DHS

Kazakstan

Demographic and Health Survey
1995

SUMMARY REPORT

KAZAKSTAN DEMOGRAPHIC AND HEALTH SURVEY 1995

SUMMARY REPORT

Background

The 1995 Kazakstan Demographic and Health Survey (KDHS) is a nationally representative survey of 3,771 women age 15-49. Fieldwork for the KDHS was conducted from May until September 1995.

The 1995 KDHS was designed to develop an information base to be used by the Ministry of Health for developing policies pertaining to the health and nutrition of women and children. The KDHS provides information on factors which determine the health status of women and children such as fertility, infant mortality, contraception, induced abortion, maternal care, nutritional status, and anemia.

The KDHS was sponsored by the Ministry of Health, Republic of Kazakstan and was funded by the U. S. Agency for International Development. The National Institute of Nutrition implemented the survey with technical assistance from the Demographic and Health Surveys (DHS) program. The Kazakstan Academy of Preventive Medicine participated in analysis and report writing.

Some statistics presented in this report are already available from the Ministry of Health. For example, the Ministry of Health regularly collects and publishes information on fertility, contraception, induced abortion, and infant mortality. However, the survey presents information on these issues in a manner which is not currently available, i.e., by population groups defined by age, marital duration, education, ethnicity, etc. Additionally, the survey provides statistics on some issues not previously available such as, for example, breastfeeding practices and anemia status of women and children. Thus, when considered together, the Ministry of Health and the KDHS data provide a more complete picture of the health conditions in Kazakstan than was previously available.

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

Births per Woman

KAZAKSTAN	2.5
RESIDENCE	
Urban	2.0
Rural	3.1
EDUCATION	
Primary/Secondary	2.9
Secondary-special	2.4
Higher	2.0
ETHNICITY	
Kazak	3.1
Russian	1.7
Other	2.3
REGION	
Almaty City	1.5
South	3.4
West	2.7
Central	2.7
North and East	1.8
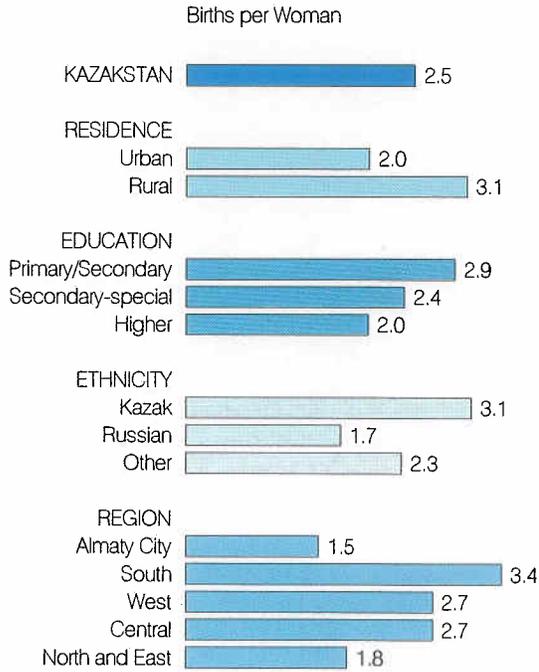
The fertility rate among ethnic Kazak women is higher than among ethnic Russian women.

Fertility

Fertility Levels and Trends

KDHS data indicate that at the current age-specific rates of fertility, a woman in Kazakstan will give birth to an average of 2.5 children during her reproductive years. Fertility levels differ by population group. The per woman) is higher than for ethnic Russians (1.7 births per woman).

A woman in Kazakstan will give birth to an average of 2.5 children during her reproductive years.

The results of the 1989 Census and the 1995 KDHS survey show that fertility has declined in Kazakstan over the past 5 years, from 2.9 in 1988-1989 to 2.5 births per woman in 1992-1995. Over the same period, fertility among ethnic Kazaks has declined from 3.6 to 3.1 births per woman and among ethnic Russians from 2.2 to 1.7 births per woman.

The fertility rate for ethnic Kazak women (3.1 births per woman) is higher than for ethnic Russian women (1.7 births per woman).

Figure 2
Trends in Age-specific Fertility Rates, 1989 Census and 1995 KDHS (Women 15-49)
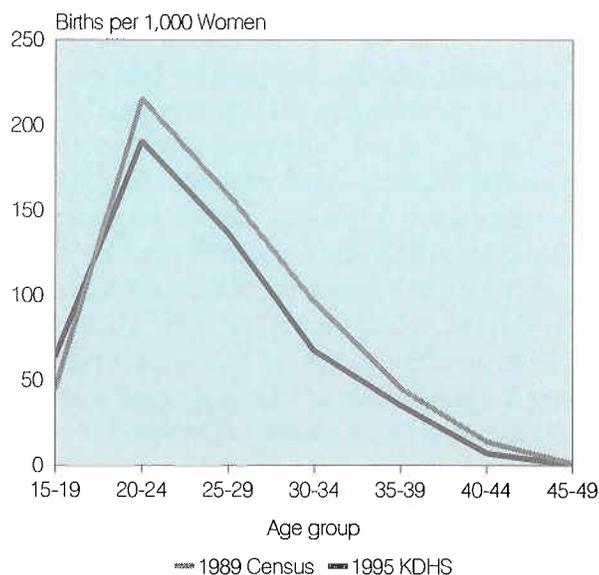
Fertility has consistently declined in Kazakstan over the past five years among women in all age groups except those age 15-19.

Birth Intervals and Fertility Preferences

Overall, one-third of non-first births in Kazakstan (34 percent) take place within 24 months of the previous birth. The proportion of births which occur within 24 months of the previous birth is significantly greater among Kazak mothers (39 percent) than among Russian mothers (22 percent). Similarly, the proportion under 24 months is greater among rural women (39 percent) than among urban women (26 percent). These findings are of concern because children born too close to a previous birth have an increased risk of dying, especially when the interval between births is less than 24 months.

When asked about their fertility preferences, a large majority of women in Kazakstan (79 percent) report that they want to either delay their next birth (19 percent) or to stop childbearing altogether (60 percent).


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Infant and Child Mortality

For the five-year period immediately preceding the survey (1990-94), infant mortality was estimated at 40 per 1,000 live births. The estimates of neonatal and postneonatal mortality were about equal at 20 per 1,000. The estimate of child mortality (age 1-5 years) was much lower at 6 per 1,000.

For the five-year period immediately preceding the survey (1990-94), infant mortality was estimated at 40 per 1,000 live births.

Figure 3
Trends in Infant Mortality

Deaths per 1,000 Live Births

Calendar Year

Ministry of Health (MOH)   Kazakstan DHS (KDHS)
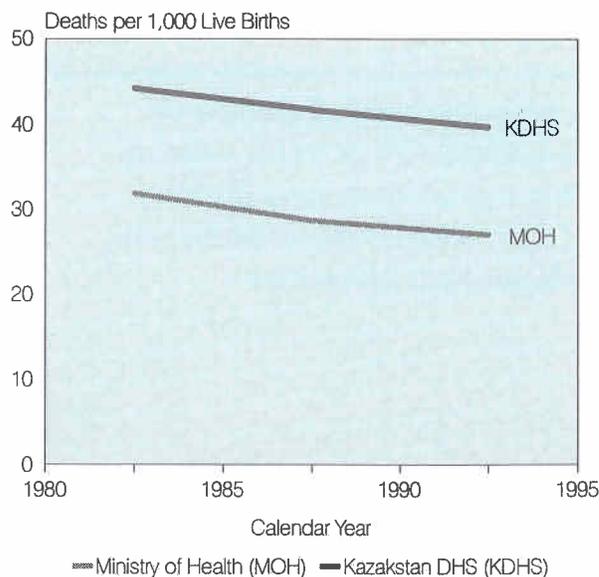
During the 10-year interval between 1980-1984 and 1990-1994, infant mortality declined by about 10 percent according to both the Ministry of Health and the KDHS survey.

Over the 10-year period between 1980-1984 and 1990-1994 infant mortality in Kazakstan declined from 44 to 40 per 1,000 (i.e., by about 10 percent). The pace of mortality decline was more pronounced among children age 1-5 years, and over the 10-year period, child mortality rates fell from 10 to 6 per 1,000 (i.e., by about 38 percent).

The Ministry of Health annually publishes infant mortality rates which are based on a definition of live birth which differs from the international definition used in the KDHS 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. According to the international definition, a live birth is a birth which, after separation from the mother, breathes or shows any sign of life irrespective of the duration of the pregnancy.

Thus, some events classified as late miscarriages in the Ministry of Health system would be classified as live births and infant deaths in the KDHS survey. This explains why the infant mortality estimates of the Ministry of Health are consistently about 30 percent lower than the KDHS estimates. Nevertheless, data from both the Ministry of Health and the KDHS indicate a decline in infant mortality over the last decade of the same order of magnitude (i.e., approximately 10 percent).

Family Planning

The Ministry of Health of Kazakstan incorporates family planning within a comprehensive program of maternal and child health services. The main objectives of the family planning component are to reduce adverse health outcomes resulting from inadequately spaced births and induced abortions.

Knowledge and Use of Contraception

Knowledge of contraceptive methods is nearly universal among women in Kazakstan. Ninety-eight percent of respondents (women age 15-49) know at least one method of contraception. On average, survey respondents know five methods of contraception.

Overall, 59 percent of currently married women age 15-49 are currently using a contraceptive method. Forty-six percent are using a modern method, and 13 percent are using a traditional method.

Fifty-nine percent of currently married women are using a contraceptive method.

Figure 4
Use of Specific Contraceptive Methods
(Currently Married Women 15-49)

IUD 40%
Condom 4%
Other modern methods 1%
Pill 2%
Traditional methods 13%
Not currently using 41%
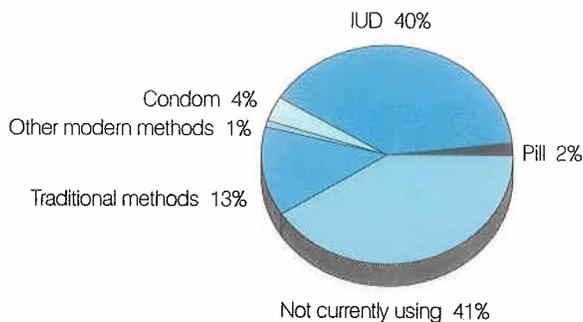
Of the fifty-nine percent of married women who are currently using a contraceptive method, three-quarters use modern methods.
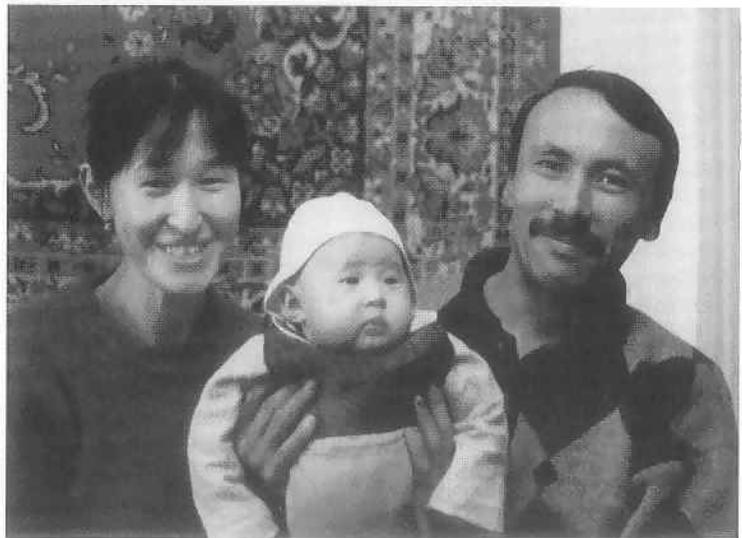
Two out of every three currently married women using contraception are using the IUD. One out of every five currently married women using contraception is using either periodic abstinence, withdrawal, or douche.

Unmet Need for Family Planning Services

Women who want to space or stop their childbearing and who are not using contraception are considered to have an unmet need for family planning. Sixteen percent of currently married women in the KDHS have an unmet need for family planning; 4 percent for spacing purposes and 12 percent to limit childbearing. While contraceptive prevalence is quite high in Kazakstan, if all currently married women who say they want to space or limit their births were to use contraception, the contraceptive prevalence rate would increase from 59 to 75 percent of married women.

Induced Abortion

As in most of the republics of the former Soviet Union, induced abortion has been a primary means of fertility control in Kazakstan.

At the current age-specific rates of induced abortion, a woman in Kazakstan will have an average of nearly two abortions (1.8) over her lifetime. The total abortion rate is higher in urban areas (2.0 abortions per woman) than in rural areas (1.5). In addition, the total abortion rate is substantially higher among ethnic Russian women (2.7 abortions per woman) than among ethnic Kazak women (1.1).

A woman in Kazakstan will have an average of about two abortions (1.8) over her lifetime.

Figure 5
Total Induced Abortion Rate by Background Characteristics (Women 15-49)

Abortions per Woman

	Abortions per Woman
KAZAKSTAN	1.8
RESIDENCE	
Urban	2.0
Rural	1.5
REGION	
Almaty City	3.0
South	0.9
West	1.0
Central	1.6
North and East	2.5
ETHNICITY	
Kazak	1.1
Russian	2.7
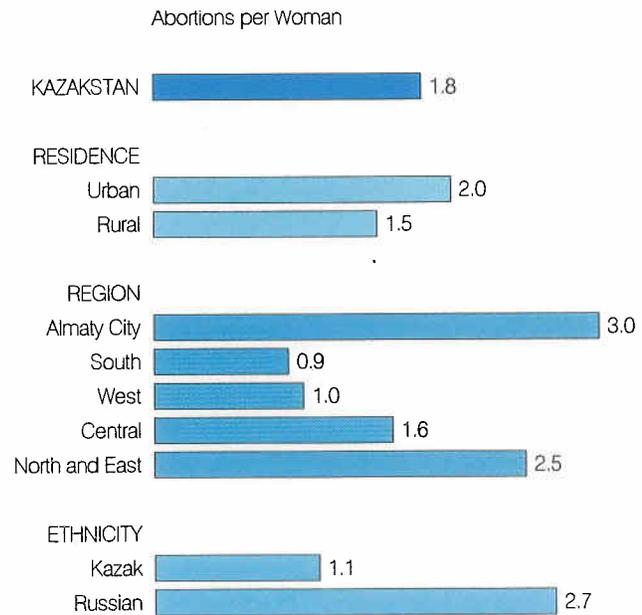
The abortion rate is higher for women living in urban than in rural areas, and among ethnic Russian women than ethnic Kazak women

As expected, levels of abortion and fertility are inversely correlated. In the high fertility South Region, the abortion rate is lowest (0.9 abortions per woman). In the West and Central Regions where fertility levels are intermediate, abortion rates are also intermediate (1.0 and 1.6, respectively), while in the relatively low fertility areas of the North and East Region and Almaty City, abortion rates are highest (2.5 and 3.0, respectively).

The KDHS data indicate a 20 percent decline in the induced abortion rate from 1986-90 to 1993-95. This is in agreement with the abortion statistics published by the Ministry of Health, which indicate a 17 percent decline in induced abortion over the same time period.

A finding of considerable interest is that between 1988-89 and 1993-95, the pill and IUD prevalence rate in Kazakstan increased by 32 percent and over the same period the abortion rate declined by 15 percent. This is convincing evidence that contraception has been substituted for abortion.

Over an interval of about five years, the pill and IUD prevalence rate in Kazakstan has increased by 32 percent, while the abortion rate has declined by 15 percent.

Maternal and Child Health and Nutrition

Antenatal and Delivery Care

The survey data indicate that a high proportion of women in Kazakstan (93 percent) receive antenatal care from a professional health provider; the majority from a doctor (69 percent) and a significant proportion from a nurse or midwife (23 percent). Only 7 percent of women receive no antenatal care. The general pattern in Kazakstan is that women seek antenatal care early in a pregnancy and continue to receive care throughout the pregnancy. The median number of antenatal care visits reported by respondents is 11.

Virtually all births in Kazakstan (98 percent) are delivered at health facilities: 96 percent in delivery hospitals and 2 percent in either general hospitals or doctor's assistant/midwife posts. Only 2 percent of births are delivered at home. Almost all births (99 percent) are delivered under the supervision of medically trained persons—78 percent by a doctor and 21 percent by a nurse or midwife.

Virtually all births in Kazakstan (98 percent) are delivered at health facilities, and 99 percent are delivered under the supervision of medically trained persons.

Figure 6
Antenatal Care and Delivery Characteristics
(Births in the Preceding 3 Years)

Percent

ANTENATAL CARE
- Doctor: 69.3
- Nurse/Midwife: 23.2
- No one: 7.3

PLACE OF DELIVERY
- Delivery Hospital: 96.4
- Hospital: 1.2
- FAP: 0.8
- Respondent's Home: 1.4

DELIVERY ASSISTANCE
- Doctor: 78.4
- Nurse/Midwife: 21.2
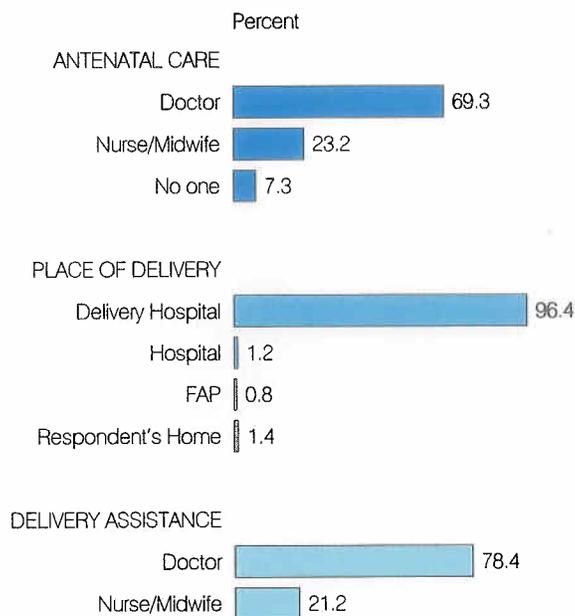
A high proportion of women in Kazakstan receive antenatal care and delivery assistance from a professional health provider.

Infant Feeding and Child Nutrition Status

Breastfeeding is almost universal in Kazakstan; 96 percent of children born in the three years preceding the survey were breastfed. Overall, 10 percent of children are breastfed within an hour of delivery and 40 percent within 24 hours of delivery. The median duration of breastfeeding is lengthy (14 months). However, the duration of exclusive breastfeeding, as recommended by the World Health Organization, is short (0.4 months).

In the KDHS, the height and weight of children under three years of age was measured. The results indicate that 16 percent of children under three are *stunted* (i.e., short for their age), a condition reflecting chronic undernutrition; 3 percent are *wasted* (i.e., thin for their height), a condition reflecting acute undernutrition; and 8 percent are *underweight* (for their age), a condition reflecting overall poor nutritional health.

Particularly in terms of the stunting index, undernutrition differs between subgroups of children. Moderate or severe stunting is found to be high among children 12-23 months of age (23 percent) as opposed to infants (7 percent), and among children born after a birth interval of less than 24 months (28 percent) as opposed to those born after a longer birth interval (14 percent). Moderate or severe stunting is also particularly high among children in rural areas (22 percent), in the South and Central Regions (23 and 22 percent, respectively), and among the children of ethnic Kazak women (21 percent).

Figure 7
Prevalence of Stunting by Background
Characteristics (Children Under 3 Years)

Percent of children stunted

KAZAKSTAN	15.8
RESIDENCE	
Urban	7.5
Rural	21.8
REGION	
Almaty City	3.2
South	22.7
West	10.9
Central	21.5
North and East	7.0
MOTHER'S EDUCATION	
Primary/Secondary	19.9
Secondary-special	16.3
Higher	4.7
ETHNICITY	
Kazak	21.1
Russian	7.2
Other	9.3
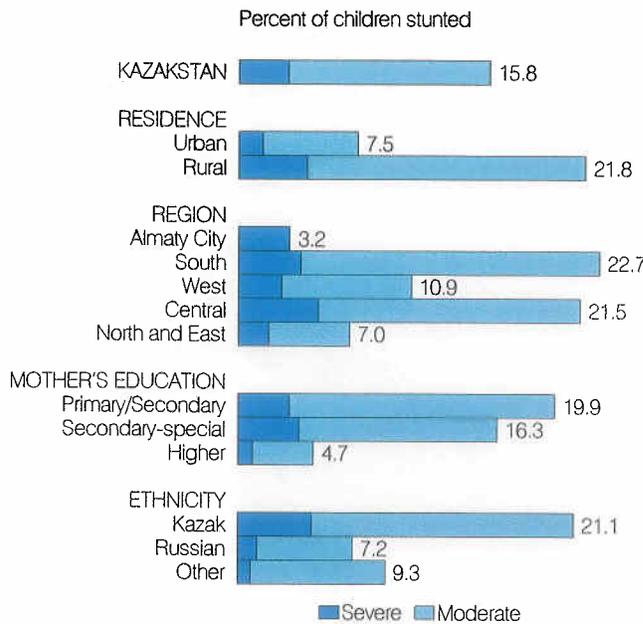
■Severe ■Moderate

Moderate or severe stunting is high among children in rural areas, in the South and Central Regions, and among children of ethnic Kazak women.

Anemia

Testing of women and children for anemia was one of the major efforts of 1995 KDHS. The study involved hemoglobin testing for anemia using the Hemocue system.

Half of the women (49 percent) of childbearing age in Kazakstan suffer from some degree of anemia. Eleven percent of women have moderate anemia (hemoglobin level between 7.0 and 9.9 g/dl) and 1 percent are severely anemic (hemoglobin level less than 7.0 g/dl). The highest overall rate of anemia (59 percent) is found in the West Region. With respect to ethnicity, the rate of anemia is higher among ethnic Kazak women (57 percent) than among ethnic Russian women (42 percent) and women of other ethnic groups (43 percent). Among pregnant women in Kazakstan, moderate anemia is two to three times more common than among nonpregnant women (breastfeeding or non-breastfeeding).

Sixty-nine percent of children under the age of three in Kazakstan suffer from some degree of anemia. Thirty-four percent of children have moderate anemia, and 6 percent are severely anemic.

Sixty-nine percent of the children under the age of three in Kazakstan suffer from some degree of anemia. Thirty-four percent of children have moderate anemia, and 6 percent are severely anemic. As is the case for women, the highest overall rate of anemia among children is found in the West Region (81 percent). Nine percent of Kazak children are diagnosed as having severe anemia, while no ethnic Russian children tested are severely anemic; the rate for other ethnic groups is 1 percent.

Figure 8
Percent Distribution of Hemoglobin Levels Among Women Age 15-49
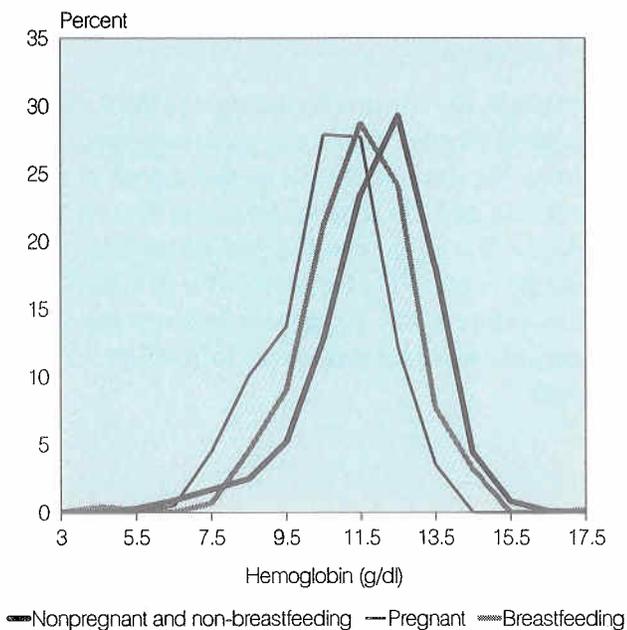
The entire hemoglobin distribution for pregnant women is shifted downward as compared to the distribution for nonpregnant women (breastfeeding and non-breastfeeding).

Conclusions

Despite the declining fertility rate (from 2.9 to 2.5 children per woman over the last five years), and high contraceptive knowledge (98 percent) and current use (59 percent), a significant proportion of women in Kazakstan have an unmet need for some method of family planning. These are the 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, 16 percent of women are in this category.

In addition, birth spacing could improve. Currently, one-third of non-first births are born within 24 months of the previous birth in Kazakstan. One of the objectives of the family planning program is to reduce the number of inadequately spaced pregnancies.

Perhaps the most convincing evidence of the beneficial effect of family planning use comes from the data on trends in the use of contraception and the level of abortion. The data indicate that over an interval of about five years, the pill and IUD prevalence rate in Kazakstan has increased by 32 percent and over the same period the abortion rate has declined by 15 percent.

However, despite this decline, induced abortion remains a primary method of fertility control in Kazakstan. At current rates, a woman in Kazakstan will have an average of nearly two abortions (1.8) during her lifetime. Because of these high rates and the adverse effects of abortion on a woman's health, the abortion issue remains a substantial public health concern in Kazakstan. The challenge for the family planning program is to provide women with a broad choice of safe and reliable methods of contraception and thereby reduce the need for women to seek abortions.

Kazakstan 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, Kazakstan has achieved success in providing antenatal and delivery care services throughout the country. KDHS data show that antenatal care is received early in pregnancy, and for most women, it is continued throughout pregnancy. Virtually all births (98 percent) are delivered at health facilities under the supervision of persons with medical training: 78 percent by a doctor and 21 percent by a nurse or trained midwife.

However, despite this extensive medical infrastructure, Kazakstan has relatively high rates of child and infant mortality. For the period 1990-94, the infant mortality rate was estimated at 40 per 1,000 live births, and under-five mortality was estimated at 46 per 1,000.

Anemia is recognized as a major public health problem throughout the world, and has been considered to be a major public health problem in Kazakstan for decades. KDHS data show that the anemia rates among women and children are high throughout all regions of Kazakstan. Approximately half of the women in the KDHS survey and almost 70 percent of children are diagnosed as having some degree of anemia. The prevalence of anemia is among the highest in the West Region of Kazakstan for both women and children. There is sufficient evidence to suggest that the majority of cases of anemia among women in Kazakstan are due to nutritional deficiency of iron.

The KDHS 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 complications of pregnancy and delivery related to anemia among women, as well as developmental problems among children in Kazakstan. These data are important as a background for public health policy decisions that pertain to the iron fortification of food or an iron supplementation program in Kazakstan.

Fact Sheet

1995 Population Data[1]

Total population (millions) 16.5
Urban population (percent) 56.0
Annual population growth (per 1,000 population) 6.6
Crude birth rate (per 1,000 population) 16.8
Crude death rate (per 1,000 population) 10.2
Life expectancy at birth (years) .... 66.8[2]

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Sample Population
Ever-married women age 15-49 3,771

Background Characteristics of Women Interviewed
Percent urban 56.6
Percent Kazak 45.0
Percent Russian 34.7
Percent with primary and secondary education 82.2
Percent with higher education 17.8

Marriage and Other Fertility Determinants
Percent of women 15-49 currently married 64.0
Percent of women 15-49 ever married 76.5
Median age at first marriage among women age 25-49 ...... 21.0
Median duration of breastfeeding (months)[3] 13.9
Median duration of postpartum amenorrhea (months)[3] 4.6
Median duration of postpartum abstinence (months)[3] 2.3

Fertility
Total fertility rate[4] 2.5
Mean number of children ever born to women age 40-49 ...... 3.1

Induced Abortion
Total abortion rate[4] 1.8
Mean number of abortions, women age 40-49 .... 2.6

Desire for Children
Percent of currently married women who:
Want no more children 59.4
Want to delay their next birth at least 2 years 18.6
Mean ideal number of children among women 15-49[5] 2.9
Percent of births in the last 3 years that were:
Unwanted 7.7
Mistimed 8.4

Knowledge and Use of Family Planning
Percent of currently married women who:
Know any method 99.3
Know a modern method 99.3
Have ever used any method 83.5
Are currently using any method 59.1
Are currently using a modern method 46.1

Percent of currently married women currently using:
Pill 1.8
IUD 39.6
Injectables and diaphragm 1.0
Condom 3.7
Periodic abstinence 6.5
Withdrawal 3.2
Douche 3.3

Infant and Child Mortality
Infant mortality rate[6] 40
Under-five mortality rate[6] 46

Maternal and Child Health
Percent of births[7] to mothers who received antenatal care
from medical provider 92.5
Percent of births[7] to mothers who were assisted
at delivery by:
Doctor 78.4
Nurse/Trained midwife 21.2
Percent of children 0-3 months who are breastfeeding 88.2
Percent of children 8-11 months who are breastfeeding 73.3
Percent of children 0-3 months who are
exclusively breastfeeding 12.3
Percent of children under 3 years who:
Had diarrhea in the 2 weeks preceding the survey 15.7
Had a cough accompanied by short, rapid breathing
in the 2 weeks preceding the survey 5.1
Are chronically undernourished (stunted)[8] 15.8
Are acutely undernourished (wasted)[8] 3.3

Anemia
Percent of women 15-49 moderately anemic[9] 10.6
Percent of women 15-49 severely anemic[9] 1.1
Percent of children under age 3 moderately anemic[9] 33.6
Percent of children under age 3 severely anemic[9] 5.5

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[1] Based on 1995 data from State Committee of Statistics (Goskomstat). 1996. *Statistical Yearbook 1995, Republic of Kazakstan.* Almaty, Kazakstan: Goskomstat.

[2] Preliminary data.

[3] Current status estimate based on births during the 36 months preceding the survey

[4] Based on births to women 15-49 years during the period 0-3 years preceding the survey

[5] Excludes the women who gave a non-numeric response to ideal family size

[6] Rates for the period 0-4 years preceding the survey (roughly 1990 to 1994); expressed as deaths per 1,000 live births

[7] Figure includes births in the period 1-35 months preceding the survey

[8] 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.

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