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Demographic and Health Survey
2006-2007

by
the Solomon Islands National Statistics Office,
the Secretariat of the Pacific Community,
and Macro International Inc.

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This report summarises the findings of the 2006-2007 Solomon Islands Demographic and Health Survey implemented by the Solomon Islands National Statistics Office in coordination with the Ministry of Health. The Secretariat of the Pacific Community was the executing agency for the project. The Government of Solomon Islands provided financial assistance in terms of in-kind contribution of government staff time, office space, and logistical support. The project was funded jointly by the Asian Development Bank, Australian Aid, New Zealand AID and UNFPA. The Secretariat of the Pacific Community was responsible for the overall coordination of the DHS operations, as well as the sample design, survey planning and budgeting, providing data processing support to the implementing agency, and compiling and coordinating the DHS report. Macro International Inc. (Calverton, Maryland, USA) provided technical assistance in the areas of survey design, questionnaires, manual adaptations, conduct of pretest and main training, fieldwork monitoring, systems development, data processing and tabulation programmes as part of its contract with the Asian Development Bank. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the donor organisations.

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The 2006/2007 Solomon Islands Demographic and Health Survey (2006/2007 SIDHS) was one of four pilot demographic and health surveys conducted in the Pacific under an Asian Development Bank 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 2006/2007 SIDHS 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.

The Solomon Islands National Statistics Office would like to acknowledge the efforts of a number of organisations and individuals who contributed immensely to the success of the survey. Representatives of the Ministry of Health were members of the Steering Committee, which offered guidance on the implementation of the survey. The list if those involved in the 2006-2007 SIDHS appears in Appendix D.

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We are grateful for the efforts of officials at international and local government levels who supported the survey. And finally, we are highly appreciative of all the field staff for their outstanding contributions reflected herein and, equally so, the respondents whose participation play a crucial role to the overall successful completion of this survey.

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The 2006/2007 Solomon Islands Demographic and Health Survey (2007 SIDHS) was one of four pilot DHSs in the Pacific under the ADB/SPC Regional DHS Pilot Project. The primary objective of the survey was to provide up-to-date information for policy-makers, planners, researchers and program managers to use in the planning, implementation, monitoring and evaluation of population and health programs in the country. The survey was intended to provide key estimates of the demographics and health of the country. In addition, the content of the survey was expanded to include questions on disability and gender-related violence.

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

The 2007 SIDHS is the result of an earnest effort put forth by different individuals and organizations. Conducted under the ADB/SPC Regional DHS Pilot Project, with technical assistance provided by Macro International Inc. and SPC, the survey was implemented by SISO. We acknowledge with much gratitude the generous financial support provided by the Asian Development Bank (ADB) and the Australian International Assistance Bureau, enabling the Solomon Islands National Statistics Office (SINSO) to undertake this survey, and we are particularly thankful to the Ministry of Health staff who offered guidance on the implementation of the survey from planning right through the preparation of this report.

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SUMMARY OF FINDINGS

The 2006/2007 Solomon Islands Demographic Health Survey (2006/2007 SIDHS) is a nationally representative survey of 3,823 women aged 15–49 and 2,056 men aged 15–54. The 2006/2007 SIDHS is the first for the country and one of the four DHS conducted in Pacific as part of the ADB/SPC Pacific Demographic and Health Surveys Pilot Project. The primary purpose of the SIDHS is to furnish policy-makers and planners with detailed information on fertility, family planning, infant and child mortality, maternal and child health and nutrition, and knowledge of HIV and AIDS and other sexually transmitted infections.

FERTILITY

Survey results indicate that the total fertility rate (TFR) for Solomon Islands is 4.6 births per woman. The TFR in urban areas (3.4 births per woman) is much lower than in rural areas (4.8 births per woman).

Education and wealth have a marked effect on fertility, with less educated mothers having more children (on average) than women with more than a secondary level education, and women in the lowest wealth quintile having two more children than women in the highest wealth quintile.

Childbearing starts early and is nearly universal. Women in Solomon Islands have an average of 2.1 children by the time they are in their late 20s and more than five children by the time they reach 50 years.

The initiation of childbearing in Solomon Islands has not changed much over time, although it seems that there is a slight increase in age at first birth in recent years. The median age at first birth in Solomon Islands is 21.6 years for women aged 25–29, the youngest cohort for whom a median age can be estimated. The findings further show that women in the highest wealth quintile, urban women, and women who have more than a secondary level education tend to have their first child at a later age than do other women.

Marriage patterns are an important determinant of fertility levels in a population. Age at first marriage for women appears to be slowly increasing in Solomon Islands. The median age at first marriage has increased from 19.1 years among women aged 35–39 to 20.6 years among women aged 25–29. Women in Solomon Islands tend to initiate sexual intercourse about two years before marriage, as evidenced by the median age at first intercourse among women aged 20–49 of 18.2 years compared with the median age at first marriage of 20.3 years. Similarly, age at first sexual intercourse among women in Solomon Islands also shows a very slow increasing trend. For example, while the percentages of women who had sexual intercourse by exact age 15 are the same or similar among younger cohorts of women and older women except at ages 15–19 years, the percentage of women who first had sexual intercourse by exact age 18 is lower among younger cohorts of women than older women in the 35–44 age group.

Men, however, tend to marry several years later than women and initiate sexual activity around the same time as women. The median age at first marriage among men aged 20–49 is 25.6 years, while the median age at first intercourse is 18.3 years. Age at first sex for men has remained relatively constant over the years.

Almost one-quarter of non-first births in Solomon Islands (23%) occur at least 24 months after the birth of the previous sibling while 55% occur within 36 months. The overall median birth interval is 34 months. Birth intervals vary by place of residence: urban women have longer intervals between births (35.3 months) compared with rural women (33.4 months).

FAMILY PLANNING

Overall, knowledge of family planning is very high in Solomon Islands with 93% of all women and 99% 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 both women and men.

About 58% of currently married women have ever used a family planning method at least once in their lifetime. Modern methods commonly ever used for family planning by married women are female sterilisation, injectables, and pills, with the rhythm method being the most commonly used traditional method.
Modern methods are more widely used than traditional methods, with 48% of currently married women using a modern method and 24% using a traditional method. The most popular modern method is injectables. About one out of three (35%) currently married women used any methods of contraception. Married women in urban areas are less likely to use contraception (29%) than women in rural areas (35%).

The majority of currently married women (83%) obtain contraceptive methods from public medical sources, while 6% obtain methods from other facilities, including private medical services where 9.2% obtain their contraceptive method from churches and non-governmental organisations.

Overall, 11% of currently married women have an unmet need for family planning services. The need for spacing (7%) is higher than the need for limiting (4%).

MATERNAL HEALTH

Ninety-five percent of women who had a live birth in the five years preceding the survey received antenatal care from a skilled health professional for their last birth. Over three in five (65%) of women make four or more antenatal care visits during their entire pregnancy. The median duration of pregnancy for the first antenatal visit is 5.6 months, indicating that Solomon Islands women start antenatal care at a relatively late stage in pregnancy.

Among women who received antenatal care, over half (55%) reported that they were informed about how to recognise signs of problems during pregnancy. Weight and blood pressure measurements were taken for 98.7% and 99% of women, respectively. Urine and blood samples were taken from 91% and 79% of women, respectively. Only 26% of women received two or more tetanus toxoid injections during their last pregnancy. An estimated 52% of births were reported to be protected against neonatal tetanus because of previous immunisations the mother had received.

Over eight in ten births occur in a health facility. Overall, 85% of births were delivered with the assistance of a trained health professional — a doctor, nurse, midwife, medical assistant, or clinical officer — while less 0.5% were delivered by a traditional birth attendant. About 4.4 percent of births were attended by other persons while 1.5 percent of births were delivered without any type of assistance at all.

Postpartum care is extremely high in Solomon Islands. Only 26% of women who had a live birth in the five years preceding the survey received no postnatal care at all, and 51% of mothers received postnatal care within the critical first two days after delivery. About 71% of women received first postnatal care from trained health professionals while about 2% were cared for by a traditional birth attendant.

Concern that no drugs were available, no care provider was available and getting money for treatment were the most commonly cited problems in accessing health care in Solomon Islands.

CHILD HEALTH

About 77% of children aged 12–23 months were fully vaccinated at the time of the survey. About 96% had received the BCG vaccination, and 81% 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. A small difference in coverage of DPT and polio is the result (in part) of stock-outs of the vaccines.

Over 93% of children received the first doses of DPT and of polio, although 87% of children received the third dose of DPT and 86% received the third dose of polio.

The occurrence of diarrhoea varies by age of the child. Young children ages 12–23 months are more prone to diarrhoea than children in other age groups. Diarrhoea prevalence is more common among male children, among children who live in households with a non-improved drinking water and toilet facility. There are no differences among children by urban and rural residence. The pattern of diarrhoea prevalence declines as a mother’s education level increases. Children in the lowest and fourth wealthiest households are more likely to have diarrhoea than children in other household quintiles.

Nearly four in five (78%) of children with diarrhoea were treated with some kind of oral rehydration therapy or increased fluids. About four in ten children (38%) were treated with oral rehydration salts prepared from an oral rehydration salts packet, 58% percent were given recommended home fluids, and 34% were given increased fluids.
ORPHANHOOD

Over two in ten households in Solomon Islands included one or more children who stayed with neither their natural father nor their natural mother. A higher percentage of households with foster children were found in urban areas (30%) than in rural areas (27%). Only one in ten households in Solomon Islands has orphans. More households have single orphans (5%) than double orphans (1%). No major variations exist between rural and urban areas regarding households with orphans.

In Solomon Islands, about seven out of ten (69.5%) children aged less than 18 years live with both parents, while 10% live with their mother but not with father even though the father is alive somewhere. Male children aged 0–9 years living in rural areas are more likely to be found living with their mothers.

About 14% of children do not live with either biological parent. These children are likely to be between the ages of 2 and 17 years living in both rural and urban areas and living in middle and fourth wealth quintile households. There is very little variation by sex.

Overall, about one-fifth (15%) of children do not live with biological parents, which is likely to increase as the age of the child increases and likely to take place in rural areas. The parents of about 4% of these children are dead.

BREASTFEEDING AND NUTRITION

Breastfeeding is nearly universal in Solomon Islands, with 93% 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 place of residence and wealth status. There is an obvious difference in the proportion ever breastfed children between rural and urban where the practice is almost universal (93%) in rural areas compared with rural areas (89%). Similarly, the proportions of children being breastfed are likely to be higher among mothers in lower wealth quintile households compared with mothers in wealthier households.

The median duration of breastfeeding is 22.6 months, while the median duration for exclusive breastfeeding is 4.2 months, and the median duration for predominant breastfeeding is 4.9 months. The mean duration is shorter with overall mean duration of breastfeeding at 21.7 months, while the mean duration for exclusive breastfeeding is 5.1 months and the mean duration for predominant breastfeeding is 5.8 months. There is little difference in the duration of breastfeeding by sex of the child. Rural children are breastfed for a slightly longer duration (23 months) than urban children (18.3 months). Mother’s with a secondary education breastfeed their children for a shorter duration than mothers with less education.

Between the ages of 6 and 23 months, children consume fruits and vegetables rich in vitamin A more often than any other food group. More than 84% of breastfeeding children and 86% of non-breastfeeding children in this age group ate fruits and vegetables in the day and night preceding the interview. The next most commonly consumed food group is food made from roots and tubers. Around 67% of breastfeeding and non-breastfeeding children ate food made from roots and tubers. The third commonly consumed food group is food made from grains, consumed by 42.4% of breastfeeding children and 49.4 percent of non-breastfeeding children.

About 85% of children aged 6–23 months who live with their mother received breast milk or other milk or milk products during the 24-hour period before the survey; 59% 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 about 60% had been fed the minimum number of times appropriate for their age. In summary, only 37% of children aged 6–23 months in Solomon Islands met the minimum standard with respect to all three WHO Infant and Young Child Feeding practices.

Ninety-one percent of youngest children aged 6–35 months who live with their mother consumed vitamin A-rich foods in the 24-hour period before the survey. Consumption of foods rich in vitamin A increases from 75% among children aged 6–8 months to 93% among children aged 6–8 months to 93% among children aged 12–35 months.

The staple diet of mothers of young Solomon Islands children consists of foods rich in Vitamin A (88%), food made from roots and tubers (78.5%), and food made from grains (61.7%). Almost three in five women (61.7%) consume food made from grains, whereas 47% of women consume other fruits and vegetables. Among mothers aged 15–49 with a child under age 3 years living with them, about 10% drink
milk while 41% drink tea and coffee, and 35% drink other liquids.

Observations made during the 2006/2007 SIDHS on thinness and wastage among children aged 0–5 years for whom wasting was observed for selected parts of their bodies show that more than one in ten children (11.8%) aged 0–5 years have low weight-for-age, and 2.4% are severely underweight. Underweight children are more common among children aged 9–11 months, children whose mothers have no education or only a primary education, and children living in the lowest wealth quintile households.

About 33% of children aged 0–5 years were stunted (i.e. low height-for-age). Stunting is more common among children aged 18–23 months, rural children, children whose mothers have no education or only a primary education, and children living in the second lowest wealth quintile. Only 4.3% of children aged 0–5 years in Solomon Islands were reported to be wasted (i.e. have low weight-for-height).

HIV AND AIDS AND STIs

Knowledge about AIDS is almost universal among the adult Solomon Islands population. A very high proportion of both women and men have heard of the disease; however men have a more comprehensive knowledge about AIDS (98%) than women (94%). The results also show that the level of knowledge is quite high for both women and men at different ages and marital status categories, place of residence, education levels and household wealth quintiles.

Men and women were specifically asked if it is possible to reduce the risk of acquiring HIV by consistently using condoms, limiting sexual intercourse to one uninfected partner who has no other sex partners, and abstaining from sexual intercourse. The results show that 61% of women and 69% of men agree that using a condom at every sexual intercourse can reduce the risk of getting AIDS, while 80% of women and 95% of men agree 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 through these specified prevention methods can be prevented by limiting sex with one uninfected partner (80% women, 95% men), abstaining from sex (77% women, 89% men), using condoms (61% women, 69% men) and limiting sex to one uninfected partner (56% women, 68% men).

About 71% of women and 83% of men know that a healthy-looking person can have the AIDS virus. Knowledge that people cannot get AIDS by mosquito bites is lower among women (63%). On the other hand, knowledge that people cannot get AIDS by supernatural means is higher for men (71%).

More than one in four women (29%) and 39% of men have such a comprehensive knowledge. Women in urban areas are more likely to have comprehensive knowledge (38%) than rural women (27%). Women who have ever had sex, and who have more than a secondary level education, who live in Western Province, and who live in the highest wealth quintile are more likely to have a comprehensive knowledge about HIV than other women. Comprehensive knowledge is more common among men in urban areas who are currently married, those with a higher education level, those in higher wealth quintiles, and those who live in Guadalcanal Province.

About 69% of women and 53% of men know that HIV can be transmitted from a mother to her child by breastfeeding. A very low proportion of women and men (both 6.7%) know that HIV can be transmitted through breastfeeding and that the risk of transmission can be reduced by special drugs. Less than one in ten women and men (8% and 9%, respectively) aged 15–49 know that there are special drugs that a doctor or nurse can give to a pregnant woman infected with the AIDS virus to reduce the risk of transmitting the virus to the baby.

Less women than men expressed positive attitudes and opinions toward family members with AIDS. For example, 66% of women and 72% of men report that they would not want to keep it a secret that a family member has AIDS while only 36% of women and 56% of men are willing to care for an HIV-infected family member. Only 30% of women and 55% of men report that they would buy vegetables from a shopkeeper who has AIDS.

More than 80% of both women and men in the 15–49 age group agree that a wife is justified in refusing to have sexual intercourse with her husband if she knows that he has a sexually transmitted disease. Almost the same proportion of women and men also agree that a wife is justified in refusing sexual intercourse or asking her husband to use a condom.
WOMEN'S EMPOWERMENT

Data for the 2006/2007 SIDHS show that 42% of currently married women and almost 87% of currently married men were employed at some time in the year prior to the DHS. Less than 60% of these women and men are likely to be paid in cash (33% and 52%, respectively). Women are more likely to work but not receive payment (56%) than men (22%). Similarly, women are less likely to be paid in-cash and in-kind than working men which 9% of women paid in-cash and in-kind as compared to 24% of men.

Overall, 16% of women decide by themselves how their husband’s earnings are to be spent, while 56% of women make the decision jointly with their husband or partner. About 23% report that the decision is mainly made by their husband or partner.

About 40% of women make decisions regarding daily household purchases on their own, and 21% report that they make decisions about major household purchases by themselves. About 28% of married women independently decide on their own health care while over half of all women report that this decision is made jointly with their husband or partner.

About 46% of men think that mainly the wife should make decisions about purchases of daily household needs while 40% think that this decision should be made jointly by a wife and her husband or partner. Over half (56%) of men think that a joint decision is required to purchase major household items compared with about 20% of men with a view that this decision should be left entirely to the wife.

Over 20% of men think that wives should decide on how they wish to spend their earnings while 59% percent of men think that this should be a joint decision between husbands and wives.

Data show that most women find that wife beating is justified in certain circumstances. Over two-thirds of women (69%) agree that at least one of the reasons asked about during the SIDHS is sufficient justification for a wife to be beaten. This indicates that Solomon Islands women generally accept violence as part of male-female relationships, which is not surprising because traditional norms teach women to accept, tolerate and even rationalise battery.

Men were also asked about their opinions on the justification of wife beating under certain circumstances. Almost six in ten men agree that wife beating is justified for at least one of the specified reasons. It is interesting to note that this is slightly lower than the percentage of women who agreed with at least one of the reasons (64% for men compared with 69% for women).

Interestingly, the DHS data also show that over seven in ten women and men (74% women, 75% men) believe that a woman has the right to refuse sex with the husband for all of the specified reasons.

MORTALITY

Evidence from the 2006/2007 SIDHS points to a much lower infant mortality rate (IMR) (i.e. 24 infant deaths per 1,000) than the IMR reported by the 1999 census (66).

Even allowing for significant sampling errors — which are reflected in the high relative standard error and wide confidence interval (14.4–34.2) — and for non-sampling errors — such as the under-recording of infant deaths in the survey operation — we can say with some confidence that improvements in infant and child health have taken place since 1999.

What we cannot say for certain, is that the current IMR actually equals 24.

We cannot ascertain the magnitude of this change because the years of civil unrest in the lead-up to the 1999 census caused an almost complete breakdown in government service provisions, including health, in many parts of Solomon Islands. All of this could have contributed to a much higher IMR in 1999 than one would have encountered under more peaceful circumstances.

The IMR in 1999 for Vanuatu (27 per 1,000) lends support to such reasoning as Vanuatu is a neighbouring Melanesian country that faces similar challenges as Solomon Islands with regard to health services provision as well as endemic malaria.

About 27% of births in Solomon Islands are not in any high-risk category. An additional 19% of births are first order births to mothers aged 18–34, which is considered an unavoidable risk category. The remaining 55% of births in Solomon Islands are in at least one of the specified avoidable high-risk categories, experienced by 63% of currently married women.
Over one-third of births (37%) are in only one of the high-risk categories: 1) in birth orders higher than 3 (24%) and 2) in short birth intervals of less than 24 months (9%). Meanwhile 18% of births are in multiple high-risk categories. Births in multiple high-risk categories are found mostly in two combinations: mother’s age greater than 34, and birth orders higher than 3 (9% of births); and birth order higher than 3 with birth intervals less than 24 months (7% of births).
## DHS Indicators Required by International Agencies

<table>
<thead>
<tr>
<th>Indicator</th>
<th>National</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net enrolment ratio in primary education (overall net attendance ratio)</td>
<td>65.4</td>
<td>72.1</td>
<td>64.5</td>
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<tr>
<td>Net enrolment ratio in primary education (net attendance ratio — males)</td>
<td>62.5</td>
<td>69.1</td>
<td>61.5</td>
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<tr>
<td>Net enrolment ratio in primary education (net attendance ratio — females)</td>
<td>68.7</td>
<td>76.0</td>
<td>67.8</td>
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<tr>
<td>Literacy rate of women aged 15–49</td>
<td>78.4</td>
<td>86.2</td>
<td>76.9</td>
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<tr>
<td>Literacy rate of men aged 15–49</td>
<td>88.4</td>
<td>95.0</td>
<td>86.9</td>
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<tr>
<td>Literacy rate of women aged 15–24</td>
<td>84.9</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Literacy rate of men aged 15–24</td>
<td>86.5</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Ratio of literate women to men aged 15–24</td>
<td>98.1</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Ratio of literate women to men aged 15–49</td>
<td>88.7</td>
<td>90.7</td>
<td>88.5</td>
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<tr>
<td>Share of women in wage employment in the non-agricultural sector</td>
<td>52</td>
<td>-</td>
<td>-</td>
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<td>Under-5 mortality rate (0–9 years before the DHS)</td>
<td>37</td>
<td>31</td>
<td>38</td>
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<tr>
<td>Infant mortality rate (0–9 years before the DHS)</td>
<td>26</td>
<td>23</td>
<td>27</td>
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<tr>
<td>Percent of 12–23 month-old children fully immunised (BCG, measles, etc.)</td>
<td>82.7</td>
<td>84.4</td>
<td>82.4</td>
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<tr>
<td>Percent of births attended to by skilled health personnel</td>
<td>84.5</td>
<td>94.4</td>
<td>83.1</td>
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<td>Contraceptive prevalence rate (currently married women)</td>
<td>34.6</td>
<td>29.3</td>
<td>35.4</td>
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<td>Percent of population cooking with solid fuels</td>
<td>92.3</td>
<td>59.8</td>
<td>97.6</td>
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<tr>
<td>Percent of population with sustainable access to an improved water source, urban and rural</td>
<td>84.2</td>
<td>94.0</td>
<td>82.6</td>
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<tr>
<td>Percent of population with access to improved sanitation, urban and rural</td>
<td>17.6</td>
<td>76.8</td>
<td>7.8</td>
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