Guatemala

National Survey on Maternal and Child Health

1987

Summary Report

[COPY FOR BACK COVER]

Ministerio de Salud Pública y Asistencia Social
6a. Calle
6a. Avenida
Zona 1
Ciudad de Guatemala 01001, Guatemala, C.A.

Instituto de Nutrición de Centro América y Panamá
Calzada Roosevelt
Zona 11
Ciudad de Guatemala, Guatemala, C.A.
CONTENTS

EXECUTIVE SUMMARY

BACKGROUND

MATEPNAL AND CHILD HEALTH
  Infant and Child Mortality
  Maternity Care
  Breastfeeding and Infant Health
  Diarrhea
  Prevention of Childhood Diseases
  Nutritional Status of Children

FERTILITY
  Factors Affecting Fertility
    Age at Marriage and First Birth
    Breastfeeding and Postpartum Infecundity
  Fertility Desires

FAMILY PLANNING
  Knowledge of Contraception
  Contraceptive Use
  Barriers to Contraceptive Use
  Family Planning Services
  Media Exposure
  Potential Demand for Family Planning Services

CONCLUSIONS

FACT SHEET
This report summarizes the findings of the 1987 National Survey on Maternal and Child Health of Guatemala (ENSMI), conducted by the Departamento Materno-Infantil of the Ministerio de Salud Pública y Asistencia Social de Guatemala. Data collection and processing were done by the Instituto de Nutrición de Centro-América y Panamá (INCAP). The Institute for Resource Development provided funding and technical assistance. Additional funding was provided by the U.S. Agency for International Development/Guatemala, UNICEF, AVSC and the Pan American Health Organization. Editorial and production support for this report was provided by the IMPACT project of the Population Reference Bureau.

The Guatemala survey is part of the worldwide Demographic and Health Surveys (DHS) Program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information on the Guatemala survey may be obtained from the Departamento Materno-Infantil of the Ministerio de Salud Pública y Asistencia Social, Palacio Nacional, 6a. Calle, 6a. Avenida, Zona 1, Ciudad de Guatemala 01001, Guatemala or the Instituto de Nutrición de Centro-América y Panamá (INCAP), Calzada Roosevelt, Zona 11, Ciudad de Guatemala, Guatemala, C.A. Additional information about the DHS program may be obtained by writing to: DHS, Institute for Resource Development/Macro Systems, 8850 Stanford Boulevard, Suite 4000, Columbia, MD 21045, U.S.A. (Telex 87775).

November 1989
EXECUTIVE SUMMARY

Guatemalan fertility and child mortality levels remain among the highest in Latin America, despite decreases during the past decade, according to the results of the 1987 National Survey of Maternal and Child Health of Guatemala (Encuesta Nacional de Salud Materno-Infantil--ENSMI).

A key finding of the survey is that the effects of chronic malnutrition are widespread among Guatemalan children, especially those aged 12-36 months. More than two-thirds of the children in this age group are stunted--short for their age as compared with the international reference population.

One in nine Guatemalan children dies before reaching age 5. Child mortality levels are higher among children who:

- Live in rural areas;
- Have mothers with little or no education;
- Have mothers aged 40-44 or under 20;
- Are born less than two years after a previous birth; or
- Are the seventh- or later-born child in their family.

Other factors that affect child survival include the lack of prenatal care and medical assistance during childbirth. Only three in 10 births during the five years before the survey were attended by trained medical professionals.

Major survey findings in regard to child health include:

- **Diarrhea** Diarrhea, a leading cause of child death, is common among children, especially those aged 6-23 months. Only a small proportion of children with
diarrhea are treated with oral rehydration therapy (ORT).

- **Immunization** Only half of the children aged 12-23 months had a verifiable health card; of these children, only one in four is completely immunized against all six major childhood diseases.

- **Tetanus** Most infants are still not protected from neonatal tetanus.

These findings indicate the need for expanded health and nutrition programs, especially to promote better diets for children, appropriate supplemental feeding and weaning practices, improved maternity care, use of ORT during diarrhea, and complete immunization.

In regard to fertility and family planning, key findings include:

- **Early Childbearing** Half of all Guatemalan women marry and give birth to their first child during their teenage years.

- **Postpartum Infecundity** Breastfeeding is widely practiced, and women breastfeed for 20 months on average, which delays the return of menses after birth for one year.

- **Unwanted Fertility** At current rates, women will have an average of 5.6 children by the end of their reproductive years, although they consider four children to be ideal.
Preferences Regarding Childbearing  Almost one-half of the women in union do not want another child, and more than one in four would like to delay her next birth for at least two years.

Contraceptive Use  Guatemala has one of the lowest contraceptive prevalence rates in Latin America: 23 percent of the women in union are using contraception. Many women reported that they had discontinued contraceptive usage due to method failure or side effects.

Possible policy and program initiatives to address the problem of unwanted pregnancy include: encouraging young women to stay in school longer and postpone marriage and childbearing, expanding subsidized family planning services, developing public education programs to address women's concerns about contraceptive side effects and method failure, and training health workers to counsel clients on various contraceptive methods and their correct usage.

BACKGROUND

The 1987 National Survey of Maternal and Child Health of Guatemala (ENSMI) provides planners and policymakers with essential information on fertility, infant and child mortality, maternal and child health care, children's nutritional status, and family planning and related factors. It was conducted by the Maternal and Child Health Department of the Ministry of Public
Health and Social Assistance. A total of 5,160 women aged 15-44 were interviewed between September and December 1987 in a national-level sample. Interviews with mothers provided health-related information for 4,581 children under age 5.

Guatemala's 1987 population of 8.2 million is estimated to be growing at 2.8 percent (see Figure 1), a rate at which it will double in 22 years. The growth rate would be even higher if it were not for the emigration of large numbers of people.

MATERNAL AND CHILD HEALTH

Infant and Child Mortality

Improvements in child health in the past decade are indicated by higher child survival rates. During the period 1972-76, 15 out of 100 children died before their fifth birthday; during 1982-87, about 11 in 100 children died before age 5 (see Figure 2).

About one in nine children dies before reaching the age of five.

The ENSMI findings highlight a number of factors that directly influence child survival:

- **Place of Residence** The risk of dying before their fifth birthday is 31 percent higher among rural children, compared with those living in urban areas. About 13 in 100 rural children die before the age of 5.
Child mortality rates are particularly high in the Central and Northwest regions.

- **Mother's Education**  Children born to mothers with no education are twice as likely to die before age 1 and three times more likely to die before age 5 than children whose mothers have attended secondary school.

- **Mother's Age**  Infant mortality rates among children born to mothers aged 40-44 are double the comparable rates for children whose mothers are aged 20-39; infants whose mothers are 19 or younger also have higher mortality rates.

- **Birth Spacing**  For children born less than two years after a previous birth, the risk of dying before age 1 is more than double that of children born two or more years later (see Figure 3).

- **Birth Order**  Seventh-born and higher-order children are more likely to die in their first year than children of lower birth orders.

**Maternity Care**

The care a woman receives during pregnancy can be critical to her child's chances of survival. Mothers of 27 percent of the children born in the five years prior to the survey had no prenatal care. Among births to women with no education, one-third of the mothers received no prenatal care. Rural women were less likely than urban women to have had such care.
Most infants are not protected from neonatal tetanus, a highly fatal—but preventable—disease that can strike newborns if the mother has not been immunized against tetanus and if the umbilical cord is not cut and treated in a sterile manner. Even though neonatal tetanus is a common cause of infant death in Guatemala, fewer than one in seven mothers reported receiving at least one anti-tetanus injection during her pregnancy to protect the baby from developing tetanus. Tetanus immunization rates are particularly low in the North West and South West regions.

At the time of delivery, six in 10 of the births in the five years prior to the survey were attended by traditional midwives, and three in 10 by doctors or nurses (see Figure 4). Among the rural and indigenous populations, midwives delivered more than two-thirds of the children. Even in urban areas, midwives assisted more than one-third of the deliveries. Births to women

Only three in 10 births were assisted by medical professionals.

with little or no education were more likely to be delivered by midwives than by doctors or nurses, compared with those to women who had completed at least primary school.

Breastfeeding and Infant Health

In addition to offering the mother some protection against another pregnancy, breastfeeding promotes child health and development. Breastmilk is the ideal source of nutrition during
the first year of life and also contains antibodies that help protect the child against disease. Exclusive breastfeeding for the first 4-6 months contributes significantly to the infant’s health.

Breastfeeding is widely practiced in Guatemala. Five in six infants are breastfed through their first year of life, and two-thirds are still breastfed through 18 months of age.

Diarrhea

Diarrhea, a leading cause of child death, is common in Guatemala. About one out of six children under age 5 had diarrhea in the two weeks prior to the survey. The incidence of diarrhea is higher among children aged 6-23 months; more than one in four children in this age group had diarrhea in the two weeks prior to the survey (see Figure 5). The proportions of children having diarrhea are similar in urban and rural areas, in all regions of the country, and among children of mothers of all educational levels.

Of those children with diarrhea, two-thirds received some treatment. However, oral rehydration therapy, a highly effective and inexpensive treatment for dehydration resulting from diarrhea, was used to treat only 16 percent of the children with
diarrhea (see Figure 6). Fewer than 2 percent of the children were seen by a doctor.

Most children are not completely immunized against all six major childhood diseases.

Prevention of Childhood Diseases

Immunization against the six major childhood diseases—tuberculosis, diphtheria, whooping cough, tetanus, poliomyelitis and measles—is a key intervention to improve child survival rates. Immunization status could be verified for only about half of the children under age 5—those whose mothers could show a health card. Among those children with a health card aged 12-23 months, about half are fully immunized against at least one disease, but only one in four is completely immunized against all six diseases (see Figure 7). Many children receive the first dose of a three-dose vaccine but do not complete all doses in a timely way, hence are not well protected. Education programs need to emphasize the importance of receiving all the necessary immunizations for all six major childhood diseases at the appropriate time.

Nutritional Status of Children

Growth retardation due to chronic malnutrition is exceptionally high in Guatemala. Three in five children aged 3-36 months are stunted—short in relation to their age, compared
with the international reference population. Among children 12-36 months old, the proportion is even higher: more than two-thirds are stunted.

Two-thirds of the children aged 12-36 months are chronically malnourished.

Several factors are associated with higher rates of chronic malnutrition:

- **Residence** Both rural and urban children show the effects of chronic malnutrition, although the problem is greater in rural areas (see Figure 8). Three-fourths of the children living in the North West region and two-thirds of those in the Central region are malnourished.

- **Ethnic Group** Two in three indigenous children are stunted, compared with less than half of the non-indigenous population.

- **Mother’s Education** More than two-thirds of the children whose mothers have no education are stunted.

Clearly, greater efforts are needed to counter this major threat to children’s development and well-being.

**FERTILITY**

Fertility has declined slightly over the past decade—about 8 percent between the 1978 and 1987 surveys, from an average of 6.1 children per woman to 5.6 (see Figure 9). Despite this
decline, Guatemala’s fertility rate remains one of the highest in Latin America.

Guatemala’s fertility rate of 5.6 children per woman is among the highest in Latin America.

The greatest differences in fertility are between educational groups. At current fertility levels, women with little or no education will have more than twice as many children as those who have attended secondary school (see Figure 10).

Fertility also varies greatly by region. Based on current fertility rates, rural women will have an average of 6.5 children, while urban women will have 4.1. Fertility is highest in the North and North West regions and lowest in the Guatemala metropolitan region.

Factors Affecting Fertility

The survey findings highlight several factors that influence fertility levels and trends in Guatemala, including: 1) age at marriage; 2) breastfeeding and natural infecundity following birth; 3) fertility desires; and 4) contraceptive use.

Half of all Guatemalan women marry and have their first child during their teenage years.

Age at Marriage and First Birth
Women who marry (or enter into a consensual union) at an early age tend to bear children sooner and give birth to more children than women who marry at a later age. Half of all Guatemalan women marry and have their first child during their teenage years. Women living in urban areas and better-educated women marry later than other women (see Figure 11). The pattern of early childbearing not only contributes to high fertility but also has adverse effects on the health of young mothers and their children.

Breastfeeding and Postpartum Infecundity

Breastfeeding extends the period of natural infecundity following a birth during which a woman cannot conceive. Breastfeeding is widely practiced, and Guatemalan women breastfeed for an average of 20 months. Because of the long duration of breastfeeding, the period of amenorrhea (the absence of menses) following birth is long--12 months on average.

Women living in rural areas and those with little or no education breastfeed longer than urban and better-educated women.

Fertility Desires

When asked how many children they would prefer to have, 15 percent of the women interviewed gave non-numeric answers such as "those God wishes" and "as many as possible." Of those women who gave numeric replies, the ideal family size was about four children per woman. Thus, women are having on average about one
child more than they desire. Young women in union (aged 15-24) want about three children each—a finding which suggests that demand for family planning could increase in the future.

The survey found that more than three in five Guatemalan women would like to limit or space births. More than one-third of the women in union do not want another child (see Figure 12). An additional 10 percent have already been sterilized, and 1 percent have husbands who have been sterilized. Furthermore,

Three in five Guatemalan women would like to limit or space births.

more than one-fourth of the women in union would like to delay her next birth for at least two years.

Enabling couples to achieve their preferences through use of family planning would reduce the number of unwanted and mistimed births. For example, mothers report that in the five-year period prior to the survey 10 percent of the births were unwanted; another 16 percent were wanted later.

FAMILY PLANNING

Knowledge of Contraception

Knowledge of contraceptive methods is relatively low among Guatemalan women, compared with other Latin American countries. Only 72 percent of women in union said that they had heard of at least one contraceptive method. Best-known methods are the Pill and female sterilization, which were recognized by more than
three-fifths of the women in union. At least one-third of the women in union had heard of the injection, IUD, male sterilization or the condom. One in four women in union had heard of the rhythm method, but only 8 percent recognized the Billings method, a more precise type of periodic abstinence.

Only 12 percent of the women interviewed correctly named the most fertile period of a woman's cycle (the middle). However, more than half of the women who had ever used rhythm knew the correct period.

Contraceptive Use

Guatemala's contraceptive prevalence rate is among the lowest in Latin America. About 23 percent of the women in union are currently using some form of contraception (see Figure 33), only a slight increase from the 1978 prevalence rate of 19 percent. Female sterilization is the most popular contraceptive method, followed by the Pill and rhythm.

Contraceptive use varies greatly by place of residence, ethnic group and education. Women living in urban areas are three times more likely to use contraception than rural women.

Use of contraception is low.

Contraceptive usage rates are highest in the Guatemala metropolitan region and lowest in the North West and North regions. Differences are particularly striking between ethnic
groups; ladino women are more than six times more likely to use contraception than indigenous women. Similarly, 60 percent of women who have attended secondary school use contraception, compared with 10 percent of those with no education.

Barriers to Contraceptive Use

Women who recognized a contraceptive method were asked what they perceived as potential problems, if any, regarding its use. Three in five of these women mentioned side effects in regard to the Pill, and nearly half of the women expressed this concern in regard to the IUD and injection. Contraceptive failure was also a major concern: three in 10 women mentioned it in relation to the rhythm method, and about one in five in relation to the Billings method, withdrawal, and the diaphragm.

Women gave three major reasons for discontinuing contraceptive use during the five years before the survey: desire for a pregnancy, method failure, and fear of side effects. More than half of the women who had used rhythm experienced method failure, while more than one-third of those who used the IUD, injection and Pill discontinued use due to side effects.

Family Planning Services

The Asociación Pro-Bienestar de la Familia (APROFAM) is a major provider of both medical methods (the IUD and male and female sterilization) and those which require periodic resupply (the Pill, condom, vaginal methods and injection), serving more
than one-third of the clients using these methods. Public and private hospitals and the Instituto Guatemalteco de Seguridad Social (IGSS) are major sources of female sterilization, while private clinics are a major source for the IUD, injection and diaphragm. Two-thirds of the condom users and one-third of the diaphragm users obtain their supplies from pharmacies.

Media Exposure

More than half of the women interviewed had heard family planning messages on the radio or television. Women living in urban areas and those who had completed at least primary school were more likely than other women to have heard family planning messages. Four in five urban women and more than half of the rural women said that they considered such broadcasts to be acceptable.

Potential Demand for Family Planning Services

Based on the number of women who wish to limit or space births but are not using contraception, 19 percent of all women in union are estimated to be in need of family planning services. However, only one in six of these women plans to use contraception in the future. Although higher proportions of rural women and those with little or no education are estimated to be in need of family planning services, fewer of these women say they intend to use contraception, compared with urban and better-educated women.
CONCLUSIONS

The National Survey of Maternal and Child Health (ENSMI) findings document a need for expanded health and family planning services and for greater public education on these topics. Rural women and children as well as women with little or no education are particularly disadvantaged in terms of health status and use of health services.

In regard to maternal and child health, the ENSMI indicates the need for more health services and public education in the following areas:

- Child nutrition programs, especially to promote better diets and appropriate supplemental feeding and weaning practices;
- Prenatal care, including anti-tetanus immunization;
- Assistance during childbirth by trained professionals, especially for high-risk pregnancies identified through prenatal screening;
- Promotion of oral rehydration therapy (ORT) to treat dehydration associated with diarrhea; and
- Immunization programs.

Health workers and the general public need information on the extent of child malnutrition and the importance of birth spacing, breastfeeding, ORT and immunization to child survival.

In regard to family planning, the survey found some contradictions between women's stated desires and their behavior.
Although more than three in five women in union say they would like to limit or space births, the contraceptive prevalence rate is low. Only a small proportion of women estimated to be in need of family planning services (those at risk of unwanted pregnancy) say they plan to use contraception in the future. Possible explanations for these findings are:

- **Lack of Information**  More than one in four women in union did not recognize any contraceptive method—traditional or modern. Only one in eight women knew the most fertile period of a woman’s cycle (the middle).

- **Health Concerns**  More than half of the women who had heard of the Pill, IUD or injection mentioned side effects as a potential problem in using these methods.

- **Contraceptive Failure**  More than half of the women who had discontinued use of the rhythm method did so because they became pregnant.

- **Early Childbearing**  For most women, the pattern of successive pregnancies begins in adolescence; half of all Guatemalan women marry and give birth before they reach the age of 20.

Possible interventions to address the problem of unwanted pregnancy include:

- Public education programs to publicize service outlets, provide information on the range of available
contraceptive methods and possible side effects, promote correct method usage, and dispel false rumors;

- Policies and programs to encourage young women to postpone marriage and childbearing and to stay in school longer; and

- Training health workers to counsel clients on various contraceptive methods and their correct usage.

Continued promotion of breastfeeding is also advisable, not only for its childspacing benefits but also for its contribution to child health and nutrition.

Expanded family planning services may also contribute to improved child survival. As the ENSMI findings show, children born more than two years after a previous birth and having mothers aged 20-39 are less likely to die before the age of 5.

The ENSMI findings provide a valuable resource for national planning and the development of health and family planning programs. Information on fertility and child survival can also be used along with census data to estimate future demand for education, jobs, housing, and public services.
FACT SHEET

Encuesta Nacional Socio-Demográfica, 1986/87

Population Size (millions) (1987) 8.2
Rate of Natural Increase (percent) 3.2
Net Migration Rate (percent) -0.4
Population Growth Rate (percent) 2.8
Population Doubling Time (years) 22
Crude Birth Rate (per 1,000 population) 41
Crude Death Rate (per 1,000 population) 9

Guatemala National Maternal and Child Health Survey, 1987

Sample Population
Women 15-44 5,160
Children under age 5 4,581

Background Characteristics
Percent Urban 59.2
Percent with more than primary education 14.6

Marriage and Other Fertility Determinants
Percent currently married or in consensual union 65.3
Percent ever-married 73.2
Median age at first marriage for women 20-44 19.4
Median age at first birth for women 20-44 20.8
Mean length of breastfeeding (in months) 20.0
Mean length of postpartum amenorrhea (in months) 12.4
Mean length of postpartum abstinence (in months) 6.2

Fertility
Total fertility rate (projected completed family size) 5.6
Mean number of children ever born to women 40-44 5.9

Desire for Children
Percent of women currently in union:
Wanting no more children (excluding sterilized women) 35.4
Wanting to delay next birth at least 2 years 26.9
Mean ideal number of children for women 15-44 3.8
Percent of unwanted births 10.3
Percent of mistimed births 15.8
Knowledge and Use of Family Planning

Percent of women currently in union:
- Knowing any method: 71.9%
- Ever using any method: 34.0%
- Currently using any method: 23.2%
  - Female sterilization: 10.4%
  - Pill: 3.9%
  - Rhythm: 2.8%
  - IUD: 1.8%
  - Condom: 1.2%
  - Withdrawal: 1.2%
  - Male sterilization: 0.9%
  - Injection: 0.5%
  - Diaphragm: 0.4%
  - Other methods: 0.1%

Percent of contraceptors obtaining the IUD, male sterilization, or female sterilization from:
- Asociación Pro-Bienestar de la Familia (APROFAM): 41.2%
- Government hospital/clinic: 22.4%
- Private hospital/clinic: 20.6%
- Instituto Guatemalteco de Seguridad Social (IGSS): 13.3%
- Other: 2.5%

Percent of contraceptors obtaining the Pill, condom, vaginal methods or injection from:
- Asociación Pro-Bienestar de la Familia (APROFAM): 24.8%
- Pharmacy: 24.3%
- Public hospital/clinic: 22.9%
- Private hospital/clinic: 13.4%
- Promoter/distributor: 10.9%
- Other: 3.8%

Mortality and Health

Infant mortality rate: 73.4
Under five mortality rate: 109.8

Percent of mothers of recent births:
- Received prenatal care during pregnancy: 72.9%
- Immunized against tetanus during pregnancy: 13.7%
- Assisted at delivery by doctor or trained nurse/midwife: 29.2%

Percent of children 12-23 months with a health card: 55.5%
Percent of children 12-23 months with a health card immunized against:
- BCG: 51.0
- DPT (3 doses): 47.0
- Polio (3 doses): 52.1
- Measles: 68.7
- All six diseases: 24.7

Percent of children aged 0-2 months being breastfed: 93.8
Percent of children aged 4-5 months being breastfed: 89.4
Percent of children aged 10-11 months being breastfed: 84.7
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of children under five years of age with diarrhea</td>
<td>16.7</td>
</tr>
<tr>
<td>Percent of children with diarrhea treated with:</td>
<td></td>
</tr>
<tr>
<td>Any treatment</td>
<td>67.6</td>
</tr>
<tr>
<td>Oral rehydration therapy</td>
<td>16.4</td>
</tr>
<tr>
<td>Percent of children aged 3-36 months considered moderately or severely chronically malnourished, based on height for age</td>
<td>57.9</td>
</tr>
<tr>
<td>Percent of children aged 3-36 months considered moderately or severely acutely malnourished, based on weight for height</td>
<td>13.3</td>
</tr>
</tbody>
</table>

1. 6 or more years of education

2. Current status estimate based on births within 36 months of the survey

3. Based on births to women aged 15-44 during the period 0-5 years before the survey

4. Percent of births in the five-year period before the survey which were unwanted

5. Percent of births in the five-year period before the survey which were wanted later

6. Rates are for the five-year period preceding the survey (approximately 1982-1987)

7. Based on births occurring during the five years before the survey

8. Based on children under age 5 reported by their mothers as having diarrhea during the two weeks before the survey
Figure 1

Encuesta Nacional Socio-Demográfica, 1986-87

Figure 2
Trends in Child Mortality (1972-1987)

Deaths Under Age 5 per 1000 Births

EnSMI 1987
Figure 3
Birthspacing and Infant and Child Mortality (1977-87)
Deaths per 1000 Births

<table>
<thead>
<tr>
<th>Interval Between Births</th>
<th>Infant Mortality</th>
<th>Child Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 Years</td>
<td>177</td>
<td>67</td>
</tr>
<tr>
<td>2 to 3 Years</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>4 Years or More</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4
Assistance During Childbirth (Live births during the 5 years preceding the survey)

- Doctor or Nurse: 29%
- Midwife: 60%
- Relative or Friend: 8%
- No One: 3%
Figure 5
Incidence of Child Diarrhea
(Children under age 5 with Diarrhea
In the 2 Weeks Before the Survey)

Percent of Children

0 10 20 30 40
Less than 6 6-11 12-23 24-35 36-47 48-59
Age of Child (months)

Figure 6
Treatment of Childhood Diarrhea
(Children under age 5 with Diarrhea
In the 2 Weeks Before the Survey) *

Percent

0 20 40 60
Oral Rehydration Salts Home Solution Physician Other Treatment No Treatment

ENSMI 1987

* Figures total more than 100 due to multiple responses ENSMI 1987
Figure 7
Immunization Coverage
(Children age 12-23 months having a health card*)
Percent of Children with Health Cards

Figure 8
Malnutrition by Residence and Education
(Percent classified as stunted based on height for age ratio among children age 3-36 months*)
Percent of Children

* 56% of children in this age group have a health card
** tuberculosis
*** diphtheria, pertussis (whooping cough), and tetanus

ENSMI 1987
**Figure 9**
Real and Ideal Family Size

Number of Children

8.0

- Children Ever Born (Women 40-44)
  - 5.9

- Total Fertility Rate (Women 15-44)
  - 5.8

- Average Ideal Family Size (Women 15-44)
  - 3.8

---

**Figure 10**
Fertility by Place of Residence and Education

(Women 15-44)

Total Fertility Rate *

8.0

- Rural
  - 6.5

- Urban
  - 4.1

- No Education
  - 7.0

- Some Primary
  - 5.6

- Complete Primary
  - 3.9

- Secondary or More
  - 2.7

*Projected Completed Family Size

ENSMI 1987

Projected completed family size

ENSMI 1987
Figure 11
Median Age at First Marriage by Residence and Education
(Women 25-44)

Figure 12
Fertility Preferences
(Women in Union 15-44)

Place of Residence

Education

Years of Age

Rural Urban No Education Some Primary Complete Primary Secondary or More

0 5 10 15 20 25

Wants Child Within 2 Years 13%
Wants to Wait 2 Years or More 27%
Wants Another, Not Sure When 4%
Wants No More 35%
Sterilized 11%
Undecided or Infertile 10%

Wants Another Child Wants No More Children

ENSNI 1987
Figure 13
Contraceptive Use
(Women in Union 15-44)

Female sterilization 10%
Pill 4%
Other modern methods 5%
Rhythm 3%
Other traditional methods 1%
Not Using 77%

ENSMI 1987