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# Azerbaijan

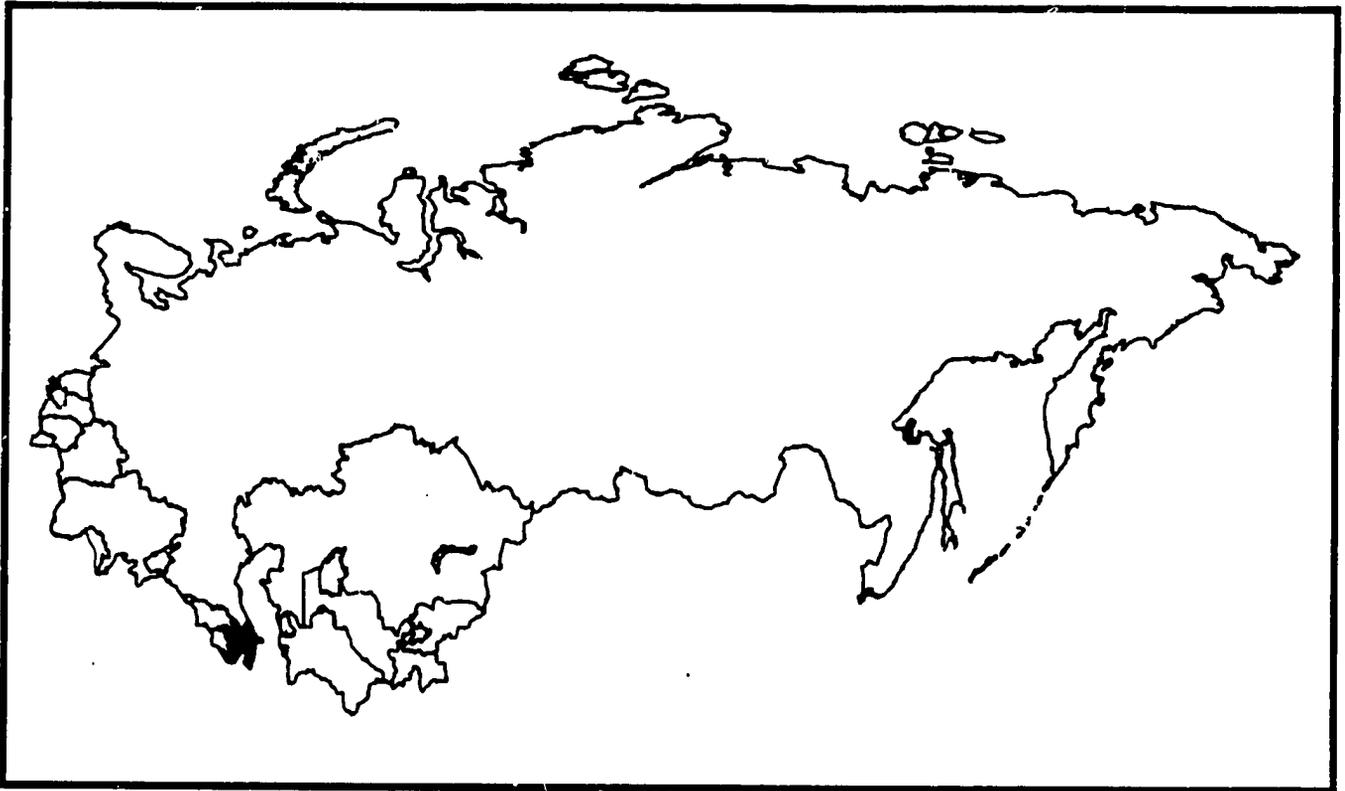
## USAID Health Profile

(Selected Data)

April 24, 1992

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This is one of a series of country profiles produced by the Center for International Health Information (CIHI), a USAID resource managed by the International Science and Technology Institute (ISTI). U.S. Bureau of the Census (BUCEN) made available its extensive demographic data files. Each profile includes summary descriptions, tables and graphs about the demographic and health conditions in republics of the Commonwealth of Independent States (C.I.S.).

The series of profiles is intended to provide current and trend data in a concise format to project design teams, evaluation teams, technical consultants, and other interested individuals and organizations. As summary documents, they do not provide comprehensive descriptions of either the demographic profile or health sector of the republics. Furthermore, the incipient nature of the C.I.S. necessitates the reporting of information from the era of the former U.S.S.R. While dated in some instances, policy changes in the U.S.S.R. made in the latter part of the 1980's, including the introduction of new forms of health insurance and arrangements to encourage private health providers, may well provide the foundation for the shape of the health sector in the coming decade.

This first series of C.I.S. profiles was compiled rapidly with readily available data. Occasionally, where the background documentation of the source material was sketchy and time prevented further verification, the data was included anyway in hopes that the mere inclusion of the data would stimulate further clarification by the various users of the profiles. On behalf of USAID, CIHI is planning to update the C.I.S. profiles as rapidly as new data becomes available and in response to commentary on the data in the current profiles. Accordingly, the authors of the profiles request that any more recent or more accurate data be forwarded to CIHI at the address below or to CIHI care of the USAID, Bureau of Research & Development, Office of Health, SA-18, Room 1200, Washington, D.C. 20523-1817.

Requests for additional information regarding C.I.S. republic profiles, health and population profiles for selected developing countries, and other reports prepared by CIHI should be transmitted directly to CIHI or through USAID as described above.



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## **INTRODUCTION: An Overview of the C.I.S.**

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Of the 15 republics that once made up the Union of Soviet Socialist Republics, 11 joined together and formed the Commonwealth of Independent States (C.I.S.). The Republic of Georgia and the Baltic States -- Latvia, Lithuania and Estonia -- chose to remain outside the commonwealth and became independent countries. While this configuration has remained constant for many months, it is possible that the current commonwealth arrangement will be a transitional step to total separation.

While situations vary greatly from republic to republic, the recent political, economic and social transitions have created several challenges which are common throughout the entire C.I.S. The republics are moving from a totalitarian government and centrally controlled economy to a more democratic system based on free market principles. As a result, prices have risen rapidly and now far exceed individual and family incomes. The purchasing power of the population has fallen and it has become increasingly difficult to purchase essential goods.

The availability of goods has also been affected by the transition. While the former USSR achieved status as a large, industrialized nation, the structure of its economic network divided labor among republics and regions, so each republic had its own sector of emphasis. However, this specialized structure rendered republics dependent on each other and made self-sufficiency nearly impossible. Now that the republics have declared independence within the C.I.S., ties among republics have been interrupted and production, distribution and trade systems have broken down. Consequently, production capabilities and supplies of numerous essential goods in each republic have been threatened.

The combination of rising prices and a breakdown in trade and production has resulted in a shortage of even the most basic commodities. Food supplies have been particularly affected and, consequently, people are reducing their consumption. This trend further jeopardizes the already fragile health status of much of the C.I.S. population, as described below.

In the former USSR, selected population groups within each republic received subsidies from the national government. Due to the economic and social stresses of the transition, the number of people dependent on this assistance has increased. However, this increased demand for assistance comes at a time when public finance is stretched to its limit and new tax and revenue raising systems are not yet established. In addition, minimum wage is currently the criteria used to determine who should receive government support. Minimum wage, however, has not kept pace with rapidly rising prices and this criteria no longer accurately reflects who is actually in need of assistance. Likewise, new mechanisms must be created to respond to new problems: the dramatic increase of unemployment and destitution in the C.I.S.

Health services are threatened by the lack of hard currency and the breakdown of intra-republic trading. Without these two elements, supplies of essential drugs, vaccines and supplies are rapidly decreasing. While vaccination coverage rates have been relatively high in many republics, depletion of vaccine stocks has been particularly extensive and the potential exists for epidemics of infectious childhood diseases. Vaccine production has been hampered by inadequate, old facilities, shortages of specimens, and insufficient, outdated

## **INTRODUCTION (continued)**

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equipment. For the same reasons, essential drugs and medical supplies are limited and may soon be depleted. The population of the C.I.S. receives little information on family planning issues. Limited availability and substandard quality of contraceptives have resulted in a high rate of abortion. The breakdown of intra-republic trade and trade with countries outside the C.I.S. has intensified the shortage of contraceptives.

While severe hunger has been averted, the nutritional well-being of the C.I.S. population may be threatened. Rising food prices, little variety in available food and perceived scarcity all contribute to poor nutrition. Improper nutrition increases susceptibility to infections and anemia is common among pregnant women.

The state of the environment has a major impact on the health of the population. In many areas of the C.I.S., environmental contamination by chemical and radioactive pollutants is believed to be harming people's health and causing a variety of chronic conditions and birth defects.

While the challenges faced by the C.I.S. republics are similar in some aspects to those of other countries where international donor organizations work, their problems cannot be compared to those of developing countries. The republics present a unique situation: They have many capabilities but lack the necessary means to implement them. Many republics have access to modern, nationally developed technologies, but their facilities are old and unacceptable for production, the distribution and trade systems are disrupted, and lack of funding often renders continued production impossible.

As political reforms and economic privatization proceed, the nation's most vulnerable groups -- primarily women, children, aging adults and people with disabilities -- need protection. The basic needs of these groups must be met in order to avoid unnecessary human suffering and further social upheaval.

# AZERBAIJAN

## Capital: Baku

**President: Ayas Mutalibov**

**Prime Minister: Gasan Gasanov<sup>1</sup>**

### TERRITORY

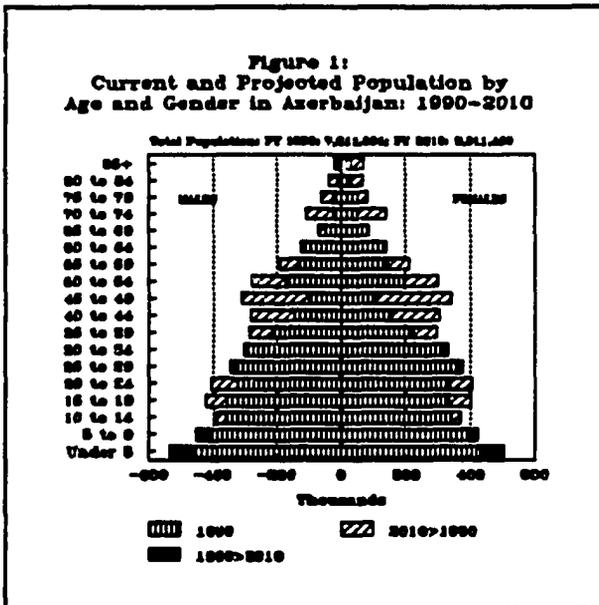
Size<sup>1</sup>: 87,000 sq. km  
 Percent of former USSR<sup>1</sup>: 0.4%

Azerbaijan is bordered by Russia, Iran, Turkey, Armenia and Georgia.<sup>4</sup>

### POPULATION

Population<sup>1</sup>: 7.1 million (1990)  
 Percent of former USSR<sup>1</sup>: 2.5%

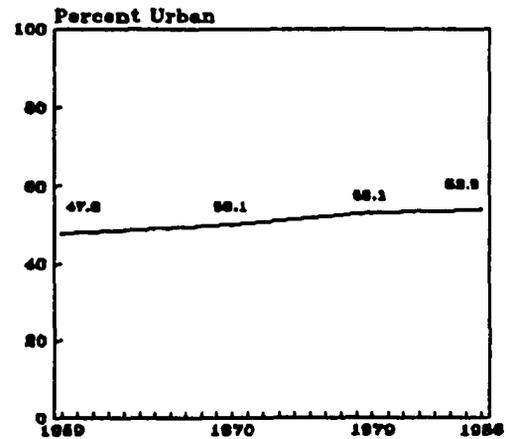
According to 1989 population figures, there were 3,435,000 males and 3,603,000 females. For every 1,000 females, there were approximately 953 males.<sup>2</sup>



#### Level of urbanization

The urban population has increased steadily since 1959. The proportion of the population living in urban areas rose 11 percent between 1959 and 1989 (from 48 percent in 1959<sup>3</sup> to 59 percent in 1989<sup>2</sup>).

**Figure 2:**  
 Urbanization in Azerbaijan



#### Population by nationalities

Native Azerbaijanis make up approximately 83 percent of the republic's population. There are three significant minority groups: Russians and Armenians which each constitute about six percent of the population, and the Daghestani people which make up about three percent. Birth rates among Azerbaijanis are on the rise, and it is likely that the proportion of Armenians and Russians will drop significantly.<sup>4</sup>

**Nationalities in Azerbaijan<sup>2</sup>**  
 (1989)

Total	7,021,000
<b>Republic Nationalities</b>	
Azerbaijani	5,805,000
Russians	392,000
Ukrainian	32,000
Byelarussian	8,000
Uzbek	1,000
Kazakh	2,000
Georgian	14,000
Lithuanian	1,000
Moldovan	2,000
Tajik	1,000
Armenian	391,000
Other*	343,000

## AZERBAIJAN: USAID Health Profile (continued)

Nationalities in Azerbaijan <sup>2</sup> (continued)	
<u>Autonomous Republic Nationalities</u>	
Tatars	28,000
Dagestanis	231,000
* includes Jews, and others	

### Language fluency

About 87 percent of the republic's population speaks Azeri, and more than 38 percent speaks Russian fluently.<sup>1</sup>

### ECONOMIC OVERVIEW

Azerbaijan is rich in natural resources such as oil, iron, aluminum, copper and salt. Industries include iron, steel, aluminum, timber, textile and fishing. The republic's most important industry is the oil industry which is concentrated in the Baku region.<sup>4</sup> Azerbaijan's past experience producing machinery and equipment for the former USSR oil industry combined with its undeveloped oil reserves provide the republic with the potential to expand its oil industry.<sup>1</sup>

The agricultural sector produces grain, cotton, rice, grapes, fruit, vegetables, tobacco and silk.<sup>4</sup>

### Production

Azerbaijan's total net output was less than two percent of the total net output of the former USSR in 1988.<sup>1</sup>

Oil, Gas and Coal Production in Azerbaijan <sup>5</sup>			
	Oil *	Gas **	Coal
1970	20.2	5.1	N/A
1975	17.2	9.2	N/A
1980	14.7	13.1	N/A
1985	13.1	13.1	N/A
1986	13.3	12.7	N/A
1987	13.8	11.7	N/A
1988	13.7	11.0	N/A
1989	13.2	10.4	N/A

### Oil, Gas and Coal Production in Azerbaijan<sup>5</sup> (continued)

- \* Crude oil production, including gas condensate, in million metric tons
- \*\* Natural gas production, in billion cubic meters

Oil production in Azerbaijan in 1989 was 13.2 million metric tons, only two percent of the total oil production of the former USSR.<sup>1</sup>

In 1989, Azerbaijan produced 10.4 billion cubic meters of natural gas or only one percent of the total natural gas production of the former USSR.<sup>1</sup>

### INCOME/EMPLOYMENT OVERVIEW

The average per capita income in Azerbaijan in 1989 was 63 percent of the average per capita income of the former USSR. In 1989, 34 percent of the Azerbaijan population had a per capita income under 75 rubles. Only nine percent had a per capita income over 100 rubles compared to an average of 22 percent in the former USSR.<sup>6</sup>

About two million people were employed in Azerbaijan in 1989. The sectorial distribution is as follows<sup>7</sup>:

Employment by Branch (1989)	
Total	2,100,000
Industry	444,000
Agriculture*	325,000
Transportation	184,000
Communication:	29,000
Construction	218,000
Public Services**	264,000
Social Security***	160,000
Education	279,000
Culture and Art	51,000
Science and Services	54,000
Credit and State Insurance	10,000
Administration	46,000
Other	36,000
<ul style="list-style-type: none"> <li>* includes employment on state farms and in forestry</li> <li>** includes employment in trade, public dining, material technical supply and procurement, housing and municipal economy.</li> <li>*** includes employment in health, physical, cultural and social security</li> </ul>	

## AZERBAIJAN: USAID Health Profile (continued)

### HEALTH OVERVIEW

Total population <sup>1</sup>	7.1 million	1990
Crude birth rate <sup>2</sup>	25 per 1,000 population	1990
Crude death rate <sup>3</sup>	6 per 1,000 population	1990
Infant mortality rate <sup>5</sup>	29 per 1,000 live births	1987
Maternal mortality ratio <sup>10</sup>	29 per 100,000 live births	1989

The health system of the former USSR was chronically under-funded, and the individual republics of the C.I.S. have inherited this legacy and its problems. Areas demanding the most immediate attention in the C.I.S. are the often poor quality of care given by physicians and nurses, shortage of medical supplies, pharmaceuticals and equipment, inadequate facilities, and, finally, the population's lack of knowledge about basic health practices.<sup>6</sup>

The current health situation in Azerbaijan has been adversely affected by the economic and political transition. Organization and staffing in health institutions are relatively good while maintenance of facilities is often poor. The most immediate concern among health officials is the shortage of drugs, vaccines, and medical supplies that has resulted from the collapse of intra-republic trade.<sup>4</sup>

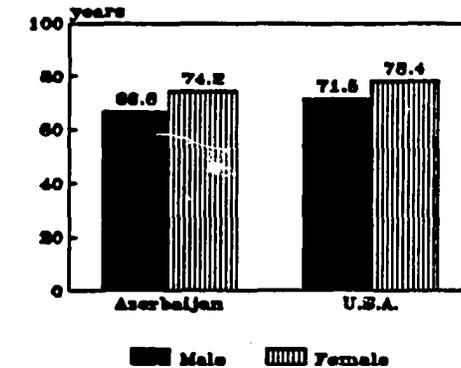
The health care needs of the newly formed C.I.S. were examined by the U.S. Agency for International Development and the U.S. Department of State and reported in a January 1992 background paper. This examination reported an urgent need in Azerbaijan for vaccination programs, especially among children and the elderly living in urban areas, and for medicines to treat respiratory illnesses.<sup>12</sup>

The number of physicians and hospital beds per 1,000 population in Azerbaijan in 1987 was about 4 and 10 respectively.<sup>9</sup>

#### Life expectancy

Life expectancy at birth in Azerbaijan in 1989 was approximately 67 years for males and 74 years for females, compared to 72 and 78 years, respectively, in the United States in 1987.<sup>13</sup>

**Figure 3:  
1989 Life Expectancy at Birth:  
Azerbaijan Compared to U.S.A.\***



#### Mortality rates

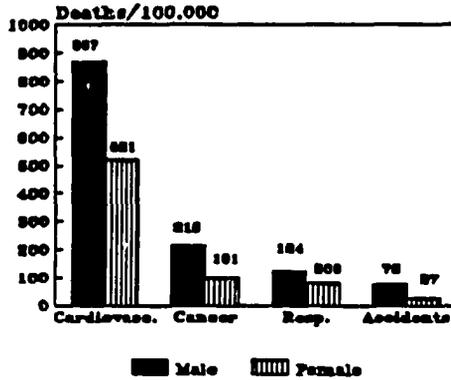
Mortality rates in the former USSR republics steadily worsened for more than a decade before improving in 1985-86. The mortality rate per 1,000 males rose from 10.7 in 1970-71 to 12.4 in 1980-81 and declined to 12.1 in 1986-87. The female mortality rate followed a similar trend increasing from 6.9 in 1970-71 to 7.6 in 1980-81 and improving to 7.4 in 1986-87. Typical of the USSR republics, Azerbaijan's mortality rate in the late 1980s still remained above its 1970 level. Russia was the only republic with a mortality rate lower than in 1970.<sup>14</sup>

#### Causes of death

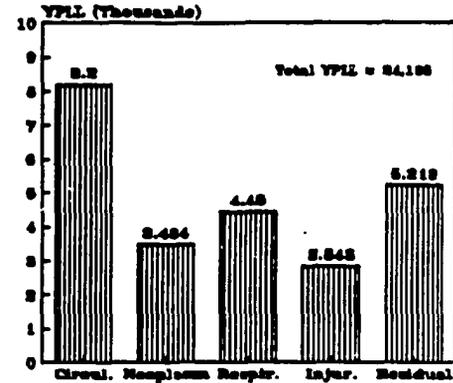
The leading cause of death in Azerbaijan is cardiovascular conditions followed by cancer, respiratory infections and accidents. In 1988, a total of 1,448 males and 826 females (per 100,000 population) died from these and other causes.<sup>10</sup>

## AZERBAIJAN: USAID Health Profile (continued)

**Figure 4:  
Mortality Rates by Cause  
of Death in Azerbaijan**



**Figure 5:  
Years of Potential Life Lost by  
Cause of Death in Azerbaijani Males**



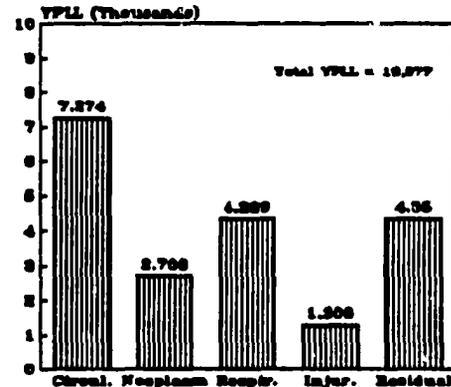
\*Figures are per 100,000 population

### Years of potential life lost by cause of death (YPLL)

Each year in Azerbaijan, males lose a total of 24,195 years of potential life per 100,000 population due to preventable causes of death. The most common cause of death is circulatory conditions, causing 8,200 YPLL. Deaths caused by respiratory illnesses total 4,450 YPLL, neoplasms total 3,484 YPLL, injuries total 2,843 YPLL and other causes total 5,218 YPLL<sup>15</sup>.

Annually, females in Azerbaijan lose a total of 19,977 years of potential life per 100,000 population due to preventable causes of death. As with the male population, the leading cause of death among females is circulatory conditions, causing 7,274 YPLL. Deaths caused by respiratory illnesses total 4,339 YPLL, neoplasms total 2,708 YPLL, injuries total 1,306 YPLL and other causes total 4,350 YPLL.<sup>15</sup>

**Figure 6:  
Years of Potential Life Lost by  
Cause of Death in Azerbaijani Females**



\*Figures are per 100,000 population

### Fertility rate

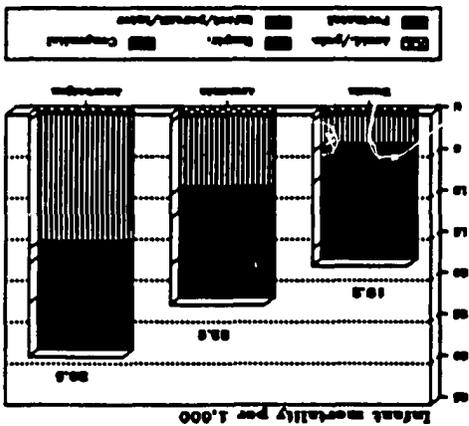
Since 1969, the fertility rate in Azerbaijan has declined significantly. The average number of children born per woman in 1969-70 was 4.6. By 1984-85, the fertility rate had dropped to 2.9.<sup>3</sup> Accounting for under-registration of births, the U.S. Bureau of the Census (BUCEN) estimated the adjusted total fertility rate to be 2.8 in 1990 and projected 2.1 in 2010.<sup>18</sup>

**AZERRAIJAN: USAID Health Profile (continued)**

According to BUCEN estimates, the official Soviet infant mortality rates by about 50 percent. The definition of infant mortality in the former USSR differs significantly from the standard international definition of the World Health Organization. BUCEN estimates infant mortality to be 44 deaths per 1,000 live births in 1990 and projects an infant mortality rate of 19 deaths per thousand live births for 2010.<sup>18</sup>

Of the 30.46 infant deaths (per 1,000 live births) reported in the republic in 1986, 15.47 were caused by respiratory diseases; 6.28 were caused by infectious, parasitic and intestinal diseases; 4.86 were caused by perinatal conditions; 1.8 were caused by congenital anomalies; and .77 were caused by accidents and poisonings.<sup>14</sup>

Figure 9: Infant Mortality Rates (1986) by Cause in Russia, Armenia and Azerbaijan



Vaccination coverage levels in Azerbaijan are reportedly high. In 1989, the following vaccination coverage levels for children who had reached 12

Infant Mortality Rates (per one thousand live births)<sup>14</sup> According to Place of Residence (1975-86) Azerbaijan vs. Former USSR

Year	Urban	Rural
1975	30 (26)	44 (37)
1980	26 (24)	34 (33)
1986	25 (21)	36 (31)

**Vaccination coverage**

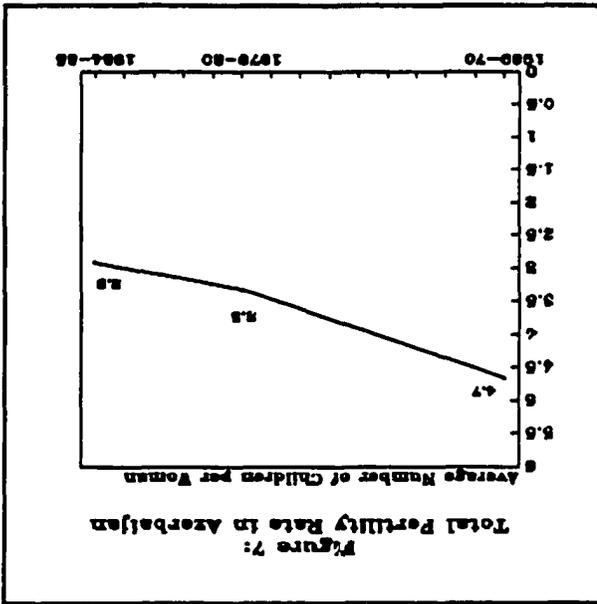


Figure 7: Total Fertility Rate in Azerbaijan

**Maternal mortality**

The maternal mortality ratio in 1989 was 29 deaths per 100,000 live births. While low in comparison to other C.I.S. republics, maternal mortality in Azerbaijan remains well above maternal mortality rates in the United States, Europe and other industrialized nations.<sup>10</sup>

**Infant mortality**

The infant mortality rate in Azerbaijan in 1970 was 35 per 1,000 live births. By 1987, the infant mortality rate had dropped to 29.<sup>9</sup>

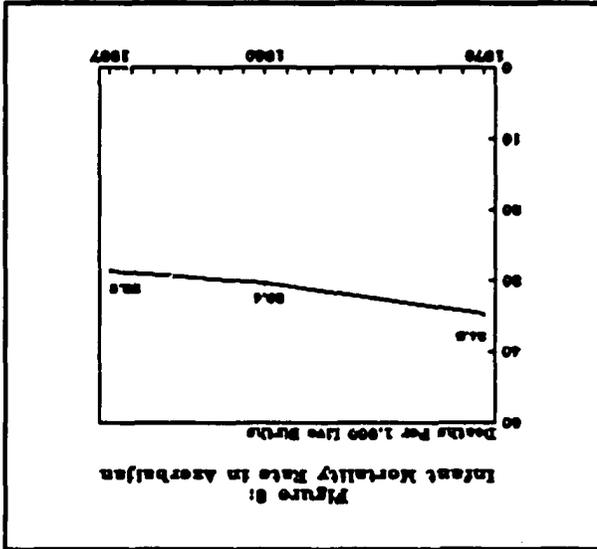
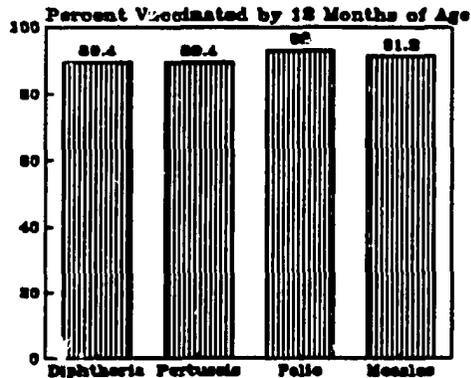


Figure 8: Infant Mortality Rate in Azerbaijan

## AZERBAIJAN: USAID Health Profile (continued)

months of age were reported: polio, 93 percent; diphtheria, 89 percent; and pertussis, 89 percent. Vaccination coverage against measles in children up to two years of age was 91 percent.<sup>16</sup>

**Figure 10:  
1989 Vaccination Coverage  
in Azerbaijani Infants**



\*Children up to 2 yr for measles vaccine

The vaccination program in Azerbaijan appears to be well-organized. Vaccinations are administered at polyclinics and through outreach services. The primary concern is obtaining the necessary cold chain equipment and vaccines to continue to run the program effectively.<sup>4</sup>

### Environmental factors in health

Baku, the capital city of Azerbaijan, reportedly has the worst air pollution in all of the former USSR. Oil from petroleum plants and untreated sewage dumped into the Caspian Sea has left these waters heavily polluted.<sup>17</sup> Such environmental problems are likely to exacerbate current health problems.

## AZERBAIJAN: USAID Health Profile (continued)

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**AZERBAIJAN: USAID Health Profile (continued)**

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## AZERBAIJAN: USAID Health Profile (continued)

### Data Notes Indicator Definitions

#### DEMOGRAPHIC INDICATORS

**TOTAL POPULATION:** Mid-year estimate of the total number of individuals in a country.

**YEARS OF POTENTIAL LIFE LOST:** The weighted difference between the number of years of life expectancy in absence of all preventable mortality and the number of years lost due to preventable mortality. Since deaths of children result in a greater loss of life span than deaths of adults, the differences in loss of potential life are taken into account by using a type of measure which heavily weights the importance of child death.

**LIFE EXPECTANCY AT BIRTH:** An estimate of the average number of years a newborn can expect to live. Life expectancy is computed from age-specific death rates for a given year. It should be noted that low life expectancies in developing countries are, in large part, due to high infant mortality.

**MORTALITY RATE:** Basic cause-specific death rates are usually expressed in deaths per 100,000 because for most causes of deaths the rates of occurrence are so low.

**CHILDREN UNDER 1:** Mid-year estimate of the total number of children under age one.

**INFANT MORTALITY RATE (IMR):** The estimated number of deaths in infants (children under age one) in a given year per 1,000 live births in that same year. An IMR may be calculated by direct methods (counting births and deaths) or by indirect methods (applying well-established demographic models).

**MATERNAL MORTALITY RATIO:** The estimated number of maternal deaths per 100,000 live births where a maternal death is one which occurs when a woman is pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management. Although sometimes referred to as a rate, this measure is a ratio because the unit of the numerator (maternal deaths) is different than that of the denominator (live births). Extremely difficult to measure, maternal mortality can be derived from vital registration systems (usually underestimated), community studies and surveys (requires very large sample sizes) or hospital registration (usually overestimated).

**TOTAL FERTILITY RATE:** An estimate of the average number of children a woman would bear during her lifetime given current age-specific fertility rates.

#### VACCINATION COVERAGE RATES

**VACCINATION COVERAGE IN CHILDREN:** An estimate of the proportion of living children between the ages of 12 and 23 months who have been vaccinated before their first birthday -- three times in the cases of polio and DPT and once for both measles and BCG. Vaccination coverage rates are calculated in two ways. Administrative estimates are based on reports of the number of vaccines administered divided by an estimate of the pool of children eligible for vaccination. Survey estimates are based on sample surveys of children in the target age group and may or may not include children without vaccination cards whose mothers recall that their children had been vaccinated.

# Commonwealth of Independent States

