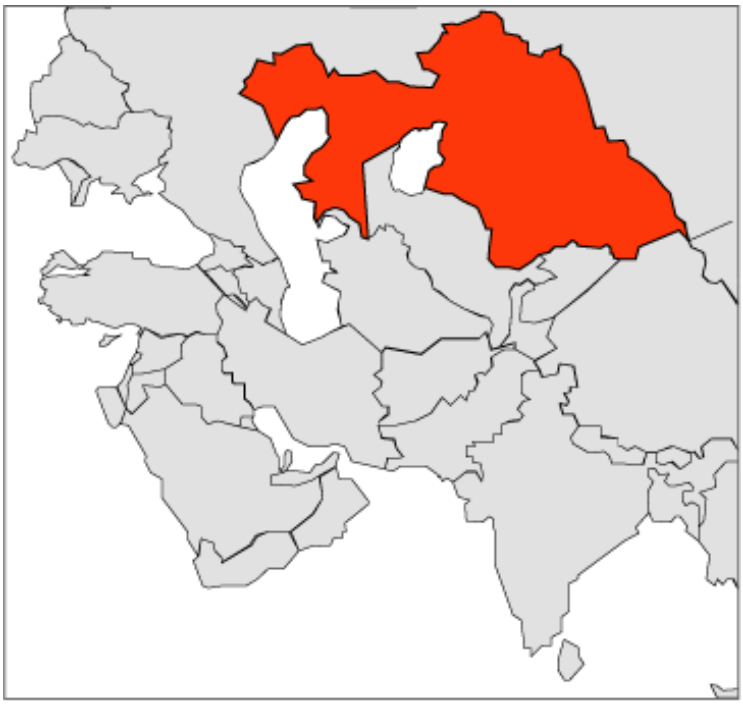
USAID Country Health Statistical Report

Kazakhstan

January 2011



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About the Report

Released January 2011

This report is one of a series of Country Health Statistical Reports produced on behalf of the United States Agency for International Development (USAID) by the Analysis, Information Management and Communication Activity (AIM) Project. Each profile contains statistical data on current health conditions, population dynamics, health and family planning behavior, and health and population trends in a given developing country. Information is compiled from AIM's health statistics database, which draws data from a diverse range of sources listed at the end of this profile.

Hard copy editions of USAID's profiles are available from AIM'S publications department. Reports are available on the USAID Global Health Web site in Portable Document Format (pdf). Any feedback you have on the content or presentation of this report would be greatly appreciated. We would also appreciate receiving any more recent, more accurate, or more representative information. Contact us at the following:

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I. Statistical Overview

*see data notes

Demographic Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
Total Population	15,460,484		2010	BUCEN-IDB-2010
Population Growth Rate	0.4	%	2010	BUCEN-IDB-2010
Percent Urban	56	%	2004	World Bank/WDI-2006
Women, 15-19	678,324		2010	BUCEN-IDB-2010
Women, 15-49	4,327,536		2010	BUCEN-IDB-2010
Life Expectancy at Birth	68.2		2010	BUCEN-IDB-2010
Crude Birth Rate	16.7	per 1,000	2010	BUCEN-IDB-2010
Crude Death Rate	9.4	per 1,000	2010	BUCEN-IDB-2010
Number of Live Births	257,572		2010	BUCEN-IDB-2010
Healthy Life Expectancy: Female	59		2002	WHO Global Health Atlas-2008
Healthy Life Expectancy: Male	53		2002	WHO Global Health Atlas-2008
Population: Percent < Age 15	21.7	%	2010	BUCEN-IDB-2010

Socioeconomic Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
GNI per Capita (PPP)	7,730	$	2005	World Bank/WDI-2006
Health Expenditure as Percentage of GDP	3.5	%	2003	World Bank/WDI-2006
Physicians per 1,000 People	3.6	per 1,000	2002	World Bank/WDI-2005
Adult Literacy Rate	99.5	%	2004	World Bank/WDI Database-2007
Adult Literacy Rate, Female	99.2	%	2002	World Bank/WDI-2005
Adult Literacy Rate, Male	99.7	%	2002	World Bank/WDI-2005
Gross Enrollment Ratio - Primary School	108.7	%	2007	UNESCO Global Monitoring Report-2010
Gender Parity Index - Net Enrollment Ratio	1		2007	UNESCO Global Monitoring Report-2010
Access to an Improved Water Source (Rural)	72	%	2002	World Bank/WDI-2005
Access to an Improved Water Source (Urban)	96	%	2002	World Bank/WDI-2005
Access to Improved Sanitation Facilities (Rural)	52	%	2002	World Bank/WDI-2005
Access to Improved Sanitation Facilities (Urban)	87	%	2002	World Bank/WDI-2005
Population Living Below $1 a Day	2	%	1990-2004	Human Development Report-2006
Human Development Index	0.79		2005	Human Development Report - 2007/2008-2008
Population Below Poverty Line	12.1	%	2008	CIA World Factbook-2010
Real GDP (Growth) Rate	1	%	2009	CIA World Factbook-2010
Income Inequality (Gini index)	28.8		2008	CIA World Factbook-2010
Unemployment Rate	6.3	%	2009	CIA World Factbook-2010
Inflation Rate	7.3	%	2009	CIA World Factbook-2010
Airports	97		2010	CIA World Factbook-2010
Airports with paved runways	65		2010	CIA World Factbook-2010

Family Planning Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
Total Fertility Rate (BUCEN)	1.9		2010	BUCEN-IDB-2010
Total Fertility Rate (DHS)	2.1		1999	Kazakhstan DHS-1999
Contraceptive Prevalence Rate, Modern Methods, All Women	38.6	%	1999	Kazakhstan DHS-1999
Contraceptive Prevalence Rate, Modern Methods, Married Women	52.7	%	1999	Kazakhstan DHS-1999
Median Age of Sexual Debut Among Women, Ages 25-49	20.8		1999	Kazakhstan DHS-1999
Mean Ideal Family Size	2.8		1999	Kazakhstan DHS-1999
Women 20-24 Who Gave Birth Before Age 20	22.1	%	1999	Kazakhstan DHS-1999
Total Fertility Rate, Rural	2.7		1999	DHS STATcompiler as of September 2008-2008
Unmet Need for Family Planning: Rural	10	%	1999	DHS STATcompiler as of September 2008-2008
Unmet Need for Family Planning: Urban	7.6	%	1999	DHS STATcompiler as of September 2008-2008
Contraceptive Prevalence Rate, All Methods	50.7	%	2006	2006 Kazakhstan MICS-2006
Equity in use of modern contraception	Data Not Available			
Percent of need satisfied by modern methods of family planning	Data Not Available			

Maternal Health Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
Maternal Mortality Ratio (WHO/Hill)	140	Per 100,000 live births	2005	WHO/Hill-2005
Maternal Mortality Ratio (DHS)	Data Not Available			
Antenatal Care (at least 1 visit)	80.9 [1]	%	1999	Kazakhstan DHS-1999
Antenatal Care (2+ visits)	78.1 [2]	%	1999	Kazakhstan DHS-1999
Antenatal Care (4+ visits)	70 [3]	%	1999	Kazakhstan DHS-1999
Assisted Delivery by a Health Professional	99.1	%	1999	Kazakhstan DHS-1999
Assisted Delivery by Doctor	76.8	%	1999	Kazakhstan DHS-1999
Assisted Delivery by Other Health Professional	22.3	%	1999	Kazakhstan DHS-1999
Anemia prevalence among women of reproductive age	Data Not Available			
Equity in skilled attendance at delivery	Data Not Available			

[1] The value for this country represents data from the five-year period preceding the survey.
[2] The value for this country represents data from the five-year period preceding the survey.
[3] The value for this country represents data from the five-year period preceding the survey.

Child Survival Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
Acute Respiratory Infection (ARI) and Oral Rehydration Therapy (ORT)				
ARI Care Seeking - Children Under 5	48	%	1999	Kazakhstan DHS-1999
ORT Use Rate (ORS, RHS, or Increased Fluids)	63	%	1999	Kazakhstan DHS-1999
Mortality Indicators				
Infant Mortality Rate (BUCEN)	24.9	per 1,000 live births	2010	BUCEN-IDB-2010
Infant Mortality Rate (UNICEF)	27		2008	UNICEF-2010
Infant Mortality Rate (DHS)	61.9	per 1,000 live births	1999	Kazakhstan DHS-1999
Infant Mortality Rate, Females (BUCEN)	20.3	per 1,000 live births	2010	BUCEN-IDB-2010
Infant Mortality Rate, Males (BUCEN)	29.3	per 1,000 live births	2010	BUCEN-IDB-2010
Under-5 Mortality Rate (BUCEN)	29.6	per 1,000 live births	2010	BUCEN-IDB-2006
Neonatal Mortality Rate	34	per 1000	1999	DHS STATcompiler as of September 2008-2008
Under-5 Mortality Rate (UNICEF)	30	per 1,000 live births	2008	UNICEF-2010
Under-5 Mortality Rate (DHS)	71.4	per 1,000 live births	1999	Kazakhstan DHS-1999
Nutrition Indicators				
Exclusive Breastfeeding (under 4 mos.)	46.6	%	1999	Kazakhstan DHS-1999
Exclusive Breastfeeding (under 6 mos.)	32.9 [1]	%	1999	Kazakhstan DHS-1999
Stunted (height-for-age)	9.7	%	1999	Kazakhstan DHS-1999
Underweight (weight-for-age)	4.2	%	1999	Kazakhstan DHS-1999
Wasted (weight-for-height)	1.8	%	1999	Kazakhstan DHS-1999
Vaccination Coverage				
DPT3 Vaccination Rate (DHS)	88.7	%	1999	Kazakhstan DHS-1999
DPT3 Vaccination Rate (WHO)	98	%	2009	WHO: Global Summary-2009
Measles Vaccination Rate (DHS)	78.5	%	1999	Kazakhstan DHS-1999
Measles Vaccination Rate (WHO)	99	%	2009	WHO: Global Summary-2009
Polio Vaccination Rate (DHS)	83.1	%	1999	Kazakhstan DHS-1999
Polio Vaccination Rate (WHO)	99	%	2009	WHO: Global Summary-2009
Tetanus Toxoid Vaccination	Data Not Available			
Equity in DPT3 coverage (DHS)	Data Not Available			
Improved sanitation/hygiene practices	Data Not Available			
Vitamin A supplementation coverage among children 6-59 months	Data Not Available			

[1] The value for this country represents data from children under seven months of age.

HIV/AIDS Prevention Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
HIV Prevalence proportion: Adults (15–49 years)	0.1	%	2007	UNAIDS 2008-2008
Estimated number of people living with HIV: Adults and Children	12,000		2007	UNAIDS 2008-2008
Estimated number of people living with HIV: Women (15+ years)	3,300		2007	UNAIDS 2008-2008
Estimated number of people living with HIV: Children (0–14 years)	Data Not Available			
Males Reporting Condom Use With Last Non-Regular Partner	58.3	%	1999	Kazakhstan DHS-1999
Females Reporting Condom Use With Last Non-Regular Partner	18.7	%	1999	Kazakhstan DHS-1999

Infectious Diseases Control Indicators				
Indicator	**Value**	**Data Unit**	**Year**	**Source**
TB Estimated Number of Cases	19,894		2007	WHO: Global Atlas-2009
TB Case Detection Rate	108	%	2007	Global Atlas-2010
TB (DOTS) Treatment Success Rate	72	%	2006	WHO: Global Atlas-2009
Malaria Cases per 100,000	Data Not Available			
DOTS Coverage	100	%	2007	WHO: Global Atlas-2009
HIV-Infected with Active TB	2.8	%	2007	WHO: Global Atlas-2009
Avian Influenza: Cumulative Number of Confirmed Human Cases	Data Not Available			
Avian Influenza: Cumulative Number of Confirmed Human Deaths	Data Not Available			
Child Sleeps Under Insecticide-Treated Net	Data Not Available			
Equity in Bednet (ITN) Ownership	Data Not Available			

II. Trends in Health Indicators

Figure 1: Current and Projected Population by Age and Sex (in thousands)

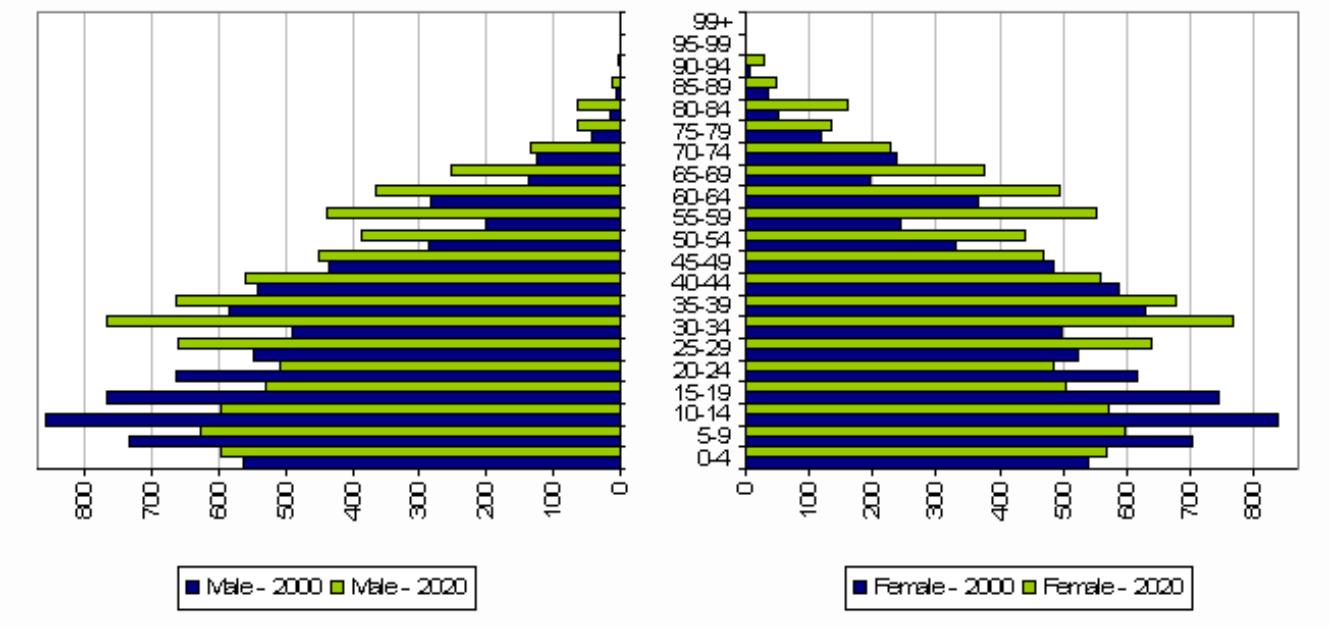

Table 1.1: Current and Projected Population by Age and Sex

Source: BUCEN-IDB

Age Group	Male - 2000	Male - 2020	Female - 2000	Female - 2020
0-4	562,647	596,039	538,567	568,495
5-9	731,820	625,568	702,556	598,058
10-14	859,193	595,289	837,778	570,065
15-19	767,709	529,417	744,057	504,302
20-24	664,664	508,565	616,893	484,321
25-29	548,394	660,198	523,050	639,988
30-34	490,227	765,679	497,042	767,235
35-39	584,869	663,730	628,851	675,908
40-44	541,347	560,310	587,340	558,418
45-49	435,188	449,503	484,853	470,283
50-54	284,717	385,079	329,311	441,341
55-59	200,957	436,637	245,120	552,277
60-64	284,150	365,443	365,615	493,295
65-69	138,345	251,023	196,184	377,114
70-74	124,280	134,597	236,926	228,937
75-79	41,663	64,478	119,938	134,040
80-84	14,908	63,597	52,901	159,811
85-89	6,162	13,201	34,065	48,693
90-94	693	3,554	7,273	27,514
95-99	138	211	1,562	4,472
99+	16	6	171	354

TABLE 1.2: Population Estimates and Projections

Source: BUCEN-IDB

1960	1970	1980	1990	2000	2010	2020	2030	2040	2050
9,982,014	13,106,377	14,966,718	16,398,131	15,032,140	15,460,484	15,977,045	15,979,334	15,672,663	15,099,700

Figure 2: Estimated Total Fertility Rate per Woman

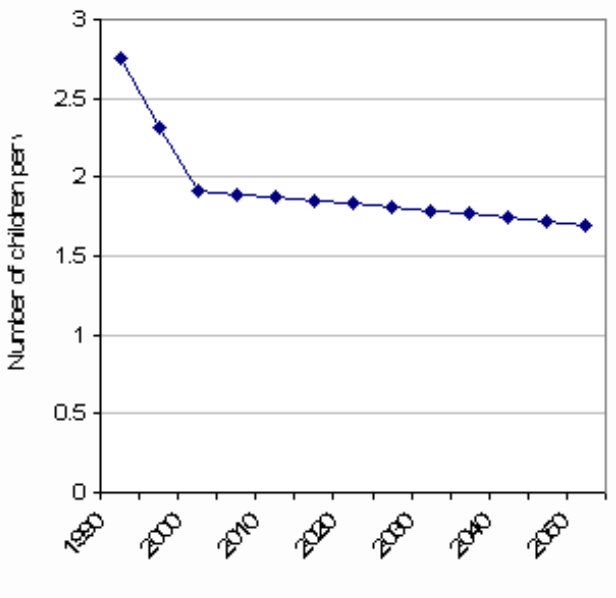

Table 2: Estimated Total Fertility Rate per Woman

Source: BUCEN-IDB

1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
2.8	2.3	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7	1.7

Figure 3: Infant Mortality Rates / Under-5 Mortality Rates

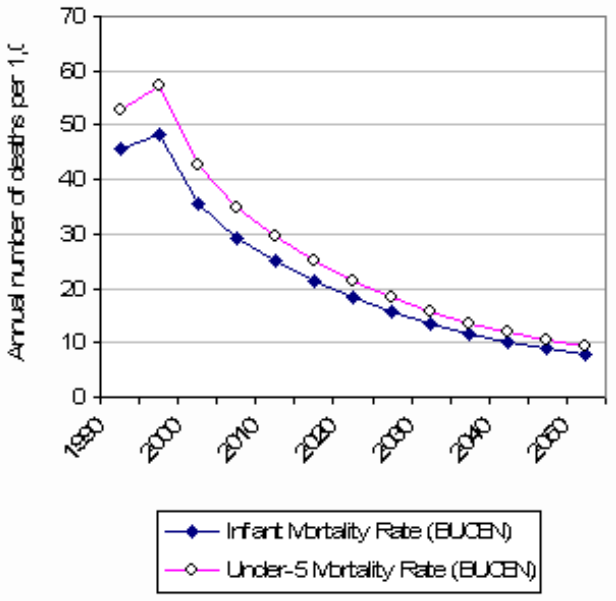

Table 3: Infant Mortality Rates / Under-5 Mortality Rates

Source: BUCEN-IDB 2010

Indicator	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Infant Mortality Rate (BUCEN)	45.5	48.2	35.4	29.2	24.9	21.3	18.2	15.7	13.5	11.7	10.2	9.0	8.0
Under-5 Mortality Rate (BUCEN)	52.9	57.3	42.7	34.9	29.6	25.2	21.4	18.3	15.7	13.6	11.8	10.4	9.2

Figure 4: Vaccination Coverage (DPT3) Trends

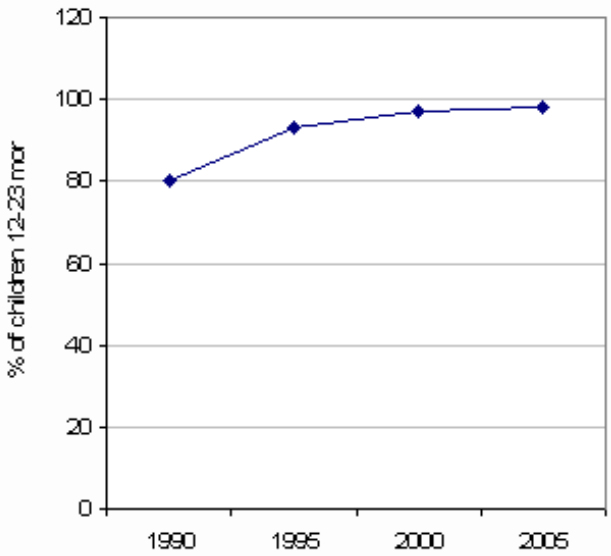

Table 4: Vaccination Coverage (DPT3) Trends

Source: WHO/Global Summary

WHO: Global Summary

1990	1995	2000	2005
80.0	93.0	97.0	98.0

Figure 5: Contraceptive Prevalence Rates, Modern Methods, Married Women

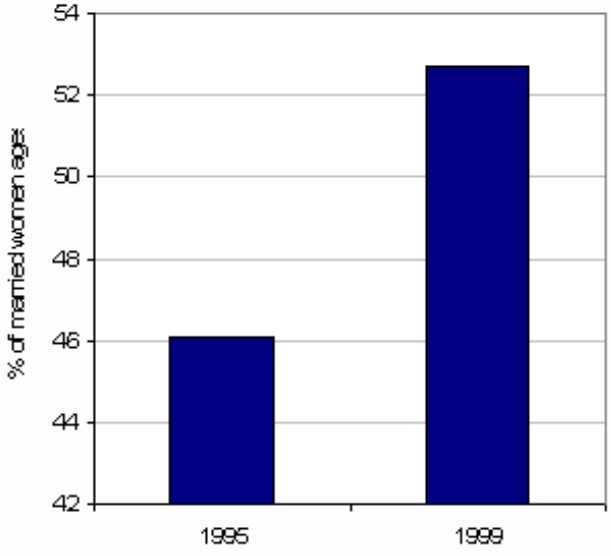

Table 5: Contraceptive Prevalence Rates, Modern Methods, Married Women

Source: Kazakhstan DHS

1995	1999
46.1	52.7

Data Notes

*Indicator definitions that differ from those in the data notes section are identified by footnotes accompanying the indicator tables.

Demographic Indicators

Total Population	The number of people in a given area (i.e., country) in a particular time period (usually a midyear estimate).
Population Growth Rate	The average annual growth rate is the rate of natural increase in a population plus the net migration rate. The rate of natural increase is the difference between the birth rate and the death rate, but it is conventionally measured in percentage terms (per hundred rather than per thousand).
Percent Urban	The percentage of the midyear population living in areas defined as urban in each country and reported to the United Nations.
Women, 15-19	The number of women between the ages of 15-19 in the midyear population.
Women, 15-49	The number of women between the ages of 15-49 in the midyear population.
Life Expectancy at Birth	The average number of years that a person at age 0 will live if age-specific death rates remain constant. Life expectancy at birth is highly affected by rates of infant and child death.
Crude Birth Rate	The number of births per thousand of the population. The product of the number of live births, divided by the midpoint population, multiplied by 1,000.
Crude Death Rate	The number of deaths per thousand of the population. The product of the number of deaths divided by the midpoint population, multiplied by 1,000.
Number of Live Births	The number of live births, annually, within a country.
Healthy Life Expectancy: Female	The number of years of in full health that a female newborn can expect to live based on current rates of ill-health and mortality. HALE is based on life expectancy at birth but includes an adjustment for time spent in poor health.
Healthy Life Expectancy: Male	The number of years of in full health that a male newborn can expect to live based on current rates of ill-health and mortality. HALE is based on life expectancy at birth but includes an adjustment for time spent in poor health.
Population: Percent < Age 15	Percent of population less than 15 years of age.

Socioeconomic Indicators

GNI per Capita (PPP)	The gross national income (GNI) converted to international dollars using purchasing power parity (PPP) rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States.
Health Expenditure as Percentage of GDP	Total health expenditures is the sum of public and private health expenditures figured as a percentage of a country's gross domestic product (GDP). It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.
Physicians per 1,000 People	Physicians are defined as graduates of any faculty or school of medicine who are working in the country in any medical field (practice, teaching, research).
Adult Literacy Rate	The percentage of people ages 15 and over who can, with understanding, read and write a short, simple statement about their everyday life.
Adult Literacy Rate, Female	The percentage of women ages 15 and over who can, with understanding, read and write a short, simple statement about their everyday life.

Adult Literacy Rate, Male	The percentage of men ages 15 and over who can, with understanding, read and write a short, simple statement about their everyday life.
Gross Enrollment Ratio - Primary School	Total enrolment in primary level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to primary level of education. The GER can exceed 100% due to late entry or/and repetition.
Gender Parity Index - Net Enrollment Ratio	The ratio of the female-to-male values (or male to female, in certain cases) of net primary school enrollment rates (NER). NER measures the number of pupils in the official age group for a given level of ecudation, expressed as a percentage of the population in that age group.
Access to an Improved Water Source (Rural)	Access to an improved water source in rural areas. Refers to the percentage of the rural population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs.
Access to an Improved Water Source (Urban)	Access to an improved water source in urban areas. Refers to the percentage of the urban population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs.
Access to Improved Sanitation Facilities (Rural)	Access to improved sanitation facilities in rural areas. Refers to the percentage of the rural population with access to at least adequate excreta disposal facilities (private or shared, but not public) that can effectively prevent human, animal, and insect contact with excreta.
Access to Improved Sanitation Facilities (Urban)	Access to improved sanitation facilities in urban areas. Refers to the percentage of the urban population with access to at least adequate excreta disposal facilities (private or shared, but not public) that can effectively prevent human, animal, and insect contact with excreta.
Population Living Below $1 a Day	The percentage of the population living below the specified poverty line of $1 a day at 1985 international prices (equivalent to $1.08 at 1993 international prices), adjusted for purchasing power parity.
Human Development Index	The HDI is a composite index that measures the average achievements in a country in three basic dimensions of human development: a long and healthy life, as measured by life expectancy at birth; knowledge, as measured by the adult literacy rate and the combined gross enrollment ratio for primary, secondary, and tertiary schools; and a decent standard of living, as measured by gross domestic product (GDP) per capita in purchasing power parity (PPP) US dollars.
Population Below Poverty Line	National estimates of the percentage of the population falling below the poverty line are based on surveys of sub-groups, with the results weighted by the number of people in each group. Definitions of poverty vary considerably among nations. For example, rich nations generally employ more generous standards of poverty than poor nations.
Real GDP (Growth) Rate	This entry gives the gross domestic product (GDP) growth on an annual basis adjusted for inflation and expressed as a percent.
Income Inequality (Gini index)	This index measures the degree of inequality in the distribution of family income in a country. It is calculated from the Lorenz curve, in which cumulative family income is plotted against the number of families arranged from the poorest to the richest. The index is the ratio of (a) the area between a country's Lorenz curve and the 45 degree helping line to (b) the entire triangular area under the 45 degree line. The more nearly equal a country's income distribution, the closer its Lorenz curve to the 45 degree line and the lower its Gini index, e.g., a Scandinavian country with an index of 25. The more unequal a country's income distribution, the higher its Gini index, e.g., a Sub-Saharan country with an index of 50. If income were distributed with perfect equality, the index would be zero; if income were distributed with perfect inequality, the index would be 100.
Unemployment Rate	This entry contains the percent of the labor force that is without jobs. Substantial underemployment might be noted.
Inflation Rate	This entry furnishes the annual percent change in consumer prices compared with the previous year's consumer prices.

Airports	This entry gives the total number of airports or airfields recognizable from the air. The runway(s) may be paved (concrete or asphalt surfaces) or unpaved (grass, earth, sand, or gravel surfaces) but may include closed or abandoned installations. Airports or airfields that are no longer recognizable (overgrown, no facilities, etc.) are not included. Note that not all airports have accomodations for refueling, maintenance, or air traffic control.
Airports with paved runways	This entry gives the total number of airports with paved runways (concrete or asphalt surfaces) by length. For airports with more than one runway, only the longest runway is included according to the following five groups - (1) over 3,047 m, (2) 2,438 to 3,047 m, (3) 1,524 to 2,437 m, (4) 914 to 1,523 m, and (5) under 914 m. Only airports with usable runways are included in this listing. Not all airports have facilities for refueling, maintenance, or air traffic control.

Family Planning Indicators

Total Fertility Rate (BUCEN)	The number of children a woman between ages 15-49 would have during her reproductive life, if, for all of her childbearing years she were to experience the age-specific birth rates for that given year.
Total Fertility Rate (DHS)	The number of children a woman between ages 15-49 would have during her lifetime if she were to bear children at the currently observed rates.
Contraceptive Prevalence Rate, Modern Methods, All Women	Percentage of all women ages 15-49 currently using a modern method of contraception. Modern methods include oral contraceptives, IUDs, injectables, female and male sterilization, all emergency contraception, and barrier methods (diaphragm, foam, jelly, male and female condom).
Contraceptive Prevalence Rate, Modern Methods, Married Women	Percent of currently married women ages 15-49 currently using a modern method of contraception. Modern methods include oral contraceptives, IUDs, injectables, female and male sterilization, all emergency contraception, and barrier methods (diaphragm, foam, jelly, male and female condom).
Median Age of Sexual Debut Among Women, Ages 25-49	Median age of first sexual intercourse for women ages 25-49.
Mean Ideal Family Size	Mean ideal number of children for all women, according to number of living children.
Women 20-24 Who Gave Birth Before Age 20	Percentage of women ages 20-24 who have given birth before age 20.
Total Fertility Rate, Rural	In rural areas only, the number of children a woman between ages 15-49 would have during her lifetime if she were to bear children at the currently observed rates.
Unmet Need for Family Planning: Rural	In rural areas, percentage of married women ages 15-49 with unmet need for family planning. Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait 2 or more years for their next birth. Also included are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and want no more children.
Unmet Need for Family Planning: Urban	In urban areas, percentage of married women ages 15-49 with unmet need for family planning. Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait 2 or more years for their next birth. Also included are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and want no more children.

Contraceptive Prevalence Rate, All Methods	Percentage of currently married women ages 15-49 currently using ANY method of contraception.
Equity in use of modern contraception	Contraceptive prevalence rate in the lowest wealth quintile/contraceptive prevalence rate in the highest wealth quintile.
Percent of need satisfied by modern methods of family planning	Number of women in union who are fecund and are currently using modern contraceptive methods to stop or postpone the next pregnancy/number of women in union who are fecund and who desire to either terminate childbearing or to postpone their next birth for 2 years or more.

Maternal Health Indicators

Maternal Mortality Ratio (WHO/Hill)	The estimated number of women who die as a result of pregnancy or childbirth per 100,000 live births arrived through Hill et al., adjustment procedure depending on the nature of data used. The margins of uncertainty associated with the estimated maternal mortality ratios are very large and the estimates should not be used to monitor trends in the short term (including comparisons between 1995 and 2000 estimates). In addition, cross-country comparisons should be treated with considerable circumspection because different strategies are used to derive the estimates for different countries rendering comparisons fraught with difficulty. For further information please refer to the source.
Maternal Mortality Ratio (DHS)	The estimated number of women who die as a result of pregnancy or childbirth per 100,000 live births, arrived mostly through the "sisterhood method". The data are aggregated based on different time periods ranging from four to ten years preceding the survey. Thus, the data may not be suitable for trend analysis due to over-lapping year ranges of estimates. For further information on methodology please refer to: Stanton, Cynthia, Noureddine Abderrahim, and Kenneth Hill. 1997. DHS Maternal Mortality Indicators: An assessment of Data Quality and Implications for Data Use. Calverton: Macro International Inc., or individual country DHS reports.
Antenatal Care (at least 1 visit)	Percentage of women of reproductive age (15-49) who receive at least one antenatal care visit during pregnancy (in the three-year period preceding the survey).
Antenatal Care (2+ visits)	Percentage of women of reproductive age (15-49) who receive at least two antenatal care visits during pregnancy (in the three-year period preceding the survey).
Antenatal Care (4+ visits)	Percentage of women of reproductive age (15-49) who receive four or more antenatal care visits during pregnancy (in the three-year period preceding the survey).
Assisted Delivery by a Health Professional	The percentage of births/deliveries that occur with the assistance of any trained health professional during the five-year period preceding the survey. May include doctors, nurses, or midwives.
Assisted Delivery by Doctor	The percentage of live births/deliveries that occur with the assistance of a doctor during the five-year period preceding the survey.
Assisted Delivery by Other Health Professional	The percentage of live births/deliveries that occur with the assistance of a nurse or midwife during the five-year period preceding the survey.
Anemia prevalence among women of reproductive age	Number of women of reproductive age (15-49 years) with anemia/number of women of reproductive age (15-49 years).
Equity in skilled attendance at delivery	Percentage of births in the lowest wealth quintile attended by a doctor, nurse, or trained midwife/ percentage of births in the highest wealth quintile attended by a doctor, nurse, or trained midwife.

Child Survival Indicators

ARI Care Seeking - Children Under 5	Percentage of children under five years who were ill with an acute respiratory infection (ARI), which is associated with cough, rapid breathing and a high fever, during the two weeks preceding the survey, for whom care was sought from a health facility or provider.
ORT Use Rate (ORS, RHS, or Increased Fluids)	Oral Rehydration Therapy (ORT). Percentage of children under age 5 with diarrhea two weeks prior to survey who received increased fluids, oral rehydration solution (ORS) or recommended home solution (RHS).
Infant Mortality Rate (BUCEN)	The estimated annual number of deaths of infants under 12 months in a given year per 1,000 live births in that same year.

Infant Mortality Rate (UNICEF)	The under five mortality rate is the probability (as expressed as a rate per 1,000 live births)of a child born in a specified year dying before reaching the age of one if subject to current age-specific mortality rates.
Infant Mortality Rate (DHS)	The estimated annual number of deaths of infants under 12 months in a given year per 1,000 live births in that same year (five-year period preceding survey).
Infant Mortality Rate, Females (BUCEN)	The estimated annual number of deaths of female infants under 12 months in a given year per 1,000 live births in that same year.
Infant Mortality Rate, Males (BUCEN)	The estimated annual number of male infants under 12 months in a given year per 1,000 live births in that same year.
Under-5 Mortality Rate (BUCEN)	Annual number of deaths that occur in children 0-4 years old per 1,000 births.
Neonatal Mortality Rate	The estimated number of infant deaths in the first month of life per 1,000 live births in the five-year period preceding the survey.
Under-5 Mortality Rate (UNICEF)	Annual number of deaths that occur in children 0-4 years old per 1,000 births (five-year period preceding survey).
Under-5 Mortality Rate (DHS)	Annual number of deaths that occur in children 0-4 years old per 1,000 births (five-year period preceding survey).
Exclusive Breastfeeding (under 4 mos.)	Percentage of children under 4 months exclusively breastfed. Exclusive breastfeeding is defined as providing no food or liquid other than breast milk to the child during the 24-hour period before the survey.
Exclusive Breastfeeding (under 6 mos.)	Percentage of children under 6 months exclusively breastfed. Exclusive breastfeeding is defined as providing no food or liquid other than breast milk to the child during the 24-hour period before the survey.
Stunted (height-for-age)	Percentage of children under age five whose height-for-age is below minus-two standard deviations from the median of the reference population.
Underweight (weight-for-age)	Percentage of children under age five whose weight-for-age is below minus-two standard deviations from the median of the reference population.
Wasted (weight-for-height)	Percentage of children under age five whose weight-for-height is below minus-two standard deviations from the median of the reference population.
DPT3 Vaccination Rate (DHS)	Proportion of living children 12-23 months old who have received three complete doses of vaccines against diphtheria, pertussis, and tetanus.
DPT3 Vaccination Rate (WHO)	Proportion of living children 12-23 months old who have received three complete doses of vaccines aginst diphtheria, pertussis, and tetanus.
Measles Vaccination Rate (DHS)	Percentage of living children 12-23 months old who have received one dose of Measles Containing Vaccince.
Measles Vaccination Rate (WHO)	Percentage of living children 12-23 months old who have received one dose of Measles Containing Vaccince.
Polio Vaccination Rate (DHS)	Proportion of living children 12-23 months who have received three doses of polio vaccine.
Polio Vaccination Rate (WHO)	Proportion of living children 12-23 months who have received three doses of polio vaccine.
Tetanus Toxoid Vaccination	Percentage of pregnant women receiving two (or more) doses of tetanus toxoid (three-year period preceding survey).
Equity in DPT3 coverage (DHS)	DPT3 coverage in the lowest wealth quintile/DPT3 coverage in the highest wealth quintile.
Improved sanitation/ hygiene practices	Number of households with child under 5 years of age whose youngest child's feces was safely disposed of the last time he/she passed stool/total number of households with a child under 5 years of age.

Vitamin A supplementation coverage among children 6-59 months	Number of children aged 6-59 months who received a vitamin A supplement in the last 6 months/total number of children aged 6-59 months surveyed.

HIV/AIDS Prevention Indicators

HIV Prevalence proportion: Adults (15–49 years)	The adult HIV prevalence proportion is the estimated number of adults living with HIV divided by the adult population (aged 15–49).
Estimated number of people living with HIV: Adults and Children	Estimated number of adults and children living with HIV. Adults are 15 years and over. Children are defined as those aged 0–14 years.
Estimated number of people living with HIV: Women (15+ years)	Estimated number of women (aged 15 and over) living with HIV.
Estimated number of people living with HIV: Children (0–14 years)	Estimated number of children under age 15 living with HIV.
Males Reporting Condom Use With Last Non-Regular Partner	Among men who have had high risk sex in the last year, percentage who used condoms during their last sexual intercourse with a non-regular partner/non-cohabitating partner.
Females Reporting Condom Use With Last Non-Regular Partner	Among women who have had high risk sex in the last year, percentage who used condoms during their last sexual intercourse with a non-regular partner/non-cohabitating partner.

Infectious Diseases Control Indicators

TB Estimated Number of Cases	The estimated number of cases (all forms).
TB Case Detection Rate	TB Case Detection Rate is defined as the percentage of the annual new smear-positive notifications of the estimated annual new smear-positive incidence.
TB (DOTS) Treatment Success Rate	The proportion of smear-positive patients who were cured plus the proportion who completed treatment.
Malaria Cases per 100,000	Number of malaria cases per 100,000 of the population during the year for which data was reported.
DOTS Coverage	The percentage of the national population living in areas where health services have adopted DOTS. "Areas" are the lowest administrative or management units in the country (townships, districts, counties, etc). If an area is considered a DOTS area, then all cases registered and reported in that area are considered DOTS cases and the population living within the boundaries of that area counts toward national DOTS coverage. As a measure of patient access to diagnosis and treatment under DOTS, coverage is an approximation, and usually an overestimate.
HIV-Infected with Active TB	The TB incidence rate in HIV-infected people 15-49 divided by the incidence rate in HIV-uninfected people 15-49.
Avian Influenza: Cumulative Number of Confirmed Human Cases	The cumulative number of confirmed human cases of Avian Influenza A/(H5N1) reported to WHO. The total number of cases includes number of deaths. WHO reports only laboratory-confirmed cases.
Avian Influenza: Cumulative Number of Confirmed Human Deaths	The cumulative number of confirmed human deaths from Avian Influenza A/(H5N1) reported to WHO. WHO reports only laboratory-confirmed cases and deaths.
Child Sleeps Under Insecticide-Treated Net	Percentage of children under five years of age who slept under an Insecticde Treated Net (ITN) the night before the survey. An ITN is (1) a permanent net that does not require any treatment, or (2) a pretreated net obtained within the last six months, or (3) a net that has been soaked with insecticide within the past six months.
Equity in Bednet (ITN) Ownership	Proportion of households in the lowest income quintile with an ITN / proportion of households in the highest income quintile with an ITN.

Statistical Sources For Kazakhstan

2006 Kazakhstan MICS 2006	2006 Kazakhstan Multiple Indicator Survey, UNICEF
BUCEN-IDB 2006	United States Census Bureau (BUCEN), International Programs Center. International Database. August 2006.
BUCEN-IDB 2009	United States Census Bureau (BUCEN), International Programs Center. International Database. November 2009.
BUCEN-IDB 2010	United States Census Bureau (BUCEN), International Programs Center. International Database. April 2010.
CIA World Factbook 2010	CIA World Factbook 2010 https://www.cia.gov/library/publications/the-world-factbook/index.html
CIA World Factbook 2010	CIA World Factbook November 2010 https://www.cia.gov/library/publications/the-world-factbook/index.html
DHS STATcompiler as of September 2008 2008	DHS STATcompiler as of September 2008 http://www.statcompiler.com
Global Atlas 2010	WHO Global Health Atlas: http://apps.who.int/globalatlas/dataQuery/default.asp
Human Development Report 2006	Human Development Report 2006. New York, United Nations Development Programme, 2006. Available at: http://hdr.undp.org/hdr2006/. Last accessed February, 2007.
Human Development Report - 2007/2008 2008	Human Development Report 2007/2008. Fighting climate change: Human solidarity in a divided world. Published for the United Nations Development Programme (UNDP)
Kazakhstan DHS 1995	National Institute of Nutrition [Kazakhstan] and Macro International Inc. 1996. "Kazakhstan Demographic and Health Survey, 1995." Calverton, Maryland: National Institute of Nutrition and Macro International Inc.
Kazakhstan DHS 1999	Academy of Preventive Medicine (Kazakhstan) and Macro International Inc. 1999. Kazakhstan Demographic and Health Survey 1999. Calverton, Maryland: Academy of Preventive Medicine and Macro International Inc.
UNAIDS 2008 2008	2008 Report on the Global AIDS Epidemic. Geneva: UNAIDS, 2008
UNESCO Global Monitoring Report 2010	EFA Global Monitoring Report April 2010
UNICEF 2010	UNICEF Global Database/Child Mortality
WHO Global Health Atlas 2008	WHO Website: http://apps.who.int/globalatlas/dataQuery/default.asp
WHO/Global Summary 2002	WHO Vaccine-Preventable Diseases Monitoring System. 2002 Global Summary. World Health Organization, Geneva.
WHO/Global Summary 2008	Immunization surveillance, assessment and monitoring section of the WHO website: http://www.who.int/immunization_monitoring/en/globalsummary/timeseries/tscoveragedtp3.htm

WHO/Hill 2005	Maternal Mortality in 2005: Estimates developed by WHO, UNICEF, UNFPA and The World Bank
WHO: Global Atlas 2009	WHO Global Health Atlas: http://apps.who.int/globalatlas/dataQuery/default.asp
WHO: Global Summary 2009	WHO Global Summary Vaccine: http://www.who.int/immunization_monitoring/en/globalsummary/timeseries/tscoveragemcv.htm
World Bank/WDI 2005	World Bank Development Indicators 2005, CD-Rom. Washington, DC: The World Bank, 2005.
World Bank/WDI 2006	World Bank Development Indicators 2006. Washington, DC: The World Bank, 2005. Available at: http://devdata.worldbank.org/wdi2006/contents/index2.htm. Last accessed April, 2007.
World Bank/WDI Database 2007	World Bank Development Indicators Database 2007. Washington, DC: The World Bank, 2007. Available at: http://devdata.worldbank.org/data-query/. Last accessed April, 2007.