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# Moldova

## 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.

# MOLDOVA

Capital: Kishinev

President: Mircea Sengur

Prime Minister: Vladimir Muravskiy

## TERRITORY

Size<sup>1</sup>: 34,000 sq. km  
 Percent of former USSR<sup>1</sup>: 0.2%

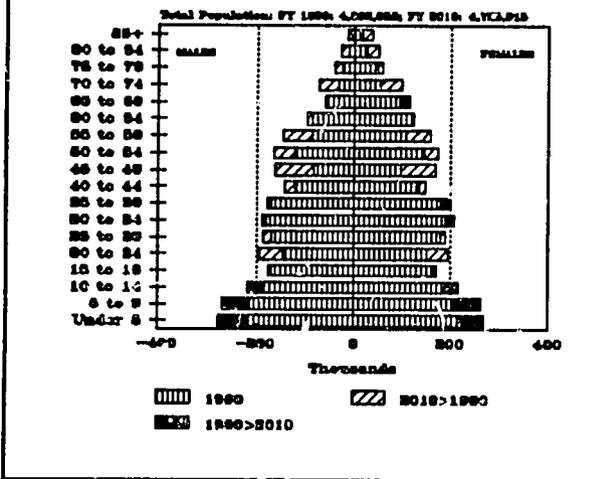
## POPULATION

Population<sup>1</sup>: 4.4 million (1990)  
 Percentage of former USSR<sup>1</sup>: 1.5%

In the former USSR, Moldova was the most densely populated republic; the average was 129.4 persons per sq. km, compared to 12.9 for the Union as a whole.<sup>1</sup>

Of the approximately 4.3 million people in Moldova in 1989, the total number of males was 2,058,000 and females totalled 2,280,000. There were approximately 903 males per 1,000 females.<sup>2</sup>

Figure 1:  
 Current And Projected Population by Age and Gender in Moldova: 1990-2010

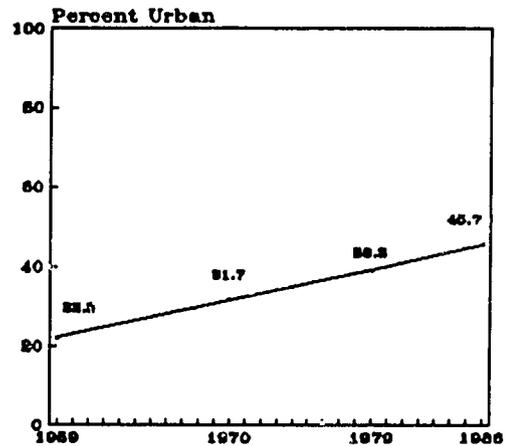


### Level of urbanization

In a little under 30 years, the number of people living in urban areas in Moldova more than doubled. In 1959, approximately 22.3 percent of the population lived in urban areas. By 1970, that percent reached 31.7 and continued to increase to 39.3 by 1979.<sup>3</sup> By 1989, the percent had risen to

47.0, with a total of 2,037,000 people living in urban areas and 2,301,000 living in rural areas.<sup>2</sup>

Figure 2:  
 Urbanization in Moldova



### Population by nationalities

Between 1979 and 1989, the population of ethnic Moldovans increased at a rate of 0.1 percent, while the number of ethnic Russians increased at a rate of 0.5 percent. There are no autonomous republic nationalities living in Moldova.<sup>1</sup>

Nationalities in Moldova<sup>2</sup>  
 (1989)

Total	4,335,000
<b>Republic Nationalities</b>	
Moldovan	2,795,000
Ukrainian	600,000
Russian	562,000
Byelarusian	20,000
Armenian	3,000
Azerbaijani	3,000
Kazakh	1,000
Tajik	1,000
Uzbek	1,000
Georgian	1,000
Lithuanian	1,000
Kyrgyz	0
Turkmen	0
Latvian	0
Estonian	0
Other*	347

\* includes Jews, Germans, Poles and others

## MOLDOVA: USAID Health Profile (continued)

### ECONOMIC OVERVIEW

While Moldova is located close to the Baltic States on the western border of the C.I.S., its economy resembles that of the Central Asian republics. Agriculture accounts for slightly more than one third of Moldova's labor force and industry accounts for only 20 percent. Moldova produces only 1.2 percent of the total net output of the C.I.S.<sup>1</sup>

Sufficient fuel is currently an issue in Moldova. Mandated power outages have been scheduled in order to economize non-renewable fuel resources<sup>4</sup>

### EMPLOYMENT OVERVIEW

Approximately 1.5 million people were employed in Moldova in 1989. This total is distributed as follows<sup>5</sup>:

Employment by Branch (1989)	
Total	1,526,000
Industry	404,000
Agriculture*	318,000
Transportation	113,000
Communications	19,000
Construction	130,000
Public services**	185,000
Social security***	99,000
Education	156,000
Culture & art	25,000
Science & services	17,000
Credit & state insurance	8,000
Administration	34,000
Other	18,000

- \* includes employment on state farms and in forestry
- \*\* includes employment in trade, public dining, material technical supply and procurement, housing and municipal economy
- \*\*\* includes employment in health, physical, cultural and social security

### HEALTH OVERVIEW

Total population <sup>1</sup>	4.4 million	1990
Crude birth rate <sup>6</sup>	17.6 per 1,000 population	1990
Crude death rate <sup>6</sup>	9.7 per 1,000 population	1990
Infant mortality rate <sup>7</sup>	25.9 per 1,000 live births	1987
Maternal mortality ratio <sup>1</sup>	34.1 per 100,000 live births	1989

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 that Moldova's most urgent needs include medications to treat cardiovascular diseases, since Moldova has the highest incidence of cardiovascular disease among all the former USSR republics. Medicines to treat respiratory illnesses are also in critical demand, as are vaccine programs to prevent immunizable diseases among children and elderly people in urban areas.<sup>9</sup>

A Project "Provide Hope" team in Kishinev in February 1992 reported that Moldova's highest priority in receiving humanitarian aid is medicines and medical equipment. Infant formula, clothes for children with disabilities and grain for human consumption were also reported as urgent needs.<sup>4</sup>

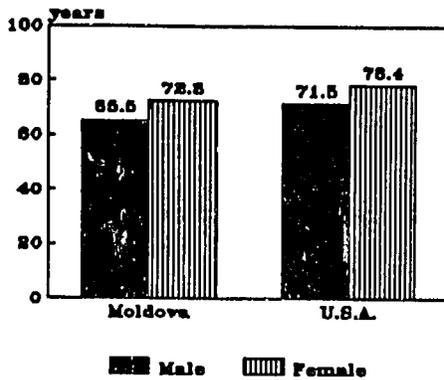
Visits made by a Project "Provide Hope" team in Kishinev to orphanages, homes for elderly people, and homes for people with disabilities revealed that some facilities were sanitary and in satisfactory condition, while others were substandard. Several of the institutions were in need of infant formula; many lacked sufficient medicines and had insufficient or antiquated equipment.<sup>4</sup>

#### Life expectancy

Life expectancy at birth in Moldova in 1989 was approximately 65.5 years for males and 72.3 years for females, compared to 71.5 and 78.4 years, respectively, in the United States in 1987.<sup>13</sup>

## MOLDOVA: USAID Health Profile (continued)

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



### Mortality rate

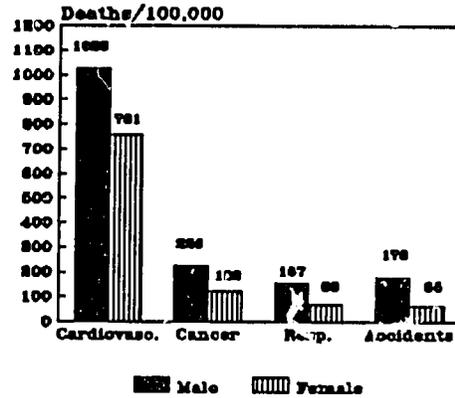
Since the early 1970s, the course of mortality rates in all of the former USSR republics has generally followed the trends typical for the all-Union level. Mortality rates gradually increased for more than a decade before steady improvement began in 1985-86, but by the late 1980s, Russia was the only republic with a mortality rate lower than in 1970. Moldova, Turkmenistan and Latvia were the only republics in the former USSR to have mortality rates higher than the all-Union level.<sup>11</sup>

In less than two decades, the age-standardized death rate in Moldova for males and females, respectively, rose from 11.6 and 8.3 deaths per 1,000 population in 1970-71 to 14.0 and 9.7 deaths in 1980-81, before falling slightly by 1986-87 to 13.0 and 9.1, still higher than the 1970s rate.<sup>11</sup>

### Causes of death

The main causes of death in Moldova are cardiovascular conditions, cancer, respiratory conditions and accidents. In 1988, a total of 1,811.6 males and 1,179.9 females (both per 100,000 population) died from these and other causes.<sup>8</sup>

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



Alcoholic morbidity varies considerably from republic to republic due to regional differences, but in Moldova this morbidity is particularly high. While the alcoholic morbidity index of the entire former USSR grew by 1.4 times during the period between 1975 and 1986, it has doubled in Moldova, Kazakhstan and Byelarus. In viewing this data, it is important to note that although the morbidity indices in these three republics started from a rather high level in 1975, alcoholic morbidity there still remains above the average for the former USSR.<sup>11</sup>

Trends in alcoholic morbidity in rural and urban areas have changed drastically between 1968 and 1986. For the whole of the former USSR, alcoholic morbidity indices in cities in 1968 were 2.6 times higher than in the rural areas, whereas by 1986 they were only 1.3 times higher. In rural areas of Moldova, alcoholic morbidity increased relatively quickly: by 1986 it had increased 8.6 times since 1968.<sup>11</sup>

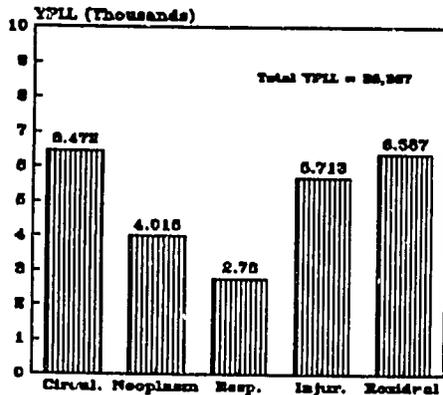
### Years of potential life lost by cause of death (YPLL)

Each year in Moldova, males lose a total of 25,367 years of potential life per 100,000 population due to various causes of death. Circulatory conditions are the most common, causing 6,472 YPLL. Death

## MOLDOVA: USAID Health Profile (continued)

caused by injuries total 5,713 YPLL, neoplasms total 4,015 YPLL, respiratory conditions total 2,780 YPLL and other (residual) causes total 6,387 YPLL.<sup>12</sup>

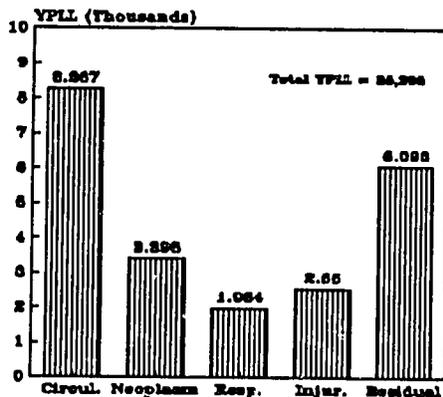
**Figure 5:**  
Years of Potential Life Lost by Cause of Death in Moldovan Males



\*Figures are per 100,000 population

Females in Moldova annually lose a total of 22,295 years of potential life per 100,000 population due to various causes of death. As with males, circulatory conditions are the most common, causing 8,267 YPLL. Deaths caused by neoplasms total 3,398 YPLL, injuries total 2,550 YPLL, respiratory conditions cause 1,984 YPLL and other (residual) causes total 6,095 YPLL.<sup>12</sup>

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

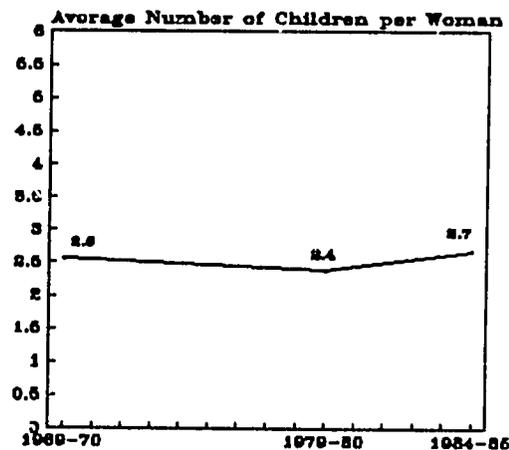


\*Figures are per 100,000 population

### Fertility rate

The fertility rate in Moldova fell slightly between 1969 and 1985. In 1969-70, the rate was 2.56 children per woman; this number fell by 1979-80 to 2.4, but rose again by 1984-85 to 2.68.<sup>3</sup>

**Figure 7:**  
Total Fertility Rate in Moldova



To account for under-registration of births, the U.S. Bureau of the Census (BUCEN) adjusted the total fertility rate (TFR) for 1990 to be 2.5 children per woman. The projected TFR for 2010 is 1.8 children.<sup>13</sup>

### Maternal mortality

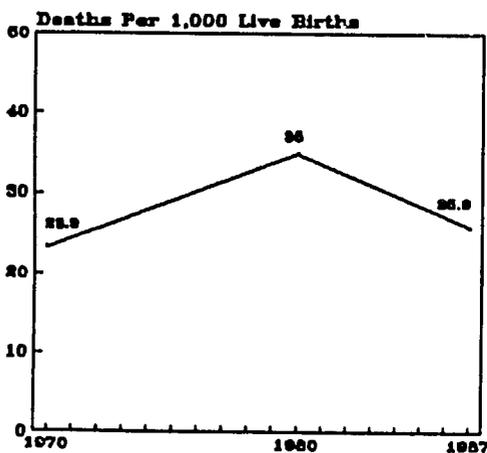
The maternal mortality ratio in 1989 was 34.1 deaths per 100,000 live births.<sup>8</sup>

### Infant mortality

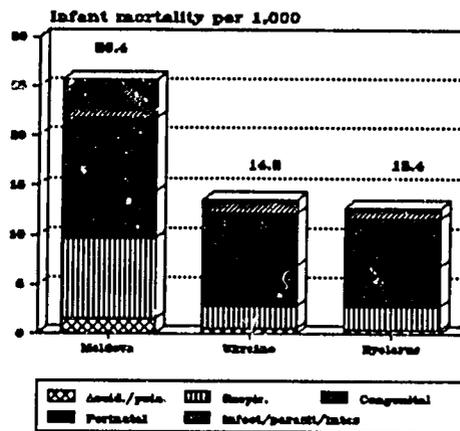
The infant mortality rate in Moldova vacillated from 23.3 deaths per 1,000 live births in 1970, to 35.0 deaths in 1980, to 25.9 deaths in 1987.<sup>7</sup>

# MOLDOVA: USAID Health Profile (continued)

**Figure 8:  
Infant Mortality Rate in Moldova**



**Figure 9:  
Infant Mortality Rates (1988) by Cause  
In Moldova, Ukraine and Belarus**



**Infant Mortality Rates (per one thousand live births)<sup>11</sup>  
According to Place of Residence (1975-86)  
Moldova vs. Former USSR**

	1975		1980		1986	
	Mold.	(USSR)	Mold.	(USSR)	Mold.	(USSR)
Urban	34.3	(25.8)	29.6	(23.5)	19.4	(21.1)
Rural	48.5	(37.0)	38.4	(32.5)	31.6	(31.4)

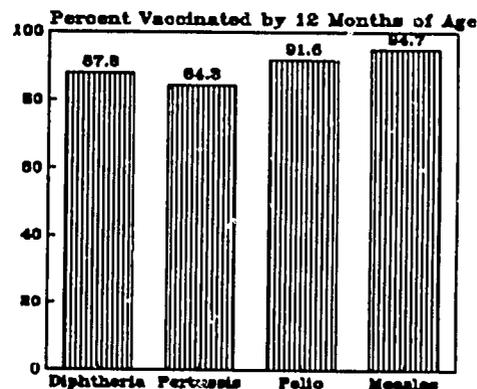
Of the 26.38 infant deaths per 1,000 live births reported in Moldova in 1986, 3.81 were caused by infectious, parasitic and intestinal diseases; 8.13 were caused by respiratory diseases; 4.69 were caused by congenital anomalies; 7.46 were caused by perinatal conditions; and 1.52 were caused by accidents and poisonings.<sup>11</sup>

The official Soviet statistics for infant mortality rates understate the actual levels by approximately 50 percent, according to BUCEN estimates. The definition of infant mortality in the former USSR varied significantly from the standard international definition from WHO. BUCEN estimates infant mortality for 1990 to be 33.94 deaths per 1,000 live births and for 2010 to be 12.96 deaths.<sup>13</sup>

## Vaccination coverage

In 1989, vaccination coverage in infants up to 12 months of age had reached the following levels: 91.6 percent vaccinated against polio, 87.8 percent against diphtheria and 84.3 against pertussis. Vaccination coverage against measles in children by 24 months of age was 94.7 percent.<sup>14</sup>

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



\*Children up to 2 yr for measles vaccine

## MOLDOVA: USAID Health Profile (continued)

### Environmental factors in health

The extensive use of herbicides and pesticides in Moldova is a major health issue. During the Brezhnev era, the former USSR government indiscriminately used deadly pesticides to achieve greater agricultural yields. In Western nations and other C.I.S. republics, the level of pesticide use ranges between 0.5 and 1.0 kg per hectare; in Moldova, average use was about 20.6 kg or higher per hectare.<sup>15</sup>

This extensive use has impacted the health of Moldova's population. Drinking water has been contaminated by tons of pesticides each year because of improper storage and handling procedures. Thousands of agricultural workers have fallen ill.<sup>15</sup>

The Moldovan Greens, known as the "Miscarea Verzilor," were formed in 1988 by Kishinev intellectuals and are among the republic's leading cultural-political organizations. They have representatives nominated to the Congress of People's Deputies. The Greens sponsored mass demonstrations in 1989 and have worked to help reduce the heavy pesticide use in Moldova.<sup>15</sup>

## MOLDOVA: USAID Health Profile (continued)

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## MOLDOVA: 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

