refers to mothers belonging to households in the lowest wealth quintile.
    ${ }^{3}$ The questions asked were 'Do you currently smoke cigarettes?' and ‘Do you currently smoke or use any other type of tobacco?'
    ${ }^{4}$ In this chapter the term 'young mother' refers to mothers younger than age 20 at the time of delivery.

[^11]:    ${ }^{5}$ The 2007 NDHS questionnaire also asked for other providers, but because there are no other healthcare providers in Nauru, all health system contacts can be assumed to concern health facilities.

[^12]:    ${ }^{6}$ The sum of 100 percent is coincident.

[^13]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. 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.

[^14]:    ${ }^{7}$ World Health Organization. 2006. Nauru STEPS 2004 report. Western Pacific Regional Office.

[^15]:    Notes: An asterisk indicates that a figure is based on fewer than 25 unveighted cases. Figures in parentheses are based on $25-49$ unweighted cases.

[^16]:    ${ }^{8}$. WHO. 1997. WHO Global Database on Child Growth and Malnutrition.

[^17]:    ${ }^{9}$ WHO and UNICEF 2003.
    ${ }^{10}$ Food groups used in the assessment of minimum standard of feeding practices include: infant formula, milk other than breast milk, cheese, 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.

[^18]:    ${ }^{11}$ UNAIDS/07.12E/JC1318E. Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on construction of core indicators. 2008 reporting.
    ${ }^{12}$ UNAIDS/07.15E/JC1338E. A framework for monitoring and evaluating HIV prevention programs for most-at-risk populations.

[^19]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases.
    ${ }^{1}$ The two most common local misconceptions are that: HIV can be transmitted by a) supernatural means and witchcraft, and b) mosquito bites.
    ${ }^{2}$ 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.

[^20]:    ${ }^{13}$ World Health Organization 2006. Second Generation Surveys of HIV, other STIs and risk behaviours in six Pacific Island countries (2004-2005).

[^21]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures in parentheses are based on $25-49$ unweighted cases
    ${ }^{1}$ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent.

[^22]:    ${ }^{1}$ Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent.

[^23]:    ${ }^{14}$ UNAIDS/07.12E/JC1318E. Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on construction of core indicators: 2008 reporting.

[^24]:    ${ }^{15}$ World Health Organization. 2006. Second Generation Surveys of HIV, other STIs and risk behaviours in 6 Pacific Island Countries (2004-2005).

[^25]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases. Figures 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 13.2, 13.3.1, and 13.3.2.
    ${ }^{2}$ For this table, the following responses are not considered to be sources for condoms: friends, family members and home.

[^26]:    ${ }^{\text {a }}$ Includes deaths under one month reported in days.
    ${ }^{1}$ Under one month / under one year.

[^27]:    CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD
    01 = HEAD $08=$ BROTHER OR SISTER
    $02=$ WIFE OR HUSBAND OR PARTNER $09=$ OTHER RELATIVE
    03 = SON OR DAUGHTER
    4 = SON-IN-LAW OR
    DAUGHTER-IN-LAW
    $5=$ GRANDCHILD
    $06=$ PARENT
    10 = STEPSON OR STEPDAUGHTER
    11 = ADOPTED OR FOSTER CHILD
    12 = ROOMER OR BOARDER
    13 = HOUSEMATE OR ROOMMATE
    14 = OTHER NON-RELATIVE
    $07=$ PARENT-IN-LAW
    98 = DON'T KNOW

