Madagascar
Demographic and Health Survey 2003-2004
Key Findings
This report summarizes the findings of the Demographic and Health Survey (EDSMD-III) undertaken in Madagascar from November 23, 2003 to March 28, 2004 by the Direction de la Démographie et des Statistiques Sociales (DDSS) [Directorate of Demography and Social Statistics] of the Institut National de la Statistique (INSTAT) [National Statistical Institute], in collaboration with the Ministère de la Santé et du Planning Familial [Ministry of Health and Family Planning]. The EDSMD-III project was undertaken with funding from the World Bank through its projects: the Programme Multisectoriel pour la Prévention du Sida (PMPS) [Multisectoral Program for the Prevention of HIV], CRESAN 2, and SEECALINE; the United Nations Children’s Fund (UNICEF); the United Nations Fund for Population Activities (UNFPA); and the U.S. Agency for International Development (USAID). Technical assistance was provided by the worldwide Demographic and Health Surveys – MEASURE DHS+ of ORC Macro, which is designed to collect, analyze, and disseminate demographic data on fertility, family planning, and maternal and child health.

The EDSMD-III contains information collected from 8,420 households, 7,949 women age 15-49 and 2,432 men age 15-59 years. The results are significant at the level of residence (capital, other cities, total urban and rural) and at the level of the six provinces.

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Additional information about the MEASURE DHS+ program may be obtained by writing to ORC Macro, 11785 Beltsville Drive, Calverton, MD 20705, USA (Telephone: 301-572-0200; Fax: 301-572-0999; e-mail: reports@orcmacro.com; Internet: http://www.measuredhs.com/).

Prepared by Randretsia Iarivony, Victor R. Rabeza, Monique Barrère and Soumaila Mariko

Production by Katherine Senzee, Erica Nybro and Daniel Vadnais

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BACKGROUND CHARACTERISTICS OF THE POPULATION AND HOUSEHOLD LIVING CONDITIONS

Data collected on age, sex, and level of education of the household population as well as on housing characteristics provide a description of the socio-demographic and environmental context in which the men and women interviewed live.

Household population structure
In Madagascar, almost half of people are under age 15; the proportion of people age 15 to 64 (economically active ages) varies between 50 and 52 percent, and very few (around 3 percent) are over 65.

Household composition
A Malagasy household is made up, on average, of 4.6 people and this mean size varies slightly from 4.7 in rural areas to 4.4 in urban zones. Very few households have 9 or more people (7 percent) although this is more common in rural areas and least common in the capital. Nearly one household in four (22 percent) is headed by a woman. This proportion varies from 21 percent in rural areas to 26 percent in the urban zone. Among children under age 15, two thirds live with their parents (66 percent). Only a very small proportion of children (less than one percent) are orphaned by both father and mother.

Level of education of the population
Despite certain recent improvements, one in five men and about a quarter of women (24 percent) have no education. By comparison, these proportions were 25 percent for men and 29 percent for women in 1997. The proportion of people with no education is higher in rural areas (23 percent for men and 28 percent for women) than in urban zones (9 and 11 percent, respectively). It is in the capital that these proportions are the lowest for both sexes: 2 percent for men and 3 percent for women. Differences are also noted at the provincial level. The proportion of women with no education varies from a minimum of 11 percent in the province of Antananarivo to a maximum of 43 percent in Toliara; for men, this proportion varies from a minimum of 7 percent in the province of Antananarivo to a maximum of 43 percent in Toliara.

Housing Characteristics
One in five households has electricity; this proportion varies from 84 percent in the capital to 11 percent in rural areas. At the national level, 35 percent of households have access to safe drinking water, with 74 percent of urban homes having access compared with only 23 percent of rural homes. Almost all (98 percent) of households in the capital have safe drinking water. Furthermore, 45 percent do not have toilet facilities; in the rural zone this proportion includes more than half of households (53 percent). Almost half of households use pit toilets (49 percent).
CHARACTERISTICS OF WOMEN AND MEN INTERVIEWED

The socio-demographic characteristics of the population of women and men interviewed (residence, education, literacy, employment, exposure to media) constitute background information that is essential for the analysis of all health and demographic indicators.

Spatial distribution of the population
More than three quarters of people interviewed live in rural areas (75 percent of women and 76 percent of men). The urban zone includes about a quarter of those interviewed of whom 6 percent live in the capital.

Education and literacy
More than one in five women and a smaller proportion of men have never gone to school (respectively 22 and 16 percent). Approximately 12 percent of men and 14 percent of women have finished the primary level and only 5 percent of women and 7 percent of men have completed the secondary level. Finally, twice as many men as women have higher education (4 percent compared to 2 percent). On the other hand, a quarter of men (25 percent) and 29 percent of women are illiterate.

Economic activity
More than three quarters of women (79 percent) and a much larger proportion of men (87 percent) were working at the time of the survey. The greatest portion of men and women were working in the agricultural sector (68 percent of men and 71 percent of women). Sixteen percent of women and 12 percent of men were employed in the sales and services sector.

Television and radio are the two principal means of information: 23 percent of women watch television at least once a week and 60 percent listen to the radio at least once a week. In contrast, only 19 percent of women said they had read a newspaper or magazine at least once a week.

Only 12 percent of women and 13 percent of men are exposed to all three of these media. On the other hand, 38 percent of women and 31 percent of men are not exposed to any media.

It is in urban areas, particularly in the capital, that men and women are most frequently exposed to these three sources of information.
FERTILITY AND ITS DETERMINANTS

The data collected during the survey permit the estimation of levels of fertility. They also provide information on the various factors that affect the reproductive lives of women. Moreover, the survey tries to determine the family size preferences of women and men.

Current levels of fertility

The fertility of Malagasy women remains high since each woman gives birth, on average, to 5.2 children by the end of her reproductive life. This level represents a decline from the level of 6.0 births per woman obtained during the 1997 EDS-II.

Significant differences in fertility levels exist according to place of residence: women from rural areas have considerably higher fertility than those from other cities (5.7 children per woman versus 4.0 children per woman) and those from the capital (2.7 children). Similarly, the fertility of women with a secondary education or higher (3.4 children) is notably lower than that for women with primary education (5.7) and that for women with no education (6.6).

Slightly more than a third of adolescents age 15-19 (34 percent) have already begun their reproductive life; 28 percent of teenagers have had at least one child and 6 percent are pregnant with the first child.

Nearly a quarter of births (24 percent) arrive too soon after the birth of the preceding child (less than 24 months after); 57 percent of births arrive less than 36 months after.

Marriage and exposure to pregnancy

Nearly two-thirds of women were in union at the time of the survey (65 percent). Among men, 63 percent were in union. Among women age 25-49, half had already had one union by 19.1 years (23.5 years among men). Half of women age 25-49 had had their first sexual intercourse by age 17.5. Among men, the first sexual intercourse occurs at a slightly later age (median age of 18 years).

Adolescent pregnancy and motherhood has decreased. In 1997, 56 percent of women age 18 had a child or were pregnant; this proportion has now dropped to 48 percent.
Fertility preferences
Two in five women (41 percent) and slightly more than a third of men (35 percent) said they do not want any more children. Among women who want another child, a majority wish to space the next birth by at least two years.

Ideal number of children
For women, the ideal number of children is 4.8. Men wish to have a noticeably higher number of children (on average 5.4). This ideal number of children is higher in rural areas (5.1 for women and 5.8 for men) than in urban areas (3.9 and 4.4, respectively). The most educated women and men want fewer children (3.5 and 3.7, respectively) than those with no education (6.4 and 8.3).

Wanted fertility
The disparity between current fertility (5.2 children per woman) and wanted fertility (4.7 children per woman) illustrates the amount of unmet need which exists for family planning.
FAMILY PLANNING

Use of family planning methods and, more specifically, modern methods, allows women and couples to better achieve their fertility objectives and ideal family size.

Knowledge and use of contraception

An equal number of women and men said that they knew at least one method of modern contraception (82 percent). Only 22 percent of women said that they were using any method of contraception at the time of the survey; with only 14 percent using a modern method. In 8 percent of cases, these women are using injectable products, while 3 percent of women are using the pill and 1 percent are using condoms. Traditional methods are employed by 8 percent of women, nearly all of whom are using periodic abstinence.

The women who most frequently use modern methods are those living in the capital (33 percent) as well as those who have had secondary education or more (28 percent). On the other end of the spectrum, only 16 percent of women from rural areas and 5 percent of those with no education use a modern method of contraception.

Among women in union who were not using contraception at the time of the survey, 38 percent said they intended to use it in the future, while 47 percent of women did not intend to use it in the future. In one in five cases, those who did not intend to use it most often cited the desire to have other children as their reason for nonuse (20 percent); 18 percent were concerned about side effects.

Trends in the use of contraception

Contraceptive prevalence has experienced a very significant increase in recent years: from 17 percent in 1992 and 19 percent in 1997 to 27 percent in 2003-2004. Modern method use has practically doubled, going from 5 percent in 1992 to 10 percent in 1997 and reaching 18 percent in 2003-2004.

Fertility planning and need for family planning

Nearly all births (93 percent) were wanted. The great majority of these births (83 percent) occurred at the desired time, while in 10 percent of cases, the women would have preferred that they happen later. On the other hand, more than 6 percent of births were not wanted. If all unmet need were met, contraceptive prevalence could reach 51 percent among women in union (expressed need). That would be nearly two times the current rate.
Reproductive Health

A significant number of infant deaths could be avoided if women received adequate antenatal care during pregnancy, if delivery were assisted by a trained medical professional, and if the women benefited from postnatal care.

Antenatal care

A large majority (80 percent) of the births occurring during the past five years were preceded by antenatal care consultations by qualified professionals. However, only 40 percent of mothers made the four recommended antenatal visits and, in only 16 percent of cases did the first visit occur at less than four months of pregnancy. Even though most of the standard examinations were carried out, only 36 percent of women were informed about signs of complications in pregnancy.

More than half of births in the last five years (58 percent) have been protected by two doses of tetanus toxoid vaccine given to the mother.

Place of birth and assistance at delivery

During the past five years, nearly a third of births took place in a health facility (32 percent). Women in rural areas, those in the provinces of Toamasina, Mahajanga and Toliara, those with no education and those who had no antenatal visit gave birth at home without a trained medical professional far more frequently than others. Overall, half of women (51 percent) received assistance from a trained professional at delivery.

Postnatal care

Nearly 3 in 5 births which did not take place in a health facility were not followed up with any postnatal consultation (57 percent). This lack of follow-up care for the mother and child is particularly common in rural areas (59 percent), among mothers with no education (69 percent) and for mothers from the provinces of Toamasina (69 percent) and Toliara (74 percent).
CHILD HEALTH

Several years ago the Ministry of Health instituted an Expanded Program on Immunization (EPI) through which all children would be required to receive the BCG vaccine, three doses of both DPT and polio vaccines, and the vaccine for measles before the age of one.

Immunization coverage
Slightly more than half of children age 12-23 months (53 percent) have received the entire series of immunizations and all the doses of vaccines in the EPI. By contrast, 21 percent of children have received no vaccines. The majority of children are therefore only partially immunized and the drop off rates between the first and third doses of vaccine are high (18 percent for polio).

Immunization coverage is highest in the capital (83 percent) and is better among children from urban areas (70 percent), than for those from rural zones (49 percent). In the provinces of Toliara and Antsiranana, less than three children in ten have received the entire series of immunizations and all doses of vaccines in the EPI. Only 30 percent of children whose mother has no education have been completely immunized compared with 78 percent of those whose mother has gone to secondary school. Moreover, immunization coverage varies to a significant degree by the economic well being of the household: among the wealthiest households, 80 percent of children have received all the immunizations compared with 32 percent in the poorest households.

Childhood diseases
Approximately one in ten children (9 percent) showed symptoms of acute respiratory infection (ARI). ARI prevalence is highest among children 6-23 months of age (on average, 13 percent). Moreover, according to statements by the mothers, about one in five children (21 percent) had a fever in the two weeks preceding the survey. Like ARI, the prevalence of fever is highest among children 6-23 months of age (30 percent). The prevalence of ARI and fever is especially high in the provinces of Toamasina and Toliara (16 percent for ARI and 32 and 33 percent for fever, respectively).

Treatment was sought at a health facility or from a health caregiver for 39 percent of children who had ARI and/or fever. Children in urban areas (57 percent), especially those from the capital (63 percent) are more likely to be treated by health professionals for ARI and/or for fever than children in the rural areas (35 percent).

One in ten children under five had diarrhea in the two weeks preceding the survey. Children age 6-23 months are the most vulnerable age group. Diarrhea is especially common in Toliara (21 percent). Nationally, less than half of the sick children (43 percent) benefited from Oral Rehydration Therapy since they had been given rehydration salts orally or a homemade solution. In 19 percent of cases children who had diarrhea were given no treatment.
Breastfeeding and Nutritional Status of Children and Women

Malnutrition seriously affects the health of both children and women. The greatest repercussion is the increase in mortality risks. Exacerbation of the risk of contracting diseases, and poor mental development are other equally important consequences.

Breastfeeding

Breastfeeding is practically universal for children born during the last five years. However, only 62 percent were breastfed in the hour following birth and 39 percent were given prelacteal semisolid food prior to the beginning of breastfeeding.

The median duration of breastfeeding is 21.6 months. This duration is shortest in the province of Antsiranana at 17.5 months.

Two-thirds of children under 6 months of age (67 percent) are breastfed exclusively. In 13 percent of cases, children have already been given supplementary foods before 6 months of age. Starting at six months, the age at which breastfeeding alone is insufficient for ensuring the best possible growth for children, it is recommended that supplementary solid foods be introduced into the diet in addition to breast milk. In Madagascar, 78 percent of children 6-9 months of age are receiving supplementary food.

Nutritional status of children under age 3

More than two out of five children under the age of 3 (45 percent) are stunted, and half of these are severely stunted. By 24-35 months, an age after which stunting is difficult to reverse, more than half of children (50 percent) are too short for their age. Stunting varies by residence and by region. In rural areas, 46 percent of children are stunted compared with 39 percent in the urban zones; stunting varies from a maximum of 50 percent in the province of Antananarivo to a minimum of 32 percent in Antsiranana. The prevalence of stunting is influenced by the size of the child at birth since 60 percent of children who were small at birth are now stunted, compared with 41 percent of those who were large or average. Finally, only 36 percent of children whose mothers have a secondary level of education or greater are stunted compared with 47 percent of those whose mothers have no education.

Among children under age three, 14 percent suffer from acute malnutrition and are wasted. The prevalence of wasting is particularly high among children age 12-23 months (18 percent), among those whose birth interval with the preceding child is less than 24 months (17 percent) and among those whose size at birth is very small (19 percent).
Two in five children are underweight. Half of children age 10-23 months suffer from this form of malnutrition. The prevalence of underweight is particularly high among children who were very small at birth (56 percent) and among children living in the poorest households (46 percent).

**Consumption of micronutrients and vitamin A**
Vitamin A deficiency affects a child’s immune system and increases the risk of death. UNICEF and WHO recommend that a vitamin A control program be established in all countries where infant and child mortality is higher than 70 per thousand and in which vitamin A deficiency is a public health problem.

More than three quarters of children under age five have received vitamin A supplements. Supplementation is highest in the capital (85 percent) and among children whose mothers have a secondary education or more (90 percent).

**Prevalence of anemia among children**
In Madagascar, more than two-thirds of children 6-59 months of age (68 percent) have anemia. These proportions are highest among those whose mothers are very young (15-19 years) and whose mothers have no education (84 and 80 percent, respectively).

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**Iodized Salt**

A lack of iodine in the body may result in the delay of a child’s mental development and cause growth in the size of the goiter among adults. Iodized salt increases the amount of iodine in women’s and children’s diet. Seven in ten households were consuming iodized salt. The use of iodized salt is more frequent in urban areas (80 percent) than in rural zones (68 percent). Its consumption varies from a minimum of 23 percent in Toliara to a maximum of 88 percent in Toamasina and Antsiranana.
Nutritional status of women

In Madagascar, the average height of women is 153.3 centimeters and 7 percent of women are very short with a height of less than 145 centimeters. A high proportion of women (19 percent) have a Body Mass Index (BMI) lower than 18.5, representing a chronic energy deficiency. Low BMI is most common among women 15-19 years (21 percent) and among those 45-49 (22 percent). The prevalence of chronic energy deficiency is higher in rural areas than in the capital (21 percent compared with 9 percent).

By contrast, 7 percent of women have a high BMI (at least 25) and are overweight.

Anemia and night blindness

More than two in five women age 15-49 (46 percent) are anemic: 35 percent have a mild case and 9 percent have moderate anemia. Severe anemia affects 3 percent of women. In addition, one pregnant woman in two (50 percent) suffers from anemia. The prevalence of anemia is higher in rural areas than in the capital (49 percent compared with 29 percent) and is particularly elevated in the province of Antsiranana (63 percent), among women with no education (55 percent) and among those from the most disadvantaged households (59 percent).

One percent of women suffer from night blindness. This form of blindness is more frequent among women from the provinces of Toamasina and Mahajanga (2 percent).
MORTALITY

The levels, trends, and characteristics of childhood mortality are a function of the health, environmental, socioeconomic and cultural conditions that prevail in a population. For that reason, the level of childhood mortality is considered one of the best indicators of the level of development of a country.

Childhood mortality

During the five years preceding the survey, it is estimated that 58 children per 1,000 live births died before their first birthday, and for every 1,000 children born, 94 died before reaching the age of 5. Mortality is lower in urban areas than in rural areas, and is especially low in the capital. Survey results show that three provinces are characterized by relatively low levels of mortality: Antananarivo (80 ‰), Fianarantsoa (102 ‰) and Antsiranana (117 ‰), while three others have noticeably higher levels: Toamasina (129 ‰), Mahajanga (134 ‰) and Toliara (140 ‰). Fianarantsoa is the province where child survival has improved the most between the EDS-II and the EDSMD-III.

The chances of a child’s survival are also influenced by certain aspects of the mother’s pregnancy. Neonatal mortality is highest among children whose mothers are under age 20 (49 ‰) or age 40 and over (50 ‰). High rates of infant mortality are also observed among first births (83 ‰) and among higher birth order ranks (seven or more) (83 ‰). Moreover, among children whose birth interval is less than 2 years, under-five mortality (171 ‰) is nearly three times greater than that for children whose interval after the preceding birth is at least four years (59 ‰).
Knowledge of STIs and HIV/AIDS and Prevalence of Syphilis

Madagascar is characterized by a high prevalence of Sexually Transmitted Infections (STIs).

Knowledge of STIs
Nearly half of all women and a quarter of men do not know about STIs. This proportion is particularly high among young women age 15-19.

Among women and men who said they have a STI or STI symptoms in the last 12 months, more than a quarter of women (27 percent) and a fifth of men (20 percent) had not sought advice or treatment for their STI.

Prevalence of syphilis
Syphilis constitutes a real public health problem in Madagascar. During the EDSMD-III, a test of sero-prevalence was carried out among eligible women age 15-49 and men age 15-59 to determine the prevalence of syphilis.

Currently in Madagascar, 3.8 percent of the adult population age 15-49 is affected by syphilis. The level is slightly higher among women (4.2 percent) than men (3.5 percent).

Syphilis prevalence is higher in rural areas than urban (4.2 versus 2.7 percent). Syphilis is most common in Toamasina (8.6 percent), Toliara (6.2 percent), Antsiranana (5.7 percent) and Mahajanga (5.3 percent). The provinces of Antananarivo and Fianarantsoa have the lowest levels of prevalence (0.9 and 1.8 percent, respectively).

Syphilis prevalence increases according to the number of sexual partners. Among women, prevalence goes from 4.3 percent among those having had only one partner in the last 12 months to 16.7 percent for those who have had at least two.

Knowledge of AIDS and the means of prevention
In Madagascar, a high proportion of men (88 percent) and women (79 percent) have heard about AIDS. However, only 64 percent of women and 76 percent of men think that there is a way to avoid getting it.

Only 19 percent of women and men have correct knowledge of the two main means of prevention of HIV/AIDS — use of the condom and having sexual intercourse with only one faithful partner who is not infected — and reject the three common misconceptions — that a healthy-looking person can have AIDS and that HIV/AIDS cannot be transmitted through mosquito bites or by sharing food with someone who has the AIDS virus. Those who live in the capital, have secondary education or higher, or come from the wealthier households are most likely to know the correct HIV/AIDS information.

Among young people age 15-24 who have had sexual intercourse in the 12 months preceding the survey, 31 percent of women and 72 percent of men had high risk sexual intercourse, that is, with a partner who is not a spouse or living with them. Only 5 percent of young women and 12 percent of young men used a condom during their most recent high risk sexual intercourse.
### Key Indicators

#### Fertility

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fertility Rate (average number of children per woman)</td>
<td>5.2</td>
<td>3.7</td>
<td>5.7</td>
<td>4.2</td>
<td>5.7</td>
<td>5.0</td>
<td>6.1</td>
</tr>
<tr>
<td>Ideal number of children (women age 15-49)</td>
<td>4.8</td>
<td>3.9</td>
<td>5.1</td>
<td>3.8</td>
<td>4.8</td>
<td>4.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Median age at first sexual intercourse (women age 25-49)</td>
<td>17.5</td>
<td>18.2</td>
<td>17.1</td>
<td>18.8</td>
<td>17.1</td>
<td>16.8</td>
<td>16.6</td>
</tr>
<tr>
<td>Median age at first union (women age 25-49)</td>
<td>19.1</td>
<td>20.2</td>
<td>18.8</td>
<td>20.7</td>
<td>19.0</td>
<td>18.9</td>
<td>17.9</td>
</tr>
<tr>
<td>Women age 15-19 who are already mothers or pregnant (%)</td>
<td>34</td>
<td>22</td>
<td>38</td>
<td>19</td>
<td>34</td>
<td>36</td>
<td>56</td>
</tr>
</tbody>
</table>

#### Childhood Mortality

(Deaths per 1,000 children for the 10 years preceding the survey, except at the national level (5 years))

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal mortality</td>
<td>32</td>
<td>22</td>
<td>37</td>
<td>27</td>
<td>27</td>
<td>45</td>
<td>39</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>58</td>
<td>43</td>
<td>76</td>
<td>53</td>
<td>61</td>
<td>87</td>
<td>75</td>
</tr>
<tr>
<td>Under-5 mortality</td>
<td>94</td>
<td>73</td>
<td>120</td>
<td>80</td>
<td>102</td>
<td>129</td>
<td>134</td>
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</table>

#### Family Planning

Women in union, age 15-49:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know a method (%)</td>
<td>85</td>
<td>95</td>
<td>82</td>
<td>95</td>
<td>80</td>
<td>85</td>
<td>78</td>
</tr>
<tr>
<td>Use a method (%)</td>
<td>27</td>
<td>41</td>
<td>23</td>
<td>42</td>
<td>15</td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td>Use a modern method (%)</td>
<td>18</td>
<td>27</td>
<td>16</td>
<td>27</td>
<td>11</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Unmet need for FP (%)</td>
<td>24</td>
<td>19</td>
<td>25</td>
<td>22</td>
<td>24</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>For spacing births (%)</td>
<td>11</td>
<td>9</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>For limiting births (%)</td>
<td>12</td>
<td>10</td>
<td>13</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

#### Maternal Health

Percent of women who delivered a live birth in the 5 years preceding the survey who have:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received antenatal care from a trained health professional</td>
<td>80</td>
<td>90</td>
<td>77</td>
<td>91</td>
<td>79</td>
<td>71</td>
<td>78</td>
</tr>
<tr>
<td>Received iron supplements</td>
<td>32</td>
<td>44</td>
<td>30</td>
<td>41</td>
<td>38</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>Received antimalarial medication</td>
<td>58</td>
<td>70</td>
<td>55</td>
<td>58</td>
<td>60</td>
<td>57</td>
<td>53</td>
</tr>
</tbody>
</table>

Percent of births in the 5 years preceding the survey for which the mother has:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
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<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received at least 2 tetanus toxoid injections</td>
<td>40</td>
<td>48</td>
<td>38</td>
<td>43</td>
<td>43</td>
<td>40</td>
<td>35</td>
</tr>
<tr>
<td>Received vitamin A postpartum</td>
<td>19</td>
<td>24</td>
<td>18</td>
<td>30</td>
<td>14</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Delivered in a health facility</td>
<td>32</td>
<td>43</td>
<td>30</td>
<td>45</td>
<td>30</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Delivered with the assistance of a health professional</td>
<td>51</td>
<td>76</td>
<td>46</td>
<td>66</td>
<td>53</td>
<td>38</td>
<td>47</td>
</tr>
</tbody>
</table>

#### Child Health

Percent of children age 12-23 mois who have received:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>All the EPI vaccines (BCG, measles, 3 doses of DPT and polio)</td>
<td>53</td>
<td>70</td>
<td>49</td>
<td>76</td>
<td>65</td>
<td>44</td>
<td>32</td>
</tr>
<tr>
<td>No EPI vaccine</td>
<td>21</td>
<td>10</td>
<td>24</td>
<td>8</td>
<td>17</td>
<td>19</td>
<td>34</td>
</tr>
</tbody>
</table>

Percent of children who received professional health care when they exhibited symptoms of:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>National</th>
<th>Antananarivo</th>
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<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute respiratory infections or fever</td>
<td>39</td>
<td>57</td>
<td>35</td>
<td>41</td>
<td>46</td>
<td>33</td>
<td>40</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>32</td>
<td>41</td>
<td>30</td>
<td>27</td>
<td>41</td>
<td>29</td>
<td>28</td>
</tr>
</tbody>
</table>
### Nutrition

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th></th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median duration of exclusive breastfeeding</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children age 6-59 months who are anemic (%)</td>
<td>68</td>
<td>63</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women age 15-49 who are anemic (%)</td>
<td>46</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children under age 3 who are stunted (%)</td>
<td>45</td>
<td>39</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children under age 3 who are wasted (%)</td>
<td>14</td>
<td>13</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children under age 3 who are underweight (%)</td>
<td>40</td>
<td>35</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mothers age 15-49 who are too thin (BMI &lt; 18.5) (%)</td>
<td>19</td>
<td>15</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mothers age 15-49 who are overweight (BMI ≥ 25) (%)</td>
<td>7</td>
<td>13</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Malaria

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th></th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households with a bednet (%)</td>
<td>39</td>
<td>44</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households where all children slept under a bednet the night before the survey (%)</td>
<td>36</td>
<td>41</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnant women who slept under a bednet the night before the survey (%)</td>
<td>35</td>
<td>44</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HIV/AIDS and Sexually Transmitted Infections (STIs)

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th></th>
<th>Antananarivo</th>
<th>Fianarantsoa</th>
<th>Toamasina</th>
<th>Mahajanga</th>
<th>Toliara</th>
<th>Antsiranana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women who have heard of AIDS (%)</td>
<td>79</td>
<td>93</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men who have heard of AIDS (%)</td>
<td>88</td>
<td>97</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women who know that a healthy-looking person can have the AIDS virus (%)</td>
<td>48</td>
<td>70</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men who know that a healthy-looking person can have the AIDS virus (%)</td>
<td>48</td>
<td>67</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women who know 2 means of prevention and reject three misconceptions about AIDS (%)*</td>
<td>19</td>
<td>31</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men who know 2 means of prevention and reject three misconceptions about AIDS (%)*</td>
<td>19</td>
<td>32</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women who have been tested for HIV and have received the results (%)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men who have been tested for HIV and have received the results (%)</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women who think that a woman has a right to refuse sexual intercourse if her partner has a STI (%)</td>
<td>87</td>
<td>93</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men who think that a woman has a right to refuse sexual intercourse if her partner has a STI (%)</td>
<td>90</td>
<td>95</td>
<td>89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women age 15-24 who had sexual intercourse by age 15 (%)</td>
<td>31</td>
<td>25</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men age 15-24 who had sexual intercourse by age 15 (%)</td>
<td>22</td>
<td>15</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women age 15-49 who recently had syphilis (%)</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men age 15-49 who recently had syphilis (%)</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The two means of prevention suggested in the survey were condom use and fidelity to a single partner; the three misconceptions were that AIDS can be transmitted by mosquitoes, that a person can be infected by sharing meals with someone who has AIDS, and that a healthy-looking person cannot have the AIDS virus.