

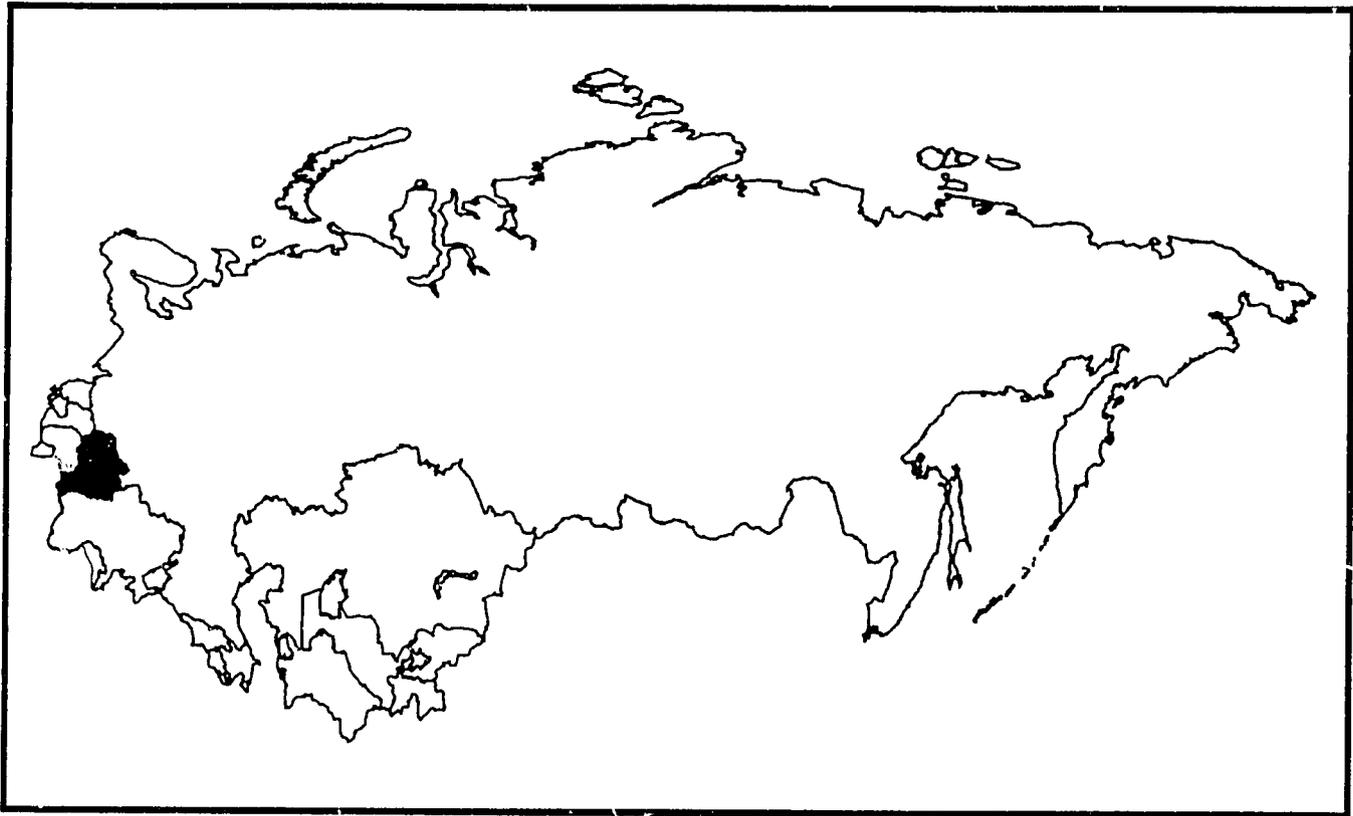
FINAL DRAFT

Byelarus

USAID Health Profile

(Selected Data)

April 24, 1992



Center for International Health Information/ISTI
USAID Health Information System
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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.

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)

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.

BYELARUS

Capital: **Mensk (Minsk)**

President: **Stanislav Shushkevich**

Prime Minister: **Vyacheslav Kabich**

TERRITORY

Size¹: 208,000 sq km,
Percent of former USSR¹: 0.9%

A land of forests and marshlands, Byelarus is bordered by Latvia, Lithuania, Russian, Ukraine, and Poland, and lies on the ancient trading route from the Black Sea to the Baltic. Byelarus is short on natural resources, but has large peat bogs (approximately 5 billion tons of peat reserves), which are used for power.

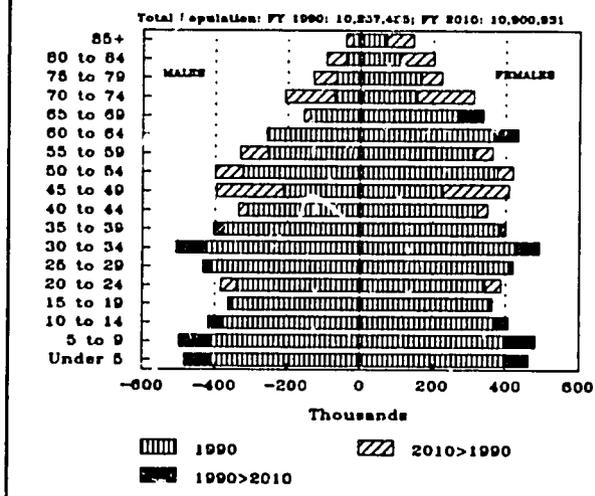
Byelarus is one of the founding members of the CIS, whose future headquarters are to be located in Mensk.²

POPULATION

Population¹: 10.3 million (1990)
Percent of former USSR¹: 3.6%

Byelarusian population is only now recovering from the loss of approximately 25 percent of their population and the devastation of the countryside during World War II.³ In 1989, there were 4,776,000 males and 5,424,000 females for a ratio of 881 males to every 1,000 females.

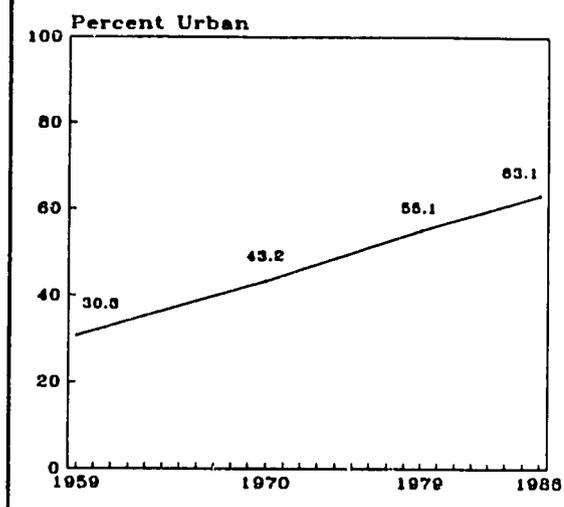
Figure 1:
Current and Projected Population by
Age and Gender in Byelarus: 1990-2010



Level of urbanization

The level of urbanization in Byelarus has increased by 30 percent over the past thirty years.⁵ In 1989, 65.5 percent of Byelarusians lived in urban settings, with 6,679,000 living in urban and 3,521,000 in rural.⁴

Figure 2:
Urbanization in Byelarus



Language fluency

82.7 percent of the population of Byelarus speak Russian fluently, 77.7 percent speak Byelarusian. 26.7 percent of ethnic Russians living in Byelarus are fluent in Byelarusian. Use of Byelarusian in official business has increased since the failed August coup.¹

Population by nationalities

Ethnic Byelarusians make up 77 percent of the republic's population; while 13.2 percent are Russian and 2.9 percent are Ukrainian. Over the past 10 years, the Byelarusian population decreased at a rate of 1.6 percent annually, while the Russian population grew by 1.3 percent.¹ There are no Autonomous Republic Nationalities living in Byelarus.

BYELARUS: USAID Health Profile (continued)

Nationalities in Byelarus ⁴ (1989)	
Total	10,152,000
Republic Nationalities	
Byelarusian	7,905,000
Russian	1,342,000
Ukrainian	291,000
Uzbek	4,000
Kazakh	2,000
Georgian	3,000
Azerbaijani	5,000
Lithuanian	8,000
Moldovan	5,000
Latvian	3,000
Kyrgyz	1,000
Tajik	1,000
Armenian	5,000
Turkmen	1,000
Estonian	1,000
Other*	578,000

* Includes Jews, Poles and others

ECONOMIC OVERVIEW

Byelarus has a broad industrial and agricultural base and high levels of education. Industry comprises two thirds of the GNP for Byelarus. In the past Byelarus received raw materials from other republics and produced finished products for sale elsewhere in the USSR. With the breakup of the USSR, one of Byelarus' immediate needs is to re-establish trade links with other countries. Agriculture in Byelarus focuses primarily on the cultivation of potatoes and grain, along with dairy products.¹ Industrial activities concentrated on high-tech production, including manufacture of weapons for the USSR's armed forces.³ Byelarus produces less than one percent of Commonwealth oil, coal, natural gas, and iron-ore. It produces over 25 percent of the synthetic fibers and flax produced in the Commonwealth.

Byelarus' growth rate has been relatively high compared to the rest of the former USSR in recent years. The output of goods in Byelarus grew at an annual rate of 3.8 percent during the 1986-1989 period (compared to 2.7 percent for the former USSR as a whole).¹ However, with the disruption of the trading alliances between republics, the Byelarusian economy has received a major shock. Declining industrial output, paralysis of trade, and prices that outstrip incomes are major results of the breakup of the USSR. The failure of the central bank of the former USSR meant that all hard currency assets of the republics were lost, which has taken away Byelarus' means to purchase goods on the world market. An increasing number of families are dependent on government subsidies to keep them out of extreme poverty. A number of problems have arisen following the deregulation of prices including the absence of gasoline and other vital imports, hoarding, an explosion in speculation, and psychological stress due to the rapidity of the changes.²

Because of the importance of industry to Byelarus' economy, and reliance on trade ties with other countries, the population is especially vulnerable to changes in economics and politics. This vulnerability is enhanced because programs to mitigate the effects of price increases through subsidies in the form of old-age and child-related benefits are indexed to the minimum wage, which is not rising as fast as prices.⁵

Oil, Gas and Coal Production in Byelarus⁶

	Oil*	Gas**	Coal
1970	4.2	0.2	n/a
1975	8.0	0.5	n/a
1980	2.6	0.3	n/a
1985	2.0	0.3	n/a
1986	2.0	0.2	n/a
1987	2.0	0.2	n/a
1988	2.1	0.3	n/a
1989	2.1	0.3	n/a

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

BYELARUS: USAID Health Profile (continued)

INCOME OVERVIEW

The deregulation of prices has affected Byelarus' economy adversely as well. Even through Byelarus has instated a coupon system to protect its markets from syphoning by high-inflation neighbors (such as Russia, Ukraine), prices for goods are increasing rapidly. Simultaneously, average household income is dropping,-- 16 percent in January 1992-- in spite of efforts to stabilize buying power. Consumer goods are estimated to cost 83 percent more than in 1991. Byelarus attempts to protect pregnant women, families with small children, the elderly, and single parent families through a system of benefits. These benefits, along with the expenses for the Chernobyl cleanup will be difficult to maintain at current levels for the new economy of Byelarus.²

EMPLOYMENT OVERVIEW

Approximately 4.3 million people were employed in Byelarus in 1989. This total can be distributed as follows⁷:

Employment by Branch (1989)	
Industry	1,521,000
Agriculture*	521,000
Transportation	303,000
Communications	56,000
Construction	411,000
Public Service**	472,000
Social Security***	262,000
Education	392,000
Culture & Art	75,000
Science & Services	100,000
Credit & State	24,000
Insurance	
Administration	92,000
Other	82,000

- * includes employment on state farms and in forestry, does not include collective (self-financing) farms
- ** 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

The health system in Byelarus does not meet the needs of the population. As is characteristic of all the former republics of the USSR, the health system suffered years of neglect, sub-standard technology, and poorly trained staff.

A lack of basic medical services including prenatal care, diagnostic capabilities, and childbirth assistance, are some of the deficiencies contributing to the poor health of the population. The additional burden of the Chernobyl cleanup has strained the already overextended health sector. According to the Ministry of Health, there has been a sharp rise in infant and child morbidity since 1986. Special facilities and diagnostic equipment for determining genetic defects are high on Byelarus' list of priorities, however the money necessary for implementation is not available.

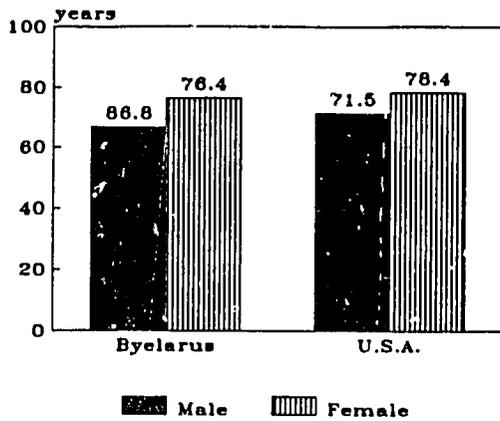
Total population ¹	10.3 million	1990
Crude birth rate ²	13.9 per 1,000 population	1990
Crude death rate ³	10.7 per 1,000 population	1990
Infant mortality rate ⁴	13.4 per 1,000 live births	1987
Maternal mortality ratio ¹⁰	24.8 per 100,000 live births	1989

Life expectancy

Life expectancy at birth in 1989 was 66.7 years for males and 75.5 years for females, compared to 71.5 and 78.4 years for males and females, respectively in the United States in 1987.¹¹

BYELARUS: USAID Health Profile (continued)

Figure 3:
1989 Life Expectancy at Birth;
Byelarus Compared to U.S.A.*



*U.S.A. Data is for 1987

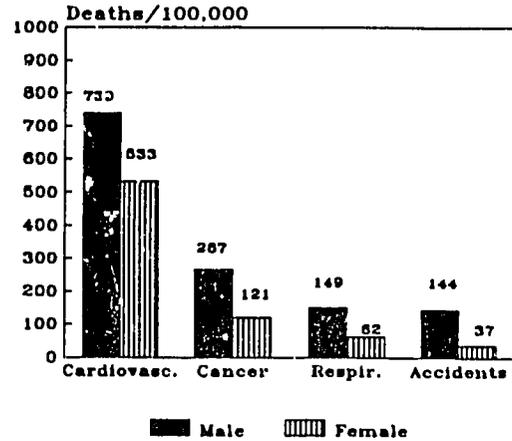
Mortality rates

In general, since the early 1970s, age-standardized mortality rates in all of the former Soviet republics have followed the trends typical for the former USSR. Mortality rates generally worsened for more than a decade before steady improvement began in 1985-86. Nonetheless, by the late 1980s, Byelarus had higher mortality rates than in the 1970s.¹¹

Causes of death

In Byelarus in 1988, 1,435.3 males per 100,000 population died of various causes of death. During the same time, 815.5 females per 100,000 population died. Cardiovascular disease was the most common, followed by cancer, accidents, and respiratory disease.¹²

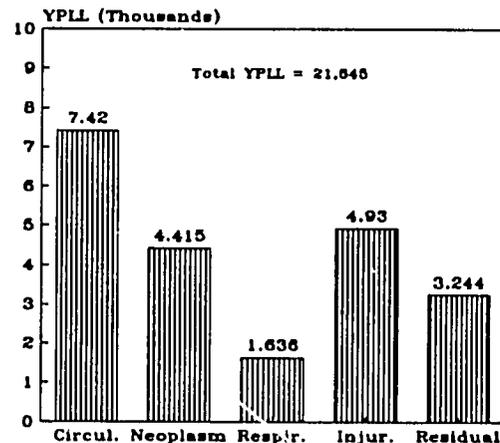
Figure 4:
Mortality Rates by Cause
of Death in Byelarus



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

Each year in the Republic of Byelarus, males lose a total of 19,326 years of potential life per 100,000 population due to various causes of death. Circulatory conditions cause the greatest loss, causing 7,420 YPLL. Residual (other) causes account for 3,243 YPLL, respiratory conditions total 1,636 YPLL, injuries 4,930 YPLL, and neoplasms 4,415 YPLL.¹³

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

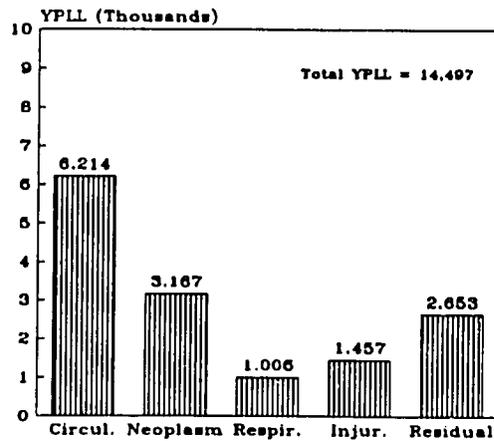


*Figures are per 100,000 population

BYELARUS: USAID Health Profile (continued)

Females in Byelarus annually lose a total of 15,296 years of potential life per 100,000 population due to various causes of death. Circulatory conditions are the most common, causing 6,214 YPLL, residual conditions account for 2,653 YPLL, respiratory conditions total 1,006 YPLL, neoplasms 3,167 YPLL, and injuries 1,457 YPLL.¹³

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

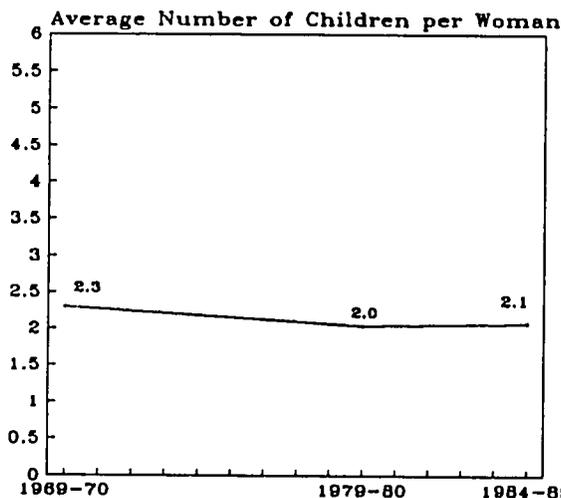


Figures are per 100,000 population

Fertility rate

Fertility rates are plummeting in Byelarus. Fear of birth defects due to environmental pollution have contributed to a population growth near zero. In addition, 135,000 Byelarusian women are infertile due to secondary sterility caused by repeated abortions.

Figure 7:
Total fertility Rate in Byelarus



Byelarus has instituted a "pre-natal" population policy to try and counteract the reluctance of women to have children, a reluctance which is seen to jeopardize the future of the new nation.²

To account for under-registration of births, the U.S. Bureau of the Census (BUCEN) adjusted the total fertility rates for 1990 to 2.1 children per woman. The projected TFR for 2010 is 1.8 children per woman.¹⁶

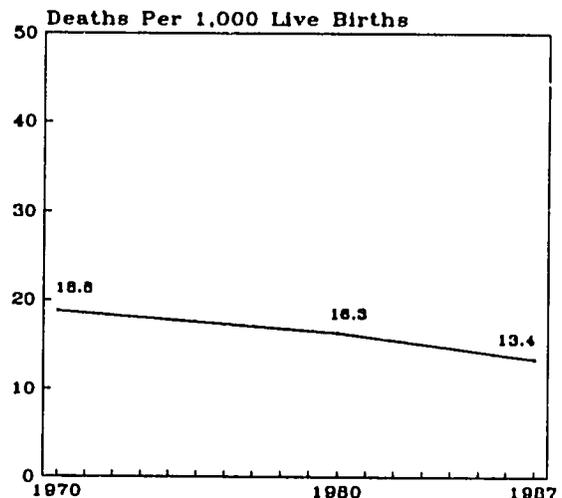
Maternal mortality

The maternal mortality ratio for 1989 was 24.8 deaths per 100,000 live births.¹⁰ Maternal health has been compromised, for anemia among pregnant women has tripled in the past 10 years, and kidney and heart problems have increased by one and a half.¹²

Infant mortality

Infant mortality in Byelarus has declined from 18.8 deaths per 1,000 live births in 1970 to 13.4 deaths per 1,000 live births in 1987.⁹

Figure 8:
Infant Mortality Rate in Byelarus



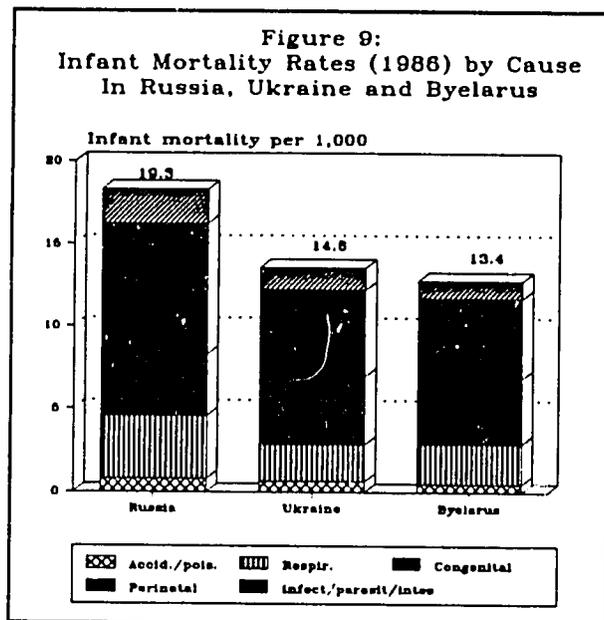
BYELARUS: USAID Health Profile (continued)

However, further improvements in the infant mortality rate are blocked by factors affecting the health of the mothers. The poor state of maternal health is due to environmental pollution, the economic crisis, poor nutrition, frequent induced abortions (for birth control purposes), and heavy physical labor in the workplace.⁹

**Infant Mortality Rates (per one thousand live births)¹⁴
According to Place of Residence (1975-86)
Byelarus vs. Former USSR**

	1975		1980		1986	
	Byelarus	USSR	Byelarus	USSR	Byelarus	USSR
Urban	17.9	25.8	15.3	23.5	12.5	21.1
Rural	19.8	37.0	18.2	32.5	15.5	31.4

In 1986, of the 13.4 infant deaths (per 1,000 live births), 1.1 were infectious, parasitic and intestinal disease, 2.4 were respiratory, 4.0 were from congenital anomalies, 4.9 were perinatal conditions, and 1.9 were caused by accidents, including poisonings.¹⁴



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 adjusted infant mortality for 1990 to 20 deaths per 1,000 live births, and has projected decrease by 2010 to 11 deaths per 1,000 live births.¹⁶

Breastfeeding, family planning and contraception

Breastfeeding is not prevalent in Byelarus. The high percentage of working mothers keeps the prevalence low, and many mothers are reluctant to breastfeed their children because of fear of contamination of breast milk with radionuclides.

Modern contraceptive methods have been promoted only since 1987. Byelarus has had a pro-natalist position since the huge loss of life in World War II, and the government has encouraged having children. Today there is limited access to contraceptives, mostly because of supply problems. Approximately 30 percent use contraception, with IUDs and contraceptive pills being the most common forms of contraception. However, in Byelarus abortion is still used so frequently to regulate fertility that it has serious side effects on women's health. As a result of the over reliance on abortion, secondary sterility, gynecologic complaints, perinatal mortality, and congenital defects are all on the rise in Byelarus.²

Sex education is not taught in schools. Teenagers and young adults usually get their information from friends, which is often inaccurate. There are "Family and Marriage Centers," in Byelarus, but they deal with infertility issues. Medical professionals are not taught family planning. A need exists to better educate the population on contraception and family planning to reduce the number of unplanned pregnancies and abortions, and to improve the health and well-being of women.⁵

HIV/AIDS

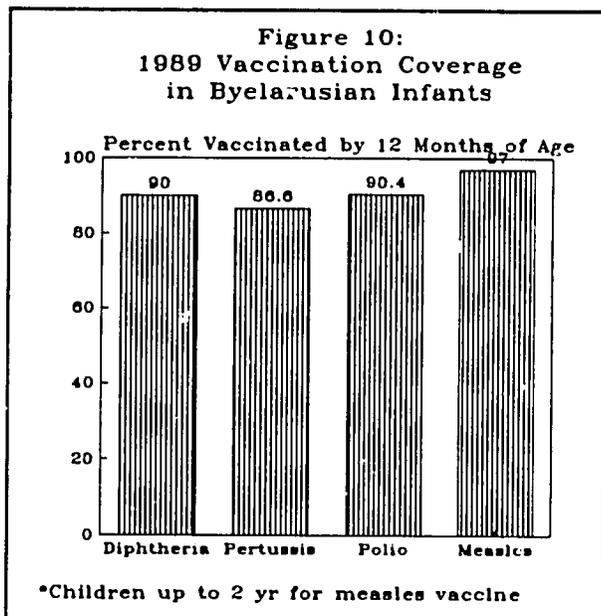
The Republican Center on AIDS was created two years ago in preparation for a major outbreak of

BYELARUS: USAID Health Profile (continued)

AIDS. This center coordinates all activities for HIV prevention and AIDS control. During the first nine months of 1991, 2.1 million people were tested in 53 laboratories throughout Byelarus. All hospital in-patients now must have mandatory HIV tests, and there is extensive testing of at-risk populations, such as homosexuals, prostitutes, and prisoners. By the end of 1991 they had identified 70 cases of HIV+, of which 30 are Byelarusians and 40 are foreigners. Only one case of clinical AIDS has been seen, and that diagnosis was made two years after the first manifestations of the disease. Since the breakup of the USSR, however, it is uncertain if the testing can continue at the same rate, for Moscow previously supplied the testing kits.²

Vaccination coverage

By 1989, vaccination coverage of infants up to 12 months in Byelarus had reached the following reported levels: 90.4 percent were vaccinated against polio, 90.0 against diphtheria, and 86.6 percent against pertussis. Vaccination coverage against measles in children by 24 months of age was 97.0 percent.¹⁵



Vaccines and drugs, previously obtained from Moscow or Comecon countries are no longer available because of a lack of hard currency.

Byelarus produces no vaccines for children. Vaccination coverage for children has been high in the past, but it may become very difficult to maintain high levels of coverage. The cold chain in Byelarus is reasonably whole, however there is a need for cold boxes for the further distribution of vaccines.⁵

Food and nutrition

Although those on fixed incomes are obviously a risk, at the time of Project Provide Hope's visit, there were no indications of severe food shortages. Fear of consuming contaminated food has led to avoidance of fruits and vegetable, and overcooking as a precaution, which may have led to nutritional imbalances and vitamin deficiencies.³

Byelarus is one of the areas within the former USSR that is deficient in iodine. There are incidence of goiter, and other iodine-deficiency disorders in Byelarus. Attempts have been made to iodize table salt, but the quality control has been questionable. One approach, where iodine supplement tablets were distributed through the schools has succeeded in lowering the goiter rates among 11-13 year olds.⁵

Environmental concerns and health: Chernobyl

Chernobyl fallout disproportionately affected Byelarus. Nearly 25 percent of its territory and 22 percent of the population were affected. Immediately after the accident, Byelarus was showered with radioactive iodine. Not only are 600,000 children living in areas of significant radioactive fallout affected, but the entire 2.35 million child population of Byelarus is also at increased risk. The government has huge commitments to mitigate the consequences of the Chernobyl fallout. However, the monetary commitments were previously funded by the USSR, and now must come out of Byelarus' budget. This enormous need is diverting monies away from other areas with critical need, such as the health sector. The full consequences of the Chernobyl accident are not yet realized. Over time the effects of exposure to radiation will become clearer, with an increase in

BYELARUS: USAID Health Profile (continued)

cancer rates expected, birth defects, and other illnesses related to over-exposure to radiation. Resistance to disease is down, and the psychological effects of living with the constant knowledge of contamination and fear of what the future will bring has contributed significantly to Chernobyl's impact on the population.²

BYELARUS: USAID Health Profile (continued)

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BYELARUS: 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



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