



Vital and Health Statistics

From the CENTERS FOR DISEASE CONTROL AND PREVENTION / National Center for Health Statistics

Vital and Health Statistics: Russian Federation and United States, Selected Years 1980–93

June 1995





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Vital and Health Statistics

Vital and Health Statistics: Russian Federation and United States, Selected Years 1980–93

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This report contains 18 tables covering population size, natural increase in population, birth rates, life expectancy, infant mortality, death rates, incidence of notifiable diseases, AIDS, levels of health personnel, hospital utilization, and ambulatory care in the Russian Federation and the United States. Also included are a glossary of terms used in this report where differences in definitions between the two countries are noted and a special appendix with selected data from the Russian Federation by urban-rural status.

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Preface

This report is the first in what we hope will be a periodic comparison of vital and health statistics of the Russian Federation and the United States. This publication is a joint effort by the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention in the United States and the Public Health Institute MedSocEconInform of the Ministry of Health and Medical Industry, Russian Federation.

It is hoped that this publication will serve two purposes. First, it will make available in English a wide array of Russian vital and health statistics. Second, it is hoped that through this process, both NCHS and MedSocEconInform will learn and understand more about how such statistics are collected in

each country and that through this process, the systems of both countries will profit.

This first effort is a modest one. It contains 18 tables covering population size, natural increase in population, birth rates, life expectancy, infant mortality, death rates, incidence of notifiable diseases, incidence of acquired immunodeficiency syndrome (AIDS), levels of health personnel, hospital utilization, and ambulatory care. This volume includes a glossary of terms used in this report, and differences in definitions between the two countries are noted. With future editions it is hoped that the scope and size of the publication will increase. The collaborating agencies would appreciate any suggestions that readers might have for future editions.

Foreword

We are approaching the year 2000, and before entering the next millennium, it would be useful to look back and evaluate the changes that have taken place. Among these changes is the end of nearly 50 years of opposition between Russia and the United States. And as often happens, the initial envoys of peace have been medicine, trade, and diplomacy.

In the field of medicine and health care, both of our countries have achieved valuable progress. But in spite of this, there is an obvious and widely recognized need to bring about basic reforms in these areas. In Russia this need is reflected by the gradual deterioration of public health since the end of the 1960s. Specifically, there has been:

- A reduction in average life span to 64 years in 1994 and greater differences in life span between males and females now more than 13 years
- An increase in standardized mortality rates, mostly as a result of more violent deaths
- Relatively high levels of infant and maternal mortality, with paradoxical cause structures
- An increase in morbidity rates in infants and children
- Growth of disability rates, for example, congenital disabilities
- An increase in social disease rates (tuberculosis, syphilis, alcohol and drug abuse, etc.), as well as of some mass infectious diseases
- A reduction in birth and marriage rates, an increase in the divorce rate, and forced migrations, combined with negative natural growth of the population

By the way, even recently some data concerning public health were not allowed to be openly published.

At the same time that these changes have been occurring in Russia, government spending for general social needs, such as health protection, are still declining (in constant prices). It is therefore essential to implement the strategy recommended by the World Health Organization, "Health for All," as well as to effect a reform of the health care system that is aimed at the areas of greatest need. These areas include the prevention of public declines in health, the need to achieve greater efficiency in resource utilization and administration, and the need to focus on primary care and disease prevention.

Although in the United States, problems related to health and health care differ from those in Russia, an exchange of experience and knowledge offers benefits to both countries. For example, the United States has considerable experience in the development of high-technology medicine, and Russia has acquired expertise in the organization and delivery of stage-by-stage medical care.

Therefore, this first joint publication on vital and health statistics in the Russian Federation and the United States will make a substantial contribution to the development of Russian-American relations in the fields of medicine and heath care.

In spite of difficulties related to definitional differences, approaches to classification, methods of calculation, etc., there is nevertheless much to be gained. It is our view that publications such as this should be prepared on a regular basis (every 3–4 years). In between, it may be possible to publish brochures focusing on comparative data on specific problems, such as infant mortality, injuries, diabetes, tuberculosis, and so forth.

Clearly, this report presents a concrete implementation of mutual trust, democracy, and collaboration. Therefore, we hope that medical circles in Russia and the United States will be interested in this publication and that future issues will receive appropriate support from the governments of both our countries.

We would also like to express our sincere gratitude to personnel of the well-known National Center for Health Statistics of the Centers for Disease Control and Prevention, with whom we signed an agreement to collaborate, for their remarkable organizational and methodological activities in the preparation and publication of this report.

Prof. Yuri M. Komarov, M.D., Ph.D, D.Sc. Director General Public Health Institute MedSocEconInform (Russia) World Health Organization Collaborating Center April 12, 1995 In January 1994 the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention, of the United States and the Public Health Institute (MedSoc-EconInform) of the Russian Federation declared their mutual commitment to establish and support cooperation and collaboration in five areas of health statistics. The first area acknowledged our joint desire to publish a short monograph comparing vital and health statistics between our two countries.

This publication is the first report comparing trends in vital and health statistics between the Russian Federation and the United States. It is an enormous achievement and I would like to congratulate the scientists from both centers for all of their efforts. It is the beginning of our joint efforts to understand our two vital and health statistics systems and to establish comparable reporting statistics between us.

The idea for this project was first discussed by Dr. Ekaterina F. Lakhova, who was then the State Counsellor for the Russian Federation for Family, Maternity and Childhood, and Dr. Manning Feinleib, then-Director of NCHS, during a July 6, 1993, meeting in Moscow. The meeting was arranged by Prof. Yuri Komarov, Director General, MedSocEconInform, and Dr. Lakhova to discuss ways in which NCHS could assist in helping the Russian Federation restructure their vital and health statistics systems.

In addition to this effort, NCHS and MedSocEconInform are continuing to cooperate in four other areas as well. MedSocEconInform is now an active participant in the NCHS-sponsored International Collaborative Effort on Infant and Perinatal Mortality; both centers are continuing to exchange vital and health statistics data; NCHS has provided technical support; and, as financial resources permit, both centers will continue to conduct other collaborative projects and engage in scientific exchange programs.

We want to thank our colleagues at MedSocEconInform for all of their efforts. It has been a privilege and a pleasure to work with them, and we are proud to have been a part of this effort. We have learned a great deal about their vital and health statistics systems and hope to learn more about them in the future as we continue to work together. We also hope that they have learned something from us and, in a modest way, that this effort will contribute to the reform of the Russian Federation's vital and health statistics system.

John R. Anderson Acting Director National Center for Health Statistics

Contents

Pref	face	ii
Fore	eword	iv
Map	ps of the Russian Federation and the United States	vii
F	hlights Russian Federation Population Fertility and natality Mortality Communicable disease morbidity Health care resources Jnited States Population Fertility and natality Mortality Communicable disease morbidity Health care resources	1 1 1 2 2 2 2 2 2 2 3
List	of detailed tables	
Арј	pendixes	
I.	Urban-rural data for the Russian Federation	19
II.	Glossary	2 3

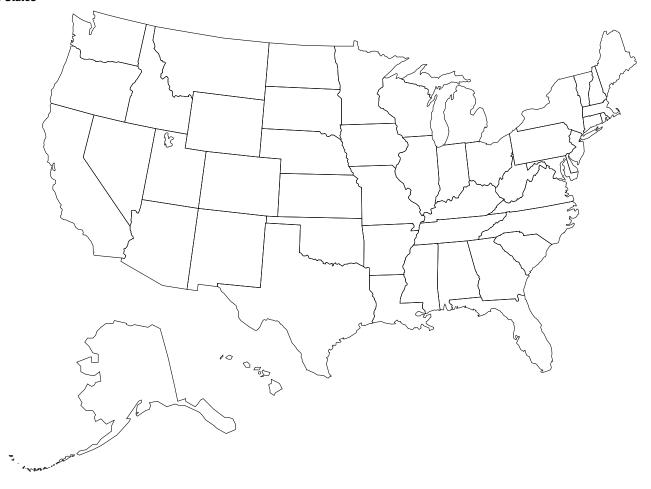
Symbols

- -- Data not available
- ... Category not applicable
- Quantity zero
- 0.0 Quantity more than zero but less than 0.05
- Z Quantity more than zero but less than 500 where numbers are rounded to thousands
- * Figure does not meet standard of reliability or precision

Russian Federation



United States



Highlights

Russian Federation

Population

- Between 1985 and 1993, the **population under 5** years of age experienced the greatest reduction in size, declining by 19 percent to 9.3 million. The **elderly population** (65 years and over) continued to grow, increasing by 18 percent, to 16.7 million during the same period (table 1).
- Since 1985, rising mortality rates and declining birth rates have gradually reduced the rate of **natural increase** of the population. The number of deaths exceeded the number of **live births** in 1992 and 1993, contributing to a 0.1-percent decrease in the resident population from 1992 to 1993 (table 2).

Fertility and natality

- Since 1985, the annual number of births has dropped by 41 percent; the majority of the decline has occurred since 1990. The **fertility rate** has declined by 42 percent since 1985, to 38 per 1,000 females 15–44 years of age (tables 2 and 3)
- The estimated percent of live-born **infants weighing less than 2,500 grams** (low birthweight) has declined slightly from 1985 to 1993, to 13.8 percent of all live births. The estimated figures correct for underreporting of low-birthweight live births (table 4).
- The proportion of females beginning **prenatal care** during the first trimester of pregnancy has increased gradually since 1991, to 71.2 percent in 1993. This is only slightly below the level of 72.7 percent in 1985 (table 4).

Mortality

- Life expectancy at birth declined to 65.1 years in 1993, from a peak of 69.3 years in 1985. Life expectancy at birth for males declined even more sharply, to 58.9 years in 1993, falling 3.1 years between 1992 and 1993. Life expectancy at birth for females declined to 71.9 in 1993 (table 5).
- Estimated rates of **infant mortality** show a 31-percent decrease since 1985, to 21.8 in 1993. The estimated rates correct for differences in vital event definitions and underreporting of infant deaths (table 6).
- From 1985 to 1993, **maternal mortality** decreased by a small amount, to 51.6 deaths per 100,000 live births. In 1993, more than one-quarter of all maternal deaths were the result of ectopic pregnancies or abortions other than legally induced abortions (table 7).
- The overall **age-adjusted death rate** rose by 24 percent between 1990 and 1993, reversing the downward trend of the 1970's and 1980's. The largest changes in age-specific mortality were in the age groups 25–34 years (58-percent increase) and 35–44 years (68-percent increase). Increases in mortality occurred in all age groups and for both sexes (table 8).
- Between 1990 and 1993, the age-adjusted mortality rate for **heart disease** rose by 18 percent for both sexes combined, and by 22 percent for males. The rise in heart disease deaths accounted for more than one-fifth of the increase in all-cause mortality since 1990 (table 9).
- The age-adjusted death rate for **stroke** increased 13 percent from 1990 to 1993, after a period of relatively stable rates during the 1980's. Stroke and heart disease together accounted for one-third of the rise in all-cause mortality since 1990 (table 9).
- Mortality resulting from **other external causes** rose by 93 percent between 1990 and 1993, the largest single contributor to the rise in mortality during the 1990's. Male mortality resulting from other external causes rose 90 percent, and female mortality increased by 88 percent (table 9).
- The age-adjusted mortality rate for **homicide** rose by 110 percent from 1990 to 1993, and the **suicide** rate rose by more than 40 percent. These two causes together accounted for one-tenth of the increase in all-cause mortality since 1990 (table 9).

The contributions of the following individuals are gratefully acknowledged; by MedSocEconInform: Prof. Yuri M. Komarov, Prof. Alexandr S. Kiselev, Prof. Alexandr A. Romensky, Dr. Valery E. Tchernjavsky, Dr. Sergei P. Ermakov, Dr. Alla E. Ivanova, Dr. Vladimir A. Magnitsky, Dr. Anna V. Korotkova, Dr. Natalia A. Kravchenko, Dr. Alla A. Kalininskaya, Dr. Igor A. Volkov, Dr. Tamilla S. Liashenko, Ms. Galina N. Evdokushkina; by the National Center for Health Statistics: Dr. Manning Feinleib, Mr. Robert A. Israel, Dr. Christopher T. Sempos, Dr. Francis C. Notzon, Mr. Cuong V. Vuong, Dr. Robert B. Hartford, Mr. Richard L. Welch, Ms. Sharon Ramirez, Dr. Elena V. Sempos, Ms. Mariya Charny, Mr. Rolfe Larson, Ms. Shirley A. Gray, Ms. Dorothy C. Blodgett, Ms. Virginia A. Richards, Dr. Diane M. Makuc, Ms. Kate Prager, Ms. Zung Le.

- Mortality resulting from **pneumonia and influenza** more than doubled between 1990 and 1993, and most of the increase took place from 1992 to 1993. Growth in the death rate for males was substantially greater than that for females; by 1993, the death rate for males was four times the rate for females (table 9).
- Fourteen deaths from HIV infection, including 4 children under 15 years of age, occurred between mid-1993 and early 1994. This represented a slight decrease in mortality as a result of HIV infection from the earlier interval of late 1992 to mid-1993 (table 12).

Communicable disease morbidity

- From 1990 to 1993, the rate of **diphtheria** cases per 100,000 population rose by almost 1,200 percent, to a rate of 10.3; the number of diphtheria cases appeared to be increasing exponentially. Over the same interval, substantial increases also occurred in the incidence of venereal diseases, including a 78-percent rise in **gonorrhea** and a fivefold increase in **syphilis** (table 11).
- The number of **hepatitis** cases per 100,000 population declined by 40 percent during the 1990's, probably because of incomplete reporting. The rate of **salmonellosis** remained relatively constant during the same interval (table 11).
- The number of new cases of HIV infection and AIDS declined from 1992 to mid-1993 but grew substantially from mid-1993 to early 1994 (table 12).

Health care resources

- From 1990 to 1993, the number of **physicians** per 10,000 population decreased by 4 percent, to 45.0. The decline was even greater for **paramedical personnel**, with especially severe reductions of 27 percent for feldshers (physician assistants) and 17 percent for midwives (table 14). The Russian definition of a physician contains categories not included in the U.S. definition, such as inactive physicians, dentists, sanitary-epidemiological physicians, and physiotherapists.
- Since 1990, the number of **hospital beds** per 10,000 population has declined by 6 percent, to 129.7. The reduction occurred in all types of hospitals, including long-term hospitals for the treatment of tuberculosis and psychiatric disorders (tables 15 and 16).
- From 1985 to 1993, the average number of ambulatory physician contacts decreased by 17 percent, to 9.5 contacts per person per year. Declines were noted in both visits to physician offices and urgent and ambulance care (table 17).
- Between 1985 and 1993, the number of hospital discharges per 1,000 population dropped by 11 percent, and the rate of surgical operations per 1,000 population declined by 20 percent. During the same interval, however, the average length of stay in a hospital remained nearly unchanged (table 18).

United States

Population

• Between 1980 and 1992, the **elderly population** in the United States grew more rapidly than other age groups. The population 85 years and over grew by 45 percent to 3.3 million, and the population 75–84 years of age grew by 37 percent to 10.6 million. During this period, the total U.S. population increased by 13 percent (table 1).

Fertility and natality

- From 1990 to 1992, the **fertility rate** declined by 3 percent to 68.9 live births per 1,000 females 15–44 years of age, reversing an upward trend since 1986 (table 3).
- Between 1985 and 1992, the overall percent of live-born infants weighing less than 2,500 grams (low birthweight) increased slightly from 6.8 to 7.1 percent, after remaining at 6.8 percent during the previous 5-year period (table 4).
- In 1992, the percent of mothers who began **prenatal care** in the first trimester of pregnancy increased slightly to 78 percent, after remaining stable at about 76 percent from 1980 to 1991 (table 4).

Mortality

- In 1992, overall **life expectancy** at birth reached a record high of 75.8 years. Life expectancy was at its highest level ever in 1992 for both females (79.1 years) and males (72.3 years) (table 5).
- In 1992 the **infant mortality** rate was 8.5 deaths per 1,000 live births, a record low, and nearly 33 percent below the 1980 rate. Reductions were recorded in both neonatal mortality (to 5.4 per 1,000 live births) and postneonatal mortality (to 3.1) (table 6).
- The overall **age-adjusted** death rate declined by 3 percent between 1990 and 1992, continuing the downward trend of the 1980's. The largest decline in age-specific death rates, 11 percent, occurred in the population under 1 year of age (table 8).
- Between 1980 and 1992, the age-adjusted death rate for heart disease, the leading cause of death for males and females, declined 27 percent, continuing the downward trend of the 1970's. Heart disease mortality declined 29 percent for males and 24 percent for females during the interval (table 10).
- Between 1980 and 1992, the age-adjusted death rate for **stroke**, the third leading cause of death, declined 35 percent, continuing the downward trend of the 1970's (table 10).
- Between 1990 and 1992, the age-adjusted death rate for **motor vehicle mortality** declined 14 percent, continuing the downward trend of the 1980's. The rate for males fell 15 percent during the interval (table 10).
- From 1991 to 1992, the age-adjusted death rate for **homicide** declined 4 percent, reversing the rise in homicide rates between 1985 and 1991. Both male and female

mortality resulting from homicide declined during 1992 (table 10).

Communicable disease morbidity

- No more than five **diphtheria** cases per year have been reported since 1985, resulting in incidence rates below 0.005 per 100,000 population (table 11).
- Between 1990 and 1992, the number of syphilis cases per 100,000 population declined by 16 percent to 45.3, reversing a sharp rise between 1985 and 1990. The incidence rate for gonorrhea dropped by 55 percent between 1980 and 1992 (table 11).
- In 1993 the **AIDS** case-reporting definition was revised to incorporate a broader range of AIDS-indicator diseases and conditions. As a result, the annual number of AIDS cases reported more than doubled. For the first 9 months of 1993, almost 84,000 AIDS cases were reported; 84 percent of all cases occurred among males 13 years of age and over (table 13).

Health care resources

The number of non-Federal physicians with office-based practices per 10,000 population rose by 12 percent between 1985 and 1993. Physician specialties with the highest growth in the 1990's were internal medicine and pediat-

- rics. The number of registered nurses per 10,000 population rose 15 percent between 1985 and 1992 (table 14). The U.S. definition of a physician does not contain categories included in the Russian definition, such as inactive physicians, dentists, sanitary-epidemiological physicians, and physiotherapists.
- Between 1985 and 1992, the number of **short-stay hospitals** declined by 8 percent. The number of hospitals with 500 beds or more dropped by 12 percent, the largest change for any of the hospital categories. The number of **hospital beds** per 10,000 population fell by 14 percent overall from 1985 to 1992, and by 18 percent for hospitals with 500 beds or more (table 15).
- The average number of **physician contacts** per year increased by 15 percent between 1985 and 1993, to 6.1 contacts annually. Visits to physician offices represented more than one-half the total number of physician contacts and was the major source of increase in the total measure (table 17).
- The average length of stay in short-stay hospitals declined by 5 percent between 1990 and 1992, continuing the downward trend of the 1980's. The rate of hospital discharges per 1,000 persons declined by a small amount during the same interval. Since 1990, the rate of inpatient surgical operations has fallen only slightly for both males and females (table 18).

List of detailed tables

	Resident population, by age and sex: Russian Federation and United States, selected years 1980–93 Number of live births and deaths and natural increase in	5	12.	Number of cases and deaths from human immunodefi- ciency virus and acquired immunodeficiency syndrome: Russian Federation, 1992–94	13
	population: Russian Federation and United States, selected years 1980–93	7	13.	Number of persons with and deaths from acquired immunodeficiency syndrome, by sex and age: United States,	13
3.	Birth rates: Russian Federation and United States, selected	-		selected years 1985–93	14
4.	years 1980–93	7	14.	Number of providers per 10,000 population, by specialty: Russian Federation and United States, selected years	
	1980–93	8		1980–93	14
5.	Life expectancy at birth, by sex: Russian Federation and		15.	Number of hospitals and beds per 10,000 population, by	
	United States, selected years 1980–93	8		hospital type or bed size: Russian Federation and United	1.5
6.	Infant mortality, late fetal death, and perinatal mortality		1.0	States, selected years 1980–93	15
	rates: Russian Federation and United States, selected years	0	16.	Number of tuberculosis and psychiatric hospitals and beds per 10,000 population, by type of hospital: Russian Fed-	
7	1980–93	9		eration and United States, selected years 1980–93	16
7.	Maternal mortality rate, by cause of death: Russian Federation and United States, selected years 1980–93	9	17	Number of outpatient care contacts per person, by year,	10
8	Death rates from all causes, by age and sex:	7	1/.	country, and type of contact: Russian Federation and	
0.	Russian Federation and United States, selected years			United States, selected years 1980–93	16
	1980–93	10	18	Average length of stay and rate of discharges and surgical	10
9.	Age-adjusted death rates for selected causes of death, by		10.	operations per 1,000 persons: Russian Federation and the	
	sex: Russian Federation, selected years 1981–93	11		United States, selected years 1980–93	17
10.	Age-adjusted death rates for selected causes of death, by			•	
	sex: United States, selected years 1980–93	12			
11.	Rate of selected notifiable diseases, by type of disease:				
	Russian Federation and United States, selected years	1.2			
	1980–93	13			

Table 1. Resident population, by age and sex: Russian Federation and United States, selected years 1980-93

							Age in years					
Country, sex, and year	All residents	Under 1 year	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75–84	85 and over
Russian Federation						Popul	lation					
All persons:												
1980	138,623,997	2,162,380	8,468,872	19,305,344	24,541,547	22,242,162	17,761,755	18,819,237	11,112,893	9,685,682	3,824,051	700,074
1985	143,444,187	2,356,758	9,147,605	20,604,916	20,993,186	25,191,767	16,204,174	19,129,215	15,599,878	8,629,684	4,800,442	786,562
1990	147,913,047	2,042,649	9,472,425	22,446,402	19,709,319	24,675,511	21,676,613	16,548,721	16,502,192	8,609,347	5,268,041	961,827
1991	148,244,835	1,870,366	9,091,489	22,766,281	19,810,056	24,058,606	22,726,686	16,043,405	16,458,415	9,217,642	5,186,105	1,015,784
1992	148,310,174	1,680,008	8,511,358	23,123,387	20,026,600	23,334,571	23,357,050	15,669,662	16,525,533	10,000,225	5,016,311	1,065,469
1993	148,145,911	1,480,467	7,819,486	23,411,771	20,348,922	22,536,113	23,941,809	15,228,511	16,658,582	10,762,688	4,855,254	1,102,308
Male:												
1980	63,857,519	1,103,890	4,301,533	9,792,665	12,545,076	11,223,540	8,602,223	8,644,917	3,817,760	2,851,540	839,099	135,276
1985	66,438,950	1,203,729	4,667,286	10,464,373	10,590,598	12,791,354	7,970,451	8,929,434	6,103,645	2,517,775	1,061,812	138,493
1990	69,266,204	1,046,981	4,829,681	11,397,039	10,059,661	12,477,908	10,747,471	7,747,552	7,012,977	2,564,501	1,223,983	158,450
1991	69,481,089	958,645	4,642,122	11,561,824	10,112,724	12,157,406	11,266,195	7,516,747	7,078,842	2,815,595	1,201,677	169,312
1992	69,562,474	861,576	4,351,791	11,747,232	10,235,144	11,773,602	11,575,696	7,357,830	7,157,643	3,161,508	1,159,884	180,568
1993	69,528,088	760,501	4,004,697	11,901,131	10,415,918	11,360,626	11,854,079	7,169,595	7,234,700	3,512,562	1,124,084	190,195
Female:												
1980	74,766,478	1,058,490	4,167,339	9,512,679	11,996,471	11,018,622	9,159,532	10,174,320	7,295,133	6,834,142	2,984,952	564,798
1985	77,005,237	1,153,029	4,480,319	10,140,543	10,402,588	12,400,413	8,233,723	10,199,781	9,496,233	6,111,909	3,738,630	648,069
1990	78,646,843	995,668	4,642,744	11,049,363	9,649,658	12,197,603	10,929,142	8,801,169	9,489,215	6,044,846	4,044,058	803,377
1991	78,763,746	911,721	4,449,367	11,204,457	9,697,332	11,901,200	11,460,491	8,526,658	9,379,573	6,402,047	3,984,428	846,472
1992	78,747,700	818,432	4,159,567	11,376,155	9,791,456	11,560,969	11,781,354	8,311,832	9,367,890	6,838,717	3,856,427	884,901
1993	78,617,823	719,966	3,814,789	11,510,640	9,933,004	11,175,487	12,087,730	8,058,916	9,423,882	7,250,126	3,731,170	912,113
United States ¹												
All persons:												
1980	226,545,805	3,533,692	12,814,562	34,942,085	42,486,828	37,081,839	25,634,710	22,799,787	21,702,875	15,580,605	7,728,755	2,240,067
1985	237,924,000	3,679,000	14,163,000	33,692,000	39,992,000	41,696,000	31,691,000	22,459,000	22,135,000	16,859,000	8,890,000	2,667,000
1990	248,709,873	3,945,974	14,811,673	35,095,247	37,013,289	43,160,726	37,434,767	25,056,650	21,112,652	18,045,495	10,011,975	3,021,425
1991	252,177,000	4,011,000	15,210,000	35,908,000	36,399,000	42,877,000	39,272,000	25,739,000	21,005,000	18,279,000	10,314,000	3,160,000
1992	255,077,536	4,000,022	15,512,163	36,451,497	36,146,684	42,444,828	39,906,483	27,415,388	20,925,480	18,460,224	10,559,246	3,255,521
1993												
Male:												
1980	110,053,161	1,806,338	6,555,671	17,855,301	21,418,640	18,381,903	12,569,719	11,008,919	10,151,755	6,756,502	2,866,888	681,525
1985	115,730,000	1,882,000	7,245,000	17,247,000	20,276,000	20,793,000	15,594,000	10,917,000	10,384,000	7,339,000	3,292,000	761,000
1990	121,239,348	2,018,404	7,580,624	17,970,831	18,915,385	21,564,316	18,509,652	12,232,301	9,955,069	7,906,814	3,744,725	841,227
1991	122,979,000	2,052,000	7,784,000	18,388,000	18,609,000	21,427,000	19,432,000	12,563,000	9,932,000	8,022,000	3,888,000	881,000
1992	124,480,133	2,043,149	7,937,437	18,668,150	18,477,998	21,232,486	19,767,758	13,397,603	9,914,051	8,124,794	4,007,845	908,862
1993												

¹Populations for age groups may not sum to the total because of rounding.

Table 1. Resident population, by age and sex: Russian Federation and United States, selected years 1980-93—Con.

							Age in years					
Country, sex, and year	All residents	Under 1 year	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75–84	85 and over
United States ¹ —Con.						Popul	ation					
Female:												
1980	116,492,644	1,727,354	6,258,891	17,086,784	21,068,188	18,699,936	13,064,991	11,790,868	11,551,120	8,824,103	4,861,867	1,558,542
1985	122,194,000	1,796,000	6,918,000	16,446,000	19,716,000	20,903,000	16,097,000	11,543,000	11,751,000	9,520,000	5,598,000	1,906,000
1990	127,470,525	1,927,570	7,231,049	17,124,416	18,097,904	21,596,410	18,925,115	12,824,349	11,157,583	10,138,681	6,267,250	2,180,198
1991	129,198,000	1,959,000	7,426,000	17,520,000	17,790,000	21,450,000	19,840,000	13,177,000	11,073,000	10,258,000	6,426,000	2,279,000
1992	130,597,403	1,956,873	7,574,726	17,783,347	17,668,686	21,212,342	20,138,725	14,017,785	11,011,429	10,335,430	6,551,401	2,346,659
1993												

¹Populations for age groups may not sum to the total because of rounding.

SOURCES: Russian Federation: Goskomstat; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics.

Table 2. Number of live births and deaths and natural increase in population: Russian Federation and United States, selected years 1980–93

		Russian Feder	ration	United States				
Year	Live births	Deaths	Natural increase in population ¹	Live births	Deaths	Natural increase in population ¹		
1980	2,202,799	1,525,755	677,044	3,612,258	1,989,841	1,622,417		
1985	2,375,147	1,625,266	749,881	3,760,561	2,086,440	1,674,121		
1990	1,988,858	1,655,993	332,865	4,158,212	2,148,463	2,009,749		
1991	1,794,626	1,690,657	103,969	4,110,907	2,169,518	1,941,389		
1992	1,587,644	1,807,441	-219,797	4,065,014	2,175,613	1,889,401		
1993	1,398,312	2,129,339	-731,027					

¹Increase is number of births minus number of deaths.

SOURCES: Russian Federation: Goskomstat; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics.

Table 3. Birth rates: Russian Federation and United States, selected years 1980-93

	Live births per 1,0	000 population	Live births per 1,000 women 15-44 years of ag			
Year	Russian Federation	United States	Russian Federation	United States		
1980	15.9	15.9		68.4		
985	16.6	15.8	65.7	66.3		
990	13.4	16.7	60.6	70.9		
991	12.1	16.3	54.2	69.6		
992	10.8	15.9	47.9	68.9		
993	9.4		38.2			

SOURCES: Russian Federation: Goskomstat; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics.

Table 4. Percent of live births by selected characteristics: Russian Federation and United States, selected years 1980-93

	Russia	n Federation	
Characteristic and year	Official ¹	Estimated ²	United States
Low birthweight ³		Percent of live births	
980			6.8
985	5.6	16.3	6.8
90	5.7	14.1	7.0
991	5.7	14.0	7.1
992	5.9	13.9	7.1
993	6.1	13.8	
Mother not married			
980			18.4
185			22.0
990	14.6		28.0
991			29.5
992	17.3		30.1
993	18.2		
Prenatal care begun in first trimester			
980			76.3
985	72.7		76.2
90	68.8		75.8
91	68.5		76.2
92	70.0		77.7
993	71.2		

¹Official rate from Goskomstat.

SOURCES: Russian Federation: Goskomstat, MedSocEconInform; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics.

Table 5. Life expectancy at birth, by sex: Russian Federation and United States, selected years 1980-93

			Russian	Federation						
		 Total		Male		emale	United S		States	
Year	Official ¹	Estimated ²	Official ¹	Estimated ²	Official ¹	Estimated ²	Total	Male	Female	
			R	emaining life e	xpectancy i	n years				
1980 ³	67.5	67.6	61.5	61.5	73.0	73.1	73.7	70.0	77.4	
1985	69.3	68.2	63.8	62.7	74.0	73.3	74.7	71.1	78.2	
1990	69.2	69.2	63.8	64.5	74.3	74.4	75.4	71.8	78.8	
1991	69.0	69.0	63.5	63.8	74.3	74.3	75.5	72.0	78.9	
1992	67.9	67.5	62.0	63.5	73.8	73.1	75.8	72.3	79.1	
1993	65.1	65.0	58.9	59.0	71.9	71.5				

¹Official rate from Goskomstat.

SOURCES: Russian Federation: Goskomstat; MedSocEconInform; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics.

²Estimated rate from MedSocEconInform (see glossary in appendix II, "Estimation of level of infant mortality").

 $^{^{3} \}text{Less than 2,500 grams.}$

²Estimated rate from MedSocEconInform using an alternate methodology.

³Data from Russian Federation are for 1981.

Table 6. Infant mortality, late fetal death, and perinatal mortality rates: Russian Federation and United States, selected years 1980-93

		Infar	nt mortality r	ate ¹			
		Total	Neor	natal			
Country and year	Official ²	Estimated ³	Under 28 days	Under 7 days	Late fetal death rate ⁴	Perinatal mortality rate ⁵	Post- neonatal
Russian Federation			Deat	hs per 1,0	00 live births		
1980	22.1	39.2	9.2	6.8	12.9	8.9	15.8
1985	20.7	31.6	11.1	8.6	9.6	9.3	17.8
1990	17.4	23.7	11.1	9.0	6.3	8.9	17.9
1991	17.8	23.0	11.0	8.9	6.8	8.7	17.7
1992	18.0	21.9	11.5	9.0	6.5	8.3	17.2
1993	19.9	21.8	12.0	9.7	7.8	7.8	17.4
United States							
1980	12.6		8.5	7.1	4.1	6.2	13.2
1985	10.6		7.0	5.8	3.7	4.9	10.7
1990	9.2		5.8	4.8	3.4	4.3	9.1
1991	8.9		5.6	4.6	3.4	4.1	8.7
1992	8.5		5.4		3.1		
1993							

¹Infant mortality rate is the number of deaths of infants under 1 year of age per 1,000 live births. Neonatal deaths occur within 28 days of birth; early neonatal deaths occur within 7 days of birth; and postneonatal deaths occur 28–365 days after birth.

SOURCES: Russian Federation: Goskomstat; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics.

Table 7. Maternal mortality rate, by cause of death: Russian Federation and United States, selected years 1980-93

			-								
Country and cause of death ¹	1980	1985	1990	1991	1992	1993					
Russian Federation	Number per 100,000 live births										
All causes (630–676)		54.0		52.4	50.8	51.6					
Ectopic pregnancy (633)		3.2		4.4	4.7	3.8					
Legally induced abortion (635)		1.8		1.1	1.4	1.7					
Other abortion (630–632, 634, 636–639)		19.7		11.9	10.9	13.1					
Hemorrhage of pregnancy and childbirth (640, 641.1-641.9, 666)		5.3		7.1	7.2	7.1					
Toxemia of pregnancy (642.4–642.9, 643)		5.6		7.7	5.8	6.2					
Sepsis (659.3, 670)		1.8		1.6	2.3	1.					
Other (642.0-642.3, 641.0, 644-648, 652-659.2, 659.4-659.9,											
660–665, 667–669, 671–676)		16.6		18.7	18.5	17.					
United States											
III causes (630–676)	9.2	7.8	8.2	7.9							
ctopic pregnancy (633)	1.3	0.9	1.0	0.8							
egally induced abortion (635)	0.1	0.1	² (*)	² (*)							
Other abortion (630–632, 634, 636–638)	0.3	0.3	0.4	0.5							
emorrhage of pregnancy and childbirth (640, 641.1-641.9, 666)	1.2	1.1	1.1	0.9							
oxemia of pregnancy (642.4–642.9, 643)	1.7	0.9	1.5	1.6							
omplications of puerperium (670–676)	2.6	2.4	2.4	2.4							
Other (642.0–642.3, 644–648, 651–665, 667–669)	2.1	2.2	1.9	1.3							

¹Cause of death codes are from the *International Classification of Diseases*, *Ninth Revision*.

SOURCES: Russian Federation: Rates computed by MedSocEconInform from data supplied by Goskomstat; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Vital Statistics of the United States, volume II, Mortality, Part A, for the years shown.

²Official rate from Goskomstat.

 $^{{}^{3}\}text{Estimated rate from MedSocEconInform (see glossary in appendix II, "Estimation of level of infant mortality")}.$

⁴Number of fetal deaths of 28 weeks or more gestation per 1,000 live births plus late fetal deaths.

⁵Number of late fetal deaths plus infant deaths within 7 days of birth per 1,000 live births, plus late fetal deaths.

²Rates based on fewer than 20 events.

			Russian I	ederation					United S	States		
Sex and age	1981	1985	1990	1991	1992	1993	1980	1985	1990	1991	1992	1993
Both sexes					D	eaths per 100,0	00 population					
All ages, age-adjusted	1,233.9	1,226.2	1,192.7	1,198.1	1,264.7	1,474.5	896.1	848.8	803.4	792.5	779.3	
All ages, crude	1,076.8	1,116.6	1,118.2	1,138.6	1,214.9	1,428.8	878.3	876.9	863.8	860.3	852.9	
Under 1 year	2,182.4	2,094.4	1,717.8	1,737.2	1,738.6	1,880.8	1,288.3	1,088.1	971.9	916.6	865.7	
1–4 years	151.6	135.6	98.5	100.6	99.4	108.4	63.9	51.8	46.8	47.4	43.6	
5–14 years	63.1	52.0	48.9	55.2	53.3	54.8	30.6	26.5	24.0	23.6	22.5	
15–24 years	163.7	136.8	139.7	145.3	164.2	190.7	115.4	94.9	99.2	100.1	95.6	
25–34 years	298.4	244.1	238.5	255.0	303.8	377.3	135.5	124.4	139.2	139.1	137.8	
35–44 years	555.9	440.0	418.0	443.0	530.5	703.1	227.9	207.7	223.2	224.4	228.8	
45–54 years	1,004.2	908.7	930.9	952.0	1,090.7	1,379.5	584.0	519.3	473.4	468.8	456.1	
55–64 years	1,657.3	1,736.9	1,877.0	1,897.8	2,014.0	2,393.7	1,346.3	1,294.2	1,196.9	1,181.0	1,151.7	
65–74 years	3,698.2	3,939.1	3,571.5	3,538.0	3,654.7	4,181.1	2,994.9	2,862.8	2,648.6	2,618.5	2,588.9	
75–84 years	8,573.4	8,672.8	8,664.8	8,703.0	8,834.0	9,804.3	6,692.6	6,398.7	6,007.2	5,890.0	5,775.5	
85 years and over	19,956.3	21,197.9	20,161.0	19,720.1	19,873.6	21,815.6	15,980.3	15,712.4	15,327.4	15,107.6	14,972.9	
Male												
All ages, age-adjusted	1,821.0	1,771.5	1,688.4	1,699.0	1,803.7	2,128.0	1,173.1	1,104.8	1,035.3	1,018.5	998.8	
All ages, crude	1,179.7	1,169.1	1,156.4	1,188.7	1,303.3	1,585.8	976.9	948.6	918.4	912.1	901.6	
Under 1 year	2,509.1	2,408.6	1,976.2	1,995.6	2,000.8	2,131.9	1,428.5	1,219.9	1,082.8	1,023.8	956.6	
1–4 years	168.7	2,406.6 152.8	1,976.2	1,995.6	2,000.6	119.4	72.6	1,219.9 58.5	52.4	52.0	48.0	
•	79.7	67.4	64.2	73.1	69.6	70.0	36.7	31.8	28.5	28.7	27.2	
5–14 years	258.7	215.8	209.4	217.6	246.8	289.3	172.3	138.9	26.5 147.4	148.0	141.8	
15–24 years	489.5	390.3	381.8	407.0	490.7	611.5	172.3	179.6	204.3	204.0	202.0	
		694.8					299.2	278.9	310.4	311.6	318.7	
35–44 years	899.4 1,586.3	1,422.2	648.3 1,443.4	688.1 1,476.6	834.4 1,712.8	1,116.9 2,173.4	767.3	278.9 671.6	610.3	605.2	516.7 591.7	
45–54 years	2,791.0	2,755.6	2,887.7	2,907.8	3,094.4	2,173. 4 3,731.1			1,553.4			
55–64 years	5,810.2	2,755.6 6,075.0	,	2,907.8 5,362.2	,	6.371.1	1,815.1	1,711.4 3.856.3	3.491.5	1,524.7 3.438.7	1,481.5 3.374.4	
65–74 years			5,411.4		5,506.7	- , -	4,105.2	-,	-,	-,	3,374.4 7.482.7	
75–84 years	11,673.5 23,273.0	11,747.5 23,475.6	11,461.5 22,600.8	11,535.7 22,204.0	11,618.6 22,283.6	13,013.4 23,896.0	8,816.7 18,801.1	8,501.6 18,614.1	7,888.6 18,056.6	7,689.0 17,800.6	7,482.7 17,740.4	
•	25,275.0	25,475.0	22,000.0	22,204.0	22,203.0	25,030.0	10,001.1	10,014.1	10,030.0	17,000.0	17,740.4	
Female												
All ages, age-adjusted	903.9	915.7	892.2	889.6	918.5	1,041.0	687.5	658.6	628.8	621.5	612.5	
All ages, crude	988.7	1,071.4	1,084.7	1,094.4	1,136.8	1,289.9	785.3	809.1	812.0	811.0	806.5	
Under 1 year	1,841.8	1,766.3	1,446.0	1,465.5	1,462.6	1,629.7	1,141.7	950.6	855.7	804.4	770.8	
1–4 years	133.8	117.5	85.6	86.5	84.6	96.8	54.7	44.8	41.0	42.7	39.0	
5–14 years	45.9	36.1	33.2	36.8	36.4	39.1	24.2	21.0	19.3	18.3	17.5	
15–24 years	64.5	56.5	67.0	69.9	77.7	87.3	57.5	49.6	49.0	50.0	47.2	
25–34 years	104.0	93.3	91.8	99.7	113.4	139.2	75.9	69.4	74.2	74.2	73.5	
35–44 years	232.8	193.3	191.5	202.0	232.0	297.2	159.3	138.7	137.9	139.0	140.5	
45–54 years	500.3	459.2	479.7	489.6	540.0	673.3	412.9	375.2	342.7	338.8	326.4	
55–64 years	1,044.2	1,082.1	1,130.0	1,135.5	1,188.6	1,367.0	934.3	925.6	878.8	872.8	854.7	
65–74 years	2,820.3	3,059.2	2,790.9	2,735.8	2,798.6	3,120.1	2,144.7	2,096.9	1,991.2	1,976.8	1,971.4	
75–84 years	7,702.0	7,799.4	7,818.3	7,848.6	7,996.4	8,837.5	5,440.1	5,162.1	4,883.1	4,801.4	4,731.1	
85 years and over	19,181.9	20,711.2	19,679.8	19,223.3	19,381.8	21,376.3	14,746.9	14,553.9	14,274.3	14,066.6	13,901.0	

NOTE: Age adjusted using as standard population the European standard 100,000 population prepared by the World Health Organization (see appendix II.)

SOURCES: Russian Federation: Rates computed by MedSocEconInform from data supplied by Goskomstat; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Age-adjusted rates computed by Division of Health Examination Statistics from data supplied by the Division of Vital Statistics.

Table 9. Age-adjusted death rates for selected causes of death, by sex: Russian Federation, selected years 1981–93

Sex and cause of death ¹	1981	1985	1990	1991	1992	1993
All causes			Deaths per 100	,000 population		
Total	1,233.9	1,226.2	1,192.7	1,198.1	1,264.7	1,474.5
Male	1,821.0	1,771.5	1,688.4	1,699.0	1,803.7	2,128.0
Female	903.9	915.7	892.2	889.6	918.5	1,041.0
Diseases of the heart (390-398, 401-429)						
Total	389.4	394.4	341.9	332.5	340.3	401.9
Male	540.3	536.0	474.2	467.4	481.5	576.2
Female	315.8	321.8	266.8	256.1	257.2	296.4
Cerebrovascular diseases (430–438)						
Total	245.9	257.0	245.6	242.2	247.4	277.6
Male	297.9	304.4	287.3	282.3	288.3	328.7
Female	222.8	235.2	224.4	221.0	225.3	248.5
Malignant neoplasms (140-208)						
Total	151.6	156.7	196.7	197.6	199.3	207.8
Male	264.3	274.8	308.1	309.5	309.4	322.4
Female	96.5	96.4	137.0	136.9	138.3	143.2
Malignant neoplasms of the respiratory system (160-165)						
Total	39.3	43.7	49.9	50.4	50.8	51.5
Male	95.8	104.6	116.2	116.9	116.6	117.6
Female	10.1	10.7	10.8	11.5	11.7	11.6
Malignant neoplasms of the breast (174)						
Female	14.2	15.7	19.2	19.8	21.0	21.4
Pneumonia and influenza (480-483, 485-487)						
Total	13.4	12.1	7.6	7.2	9.0	15.4
Male	21.6	20.2	12.6	11.8	15.8	27.1
Female	8.3	6.9	4.5	4.2	4.2	6.8
Chronic obstructive pulmonary diseases (490-496)						
Total	28.5	31.8	35.7	33.0	33.3	39.5
Male	49.4	58.6	69.8	64.7	65.2	78.6
Female	20.0	20.7	20.8	18.9	18.8	20.8
Chronic liver diseases and cirrhosis (571.0-571.3, 571.5, 571.6)						
Total	12.4	13.4	14.2	14.0	14.6	18.6
Male	20.3	21.3	19.9	19.6	20.4	25.8
Female	7.8	8.7	10.9	10.7	11.1	13.9
Motor vehicle accidents (E810-E825)						
Total			24.4	25.8	24.8	25.0
Male			40.7	42.6	40.8	40.7
Female			9.9	10.8	10.5	11.0
Suicide (E950-E959)						
Total			27.0	26.9	31.3	38.0
Male			47.5	47.6	55.8	68.9
Female			10.5	10.1	10.9	12.1
Homicide and legal intervention (E960-E978)						
Total			14.1	15.1	22.6	29.7
Male			22.4	24.1	36.4	47.5
Female			6.4	6.7	9.7	13.2
Other external causes (E800-E807, E826-E949, E980-E999)						
Total			69.1	74.8	94.1	133.0
Male			116.5	126.6	159.2	221.7
Female			28.1	29.5	36.8	52.8

¹Cause of death codes are from the *International Classification of Diseases, Ninth Revision*.

NOTE: Age adjusted using as standard population the European standard 100,000 population prepared by the World Health Organization (see appendix II.) SOURCE: Russian Federation: Rates computed by MedSocEconInform from data supplied by Goskomstat.

Table 10. Age-adjusted death rates for selected causes of death, by sex: United States, selected years 1980-93

Sex and cause of death ¹	1980	1985	1990	1991	1992	1993
All causes		ı	Deaths per 100,0	00 population		
Total	896.1	848.8	803.4	792.5	779.3	
Male	1,173.1	1,104.8	1,035.3	1,018.5	998.8	
Female	687.5	658.6	628.8	621.5	612.5	
Diseases of heart (390-398, 402, 404-429)						
Total	340.9	308.8	262.5	256.0	249.5	
Лаle	457.7	411.8	344.7	335.1	325.7	
emale	252.8	231.6	200.6	195.9	191.5	
Cerebrovascular diseases (430–438)						
Ōtal	74.5	59.3	50.7	49.1	48.1	
Male	80.1	63.0	53.9	52.4	51.2	
emale	70.1	56.1	48.0	46.2	45.4	
Malignant neoplasms (140-208)						
otal	193.9	197.1	200.0	199.5	197.8	
Male	247.8	250.2	253.5	251.7	248.9	
emale	156.8	161.3	164.2	164.4	163.5	
Malignant neoplasms of the respiratory system (160-165)						
otal	51.7	56.0	60.0	59.9	59.6	
1ale	86.5	88.9	90.4	89.2	87.1	
emale	25.5	31.7	37.6	38.1	39.1	
Malignant neoplasms of the breast (174)						
emale	31.1	32.1	32.1	31.6	30.6	
Pneumonia and influenza (480-487)						
otal	24.0	25.9	27.4	26.0	24.7	
Male	32.2	35.2	35.7	34.0	32.4	
emale	18.8	20.3	22.4	21.3	20.0	
Chronic obstructive pulmonary diseases (490-496)						
otal	25.0	29.9	31.8	32.5	32.3	
Male	42.4	33.0	45.7	45.5	44.6	
emale	13.6	19.4	23.3	24.6	24.7	
Chronic liver diseases and cirrhosis (571)						
otal	15.5	12.5	11.2	10.8	10.5	
Male	21.9	17.7	16.0	15.3	15.1	
emale	10.1	8.0	7.0	6.9	6.4	
Motor vehicle accidents (E810-E825)						
otal	22.1	18.3	18.2	16.7	15.6	
Male	33.1	26.6	25.9	23.8	22.1	
emale	11.7	10.5	10.9	10.1	9.6	
Suicide (E950-E959)						
otal	12.1	12.4	12.3	12.1	11.8	
Male	19.4	20.5	20.7	20.5	19.9	
emale	5.7	5.2	4.8	4.7	4.6	
Homicide and legal intervention (E960–E978)						
otal	10.4	8.0	9.5	10.0	9.6	
Male	16.8	12.3	15.0	15.8	15.3	
emale	4.3	3.8	4.0	4.3	4.0	
Other external causes (E800–E807, E826–E949)						
Total	23.2	19.5	17.2	17.1	16.8	
Male	34.4	29.1	25.5	25.1	24.9	
Female	13.4	15.1	9.9	9.9	9.6	

¹Cause of death codes are from the *International Classification of Diseases*, *Ninth Revision*.

NOTE: Age adjusted using as standard population the European standard 100,000 population prepared by the World Health Organization (see appendix II.)

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics; rates were computed by the Division of Examination Statistics, from data supplied by the Division of Vital Statistics.

Table 11. Rate of selected notifiable diseases, by type of disease: Russian Federation and United States, selected years 1980-93

Country and disease	1980	1985	1990	1991	1992	1993
Russian Federation			Cases per 100	,000 population		
Diphtheria		0.8	0.8	1.3	2.6	10.3
Hepatitis, all types		227.0	226.7	191.7	136.2	
Salmonellosis, excluding typhoid fever		24.5	70.4	74.2	80.1	68.3
Syphilis		9.8	5.3	7.2	13.4	33.8
Gonorrhea		148.1	128.0	128.6	169.6	228.1
United States						
Diphtheria	0.0	0.0	0.0	0.0	0.0	
Hepatitis A	12.8	10.0	12.6	9.7	9.1	
Hepatitis B	8.4	11.5	8.5	7.1	6.3	
Salmonellosis, excluding typhoid fever	14.9	27.4	19.5	19.1	16.0	
Syphilis ¹	30.5	28.5	53.8	51.7	45.3	
Gonorrhea ¹	445.0	384.3	276.6	249.5	201.6	

¹Numbers shown are for newly reported civilian cases before 1991; numbers shown from 1991 on include military cases.

SOURCES: Russian Federation: States Committee for Sanitary Epidemiology and Surveillance and Ministry of Health and Medical Industry. United States: Centers for Disease Control, National Center for Health Statistics: Summary of notifiable diseases, United States, 1992 MMWR 41(55). Public Health Service. Hyattsville, Md. 1992; Centers for Disease Control and Prevention, Division of Sexually Transmitted Diseases, Center for Prevention Services.

Table 12. Number of cases and deaths from human immunodeficiency virus and acquired immunodeficiency syndrome: Russian Federation, 1992-94

Disease and age	Total from 1987 through September 30, 1992	September 30, 1992 to July 1, 1993	July 1, 1993 to April 1, 1994
HIV infection	Cases	Number of cases reporte	d during interval
All ages	581	44	147
Inder 15 years of age	270	15	69
AIDS			
ll ages	88	2	84
Inder 15 years of age	63	5	57
HIV infection	Deaths	Number of deaths reporte	ed during interval
II ages	70	19	15
nder 15 years of age	47	12	4
HIV infection with AIDS			
II ages	55	16	14
nder 15 years of age	39	11	4

NOTES: HIV is human immunodeficiency virus. AIDS is acquired immunodeficiency syndrome.

SOURCES: States Committee for Sanitary Epidemiology and Surveillance and Ministry of Health and Medical Industry of the Russian Federation.

Table 13. Number of persons with and deaths from acquired immunodeficiency syndrome, by sex and age: United States, selected years 1985–93

Sex and age	1985	1990	1991	1992	Jan.–Sept 1993
		Numbe	er of persons, by y	ear of report	
All persons diagnosed with AIDS	8,189	41,558	43,574	45,603	83,814
Male, 13 years and over	7,538	36,300	37,530	38,917	70,396
emale, 13 years and over	522	4,540	5,375	5,942	12,789
Both sexes, under 13 years	129	718	669	744	629
			Number of dea	ths	
All persons diagnosed with AIDS	6,704	29,022	32,573	34,228	16,885
Male, 13 years and over	6,138	25,579	28,540	29,778	14,662
emale, 13 years and over	460	3,083	3,684	4,097	2,044
Both sexes, under 13 years	106	360	349	353	179

NOTES: The AIDS case-reporting definitions were expanded in 1985, 1987, and 1993. Data are updated periodically because of reporting delays. Data for all years have been updated through September 30, 1993. HIV is human immunodeficiency virus. AIDS is acquired immunodeficiency syndrome.

SOURCE: Centers for Disease Control and Prevention, National Center for Infectious Diseases, Division of HIV/AIDS.

Table 14. Number of providers per 10,000 population, by specialty: Russian Federation and United States, selected years 1980-93

Country and provider type	1980	1985	1990	1991	1992	1993
Russian Federation			Personnel per 1	0,000 population		
All physicians ¹		45.1	46.9	44.3	44.7	45
Family practice and internal medicine		10.8	11.5	11.1	11.3	11.4
Pediatrics ²		22.9	24.5	23.3	23.5	22
Obstetrics and gynecology ³		4.8	5.2	4.9	5	4.7
Surgery		4.7	5.6	5.2	5.3	5.4
Ophthalmology		0.9	1	1	1	0.9
Otolaryngology		0.8	0.8	0.8	0.8	0.8
Orthopedic surgery						
Neurology		1.1	1.2	1.2	1.2	1.2
Psychiatry and narcology		1.2	1.5	1.3	1.4	1.3
Dentists		4.6	5.1	4.9	4.8	5.2
Nursing personnel, total		120.6	122.6	114.1	113.6	111.7
Physician assistants (feldshers)		26.5	27.9	23.8	22.5	20.3
Midwives		23.5	20.3	16.6	16.3	16.8
Nurses ⁴		60.5	67.1	62.6	63.4	63.5
Laboratory assistants (feldshers-laborants)		4.7	5.7	5.9	4.9	6
X-ray technicians		1.5	1.9	1.7	1.7	1.5
United States						
All active physicians	18.3	20.9	22.0		22.7	22.9
Non-Federal office-based physicians	12.0	13.8	14.5		15.2	15.5
Family practice	2.1	2.3	2.3		2.3	2.3
Internal medicine	1.8	2.2	2.3		2.6	2.6
Pediatrics ²	3.4	4.3	4.9		5.2	5.4
Obstetrics and gynecology ³	1.7	1.9	2.0		2.1	2.1
General surgery	1.0	1.0	1.0		1.0	0.9
Ophthalmology	0.5	0.5	0.5		0.5	0.5
Otolaryngology	0.2	0.2	0.3		0.3	0.3
Orthopedic surgery	0.5	0.5	0.6		0.6	0.6
Neurology	0.1	0.2	0.2		0.2	0.3
Psychiatry	0.7	0.8	0.8		0.9	0.9
Dentists	5.4	5.7	5.9	6.3	6.2	
Registered nurses	56.2	64.4	69.0	69.7	74.2	

¹ Includes dentists and both active and nonactive physicians who are not retired, residents and interns, sanitary-epidemiological doctors, dentists, and physiotherapists.

NOTES: For the United States, starting in 1990, the data for physicians are as of January 1 of the given year; for earlier years, these data are as of December 31.

SOURCES: Russian Federation: Ministry of Health and Medical Industry and MedSocEconInform; United States: Bidese, C.M., and Danais, D.B.: Physician Characteristics and Distribution in the United States, Chicago. American Medical Association, 1982; Roback, G.A., Mead, D., and Randolph, LL: Physician Characteristics and Distribution in the U.S., 1986 Chicago. American Medical Association, 1986; Roback, G.A., Randolph, L L, and Seidman, B.: Physician Characteristics and Distribution in the U.S., 1990; 1992; 1993. Chicago. American Medical Association, 1990; 1992; 1993 (Copyrights 1982, 1986, 1990,1992, and 1993; Used with the permission of the American Medical Association).

²Per 10,000 children.

³Per 10,000 females.

^{4&}quot;Nurses" refers to all types of nurses.

Table 15. Number of hospitals and beds per 10,000 population, by hospital type or bed size: Russian Federation and United States, selected year 1980–93

Country and hospital type or bed size	1980	1985	1990	1991	1992	1993
Russian Federation		N	umber of hospit	als		
All hospital types		12,500	12,800	12,700	12,600	12,500
Central regional		1,166	1,798	1,807	1,810	1,799
Regional		134	324	316	312	307
District		4,701	4,813	4,818	4,709	4,676
		Beds	per 10,000 pop	ulation		
All hospital types		135.0	137.5	134.8	130.9	129.7
Central regional		22.6	30.4	29.9	29.1	28.5
Regional		1.2	2.3	2.2	2.1	2.1
District		10.8	10.5	10.3	9.9	9.6
United States ¹		N	umber of hospit	als		
All bed sizes	6,229	6,091	5,728	5,675	5,619	
199 beds or fewer	4,389	4,209	3,953	3,907	3,861	
200–499 beds	1,466	1,501	1,434	1,434	1,421	
500 beds or more	374	381	341	334	337	
		Beds	per 10,000 pop	ulation		
All bed sizes	47.7	45.7	40.5	39.8	39.1	
199 beds or fewer	15.8	14.9	13.2	13.0	12.8	
200–499 beds	20.1	19.5	17.7	17.5	17.0	
500 beds or more	11.7	11.3	9.6	9.3	9.3	

¹Includes short-stay hospitals only.

NOTES: For the Russian Federation, the total number of hospitals includes, in addition to the categories provided, oblast (area) hospitals, city hospitals, clinic hospitals, and others. For the United States, data exclude psychiatric and tuberculosis and other respiratory disease hospitals.

SOURCES: Russian Federation: Ministry of Health and Medical Industry and MedSocEconInform; United States: American Hospital Association: Hospital Statistics, 1981, 1985–94 editions. Chicago, 1981, 1985–93. (Copyrights 1981, 1985–93: Used with the permission of the American Hospital Association.)

Table 16. Number of tuberculosis and psychiatric hospitals and beds per 10,000 population, by type of hospital: Russian Federation and United States, selected years 1980–93

Country and type of hospital	1980	1985	1990	1991	1992	1993
Russian Federation			Number o	f hospitals		
Tuberculosis				148	130	130
Psychiatric				288	287	287
			Beds per 10,0	000 population		
Tuberculosis		7.3	6.6	6.5	6.2	6.0
Psychiatric		13.4	13.5	13.5	13.1	13.0
United States ¹			Number o	f hospitals		
- uberculosis ²	10	5	3	3	3	
sychiatric	381	383	362	354	319	
			Beds per 10,0	000 population		
Fuberculosis ²	0.1	0.0	0.0	0.0	0.0	
Psychiatric	9.6	6.8	5.3	4.8	4.3	

¹Only long-term hospitals are included.

SOURCES: Russian Federation: Ministry of Health and Medical Industry and MedSocEconInform; United States: American Hospital Association: Hospital Statistics, 1981, 1985–94 editions. Chicago, 1981, 1985–93. (Copyrights 1981, 1985–93: Used with the permission of the American Hospital Association.)

Table 17. Number of outpatient care contacts per person, by year, country, and type of contact: Russian Federation and United States, selected years 1980–93

Country and type of contact	1980	1985	1990	1991	1992	1993
Russian Federation			Contacts p	er person		
All types		11.5	9.8	9.6	9.3	9.5
Visit to physician		11.1	9.5	9.3	9.0	9.2
Urgent and ambulance care		0.4	0.3	0.3	0.3	0.3
United States						
All types	4.8	5.3	5.5	5.8	6.0	6.1
Physician office		3.0	3.3	3.3	3.3	3.4
Hospital outpatient department		0.8	0.7	0.8	0.9	0.8
Telephone		0.7	0.7	0.7	0.7	0.7
Other		0.8	0.8	0.9	1.1	1.2

NOTES: For Russia, the term "visit to physician" refers to a visit to a state physician's office; visits to private physicians are not included. For the United States, "hospital outpatient department" includes hospital outpatient clinic, emergency room, and other hospital contacts.

SOURCES: Russian Federation: Ministry of Health and Medical Industry and MedSocEconInform; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics: Data from the National Health Interview Survey.

²Includes other respiratory diseases.

Table 18. Average length of stay and rate of discharges and surgical operations per 1,000 persons: Russian Federation and the United States, selected years 1980–93

Country and type of statistic	1980	1985	1990	1991	1992	1993
Russian Federation			Number	of days		
Average length of stay		17.0	16.6	16.7	17.0	16.8
			Rate per 1,0	000 persons		
Discharges		236.7	222.5	213.3	205.1	211.4
Surgical operations		65.1	58.1	53.8	52.7	51.8
United States ¹			Number	of days		
Average length of stay	7.1	6.4	6.3	6.3	6.0	
			Rate per 1,0	000 persons		
Discharges	159.1	138	113.1	113.6	111.6	
Surgical operations:						
Male	78.1	76.3	68.8	70.1	68.4	
Female	126.1	117.2	100.3	100.7	99.1	

¹Data are for non-Federal, short-stay hospitals only.

NOTES: For the United States, comparisons of data from 1988–92 with data from earlier years should be made with caution, as estimates of change may reflect improvements in the survey design rather than true changes in hospital use.

SOURCES: Russian Federation: Ministry of Health and Medical Industry and MedSocEconInform; United States: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Care Statistics: Data from the National Hospital Discharge Survey.

Appendixes

Contents

I.	Urban-rural data for the Russian Federation	19
II.	Glossary	23
Арр	endix tables	
I.	Life expectancy at birth, by sex and urban-rural status: Russian Federation, selected years 1981–93	19
II.	Infant mortality, neonatal mortality, and fetal death rates, by urban-rural status: Russian Federation, selected	
	years 1980–93	19
III.	Death rates from all causes, by sex, age, and urban-rural status: Russian Federation, selected years 1981–93	20
IV.	Urban-area age-adjusted death rates for selected causes of death, by sex and cause of death: Russian Federation,	
	selected years 1981–93	21
V.	Rural-area age-adjusted death rates for selected causes of death, by sex and cause of death: Russian Federation,	
	selected years 1981–93	22
VI.	European standard 100,000 population used to adjust death rates	23
VII.	Cause of death codes from the International Classification of Diseases, Ninth Revision, used by the Russian	
	Federation and United States	25
VIII.	Maternal mortality codes from the International Classification of Diseases, Ninth Revision	25
IX.	Variants, weight groups, and neonatal mortality calculations using MedSocEconInform procedure to estimate	
	infant mortality weights	28

Appendix I Urban-rural data for the Russian Federation

Table I. Life expectancy at birth, by sex and urban-rural status: Russian Federation, selected years 1981-93

		Male		Female		
Year	Total	Urban	Rural	Total	Urban	Rural
		Re	emaining life ex	pectancy in yea	ars	
1981	61.5	62.4	59.2	73.1	73.2	72.3
1985	62.7	63.5	60.2	73.5	73.5	72.6
1990	64.5	64.2	61.9	73.4	73.7	73.3
1991	63.8	64.0	61.5	73.7	73.7	73.1
1992	63.5	62.4	60.5	73.1	73.2	72.6
1993	59.0	59.4	58.0	71.5	71.6	71.1

NOTE: Life expectancy figures calculated by MedSocEconInform may differ somewhat from official values reported by Goskomstat. SOURCE: MedSocEconInform.

Table II. Infant mortality, neonatal mortality, and fetal death rates, by and urban-rural status: Russian Federation, selected years 1980-93

		Infant mo	ortality rate ¹			
		Neor	natal	_		
Year and status	Total	Under 28 days	Under 7 days	Post- neonatal	Late fetal death rate ²	Perinatal mortality rate ³
1980			Deaths pe	r 1,000 live birth	ıs	
- Total	22.1	9.2	6.8	12.9	8.9	15.8
Urban		11.0	8.3	10.2	10.0	20.6
Rural		5.0	3.4	18.8	6.5	9.8
1985						
otal	20.7	11.1	8.6	9.6	9.3	17.8
Urban		12.6	9.9	7.3	10.2	20.0
Rural		7.7	5.3	15.3	7.3	12.6
1990						
otal	17.4	11.1	9.0	6.3	8.9	17.9
Urban		12.0	9.9	5.0	9.6	19.5
Rural		8.9	6.9	9.4	7.5	14.4
1991						
otal	17.8	11.0	8.9	6.8	8.7	17.7
Urban		12.0	9.7		9.4	19.0
Rural		9.3	7.1		7.2	14.3
1992						
otal	18.0	11.5	9.0	6.5	8.3	17.2
Urban		12.3	9.7		8.8	18.4
Rural		9.8	7.4		7.4	14.6
1993						
otal	19.9	12.0	9.7	7.8	7.8	17.4
Urban						
Rural						

¹Infant mortality rate is the number of deaths of infants under 1 year of age per 1,000 live births. Neonatal deaths occur within 28 days of birth; early neonatal deaths occur within 7 days of birth; and postneonatal deaths occur 28–365 days after birth.

SOURCE: Goskomstat.

²Number of fetal deaths of 28 weeks or more gestation per 1,000 live births plus late fetal deaths.

³Number of late fetal deaths plus infant deaths within 7 days of birth per 1,000 live births, plus late fetal deaths.

		Urban				Rural						
Sex and age	1981 ¹	1985 ¹	1990	1991	1992	1993	1981 ¹	1985 ¹	1990	1991	1992	1993
Both sexes					De	eaths per 100	0,000 popula	tion				
All ages, age-adjusted	1,237.7	1,235.9	1,188.4	1,194.3	1,263.1	1,478.0	1,265.7	1,252.6	1,222.8	1,228.3	1,287.3	1,483.5
All ages, crude	977.6	1,010.4	1,045.9	1,067.4	1,153.0	1,375.1	1,314.7	1,398.1	1,326.2	1,338.8	1,399.8	1,606.0
Under 1 year	2,054.8	2,009.2	1,667.8	1,665.3	1,676.4	1,820.2	2,478.2	2,293.2	1,835.1	1,898.7	1,869.4	2,003.4
1–4 years	115.7	103.9	78.2	81.4	80.2	89.4	232.8	211.8	147.5	146.3	143.5	150.0
5–14 years	56.2	46.5	44.3	49.8	48.5	50.8	76.9	64.8	60.7	69.0	65.1	64.6
15- 24 years	133.3	110.5	121.1	128.0	149.0	175.4	250.9	217.6	201.7	203.1	213.0	238.3
25–34 years	260.7	205.3	215.6	229.7	282.8	358.7	426.5	386.2	309.2	332.1	365.8	431.2
35–44 years	499.9	393.1	388.2	414.4	505.0	685.6	718.5	609.7	529.3	546.9	619.6	761.7
45–54 years	959.6	845.8	885.7	905.9	1,052.0	1,345.0	1,098.7	1,066.3	1,064.7	1,095.8	1,212.3	1,493.4
55–64 years	1,660.7	1,729.3	1,873.7	1,884.6	1,991.4	2,381.7	1,650.5	1,753.1	1,884.6	1,927.8	2,066.0	2,421.9
65–74 years	3,878.9	4,093.6	3,644.9	3,610.2	3,712.9	4,241.9	3,392.9	3,650.1	3,405.2	3,372.7	3,522.2	4,044.7
75–84 years	8,949.6	9,144.8	8,923.9	8,972.8	9,086.7	10,059.3	8,012.4	7,929.4	8,157.6	8,168.8	8,334.9	9,302.4
85 years and over	20,534.5	22,400.1	20,287.1	19,969.7	20,277.7	22,326.4	19,493.3	19,637.4	19,938.9	19,276.3	19,159.2	20,912.6
Male												
All ages, age-adjusted	1,802.4	1,764.0	1,662.9	1,675.5	1,785.5	2,123.0	1,902.5	1,845.4	1,767.7	1,774.2	1,862.7	2,152.9
All ages, crude	1,078.4	1,066.0	1,092.8	1,124.8	1,256.3	1,560.4	1,425.1	1,446.0	1,340.8	1,366.8	1,455.1	1,707.6
Under 1 year	2,384.4	2,316.8	1,918.6	1,905.4	1,927.0	2,060.5	2,798.9	2,623.3	2,112.1	2,199.2	2,156.5	2,276.5
1–4 years	129.3	117.0	87.4	91.1	90.6	98.3	258.2	239.6	168.0	169.2	166.3	166.0
5–14 years	71.1	60.6	58.1	65.5	62.7	65.1	97.1	83.3	79.8	92.4	86.7	82.0
15- 24 years	212.7	175.6	181.0	191.1	223.7	266.0	378.9	328.0	300.6	303.0	319.8	360.9
25–34 years	429.5	327.9	346.6	368.0	459.9	585.6	682.3	613.8	483.7	518.4	576.6	682.8
35–44 years	811.9	622.1	605.8	650.8	803.5	1,103.6	1,152.9	952.6	795.2	814.0	934.0	1,158.3
45–54 years	1,516.0	1,327.3	1,377.3	1,409.8	1,663.2	2,135.3	1,734.0	1,654.9	1,633.8	1,678.8	1,867.9	2,294.9
55–64 years	2,749.6	2,725.0	2,879.5	2,887.3	3,077.7	3,739.6	2,878.2	2,821.9	2,906.1	2,953.2	3,131.2	3,712.1
65–74 years	5,909.0	6,151.8	5,422.3	5,375.2	5,505.4	6,383.2	5,625.1	5,914.2	5,385.8	5,331.0	5,509.7	6,342.7
75–84 years	11,975.7 24,113.9	12,188.9 25,096.2	11,558.0 22,497.6	11,635.9 22,312.9	11,669.1 22,507.4	13,065.2 24,417.5	11,209.6 22,312.0	11,005.9 21,445.7	11,247.9 22,202.5	11,309.4 21,299.4	11,503.6 21,842.1	12,895.3 22,872.0
	24,115.9	25,090.2	22,497.0	22,512.9	22,507.4	24,417.5	22,512.0	21,445.7	22,202.5	21,299.4	21,042.1	22,072.0
Female	000.0	020.4	004.6	000.4	020.2	1.050.1	004.7	000.4	000.0	004 5	000.2	1 000 1
All ages, age-adjusted	922.3 890.9	938.4 962.1	901.6 1,004.8	899.1 1,016.9	928.2 1,062.2	1,052.1 1,212.2	894.7 1,221.5	899.1 1,357.5	882.8 1,313.2	881.5 1,313.7	909.3 1,350.3	1,028.1 1,514.8
Under 1 year	1,711.1	1,687.5	1,403.9	1,412.0	1,422.2	1,580.0	2,144.5	1,949.8	1,544.7	1,584.8	1,568.2	1,730.3
1–4 years	101.7	90.2	68.6	71.3	69.2	80.1	206.6	183.1	126.4	122.4	119.8	133.3
5–14 years	40.8	31.9	30.0	33.6	33.8	36.0	56.2	45.7	41.1	44.9	43.0	46.7
15- 24 years	54.4	47.2	60.0	63.1	71.7	81.2	96.4	87.8	91.3	93.5	97.5	106.4
25–34 years	93.2	81.8	86.1	93.0	108.1	134.4	142.8	136.9	111.0	121.7	130.0	154.0
35–44 years	207.9	173.4	180.9	189.8	222.1	290.7	305.6	266.8	234.2	249.8	269.5	321.0
45–54 years	481.3	428.8	459.0	467.4	519.8	652.1	541.2	536.6	543.0	560.6	606.9	745.3
55–64 years	1,060.1	1,084.1	1,139.4	1,140.7	1,179.4	1,364.5	1,012.7	1,077.9	1,108.6	1,123.3	1,210.3	1,372.9
65–74 years	2,989.1	3,198.7	2,878.3	2,820.2	2,868.0	3,185.7	2,546.8	2,809.8	2,596.1	2,545.6	2,643.8	2,975.5
75–84 years	8,086.2	8.252.2	8.083.8	8,123.8	8.262.5	9.095.5	7.133.6	7.099.4	7.317.2	7.324.4	7.492.2	8.351.1
,	19,728.2	21,833.7	19,831.7	19,479.6	19,811.2	21,867.7	18,795.6	19,242.4	19,417.6	18,777.0	18,656.6	20,540.1

¹Crude rates were calculated without the number of deaths of unknown age, because these data were not available from Goskomstat.

NOTE: Age adjusted using as standard population the European standard 100,000 population prepared by the World Health Organization (see appendix II.)

SOURCE: Rates were computed by MedSocEconInform from data supplied by Goskomstat.

Table IV. Urban-area age-adjusted death rates for selected causes of death, by sex and cause of death: Russian Federation, selected years 1981–93

Cause of death ¹	1981	1985	1990	1991	1992	1993
All causes	Deaths per 100,000 population					
otal	977.6	1,010.4	1,044.3	1,067.5	1,148.1	1,364.0
Male	1,078.4	1,066.0	1,090.3	1,124.8	1,248.1	1,541.3
Female	890.9	962.1	1,004.0	1,016.9	1,060.2	1,208.0
Diseases of the heart (390-398, 401-429)						
otal	384.2	392.2	334.2	328.4	337.0	401.
Male	529.4	530.8	464.6	462.4	478.0	578.
Female	310.9	319.3	258.7	251.6	253.1	293.
Cerebrovascular diseases (430–438)						
- otal	270.8	282.3	262.9	260.0	266.0	297.
Male	323.5	330.0	302.5	298.6	305.1	347.
Female	247.1	259.6	241.6	238.8	243.8	269.
Malignant neoplasms (140–208)						
otal	171.1	173.5	211.0	211.5	212.3	221.
Male	290.7	298.6	324.3	325.7	323.9	335.
Female	112.7	110.5	151.0	150.3	151.2	156.
Malignant neoplasms of the respiratory system (160–165)						
otal	43.3	46.7	51.0	51.4	51.5	51.
Male	104.2	111.5	118.6	119.3	118.2	119.
Female	11.9	12.0	12.6	12.3	12.5	12.
Malignant peopleams of the breest (474)						
Malignant neoplasms of the breast (174) Temale	17.0	18.8	21.8	22.4	23.6	24.
Pneumonia and influenza (480–483, 485–487)	40.0	40.0	7.0	7.4	0.4	40
Total	13.2	12.0	7.8	7.4	9.4	16.
Male	22.2 7.8	20.5 6.8	12.8 4.6	12.0 4.4	16.6 4.4	29. 7.
Chronic chatworking pulmonary disposes (400, 400)						
Chronic obstructive pulmonary diseases (490–496) Total	21.2	25.2	29.1	27.3	27.4	32.
Male	37.7	48.4	57.6	54.3	54.5	65.
Female	14.5	15.7	16.9	15.5	15.3	16.
Chronic liver diseases and cirrhosis (571.0-571.3, 571.5, 571.6)						
Total	12.8	13.3	14.3	14.2	14.9	19.
Male	21.1	21.1	19.8	19.6	20.6	26.
Female	7.8	8.6	11.1	11.0	11.4	14.
Transport accidents (E800–E807, E810–E848)						
ōtal			26.0	27.6	27.7	28.
Male			42.8	45.3	45.3	46.
Female			11.7	12.6	12.5	13.
Suicide (E950-E959)						
Total			24.7	25.1	29.0	34.
Male			43.2	44.2	51.3	62.
Female			10.4	10.0	10.9	11.
Homicide and legal intervention (E960–E978)						
Total			13.4	14.6	22.4	30.
Male			21.5	23.6	36.5	48.
Female			6.0	6.3	9.6	13.0
Other external causes (E850-E949, E980-E999)						
Total			59.5	64.3	85.4	125.
Male			100.6	109.6	146.1	211.

 $^{^{1}\}mbox{Cause}$ of death codes are from the International Classification of Diseases, Ninth Revision.

NOTE: Age adjusted using as standard population the European standard 100,000 population prepared by the World Health Organization (see appendix II.) SOURCE: Rates computed by MedSocEconInform from data supplied by Goskomstat.

Table V. Rural-area age-adjusted death rates for selected causes of death, by sex and cause of death: Russian Federation, selected years 1981–93

Cause of death ¹	1981	1985	1990	1991	1992	1993
All causes			Deaths per 100	0,000 population		
Total	1,314.7	1,398.1	1,325.8	1,338.2	1,399.0	1,604.6
Male	1,425.1	1,446.0	1,340.2	1,366.2	1,453.9	1,705.4
Female	1,221.5	1,357.5	1,312.9	1,313.3	1,349.8	1,514.1
Diseases of the heart (390-398, 401-429)						
Total	398.0	399.7	357.5	341.8	347.9	403.8
Male	555.5	547.0	494.9	479.3	489.9	570.9
Female	325.0	327.3	282.6	266.1	266.5	303.2
Cerebrovascular diseases (430-438)						
- otal	212.3	221.1	213.9	209.3	213.5	239.0
Male	262.8	266.5	256.0	248.4	252.9	288.3
Female	190.2	201.3	194.0	189.6	193.2	212.
Malignant neoplasms (140–208)						
otal	120.6	128.3	167.8	169.2	173.2	180.4
Male	221.1	233.3	273.5	274.2	278.2	289.
Female	70.7	72.6	108.3	109.3	111.7	115.0
Malignant neoplasms of the respiratory system (160–165) otal	32.9	38.8	48.6	49.2	50.2	51.0
Male	81.8	92.6	111.7	112.3	114.0	115.0
Female	7.4	8.6	10.2	10.1	10.1	10.
Malignant neoplasms of the breast (174)						
emale	9.1	9.7	12.9	13.8	15.1	14.9
Pneumonia and influenza (480–483, 485–487)						
otal	14.4	13.2	7.5	7.0	8.2	11.9
Male	21.6	20.9	12.3	11.3	13.9	19.8
Female	9.7	7.9	4.4	4.1	4.0	5.8
Chronic obstructive pulmonary diseases (490-496)						
Total	40.0	43.4	50.1	45.8	46.6	55.6
Male	69.1	78.3	97.9	89.3	90.6	109.8
Female	28.3	28.8	28.8	25.9	26.0	29.0
Chronic liver diseases and cirrhosis (571.0–571.3, 571.5, 571.6)						
- otal	11.6	13.6	14.2	13.8	14.1	16.8
Male	18.4	21.7	20.3	19.7	19.8	23.9
Female	7.6	8.8	10.5	10.2	10.7	12.0
Transport accidents (E800–E807, E810–E848)						
otal			39.3	40.5	37.4	36.4
Male			66.9	68.2	62.4	60.3
Female			12.3	13.5	12.8	12.8
Suicide (E950–E959)						
Total			34.6	33.3	39.0	49.2
Male			60.8	58.5	69.3	88.5
Female			11.4	10.9	11.6	13.5
Homicide and legal intervention (E960-E978)						
ōtal			16.4	16.7	23.3	28.8
Male			25.0 7.8	25.6 7.8	36.3 10.2	43.6 14.0
			7.0	7.0	10.2	1-1.0
Other external causes (E850–E949, E980–E999)						
			00.0	07.0	400.0	100
Total			80.6 132.6	87.9 144.6	100.6 164.7	136.8 218.1

 $^{^{1}\}mbox{Cause}$ of death codes are from the International Classification of Diseases, Ninth Revision.

NOTE: Age adjusted using as standard population the European standard 100,000 population prepared by the World Health Organization (see appendix II.) SOURCE: Rates computed by MedSocEconInform from data supplied by Goskomstat.

Appendix II Glossary

This glossary is an alphabetical listing of terms used in this report. It includes cross-references to related terms and synonyms, standard populations used for age adjustment, and *International Classification of Diseases* (ICD) codes for cause of death and diagnostic and procedure categories.

Acquired immunodeficiency syndrome (AIDS)—In the United States, all 50 States and the District of Columbia report AIDS cases to CDC using a uniform case definition and case-report form. The case-reporting definitions were expanded in 1985 (MMWR 1985; 34:373–5); 1987 (MMWR 1987; 36 (supp. no. 1S): 1S-15S); and 1993 (MMWR 1993; 41 (supp. no. RR-17)). These data are published quarterly by CDC in the HIV/AIDS Surveillance Report. In the Russian Federation, all health care establishments fill out special case-report forms for each case of AIDS. Every month a report is issued, based on confirmed diagnoses; these reports can be corrected if necessary during the year. Confirmed cases are included in the yearly statistical report. See related Human immunodeficiency virus infection.

Active physician—See Physician.

Admission—Admissions are patients, excluding newborns, accepted for inpatient services during the survey reporting period. See related *Discharge*.

Age adjustment—Age adjustment, using the direct method, is the application of age-specific rates in a population to a standardized age distribution, in order to eliminate the differences in observed rates that result from age differences in the population. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.

In this report the death rates are age-adjusted to the European standard 100,000 population (table VI); MedSocE-conInform performed all their calculations based on the 19 age groups shown in this table. NCHS combined the values from table VI into 11 age groups. Age-adjusted rates for the United States are customarily calculated using the U.S. population for 1940 as the standard. As a result, the age-adjusted rates shown in tables 8 and 10 for the United States will differ from previously published ones.

Age standardization—See Age adjustment.

Average length of stay— The average length of stay is computed by dividing the total number of days of care (counting the date of admission but not the date of discharge) by the number of patients admitted (Russian Federation) or discharged (United States). See related Admission and Discharge.

Bed—Any bed that is set up and staffed for use by inpatients is counted as a bed in a facility. For the American Hospital Association, the count is of the average number of beds, cribs, and pediatric bassinets during an entire reporting period. The World Health Organization, as well as the Russian Federation, defines a hospital bed as one regularly maintained and staffed for the accommodation and full-time care of a succession of inpatients and situated in a part of the hospital where continuous medical care for inpatients is provided. In Russia the bed is the unit for determining State financial support. See related Hospital.

Birth rate—See Rate: Birth and related rates.

Birthweight—The first weight of a newborn obtained after birth. Low birthweight is defined as less than 2,500 grams or 5 pounds 8 ounces.

Cause of death—For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on the information reported on the death certificate and using international rules for selecting the underlying cause of death from the reported conditions (see tables VII and VIII). Since 1979 the *International Classification of Diseases, Ninth Revision* (ICD–9) has been used for coding cause of death.

Crude birth rate; crude death rate—See Rate: Birth and related rates: Death and related rates.

Table VI. European standard 100,000 population used to adjust death rates

Age	Standard 100,000	
All ages	100,000	
Under 1 year	1,600	
1–4 years	6,400	
5–9 years	7,000	
10–14 years	7,000	
15–19 years	7,000	
20–24 years	7,000	
25–29 years	7,000	
30–34 years	7,000	
35–39 years	7,000	
40–44 years	7,000	
45–49 years	7,000	
50–54 years	7,000	
55–59 years	6,000	
60–64 years	5,000	
65–69 years	4,000	
70–74 years	3,000	
75–79 years	2,000	
80–84 years	1,000	
85 years and over	1,000	

Death rate—See Rate: Death rates.

Discharge—The formal release of an inpatient (excluding newborn infants) by a hospital, that is, the termination of a period of hospitalization (including stays of 0 nights) by death or by disposition to a place of residence, nursing home (United States only), or another hospital. See related Admission; Average length of stay.

Early neonatal mortality rate—See Rate; Death and related rates.

Fertility rate —See Rate: Birth and related rates.

Fetal death—In the World Health Organization's definition, which has also been adopted by the United Nations, the United States, and the Russian Federation, a fetal death is death before the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation, the fetus does not breathe or show any other evidence of life, such as heartbeat, umbilical cord pulsation, or definite movement of voluntary muscles. For statistical purposes, fetal deaths are classified according to gestational age. In this report tabulations are shown for fetal deaths with stated or presumed gestation of 28 weeks or more, also known as late fetal deaths or stillbirths. See related Live birth; Rate: Death and related rates.

Goskomstat—State Statistical Committee of the Russian Federation. Goskomstat is responsible for collecting and publishing population estimates, vital statistics, and other data from other ministries and Federal agencies.

HIV—See Human immunodeficiency virus infection.

Hospital—Hospitals are licensed institutions with at least 6 beds in the United States and normally 15 beds or more in Russia. The primary function of a hospital is to provide diagnostic and therapeutic patient services for medical conditions by an organized physician staff and to have continuous nursing services under the supervision of registered nurses. See related Average length of stay; Bed.

Short-stay hospitals in the United States are those in which the average length of stay is less than 30 days. In Russia there are only general hospitals, which have both long- and short-stay patients.

Specialty hospitals, such as psychiatric, tuberculosis, chronic disease, rehabilitation, maternity, and alcoholic or narcotic, provide a particular type of service to the majority of their patients.

Human immunodeficiency virus (HIV) infection—(For mortality coding) Beginning with data for 1987, NCHS introduced category numbers *042-*044 for classifying and coding HIV infection as a cause of death. The asterisk before the category numbers indicates that these codes are not part of the International Classification of Diseases, Ninth Revision (ICD–9). Beginning with 1987, death statistics for HIV infection are not strictly comparable with data for earlier years. (For morbidity coding) Diagnosis data are coded using the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD–9–CM). During 1984 and 1985, only data for AIDS (ICD–9–CM 279.19) were included. Beginning with data for

1986, discharges with a diagnosis of HIV infection (ICD–9–CM 042–044, 279.19, and 795.8) were included. See related Acquired immunodeficiency syndrome; Cause of death; International Classification of Diseases, Ninth Revision; International Classification of Diseases, Ninth Revision, Clinical Modification.

ICD; ICD codes—See Cause of death; International Classification of Diseases, Ninth Revision.

Incidence—Incidence is the number of cases of disease having their onset during a prescribed period of time. It is often expressed as a rate (for example, the incidence of measles per 1,000 children 5–15 years of age during a specified year). Incidence is a measure of morbidity or other events that occur within a specified period of time. See related *Prevalence*.

Infant death—An infant death is the death of a live-born child before his or her first birthday. Deaths in the first year of life may be further classified according to age as neonatal and postneonatal. Neonatal deaths are those that occur during the first 27 days of life; postneonatal deaths are those that occur between 28 days and 1 year of age. See Live birth; Rate: Death and related rates.

International Classification of Diseases, Ninth Revision (ICD–9)—The International Classification of Diseases (ICD) classifies mortality information for statistical purposes. The ICD was first used in 1900 and has been revised about every 10 years since then. The ICD–9, published in 1977, is used to code U.S. mortality data beginning with data year 1979 (see tables VII and VIII). See related Cause of death; International Classification of Diseases, Ninth Revision, Clinical Modification.

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)—The ICD-9-CM is based on and is completely compatible with the International Classification of Diseases, Ninth Revision. The ICD-9-CM is used to code morbidity data, and the ICD-9 is used to code mortality data.

ICD-9 and ICD-9-CM are arranged in 17 main chapters. Most of the diseases are arranged according to their principal anatomical site, with special chapters for infective and parasitic diseases; neoplasms; endocrine, metabolic, and nutritional diseases; mental diseases; complications of pregnancy and childbirth; certain diseases peculiar to the perinatal period; and ill-defined conditions. In addition, two supplemental classifications are provided: the classification of factors influencing health status and contact with health service and the classification of external causes of injury and poisoning. See related *International Classification of Diseases, Ninth Revision*.

Late fetal death rate—See Rate: Death and related rates.

Life expectancy—Life expectancy is the average number of years of life remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned. Life expectancy may be determined by race, sex, or other characteristics using age-specific death rates for the population with that characteristic. See related Rate: Death and related rates.

Live birth—In 1967 the World Health Organization defined a live birth as the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration

Table VII. Cause of death codes, according to the International Classification of Diseases, Ninth Revision

Cause of death	Russian Federation	United States	
Diseases of the heart	390–398, 401–429	390–398, 402, 404–429	
Cerebrovascular diseases	430–438	430-438	
Malignant neoplasms	140–208	140-208	
Malignant neoplasms of respiratory system	160–165	160–165	
Malignant neoplasms of the breast	174	174	
Pneumonia and influenza	480-483, 485-487	480–487	
Chronic obstructive pulmonary diseases	490–496	490-496	
Chronic liver diseases and cirrhosis	571.0-571.3, 571.5, 571.6	571	
Motor vehicle accidents	E810-E825 ¹	E810-E825	
Suicide	E950-E959	E950-E959	
Homicide and legal intervention	E960-E978	E960-E978	
Other external causes	E800-E807, E826-E949, E980-E999 ²	E800-E807, E826-E949	

¹In appendix tables IV and V. codes E800–E807 and E810–E825 were used to define "transport accidents."

NOTE: Codes shown were used in tables 9 and 10.

Table VIII. Maternal mortality (complications of pregnancy, childbirth, and the puerperum) codes from the International Classification of Diseases, Ninth Revision

Cause of death	Russian Federation	United States	
Total	630–676	630–676	
Ectopic pregnancy	633	633	
Legally induced abortion	635	635	
Other abortion	630-632, 634, 636-639	630–632, 634, 636–638 ¹	
Hemorrhage of pregancy and childbirth	640, 641.1-641.9, 666	640-641, 666	
Toxemia of pregnancy	642.4-642.9, 643	642.4-642.9, 643	
Sepsis (Russian Federation) or complications of puerperum			
(United States)	659.3, 670	670–676	
Other	642.0-642.3, 641.0, 644-648,	642.0-642.3, 644-648, 651-665,	
	652–659.2, 659.4–659.9, 660–665, 667–669, 671–676	667–669	

¹International Classification of Diseases code 639 classifiable to 630–638.

of the pregnancy, which, after such separation, breathes or shows any other evidence of life such as heartbeat, umbilical cord pulsation, or definite movement of voluntary muscles, whether the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born. The United Nations and NCHS also adopted this definition at that time. The Russian Federation adopted the definition in 1992.

From 1937 to 1992, in the former Union of Soviet Socialist Republics (U.S.S.R.), a live birth was defined in terms of the viability of the fetus. In 1937, a viable fetus was defined as a fetus of 28 weeks gestation or more, height at birth of 35 centimeters (1 foot 2 inches) or greater, and a birthweight of 1,000 grams (2.2 pounds) or greater. A live birth was defined as the appearance of pulmonary respiration. In 1976, these three criteria were used to define the beginning of the perinatal period. At the same time, it was also recommended that an autopsy be performed on any fetus or newborn who died during the perinatal period of development. See related *Rate: Birth and related rates; Death and related rates*.

Low birthweight—See Birthweight.

Marital status—Marital status is classified into the categories of married and unmarried. The term "married" encompasses all married people including those separated from their

spouses. Unmarried includes those who are single (never married), divorced, or widowed.

Maternal mortality rate—See Rate: Death and related rates.

MedSocEconInform—State institution in the Russian Federation that is responsible for investigation of the health of the population, scientific support of health reform and medical statistics, and training of health service and public health managers for the Russian Federation. Also known as the Public Health Institute.

Ministry of Health and Medical Industry—In the Russian Federation, it is the governmental body responsible for strengthening health, management of health services, and production of pharmaceuticals and medical equipment.

Narcology—Physician specialty in the Russian Federation focusing on alcohol, drug abuse, and other substance abuse. See *Physician*; *Physician Specialty*.

National Center for Health Statistics (NCHS)—The principal vital and health statistics agency of the U.S. Federal Government. NCHS is part of the Centers for Disease Control and Prevention (CDC) within the Public Health Service (PHS), U.S. Department of Health and Human Services.

Neonatal mortality rate—See Rate: Death and related rates.

²In appendix tables IV and V, codes E850–E949, E980–E999 were used to define "other external causes."

Notifiable disease—A notifiable disease is one that, when diagnosed, health providers are required, usually by law, to report to State or local public health officials. Notifiable diseases are those of public interest by reason of their contagiousness, severity, or frequency.

Office—This refers to the office of any physician in private practice not located in a hospital. In the National Ambulatory Medical Care Survey, an office is any location for a physician's ambulatory practice other than a hospital, nursing home, other extended care facility, patient's home, industrial clinic, college clinic, or family planning clinic. However, private offices in hospitals are included. See related Office visit; Outpatient visit; Physician; Physician contact.

Office visit—An office visit is any direct personal exchange between an ambulatory patient and a physician or members of his or her staff for the purposes of seeking care and rendering health services. See related Outpatient visit; Physician contact.

Outpatient visit—Outpatient visits are defined as visits for receipt of medical, dental, or other services by patients who are not lodged in the hospital. Each appearance by an outpatient to each unit of the hospital is counted individually as an outpatient visit. See related Office visit; Physician contact.

Patient—A patient is a person who is formally admitted to the inpatient service of a hospital for observation, care, diagnosis, or treatment. See related Admission; Average length of stay; Discharge.

Perinatal mortality rate, ratio—See Rate: Death and related rates.

Physician—In the United States, physicians are licensed doctors of medicine or osteopathy, as follows:

Active (or professionally active) physicians are currently practicing medicine, regardless of the number of hours worked per week.

Federal physicians are employed by the Federal Government; non-Federal or civilian physicians are not.

Office-based physicians spend the plurality of their time working in practices based in private offices.

Hospital-based physicians spend the plurality of their time as salaried physicians in hospitals.

In the Russian Federation, a physician is a person who received a high medical education from a medical institute or from the medical faculty of a university and who has the legal right to practice medicine. The term "physician" also includes sanitary-epidemiological, dental, and physiotherapeutic practitioners. Data from the Russian Federation on numbers of physicians do not distinguish between active and nonactive physicians or interns and residents in training.

Physician contact—In the U.S. National Health Interview Survey, a physician contact is defined as a consultation with a physician in person or by telephone, for examination, diagnosis, treatment, or advice. The service may be provided by the physician or by another person working under the physician's supervision. Contacts involving services provided on a mass basis (for example, blood pressure screenings) and contacts for hospital inpatients are not included.

Places of contact include offices, hospital outpatient clinics, emergency rooms, telephone (advice given by a physician in a telephone call), home (any place in which a person was staying at the time a physician was called there), clinics, health maintenance organizations, and other places located outside a hospital.

In the National Health Interview Survey, physician contacts are based on a 2-week recall period and are adjusted to produce average annual number of visits. The interval since the last physician contact is the length of time before the week of interview in which the physician was last consulted. See related *Office; Office visit.*

Physician specialty—A physician specialty is any specific branch of medicine in which a physician may concentrate. Data from the United States are based on physician self-reports of their primary area of specialty. Physician data are broadly categorized into two general areas of practice: generalists and specialists. See related Narcology; Physician.

Population—Census bureaus collect and publish data on populations in the Russian Federation and the United States according to several different definitions. Various statistical systems then use the appropriate population for calculating rates.

Resident population is the population living in a country. It includes members of the military and their families living in that country. It excludes international military, naval, and diplomatic personnel and their families located in that country and residing in embassies or similar quarters. Also excluded are international workers and international students living in the country and citizens living abroad. The resident population is usually the denominator when calculating birth and death rates and incidence of disease.

Postneonatal mortality rate—See Rate: Death and related rates.

Prevalence—Prevalence is the number of cases of a disease, infected persons, or persons with some other attribute present during a particular interval of time. It is often expressed as a rate (for example, the prevalence of diabetes per 1,000 persons during a year). See related *Incidence*.

Procedure— A procedure is defined as a surgical or nonsurgical operation, diagnostic procedure, or special treatment assigned by a physician and recorded on the medical record of a patient discharged from the inpatient service of a short-stay hospital. Procedures are classified as diagnostic and other nonsurgical procedures or as surgical operations.

Rate—A rate is a measure of some event, disease, or condition in relation to a unit of population, along with some specification of time. See related *Age adjustment; Population*.

Birth and related rates

Birth rate is calculated by dividing the number of live births in a population in a given year by the midyear resident population. It is expressed as the number of live births per 1,000 population. The rate may be restricted to births to females of specific age, race, marital status, or geographic location (specific rate), or it may be related to the entire population (crude rate). See related *Live birth*.

Fertility rate is the number of live births per 1,000 females of reproductive age, that is, 15–44 years.

Death and related rates

Death rate is calculated by dividing the number of deaths in a population in a year by the midyear resident population. (For census years in the United States, rates are based on populations as of April 1.) Death rates are expressed as the number of deaths per 1,000 or per 100,000 population. The rate may be restricted to deaths in specific age, race, sex, or geographic groups or from specific causes of death (specific rate) or it may be related to the entire population (crude rate).

Fetal death rate is the number of fetal deaths with stated or presumed gestation of 20 weeks or more divided by the sum of live births plus fetal deaths, stated per 1,000 live births plus fetal deaths. Late fetal death rate or Stillbirth is the number of fetal deaths with stated or presumed gestation of 28 weeks or more divided by the sum of live births plus late fetal deaths, stated per 1,000 live births plus late fetal deaths. See related Fetal death.

Infant mortality rate is calculated by dividing the number of infant deaths during a year by the number of live births reported in the same year. It is expressed as the number of infant deaths per 1,000 live births. Neonatal mortality rate is the number of deaths of children under 28 days of age, per 1,000 live births. Postneonatal mortality rate is the number of deaths of children that occur 28–365 days after birth, per 1,000 live births. See related Infant death.

Estimation of level of infant mortality—MedSocEconInform uses a procedure to estimate the level of infant mortality in the Russian Federation. The Interactive Infant Mortality Analysis System for the reliability of the registered data was developed under the supervision of Professor Komarov (Komarov, Albicki, Korotkova, Rozenshtein. Estimation Reliability Indicators of Infant Mortality. Pediatric (3):57–61, 1990) by researchers A. Korotkova (Korotkova. Monitoring of Infant Mortality in Russia Based on Interactive Computer System. Dissertation. Moscow, 1991) and E. Rozenshtein in 1990.

It is known that the criteria used for registration of live births in the U.S.S.R. were different from World Health Organization recommendations and, in addition, that the political nature of infant mortality forced lower numbers of live births to be registered. Therefore, in order to provide better health care, it was necessary to calculate a more accurate estimate of the true rates.

A model for estimating infant mortality rates was developed, based on a correlation determined by reviewing data on infant mortality in countries with reliable statistical data and on methods developed by B.A. Anderson and B.D. Silver (Anderson, Silver. Infant Mortality in the Soviet Union: Regional Differences and Measurement Issues. *Popul. and Develop. Rev.* 12(4):705–738, 1986)

and G. Dellaportas (Correlation-based Estimation of Early Infant Mortality. *Health Services Reports* 57(3):27–34, 1972).

To determine the final rates, the following calculated correlations were used: (a) for countries with different health systems and living standards, the probability of births of various birthweight categories was calculated; (b) for groups of infants of various birthweights, the probability of death in the neonatal period was calculated; (c) for different levels of infant mortality, the following regression models were found (Y = a + bX) where Y is neonatal and X postneonatal death:

For an infant mortality rate of less than 18 per 1,000 live births:

$$Y = 0.04 + 1.90X$$

For an infant mortality rate equal to or greater than 18 per 1,000 live births:

$$Y = 13.36 + 1.61X$$

The calculations were done using the following algorithm: (a) based on the official registered number of live births, three variants of the probable numbers of live births in different weight groups were calculated; (b) the probable numbers of deaths in the neonatal period for each weight group were calculated; (c) the probable postneonatal mortality rates were calculated; and (d) the final infant mortality rate was calculated as the sum of the estimated neonatal mortality rate, whichever was larger (see table IX).

Perinatal relates to the period surrounding the birth event. Rates and ratios are based on events reported in a calendar year. Perinatal mortality rate is the sum of late fetal deaths plus infant deaths within 7 days of birth, divided by the sum of live births plus late fetal deaths, stated per 1,000 live births plus late fetal deaths. Perinatal mortality ratio is the sum of late fetal deaths plus infant deaths within 7 days of birth, divided by the number of live births, stated per 1,000 live births. See related Fetal death; Infant death; Live birth.

Maternal death is one for which the certifying physician has designated a maternal condition as the underlying cause of death. Maternal conditions are those assigned to complications of pregnancy, childbirth, and the puerperium (see related table VIII). The maternal mortality rate, which indicates the likelihood that a pregnant female will die from maternal causes, is the number of maternal deaths per 1,000 live births. The number of live births used in the denominator is an approximation of the population of pregnant females who are at risk of a maternal death.

Registered nurse—In the United States only, a registered nurse is an individual who has completed one of the following nurse training programs: baccalaureate education, which requires at least 4 years of college or university; associate degree programs, which are based in community colleges and are

Table IX. Variants, percentage of weight groups, and neonatal mortality in group as calculated using MedSocEcoInform estimation of level of infant mortality

Birthweight	Variant	Percentage of weight group	Neonatal mortality in group
500–999 grams	Minimum	0.23 (0.01)	730 (22.3)
	Median	0.37 (0.01)	800 (19.7)
	Maximum	0.55 (0.22)	870 (24.7)
I,000–1,499 grams	Minimum	0.83 (0.02)	510 (18.1)
	Median	0.80 (0.01)	570 (21.4)
	Maximum	1.27 (0.01)	630 (23.7)
,500–1,999 grams	Minimum	1.45 (0.02)	100 (1.2)
	Median	1.67 (0.01)	140.1 (5.3)
	Maximum	2.84 (0.03)	180 (6.2)
1,000–2,499 grams	Minimum	5.67 (0.10)	25 (1.0)
	Median	6.91 (0.09)	40 (1.5)
	Maximum	9.75 (0.01)	55 (1.6)
2,500–3,999 grams	Minimum	87.90 (0.35)	6 (0.2)
	Median	84.42 (0.18)	7 (0.2)
	Maximum	77.86 (0.27)	8 (0.2)
I,000 grams or higher	Minimum	4.73 (0.48)	4 (0.2)
	Median	5.83 (0.28)	6 (0.2)
	Maximum	7.73 (0.15)	13 (0.7)

NOTE: Standard errors in parentheses.

usually 2 years long; and diploma programs, which are based in hospitals and are usually 3 years.

Resident population—See Population.

States Committee for Sanitary Epidemiology and Surveillance (SES)—In the Russian Federation, this is the governmental body responsible for epidemiological health and organization of public hygiene.

Stillbirth— See Rate: Death and related rates.

Surgical operation—See Procedure.

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