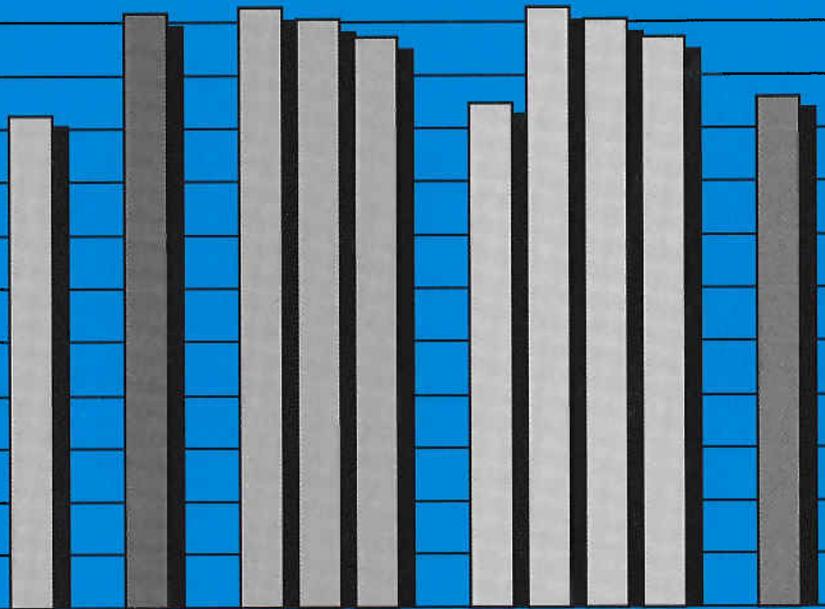


# Kyrgyz Republic



## Demographic and Health Survey 1997

SUMMARY REPORT

Cover: Vaccination coverage among children  
age 12-23 months (see Figure 6).

# KYRGYZ DEMOGRAPHIC AND HEALTH SURVEY 1997

## SUMMARY REPORT

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Bishkek, Kyrgyz Republic

September 1998

*Photographs: UNICEF*

This report summarizes the findings of the 1997 Kyrgyz Republic Demographic and Health Survey (KRDHS) conducted by the Institute of Obstetrics and Pediatrics, Ministry of Health of the Kyrgyz Republic. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development (USAID).

The KRDHS 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 about the Kyrgyz Republic survey may be obtained from the Institute of Obstetrics and Pediatrics, T. Moldo St. 1 (Telephone: (73312) 224-423; Fax: (73312) 264-275). Additional information about the DHS program may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (Telephone: 301-572-0200; Fax: 301-572-0999; E-mail: [reports@macroint.com](mailto:reports@macroint.com); Internet: <http://www.macroint.com/dhs/>).

## Background

The 1997 Kyrgyz Republic Demographic and Health Survey (KRDHS) is a nationally representative survey of 3,848 women age 15-49. Fieldwork was conducted from August to November 1997. The KRDHS was sponsored by the Ministry of Health (MOH), and was funded by the U.S. Agency for International Development. The Institute of Obstetrics and Pediatrics implemented the survey with technical assistance from the Demographic and Health Surveys (DHS) program of Macro International Inc.

The purpose of the KRDHS was to provide data to the MOH on factors which determine the health status of women and children such as fertility, contraception, induced abortion, maternal care, infant mortality, and nutritional status.

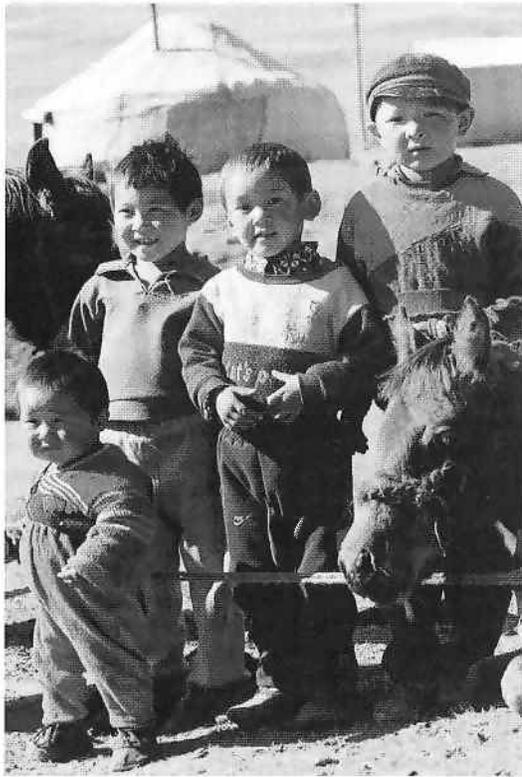
Some statistics presented in this report are currently available to the MOH from other sources. For example, the MOH collects and regularly publishes information on fertility, contraception, induced abortion and infant mortality. However, the KRDHS presents information on these indices in a manner not currently available, i.e., by population subgroups such as those defined by age, marital duration, education, and ethnicity. Additionally, the survey provides statistics on some issues not previously available in the Kyrgyz Republic: for example, breastfeeding practices and the anemia status of women and children. When considered together, the existing MOH data and the KRDHS data provide a more complete picture of health conditions in the Kyrgyz Republic than was previously available.



## Fertility

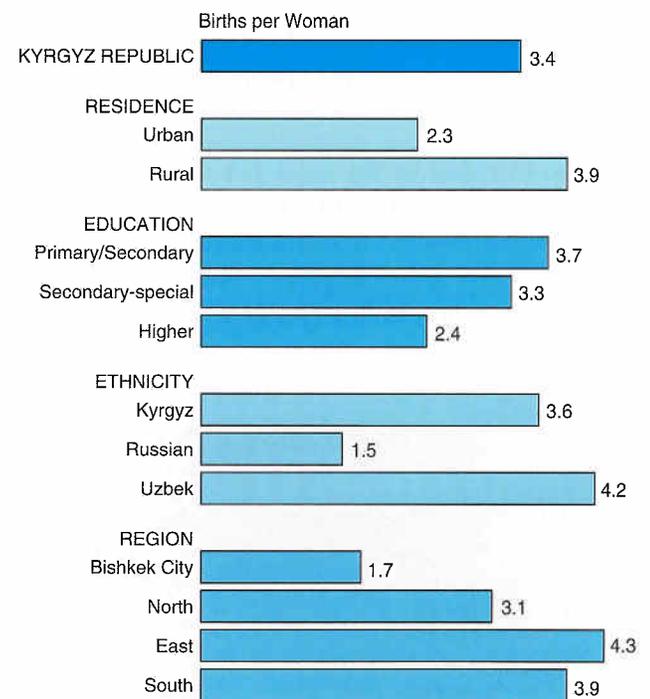
### Fertility Levels and Trends

Survey results indicate a total fertility rate (TFR) for all of the Kyrgyz Republic of 3.4 children per woman. Fertility levels differ for different subgroups of the population. The TFR for women living in urban areas (2.3 children per woman) is substantially lower than that for women living in rural areas (3.9). The TFR for Kyrgyz women (3.6 children per woman) is higher than the TFR for women of Russian ethnicity (1.5) and lower than the TFR for Uzbek women (4.2). Among the regions of the Kyrgyz Republic, the TFR is lowest in Bishkek City (1.7 children per woman).



*A woman in the Kyrgyz Republic will give birth to an average of 3.4 children during her reproductive years.*

**Figure 1**  
Total Fertility Rate by Background Characteristics (Women 15-49)

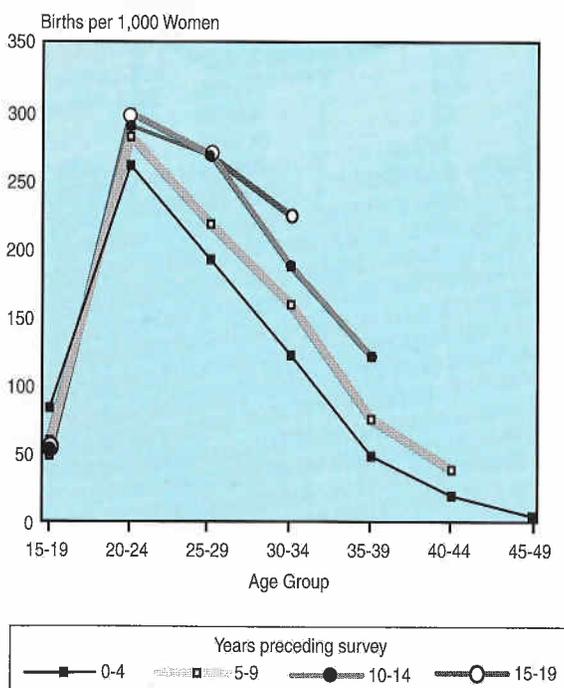


*The fertility rate for women of Russian ethnicity is substantially lower than the rate for women of Kyrgyz or Uzbek ethnicities.*

The KRDHS data show that fertility has declined in the Kyrgyz Republic in recent years. For example, fertility among women age 25 to 29 has fallen by one-third over the past 20 years. The declining trend in fertility can be seen by comparing the completed family size of women near the end of their childbearing years with the current TFR. Completed family size among women 45 to 49 is 4.9 children, which is more than one child greater than the current TFR (3.4).

*The KRDHS data show that fertility has declined in the Kyrgyz Republic in recent years.*

**Figure 2**  
Trends in Age-specific Fertility Rates



*Fertility has consistently declined in the Kyrgyz Republic over the past twenty years.*

### Birth Intervals and Fertility Preferences

Overall, one-third of nonfirst births (30 percent) in the Kyrgyz Republic take place within 24 months of the previous birth. The median birth interval is 2.7 years.

The median age at which women in the Kyrgyz Republic begin childbearing has been holding steady over the past two decades at approximately 21.6 years. Most women have their first birth while in their early twenties, although about 20 percent of women give birth before age 20.

Almost half of married women in the Kyrgyz Republic (45 percent) do not want to have any more children, and another 26 percent want to delay their next birth by at least two years. Thus, 71 percent of women are potentially in need of some method of family planning.

*A large majority of women in the Kyrgyz Republic (71 percent) want either to delay their next birth (26 percent) or to stop childbearing altogether (45 percent).*



## Fertility

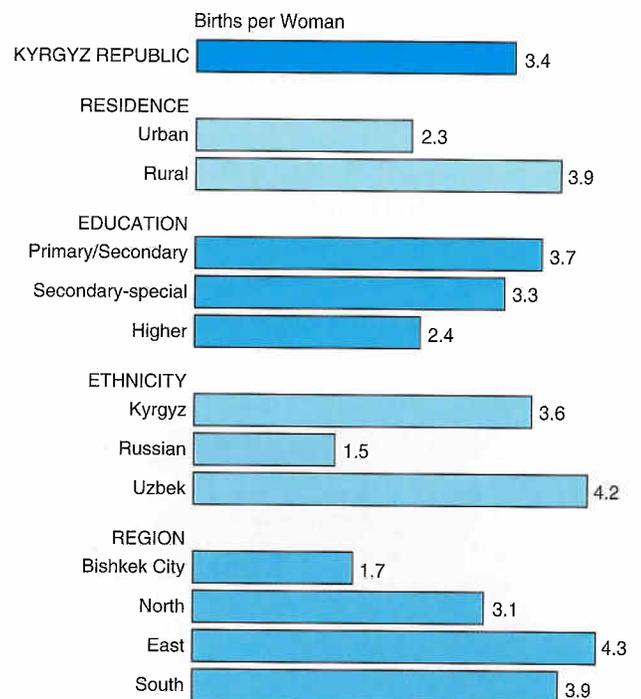
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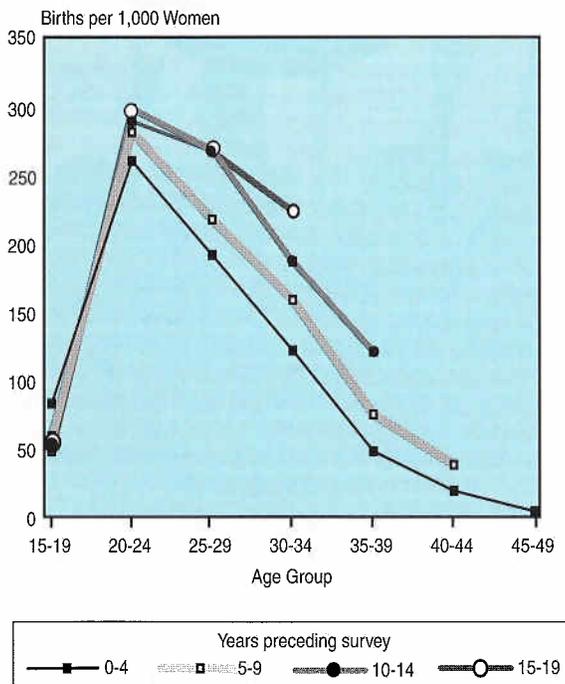


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## Family Planning

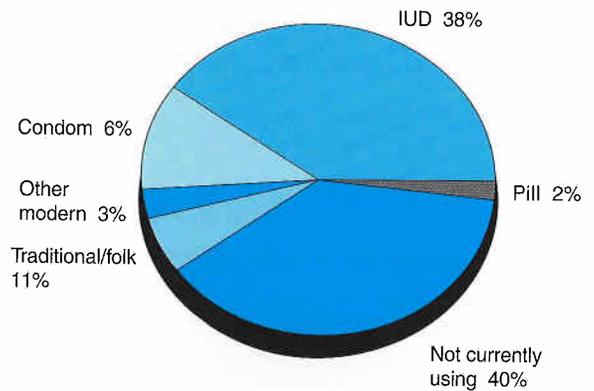
The Ministry of Health of the Kyrgyz Republic incorporates family planning in a comprehensive program of maternal and child health services. The main objective of the family planning component is to reduce adverse health outcomes resulting from inadequately spaced births and induced abortions.



## Use of Contraception

Overall, 60 percent of currently married women report that they are using a contraceptive method. About half (49 percent) are using a modern method while another 11 percent are using a traditional method. The IUD is by far the most commonly used method;

**Figure 3**  
Use of Specific Contraceptive Methods  
(Currently Married Women 15-49)



*Of the sixty percent of married women who are currently using contraception, 82 percent are using modern methods.*

38 percent of currently married women are using the IUD. Other modern methods account for only a small proportion of contraceptive use among currently married women: pills (2 percent), condoms (6 percent), and injectables and female sterilization (1.3 and 1.8 percent, respectively). Thus, the practice of family planning in the Kyrgyz Republic places high reliance on a single method, the IUD, although the pill, condom and injectables are widely known.

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*Sixty percent of currently married women are using a contraceptive method. However, the practice of family planning places high reliance on a single method, the IUD.*

### **Unmet Need for Family Planning Services**

Women who want to space their children or to stop childbearing altogether and are not using a contraceptive method are considered to have an unmet need for family planning. Twelve percent of married women in the Kyrgyz Republic have an unmet need for family planning services, 5 percent for spacing births and 7 percent for limiting births. Combined with the 60 percent of married women who are currently using contraception, the total demand for family planning comprises 71 percent of married women. While contraceptive prevalence is quite high, if all married women who say they want to space or limit their births were to use a method, contraceptive prevalence would increase from 60 to 71 percent.



## Induced Abortion

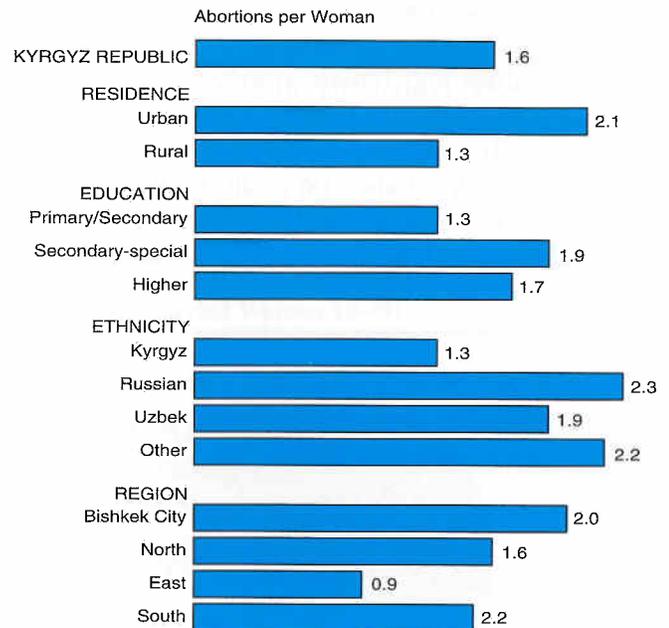
The total abortion rate (TAR), the number of abortions a woman will have in her lifetime based on the currently prevailing abortion rates, was calculated from the KRDHS data. For the Kyrgyz Republic, the TAR for the period from mid-1994 to mid-1997 is 1.6 abortions per woman.

The TAR is higher in urban areas (2.1 abortions per woman) than in rural areas (1.3). In Bishkek City, the TAR is 2.0, which is two times higher than that of other regions of the Kyrgyz Republic. Additionally, the TAR is substantially lower among ethnic Kyrgyz women (1.3) than among women of Uzbek and Russian ancestry (1.9 and 2.2 percent, respectively).

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*A woman in the Kyrgyz Republic will have an average of 1.6 abortions during her lifetime.*

**Figure 4**  
Total Induced Abortion Rate by Background Characteristics (Women 15-49)



*The abortion rate in urban areas is almost twice the rate in rural areas.*

## Infant and Child Mortality

In the KRDHS, infant mortality data were collected based on the international definition of a live birth which, irrespective of the duration of the pregnancy, is an infant that breathes or shows any signs of life (United Nations, 1992). For the five-year period preceding the survey (i.e., approximately mid-1992 to mid-1997), infant mortality in the Kyrgyz Republic is estimated at 61 infant deaths per 1,000 births. The estimates for neonatal and postneonatal mortality are 32 and 30 per 1,000.

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*For the five-year period preceding the survey (mid-1992 to mid-1997), infant mortality is estimated at 61 per 1,000 live births.*

The Ministry of Health annually publishes infant mortality rates based on a definition of live birth that differs from the international definition used in the KRDHS survey. In the Ministry of Health system, a pregnancy terminating at less than 28 weeks of gestation (or weighing less than 1,000 grams or measuring less than 35 centimeters) that shows signs of life at birth such as breathing but does not survive seven days is classified as a late miscarriage.

Thus, some events classified as late miscarriages in the Ministry of Health system would be classified as live births and infant deaths in the KRDHS survey. As a result, the survey rates are much higher than those of the Ministry. For example, the KRDHS estimate of 61 per 1,000 for the period 1992-97 is twice the Ministry's estimate of 29 per 1,000 for 1993-96. The magnitude of the difference between the two rates suggests that either definitional differences or methodological differences (such as sampling variability) between the survey and the Ministry's registration system are operating.

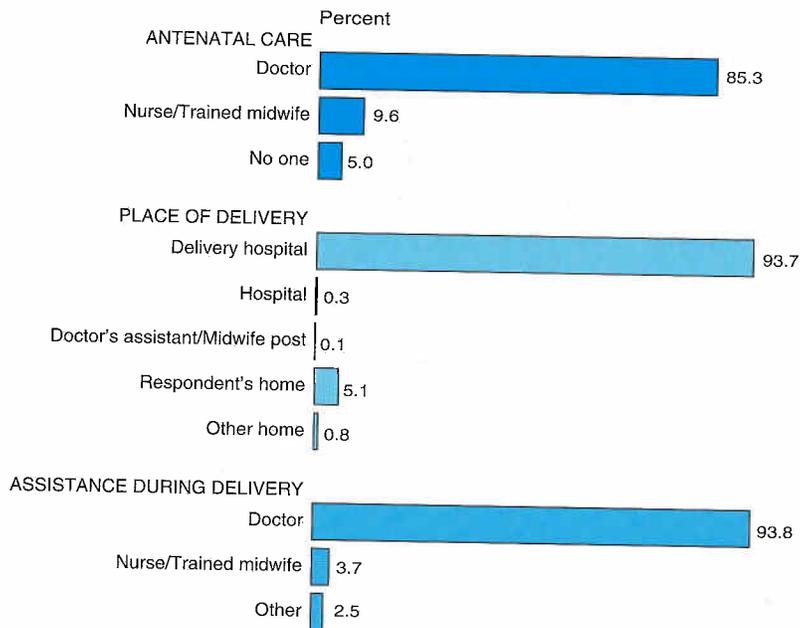


## Maternal and Child Health

### Antenatal and Delivery Care

Virtually all births in the Kyrgyz Republic (96 percent) take place at a health facility—95 percent in delivery hospitals and another 1 percent either in general hospitals or in FAPs (doctor’s assistant/midwife posts). Only 4 percent of births occur at home. Almost all births (98 percent) take place under the supervision of medically trained personnel—61 percent under the supervision of a doctor and 37 percent under the supervision of a nurse or midwife.

**Figure 5**  
Antenatal Care and Delivery Characteristics  
(Births in the Preceding 3 Years)



*A high proportion of women in the Kyrgyz Republic receive antenatal care and delivery assistance from a professional health provider.*

A high proportion of respondents (97 percent) receive antenatal care from professional health providers—the majority from a doctor (65 percent) and a significant proportion from a nurse or midwife (32 percent). The general pattern in the Kyrgyz Republic is that women seek antenatal care early and continue to receive care throughout their pregnancy. The median number of antenatal care visits reported by respondents is 8.

*Virtually all children in the Kyrgyz Republic (96 percent) are delivered at health facilities, and 98 percent of births take place under the supervision of medically trained personnel.*



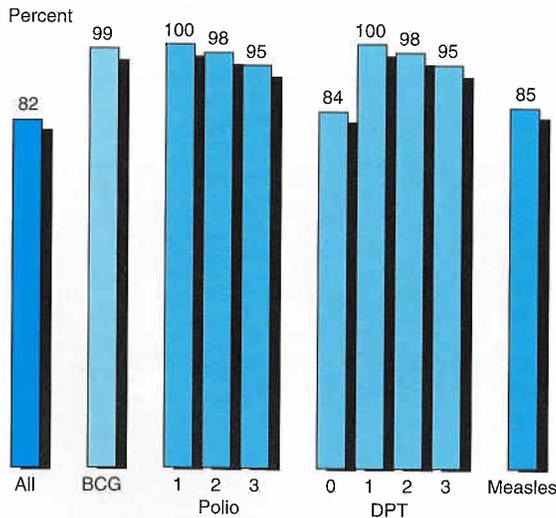
**Immunization**

In the Kyrgyz Republic, the percentage of children 12-23 months of age who have received all the vaccinations recommended by the World Health Organization (WHO) is high (82 percent). BCG vaccine is usually given in delivery hospitals and is nearly universal (98.5 percent). Almost all children (100 percent) have received the first doses of polio and DPT/DT. Coverage for the second doses of polio and DPT/DT is also nearly universal (97.5 percent). The third doses of polio and DPT/DT have been received by 95 percent of children. This represents a dropout rate of only 3 percent and 5 percent, respectively, for polio and DPT/DT vaccinations. A high proportion of children (85 percent) have received measles vaccine.

*In the Kyrgyz Republic, 82 percent of children 12-23 months of age have received all the vaccinations recommended by the World Health Organization.*

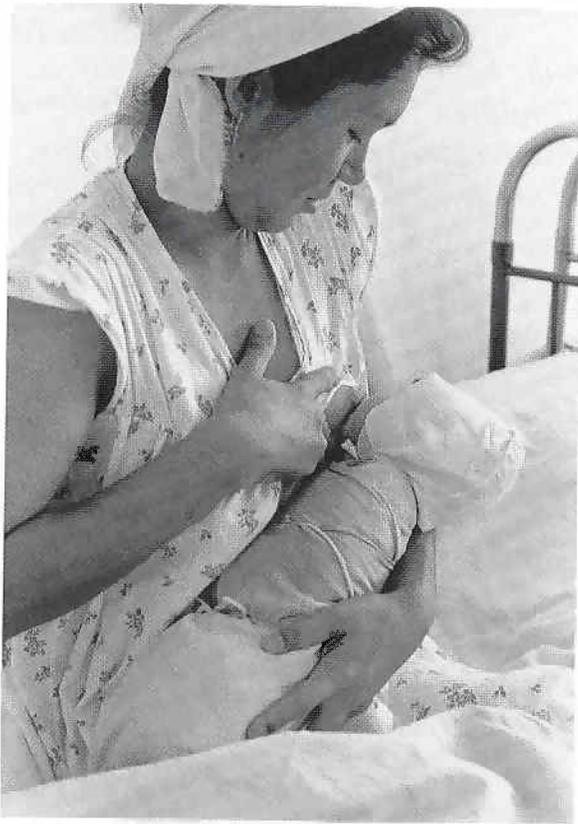


**Figure 6**  
**Vaccination Coverage Among Children**  
**Age 12-23 Months**



Note: Based on information from health cards.

*Almost all children have received BCG and the first doses of polio and DPT/DT. Coverage for the second doses is also nearly universal, and third doses have been received by 95 percent of children.*



### **Infant Feeding and Child Nutrition Status**

Breastfeeding is almost universal in the Kyrgyz Republic—98 percent of children born in the three years preceding the survey were breastfed. Overall, 41 percent of children were breastfed within an hour of delivery and 65 percent within 24 hours of delivery. The median duration of breastfeeding is 16 months; however, the duration of exclusive breastfeeding (recommended by WHO) is just 2.1 months.

In the KRDHS, measurements were taken of the height and weight of children under three years. These data are used to determine the proportion of children who are stunted (short for their age), a condition that may reflect chronic undernutrition, and the proportion who are wasted (underweight in relation to their height), a condition that may reflect an acute episode of undernutrition resulting from a recent illness. Overall, the survey found that 25 percent of children in the Kyrgyz Republic are severely or moderately stunted and 3 percent are severely or moderately wasted.

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*Breastfeeding is almost universal in the Kyrgyz Republic (98 percent),\* however, the duration of exclusive breastfeeding (recommended by WHO) is just 2.1 months.*

## Anemia

Testing of women and children for anemia was one of the major efforts of the 1997 KRDHS. Anemia has long been considered a major public health problem in the Kyrgyz Republic. Nevertheless, this was the first anemia study in the Kyrgyz Republic done on a national basis. The study involved hemoglobin testing for anemia using the Hemocue system.

Thirty-eight percent of women in the Kyrgyz Republic suffer from some degree of anemia. The great majority of these women have either mild (28 percent) or moderate anemia (9 percent). One percent have severe anemia.

Fifty percent of children under the age of three suffer from some degree of anemia. Twenty-four percent have moderate anemia, and 1 percent are severely anemic. Thirty-two percent of the children living in the North Region and 24 percent of children in the South and East Regions were diagnosed as having moderate or severe anemia. In Bishkek City, the prevalence of moderate anemia among children is relatively low (13 percent).

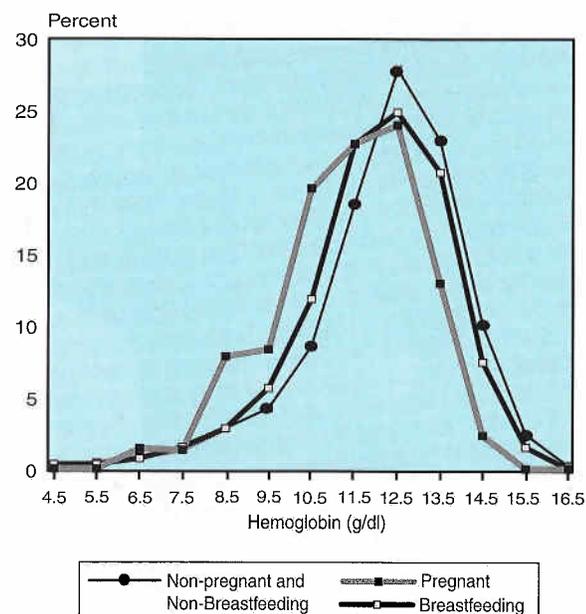


Certain relationships are observed between the prevalence of anemia among mothers and their children. Among children of mothers with moderate anemia, 0.5 percent have severe anemia and 37 percent have moderate anemia. The prevalence of moderate anemia among these children is more than twice as high as among children of nonanemic mothers.

*Fifty percent of children under age three in the Kyrgyz Republic suffer from some degree of anemia.*

*Twenty-four percent have moderate anemia, and 1 percent are severely anemic.*

**Figure 7**  
Percent Distribution of Women Age 15-49 by Hemoglobin Level



*The entire hemoglobin distribution for pregnant women is shifted downward compared with the distribution for nonpregnant women (breastfeeding and non-breastfeeding).*

## Conclusions

Despite declining fertility and the presence of high levels of contraceptive knowledge and use, a significant proportion of women in the Kyrgyz Republic have an unmet need for family planning. These are women who want no more children or want to delay their next birth but are not using any method of contraception. Among currently married women, 12 percent are in this category.

The practice of family planning in the Kyrgyz Republic places high reliance on a single method, the IUD, although the pill, condom and injectables are widely known. A stated goal of the family planning program in the Kyrgyz Republic is to improve the contraceptive method mix by encouraging greater use of short-term as well as permanent methods.



Many women in the Kyrgyz Republic decide to stop childbearing at a relatively young age, when they have potentially 20 or more years of childbearing ahead. For some of these women, the most appropriate method of contraception may be a long-term method such as female sterilization. In the interest of providing a broad range of safe and effective methods, information about and access to sterilization should be increased so that women can make informed decisions about using this method.

One of the objectives of the family planning program is to reduce the number of inadequately spaced pregnancies. Currently, one-third of nonfirst births (30 percent) in the Kyrgyz Republic take place within 24 months of the previous birth. Birth spacing could be increased by the use of short-term and long-term contraceptive methods.

The majority of users of modern methods of contraception in the Kyrgyz Republic obtain their method from the public sector, although the private sector has an increasing role in the delivery of family planning services.

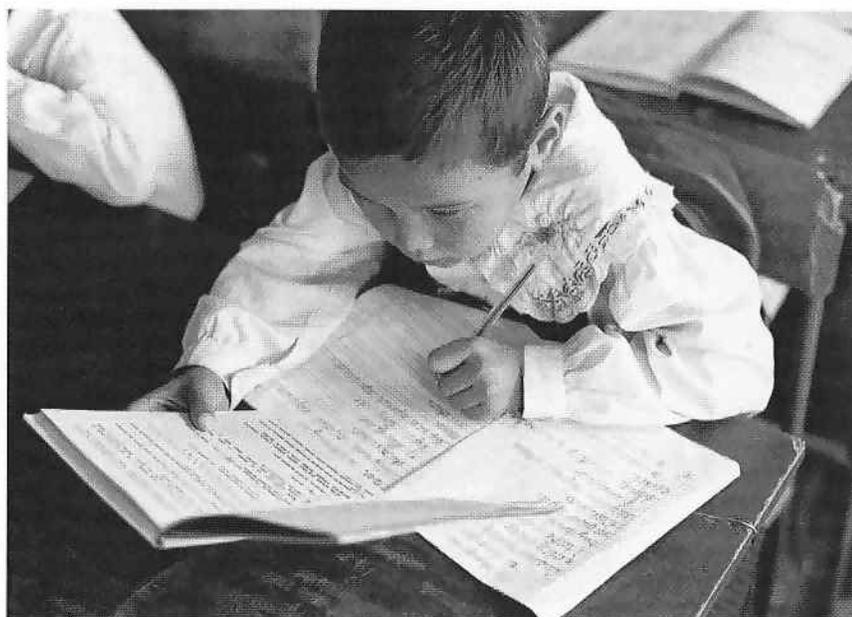
The Kyrgyz Republic has a well-developed health system with an extensive infrastructure of facilities that provide maternal care services. This system includes special delivery hospitals, the obstetrics and gynecology departments of general hospitals, women's consulting centers, and doctor's assistant/midwife posts. There is an extensive network of the latter facilities throughout the rural areas.

As a result of this system, the Kyrgyz Republic has achieved success in providing antenatal and delivery care services throughout the country. KRDHS data show that antenatal care is received early in pregnancy and, for most women, is continued throughout pregnancy. Virtually all births (96 percent) are delivered at health facilities under the supervision of persons with medical training—61 percent by a doctor and 37 percent by a nurse or trained midwife.

Despite this extensive medical infrastructure, the Kyrgyz Republic has relatively high rates of infant and child mortality. For the five-year period before the survey (i.e., approximately mid-1992 to mid-1997), the infant mortality rate was estimated at 61 per 1,000 live births, and under-five mortality was estimated at 72 per 1,000.

Recognized as a problem throughout the world, anemia has long been considered a major public health problem in the Kyrgyz Republic. KRDHS data show that anemia rates among women and children are high throughout all regions. Thirty-eight percent of women and 50 percent of children were diagnosed as having some degree of anemia.

The KRDHS findings, as well as the findings of other more geographically limited studies, provide important information for the development of health intervention programs. These programs would help to prevent the complications of pregnancy and delivery related to anemia among women, as well as developmental problems among children. These data are important as background for public health policy decisions regarding iron fortification of food and iron supplementation programs in the Kyrgyz Republic.



## Fact Sheet

### 1997 Population Data<sup>1</sup>

Total population (millions) .....	4.6
Urban population (percent) .....	34.4
Annual population growth (per 1,000 population) .....	16.0
Crude birth rate (per 1,000 population) .....	23.6
Crude death rate (per 1,000 population) .....	7.6

### Kyrgyz Republic Demographic and Health Survey 1997

#### Sample Population

Women age 15-49 .....	3,848
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#### Background Characteristics of Women Interviewed

Percent urban .....	33.5
Percent Kyrgyz .....	61.9
Percent with primary and secondary education .....	83.3
Percent with higher education .....	16.7

#### Marriage and Other Fertility Determinants

Percent of women 15-49 currently married .....	66.7
Percent of women 15-49 ever married .....	78.5
Median age at first marriage among women age 25-49 .....	20.4
Median duration of breastfeeding (months) <sup>2</sup> .....	16.9
Median duration of postpartum amenorrhea (months) <sup>2</sup> .....	6.7
Median duration of postpartum abstinence (months) <sup>2</sup> .....	1.7

#### Fertility

Total fertility rate <sup>3</sup> .....	3.4
Mean number of children ever born to women age 40-49 .....	4.6

#### Induced Abortion

Total abortion rate <sup>3</sup> .....	1.6
Mean number of abortions, women age 40-49 .....	1.6

#### Desire for Children

Percent of currently married women who:	
Want no more children .....	45.1
Want to delay their next birth at least 2 years .....	25.5
Mean ideal number of children among women 15-49 <sup>4</sup> .....	3.9
Percent of births in the last 3 years that were:	
Unwanted .....	5.4
Mistimed .....	7.6

#### Knowledge and Use of Family Planning

Percent of currently married women who:	
Know any method .....	99.8
Know a modern method .....	99.8
Have ever used any method .....	83.3
Are currently using any method .....	59.5
Are currently using a modern method .....	48.9
Percent of currently married women currently using:	
Pill .....	1.7
IUD .....	38.2
Female sterilization .....	1.8
Condom .....	5.7
Periodic abstinence .....	3.2
Withdrawal .....	6.0
Douche .....	1.5

#### Mortality, Health and Nutrition

Infant mortality rate <sup>5</sup> .....	61
Under-five mortality rate <sup>5</sup> .....	72
Percent of births <sup>6</sup> to mothers who received antenatal care	
from medical provider .....	97
Percent of births <sup>6</sup> to mothers who were assisted	
at delivery by:	
Doctor .....	60.8
Nurse/Trained midwife .....	37.3
Percent of children 0-3 months who are breastfeeding .....	98.4
Percent of children 8-11 months who are breastfeeding .....	80.5
Percent of children 0-3 months who are	
exclusively breastfeeding .....	31.0
Percent of children 12-23 months who received <sup>7</sup> :	
BCG .....	98.5
DPT (three doses) .....	95.3
Polio (three doses) .....	94.8
Measles .....	85.4
All vaccines .....	82.2
Percent of children under 3 years who:	
Had diarrhea in the 2 weeks preceding the survey .....	17.6
Had a cough accompanied by short, rapid breathing	
in the 2 weeks preceding the survey .....	4.4
Are chronically undernourished (stunted) <sup>8</sup> .....	24.8
Are acutely undernourished (wasted) <sup>8</sup> .....	3.4

#### Anemia

Percent of women 15-49 moderately anemic <sup>9</sup> .....	9.1
Percent of women 15-49 severely anemic <sup>9</sup> .....	1.4
Percent of children under age 3 moderately anemic <sup>9</sup> .....	24.0
Percent of children under age 3 severely anemic <sup>9</sup> .....	1.4

<sup>1</sup> Based on 1997 data from the Ministry of Health. 1998. *Health of Population and Health Protection in Republic of the Kyrgyz Republic in 1997*. Ministry of Health, Bishkek, Kyrgyz Republic.

<sup>2</sup> Current status estimate based on births during the 36 months preceding the survey

<sup>3</sup> Based on births to women 15-49 years during the period 0-3 years preceding the survey

<sup>4</sup> Excludes the women who gave a non-numeric response to ideal family size

<sup>5</sup> Rates for the period 0-4 years preceding the survey (approximately mid-1994 to mid-1997); expressed as deaths per 1,000 live births

<sup>6</sup> Figure includes births in the period 1-35 months preceding the survey

<sup>7</sup> Based on information from vaccination cards obtained from local health care facilities

<sup>8</sup> Stunting assessed by height-for-age, wasting assessed by weight-for-height; the percent undernourished are those below -2 SD from the median of the international reference population, as defined by the U.S. National Center for Health Statistics, and recommended by the World Health Organization

<sup>9</sup> Anemia assessed by hemoglobin measurement in the blood; moderate anemia was diagnosed when the hemoglobin concentration was 7.0 - 9.9 grams/deciliter; severe anemia was diagnosed when the hemoglobin level was below 7.0 grams/deciliter.

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