

Chapter 2

Health

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

World Health Organization

The health status of a population is, ironically, often reflected and measured by information about deaths. Data on deaths by sex and age are commonly used to monitor programs and policies aimed at improving health; and also used to calculate age and sex-specific death rates and life expectancies. While women tend to live longer than men, differences in death rates can point to differences in women's and men's position in the household and society, including gender inequality in terms of access to food, health care and other sources of well-being. Death rates by cause help reveal the different patterns of disease for women and men.

The present chapter asks how well countries are doing in providing the basic information needed to monitor the health status of women and men over time. In other words, how countries are faring in terms of reporting their basic health statistics: deaths, illnesses, levels of human functioning and disability. It therefore focuses on the following three main areas:

1. Mortality

- a. Total deaths
- b. Infant deaths
- c. Deaths by cause
 - i. Maternal deaths
 - ii. Deaths due to AIDS

2. Morbidity

- a. Prevalence of HIV/AIDS

3. Human functioning and disability

Deaths are recorded in civil registration systems that are maintained by Governments for purposes of recording and registering vital events (see chapter 1, box 1.3). Information on deaths is then compiled to produce death statistics. In addition, national demographic and health surveys, and sometimes censuses, also provide data on mortality as well as on morbidity, human functioning and disability. Disease registers and surveillance systems are also important sources of data in some countries or areas.

At the international level, official national statistics on mortality are collected by the United Nations Statistics Division. Statistics on morbidity and causes of death are collected by the World Health Organization. Plans are in place for basic data on human functioning and disability to be collected at the international level by the United Nations Statistics Division.

In the period 1995-2003, even basic statistical data such as the number of deaths of women and men and girls and boys are not being reported for many countries or areas. More than a third of the 204 countries or areas examined did not report the number of deaths by sex even once for the period 1995 to 2003. About half did not report deaths by cause, sex and age at least once in the same period. Moreover, from 1975 to 2003 there has been limited progress in the reporting of deaths and their causes.

Current state of statistics 1995-2003

Mortality

Total deaths

Age and sex-specific death rates are used in calculating life expectancy at birth, which is defined as the average number of years of life a newborn girl or boy is expected to live, if she or he is subject to the age-specific mortality rates prevailing in the year to which the life expectancy refers. In general, women live longer than men, partly for biological reasons, but their natural advantage is significantly reduced in societies where female infant mortality is higher than male infant mortality owing to discrimination against girls. Social and economic disadvantages also have important repercussions in health outcomes.

However, even basic statistical data such as deaths are not available for many countries. In total, 155 countries or areas representing 69 per cent of the world's population reported total number of

Differences in death rates can point to differences in women's and men's position in the household and society

More than a third of all countries or areas do not report the number of deaths by sex. About half do not report deaths by cause, sex and age

155 countries or areas reported total number of deaths at least once during the period 1995-2003

deaths at least once during the period 1995-2003. Fewer countries or areas reported deaths by sex at least once and fewer still reported by sex and age (see chart 2.1).

There are major differences in the reporting of deaths across geographic regions (see chart 2.2 and table 1.B). The region with the lowest proportion of countries or areas reporting deaths by sex is Africa. Only 18 out of 55 countries or areas, comprising 35 per cent of the region's population, reported national

Chart 2.1

Number of countries or areas that reported deaths for the period 1995 – 2003

All countries or areas	204
Deaths	
Total, at least once	155
By sex, at least once	134
By sex and age, at least once	121
By sex and age, at least five years	88

Source: Table 2.A

data on deaths by sex at least once in the period 1995-2003. In Asia, 33 countries or areas, representing 55 per cent of the region's population, and in Oceania 7 countries or areas, representing 76 per cent of the region's population, reported deaths by sex. The number of countries or areas that reported deaths by sex in the other regions is comparatively higher representing at least 95 per cent of the region's population.

There are a few countries or areas in each region that reported total deaths but did not report them by sex: four in Africa, three in North America, one in South America, seven in Asia, and six in Oceania.¹

Deaths by sex and age are reported by most countries or areas in North America, South America and Europe. In those regions, the countries or areas reporting the data at least once between 1995 and 2003 account for over 95 per cent of the population of the respective regions.

Substantial differences exist between development groups in the reporting of deaths by sex (chart 2.3). In the more developed regions, all countries reported deaths and did so by sex in the period 1995-2003. In less developed regions, the capacity to report data on deaths is lower, and there is even less capacity to report the data by sex. Excluding the least developed countries, 94 out of the 107 countries or areas in less developed regions reported total deaths and 78 reported deaths by sex in the period 1995-2003. The lowest reporting is among the least developed countries: only 14 of 50 countries reported total deaths, and just 9 of them reported deaths by sex at least once in the same period.

Policymakers and planners increasingly demand that data be annually reported and that these data are current. However, that is not the situation observed in most countries or areas during the period 1995-2003. While 121 out of 204 countries or areas reported deaths by sex and age at least once in the period, only 88 countries or areas reported those data for at least five years out of nine (chart 2.1). Limited reporting is therefore affecting the continuous availability of up-to-date annual information for a number of countries. For recent years the number of countries or areas reporting data is substantially lower than for earlier years. This is largely due to delays in data compilation and dissemination.

Infant deaths

According to the Beijing Platform for Action, son preference is one factor that contributes to differen-

Only 14 of 50 least developed countries reported total deaths, and just 9 of them reported deaths by sex

Chart 2.2

Number of countries or areas that reported deaths for the period 1995 – 2003, by geographic region

	Africa	North America	South America	Asia	Europe	Oceania
All countries or areas	55	27	13	50	42	17
Deaths						
Total, at least once	22	25	13	40	42	13
By sex, at least once	18	22	12	33	42	7
By sex and age, at least once	15	21	11	28	40	6
By sex and age, at least five years	4	15	8	20	36	5

Source: Table 2.A

Chart 2.3

Number of countries or areas that reported deaths for the period 1995 – 2003, by development group

	More developed regions	Less developed regions ^a	Least developed countries
All countries or areas	47	107	50
Deaths			
Total, at least once	47	94	14
By sex, at least once	47	78	9
By sex and age, at least once	45	71	5
By sex and age, at least five years	41	46	1

Source: Table 2.A

^a Excluding the least developed countries.

tial mortality by sex. As a result, in some countries it is estimated that men outnumber women by 5 in every 100.² A preference for sons remains deeply rooted in many societies and girls may have less access to nutrition, preventive care (such as immunization) and health care.³ Data on infant deaths by sex are needed to see where excess mortality among girls exists so that it can be addressed and eliminated.

While total infant deaths were reported by 143 countries or areas in the period 1995-2003, fewer—114, representing 40 per cent of the world population—reported infant deaths by sex (chart 2.4). The pattern of low reporting in Africa and Asia and high reporting in the other geographic regions, as seen with reporting deaths by sex, also prevails for infant deaths (see table 2.A).

In all regions, there are countries that reported total infant deaths at least once in the period but did not break the data down by sex: seven in Africa, four in North America, two in South America, seven in Asia, two in Europe and seven in Oceania.⁴

Deaths by cause

In terms of reporting statistics on the cause of death, 110 out of 204 countries or areas, representing 59 per cent of the world population, reported cause of death data at least once in the period 1995-2003, whereas 109 countries or areas, also representing 59 per cent of world population, reported cause of death statistics by sex and age at least once in the same period. However, only 87 countries or areas, representing 53 per cent of the world population, reported data for at least five of the nine years (see tables 2.A and 2.B).

The pattern of low reporting from Africa and Asia and high reporting in the other regions that was observed for all deaths and infant deaths can also be

observed in the reporting of deaths by cause. The region with the lowest proportion of countries or areas reporting deaths by cause, sex and age is Africa.

Countries or areas that reported causes of death did so at a detailed level (see box 2.1 for examples of the causes of death reported). Among the causes reported are maternal deaths and deaths due to injury, as well as deaths caused by AIDS, malaria and other diseases. The following analysis will focus on two major issues for women's health: maternal deaths and deaths caused by AIDS.

The region with the lowest proportion of countries or areas that report deaths by cause, sex and age is Africa

Chart 2.4

Number of countries or areas that reported infant deaths for the period 1995 – 2003

All countries or areas	204
Infant Deaths	
Total, at least once	143
By sex, at least once	114
By sex at least five years	81

Source: Table 2.A

Maternal deaths

According to the Beijing Platform for Action, complications related to pregnancy and childbirth are among the leading causes of death and morbidity of women of reproductive age in many parts of the developing world.⁵ The maternal mortality ratio, or number of maternal deaths per 100,000 live births, is a widely used indicator of reproductive health. It is an approximation of the risk of death of women for reasons related to pregnancy and childbirth. Maternal mortality ratio is one of the indicators under the Millennium Development Goals for monitoring improvements in maternal health.⁶

Box 2.1

Main divisions of cause of death and selected subdivisions for presentation of statistics^a	
Disease	ICD-10 code
All causes	A00-Y89
Certain infectious and parasitic diseases	A00-B99
Intestinal infectious diseases	A00-A09
Tuberculosis	A15-A19
Tetanus ^b	A33, A35
Diphtheria	A36
Whooping cough	A37
Meningococcal infection	A39
Septicaemia	A40-A41
Acute poliomyelitis	A80
Measles	B05
Viral hepatitis	B15-B19
Human immunodeficiency virus [HIV] disease	B20-B24
Malaria	B50-B54
Neoplasms	C00-D48
Malignant neoplasms	C00-C97
Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
Malignant neoplasm of oesophagus	C15
Malignant neoplasm of stomach	C16
Malignant neoplasm of colon, rectosigmoid junction, rectum, anus and anal canal	C18-C21
Malignant neoplasm of liver and intrahepatic bile ducts	C22
Malignant neoplasm of pancreas	C25
Malignant neoplasm of trachea, bronchus and lung	C33-C34
Malignant neoplasm of female breast	C50
Malignant neoplasm of cervix uteri	C53
Malignant neoplasm of prostate	C61
Malignant neoplasm of lymphoid, haematopoietic and related tissue	C81-C96
Disorders of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89
Anaemias	D50-D64
Endocrine, nutritional and metabolic diseases	E00-E88
Diabetes mellitus	E10-E14
Malnutrition	E40-E46
Mental and behavioural disorders	F01-F99
Diseases of the nervous system	G00-G98
Diseases of the circulatory system	I00-I99
Acute rheumatic fever and chronic rheumatic heart diseases	I01-I09
Hypertensive diseases	I10-I13
Ischaemic heart diseases	I20-I25
Cerebrovascular diseases	I60-I69

Box 2.1 continued

Main divisions of cause of death and selected subdivisions for presentation of statistics ^a	
Diseases of arteries, arterioles and capillaries	I70-I79
Diseases of the respiratory system	J00-J98
Influenza	J10-J11
Pneumonia	J12-J18
Chronic lower respiratory diseases	J40-J47
Diseases of the digestive system	K00-K92
Gastric and duodenal ulcer	K25-K27
Diseases of the liver	K70-K76
Diseases of the musculoskeletal system and connective tissue	M00-M99
Diseases of the genitourinary system	N00-N98
Disorders of kidney and ureter	N00-N28
Hyperplasia of prostate	N40
Pregnancy, childbirth and the puerperium	O00-O99
Pregnancy with abortive outcome	O00-O07
Other direct obstetric causes ^b	O10-O92, O95, A34
Indirect obstetric causes	O98-O99
Certain conditions originating in the perinatal period	P00-P96
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99
All other diseases	H00-H95, L00-L98
External causes	V01-Y89
Accidents	V01-X59
Transport accidents	V01-V99
Falls	W00-W19
Accidental drowning and submersion	W65-W74
Exposure to smoke, fire and flames	X00-X09
Accidental poisoning by and exposure to noxious substances	X40-X49
Intentional self-harm	X60-X84
Assault	X85-Y09
All other external causes	Y10-Y89

Source:
United Nations *Demographic Yearbook 2002* (United Nations publication, Sales No. E.05.XIII.1), table 21-2, based on the *International Statistical Classification of Diseases and Related Health Problems, 10th revision* (Geneva, 1992).

a For a full detailed list of classifications of cause of death and disease, see World Health Organization, *International Statistical Classification of Diseases and Related Health Problems, 10th revision* (Geneva, 1992).

b In ICD-10 obstetrical tetanus is classified to A34 but in this table it is included with the "Other direct obstetric causes".

Reliable estimates of maternal mortality are still difficult to obtain for many countries

Morbidity statistics are difficult to obtain, and countries and international organizations often have to rely on estimates

It is not always possible to obtain estimates of HIV prevalence by sex

Reliable estimates of maternal mortality are still difficult to obtain for many countries (box 2.2). There are often the problems of significant underreporting and misclassification of maternal deaths. Even where deaths are derived from a civil registration system with complete coverage,⁷ maternal deaths may be missed or not correctly identified, thus compromising the reliability of such statistics. Maternal deaths are hard to identify because information is needed about (a) deaths among women of reproductive age, (b) pregnancy status at or near the time of death and (c) the medical cause of death. The deaths can be misclassified if, for example, the pregnancy status of the woman was not known, or if the cause of death was wrongly attributed or deliveries are outside of a medical health system.

In the period 1995–2003, among the 110 countries reporting deaths by cause, all reported maternal deaths by age at least once. Almost all 110 countries that reported maternal deaths also reported maternal deaths due to abortion. Two countries, Mongolia and the Syrian Arab Republic, reported maternal deaths but did not report deaths due to abortion.

Box 2.2

The availability of reliable maternal mortality data

Experience in developing international estimates of maternal mortality illustrates the many difficulties that countries face in measuring maternal mortality. The accuracy of data on maternal deaths depends largely on the existence and reliability of national civil registration systems, which are the primary source of data on deaths. Of the 173 countries considered in the preparation of the 2000 estimates, 60 countries (accounting for only 13 per cent of total births worldwide) reported up-to-date maternal mortality statistics based on complete civil registration systems having good attribution of cause of death. For 51 other countries, which together account for 59 per cent of global births, available data from civil registration systems, surveys, censuses and other sources of information were used to derive statistics on maternal mortality for the 2000 estimates. For the remaining 62 countries, covering 27 per cent of the births worldwide, there was no recent national data on maternal mortality that could be used to derive an estimate.^a

^a UNICEF, UNFPA and WHO, *Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF and UNFPA* (Geneva, World Health Organization, 2004).

Deaths due to AIDS

The number of deaths caused by AIDS, when reported by sex, can highlight male and female differences in the spread of HIV/AIDS. However, only 80 of the 110 countries or areas that reported deaths by cause at least once in the period 1995–2003 reported deaths attributable to AIDS. All countries that reported deaths caused by AIDS in the period 1995–2002⁸ reported the data by sex and age.

Morbidity

The Beijing Platform for Action notes the devastating effect of HIV/AIDS and other sexually transmitted diseases on women's health, particularly on the health of adolescent girls and young women.⁹ HIV prevalence among 15 to 24-year-old pregnant women is one of the indicators for Millennium Development Goal 6, which calls for stopping and reversing the spread of HIV/AIDS, malaria and other major diseases including tuberculosis. To track the spread and incidence of diseases, accurate statistics on morbidity are necessary. However, morbidity statistics are difficult to obtain, and countries and international organizations often have to rely on estimates. HIV/AIDS statistics are a good example.

Prevalence of HIV/AIDS

The Joint United Nations Programme on HIV/AIDS (UNAIDS) disseminates, on a regular basis, estimates of the prevalence of HIV, but difficulties in obtaining reliable estimates of HIV prevalence have been documented (see box 2.3). Moreover, it is not always possible to obtain estimates of HIV prevalence by sex. Estimates of the number of adults living with HIV/AIDS were available for 149 countries or areas in 2003, but separate estimates for women and men were available for only 128 countries or areas.

UNAIDS also disseminates, on a regular basis, knowledge and behaviour indicators regarding HIV/AIDS. For the preparation of the 2003 UNAIDS progress report,¹⁰ UNAIDS asked countries for breakdowns by sex for a number of key indicators, but fewer than one in five countries provided that information.¹¹ In the 2004 UNAIDS report, many indicators continue to be unavailable by sex, including estimated prevalence of AIDS among children aged 0–14, estimated deaths due to AIDS, estimated number of orphans due to AIDS and HIV prevalence in groups with high-risk behaviours in capital cities.¹²

Box 2.3

Prevalence of HIV/AIDS: data sources and estimation methods

Determining the prevalence levels of HIV/AIDS presents considerable challenges. The three most common sources of data for estimating HIV prevalence are (a) sentinel surveillance systems that undertake periodic surveys among specific population groups; (b) national population-based surveys; and (c) case reports from health facilities. As the methods and assumptions used to make these estimates have been continually evolving, the estimates cannot be readily compared over time.

There are difficulties in estimating prevalence levels even in regions with high prevalence rates. In sub-Saharan Africa, a subregion with an estimated 66 per cent of the HIV cases worldwide, estimates of HIV/AIDS prevalence are based largely on information gathered from pregnant women attending selected antenatal clinics. The assumption that HIV prevalence among pregnant women is the same as that among both women and men in the surrounding communities may not be valid in all countries. Recently, some improvements have been achieved in the collection of data on HIV prevalence: several countries in sub-Saharan Africa conducted national population-based surveys with HIV testing of respondents, some of which were Demographic and Health Surveys. Examples include Burundi, Kenya, Mali, Niger, South Africa, Zambia and Zimbabwe.

Source:

UNAIDS, *2004 Report on the Global AIDS Epidemic* (Geneva, 2004).

Human functioning and disability

The Beijing Platform of Action stresses that diseases of ageing and the interrelationships of ageing and disability among women require particular attention.¹³ It requests that action be taken to improve concepts and methods of data collection on the participation of women and men with disabilities.¹⁴

A considerable number of countries already collect official national statistics on disability. According to the United Nations Statistics Division, at least 80 countries collected such data in the 1990s, and more than 70 countries have included a question on disability in their census since 1995. However, owing to differences in the concepts and methods used in the questions to identify persons with disabilities, prevalence rates are not comparable across countries.

Progress in statistics 1975-2003

Overall, little progress has been made in national reporting between 1975 and 2003 for deaths, infant deaths and cause of death statistics in every geographic region. The number of countries or areas reporting deaths by sex and age has remained approximately the same every year. Occasionally, some countries reported total deaths but the data were not disaggregated by sex.

Similarly, lack of progress was observed in the reporting of deaths by cause. In general, countries fall into one of two groups: either they have a strong statistical capacity and have been able to report mortality data almost every year by sex, age and cause; or their reporting capacity is very limited and has not improved since 1975. Moreover, there is a clear association between the national reporting of mortality data by sex and age and the level of development. This is, at least partially, a consequence of the lack of well-functioning civil registration systems that record births and deaths in the less developed regions. However, there have been some notable improvements. There has been better reporting of deaths caused by HIV/AIDS. In addition, the implementation of international programmes such as Multiple Indicator Cluster Surveys and Demographic and Health Surveys have contributed to a wider availability of national data on some aspects of mortality, morbidity and disability.

Chart 2.5 displays the number of countries or areas that reported total deaths; deaths by sex; and deaths by sex and age, for each year between 1975 and 2003. From 2000 onwards, the results should be regarded as preliminary, as many countries have delays in the reporting of data. Each year from 1975 to 2000, about 130 countries or areas reported the total number of deaths; about 100 reported deaths by sex; and only about 90 reported deaths by sex and age. Every year, between 20 and 30 countries or areas reported total deaths without reporting deaths by sex.

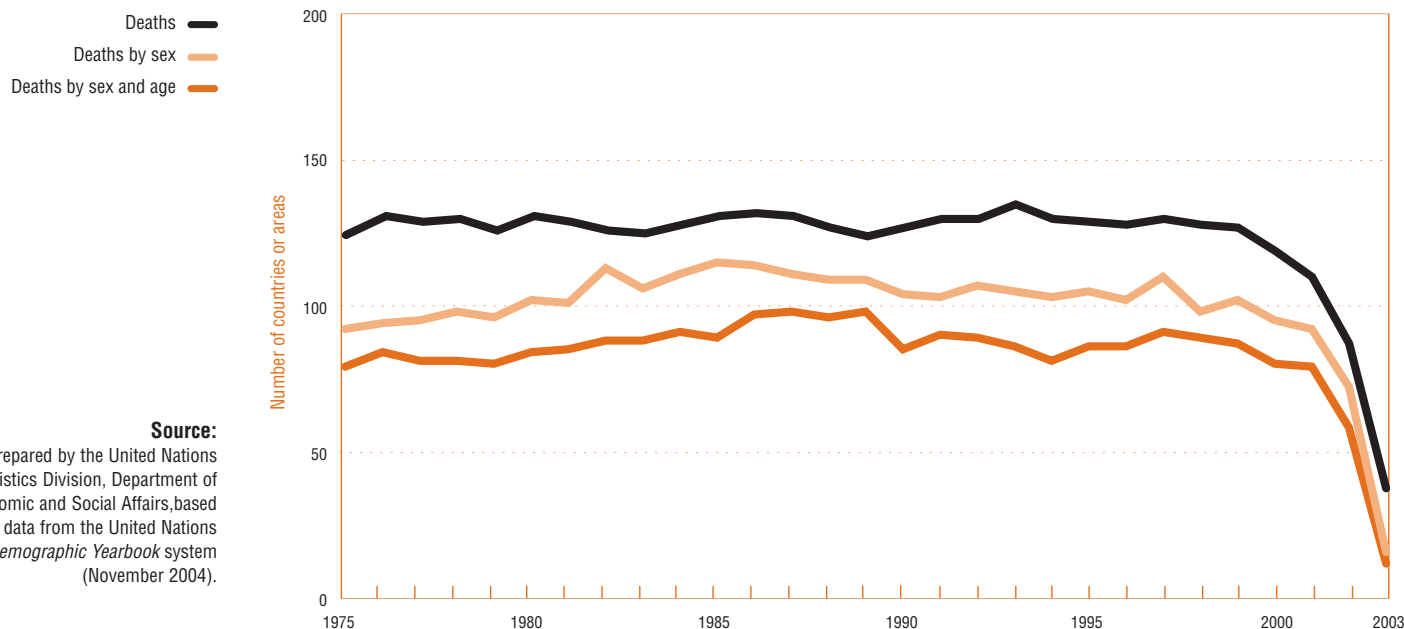
Some countries reported deaths by sex and age at very sparse intervals; others reported data frequently, i.e. for at least five years in a period. An improvement, albeit small, was observed in the period 1985-1994 (chart 2.6). The number of countries or areas reporting data for at least one year increased from 116 in 1975-1984 to 128 in 1985-1994. Fewer countries have reported the data for 1995-2003, possibly due to delays in reporting caused by the time required to process the data. Similarly, the number of countries or areas that reported data frequently

The number of countries reporting deaths due to AIDS by sex to the World Health Organization increased substantially between 1995 and 2000

More than 70 countries have included a question on disability in their census since 1995

Chart 2.5

Number of countries or areas that reported statistics on deaths, 1975 – 2003

**Source:**

Prepared by the United Nations Statistics Division, Department of Economic and Social Affairs, based on data from the United Nations *Demographic Yearbook* system (November 2004).

increased from 84 in 1975-1984 to 96 in 1985-1994. Again, a lower number—88—is seen to have reported frequently in 1995-2003.

The number of countries or areas that reported annual deaths by cause, sex and age for at least one year has also remained about the same over the last three decades: 106 in 1975-1984, 109 in 1985-1994 and 109 in 1995-2003. Countries or areas that reported deaths by cause in those three periods usually also provided the data disaggregated by sex and age. It is important to note, however, that there have been improvements in some aspects of reporting over the three periods. For example, during the period

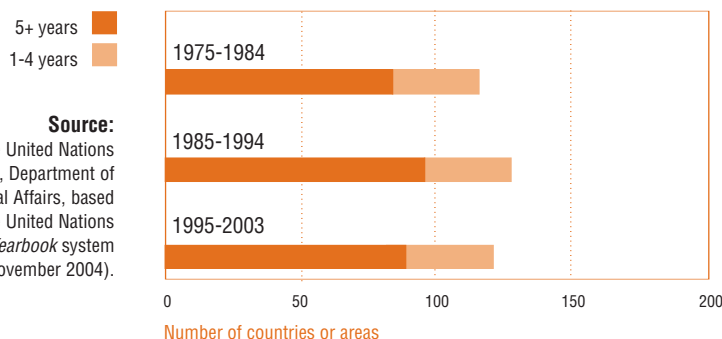
1975-1984, a total of 10 countries or areas reported data disaggregated by sex but not by age.¹⁵ During the periods 1985-1994 and 1995-2003, only one country reported data disaggregated by sex but not by age.¹⁶

Another area in which there has been improvement is the national reporting of deaths due to AIDS. The number of countries reporting deaths due to AIDS by sex to the World Health Organization increased substantially between 1995 and 2000 (chart 2.7). Among the 87 countries or areas that reported deaths by cause in 1995, only 38 reported deaths caused by AIDS. In the following years the number steadily increased and, in 2000, out of 75 countries or areas that reported deaths by cause, 68, or almost all of them, reported deaths caused by AIDS.¹⁷ The increase in reporting deaths due to AIDS is in part due to the gradual implementation by countries or areas of the Tenth Revision of the International Classification for Diseases (ICD-10), which was published in 1992 and went into effect in 1993. ICD-10 includes HIV as a cause of death, whereas the previous revision (ICD-9) did not.¹⁸

The availability of data on HIV/AIDS prevalence for adults has improved between 2001, when estimates were available for 132 countries or areas, and 2003, when estimates were available for 149 countries or areas. However, there has been only

Chart 2.6

Number of countries or areas that reported deaths by sex and age, by number of years data were reported, for three periods.

**Source:**

Prepared by the United Nations Statistics Division, Department of Economic and Social Affairs, based on data from the United Nations *Demographic Yearbook* system (November 2004).

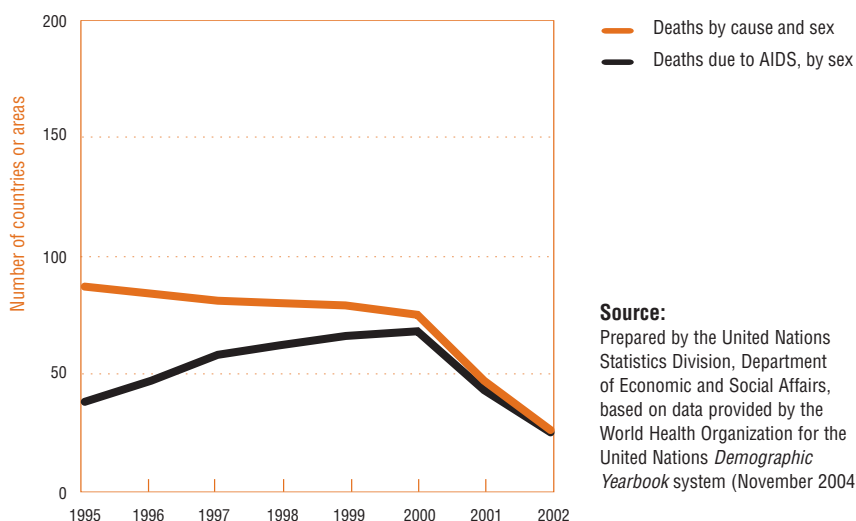
minimal improvement in the availability of data by sex. Estimates of the number of women and men living with HIV/AIDS were available for 127 countries or areas in 2001 and for 128 countries or areas in 2003.¹⁹

In recent years, there has been some improvement in the availability of health-related data in countries that had very little data in the past through international programmes such as Demographic and Health Surveys and Multiple Indicator Cluster Surveys, which have made it possible to conduct a large number of nationally representative surveys in developing countries (see box 2.4). The surveys focus on many aspects of health and are especially designed to capture data on women and children.

A significant development in the methodological work on disability measurement is the adoption of the WHO's International Classification of Functioning, Disability and Health (ICF) in 2001.²⁰ The ICF serves as a framework for developing measures for data collection on disability. Guided by this framework, the Washington Group on Disability Statistics is currently developing measures on disability for use in national censuses and surveys.²¹

Chart 2.7

Number of countries or areas that reported statistics, by sex, on deaths by cause and deaths due to AIDS, 1995 – 2002

**Source:**

Prepared by the United Nations Statistics Division, Department of Economic and Social Affairs, based on data provided by the World Health Organization for the United Nations *Demographic Yearbook* system (November 2004).

Box 2.4

Demographic and Health Surveys and Multiple Indicator Cluster Surveys

Demographic and Health Surveys (DHS) are nationally representative household surveys with large sample sizes that have provided data on the population, health and nutrition of women and children in countries in less developed regions since the 1980s. DHS are meant to be conducted every five years to allow comparisons over time, and the DHS project has coordinated close to 200 surveys in more than 70 countries over the last 20 years. The standard DHS consists of a household questionnaire, which collects information on all members of the household, and a questionnaire for women aged 15-49 years. In general, the surveys include questions on contraception, maternal health, HIV/AIDS and nutrition. Special modules can also be added to questionnaires in order to meet host country and donor data needs. Data from the DHS are available online (see website at the end of the box).

The Multiple Indicator Cluster Survey (MICS) is a household survey programme that has assisted countries in filling data gaps for monitoring the situation of children and women. The first round of the MICS was conducted around 1995 in more than 60 countries, and

a second round of surveys was conducted in 2000 for about 65 countries. The MICS includes a set of modules to collect data on the health and nutrition status of women and children, child rights and other areas of concern. It consists of three questionnaires that can be customized to the needs of a country: a household questionnaire, a questionnaire for women 15-49 years of age and a questionnaire on the situation of children under the age of 5 (addressed to the caretaker of the child).

Both DHS and MICS are based on large national samples and in particular cover countries in less developed regions where health data is usually the scarcest. The surveys produce internationally comparable estimates, although countries sometimes modify the questions to meet their national data needs. The surveys do have some limitations, however, because of the age range of the population covered (15-49 for most of the questions related to women) and their lack of coverage of the adult male population (not covered at all in MICS and covered only in some of the DHS surveys).

Sources:

See <http://www.measuredhs.com> and <http://www.childinfo.org/>.

Lack of reliable information on the cause of death represents a serious obstacle to monitoring health problems that affect women

The result will be a set of questions that can be used to collect harmonized data across culturally diverse countries.

Another recent development in the area of disability is the international collection and dissemination of statistics on disability by the United Nations Statistics Division. Beginning in 2005, national data including metadata on human functioning and disability will be systematically collected and disseminated through the United Nations *Demographic Yearbook*. This initiative will contribute to the availability, at the international level, of disability statistics on women and men.

Challenges

Building statistical capacity

The ability of Governments to report health-related statistics by sex and age is closely tied to the existence of comprehensive national statistical systems

The ability of Governments to report health-related statistics by sex and age is closely tied to the existence of comprehensive national statistical systems. A key challenge, therefore, is strengthening those systems in countries where deficiencies in reporting are most apparent. In particular, efforts need to be directed at the development and integration of national civil registration and vital statistics systems.

Civil registers can provide the requisite information on deaths according to sex, age and reported cause of death, among other characteristics. Although a majority of countries have a national civil registration system that records deaths, many are incomplete in their coverage, have late registration or errors in reporting or in classifying the cause of death, especially in the less developed regions and among the least developed countries. Political will and ample resources are needed to improve these aspects of national systems.

Incomplete coverage and late registration limit the ability of Governments to monitor the health of women and men. This is particularly the case with rural women and those who are members of a disadvantaged group, as deaths among them are more likely to go unregistered or to be registered late. Expanding coverage to make it universal requires a concerted effort by Governments to ensure that deaths occurring outside of hospitals, in rural or in remote areas and among disadvantaged groups are properly recorded.

Lack of reliable information on the cause of death represents a serious obstacle to monitoring

health problems that affect women, such as maternal mortality and contagious diseases like HIV/AIDS. Underreporting and misclassification of maternal deaths are greatest in countries where maternal mortality is suspected to be highest and where civil registration and vital statistics systems are weakest. To improve the accuracy and reliability of cause of death information, Governments need to establish and standardize reporting and coding practices. Critical to that effort is the provision of training in death certificate completion for those involved in the certification process.

In addition, for information gathered through civil registers to be useful in the design of health policies and programmes that incorporate gender concerns, Governments must also devote resources to the establishment and maintenance of a well-functioning national vital statistics system. Two key challenges here are (a) establishing close integration between the civil registration and vital statistics systems and (b) developing the capacity to produce and disseminate statistics on deaths regularly broken down by sex, age and cause of death.

Close integration between the two systems is vital to ensure that key information from civil registers such as age, sex and cause of death is preserved and used in the production of vital statistics. Such integration requires Governments to allocate resources to streamline and harmonize the technology and processes used by each system, and to establish appropriate channels for communication and collaboration between their respective staffs. The second challenge requires sustained political commitment to maintain the resources needed to support national vital statistics systems.

Improving concepts and methods of data collection

In the absence of reliable vital statistics, practical and cost-effective approaches are needed in the short term to improve the national availability of data for monitoring the health of women and men. In the case of maternal mortality, several methods of data collection and estimation have been developed. However, maternal mortality ratio is just one indicator of women's reproductive health. There is a pressing need to monitor morbidity and disability due to pregnancy and childbirth—there is currently no systematic reporting of such data internationally. Only

Governments must devote resources to the establishment and maintenance of a well-functioning national vital statistics system

There is a pressing need to monitor morbidity and disability due to pregnancy and childbirth

some related risk factors, such as early child-bearing and adolescent fertility rates, are internationally reported (see chapter 1). In addition, some aspects highlighted in the Beijing Platform of Action, such as unsafe abortions²², remain practically unmonitored. In brief, better and more comprehensive data on a wider range of reproductive health outcomes are needed.

Growing interest also exists in the use of population censuses as a source of data to estimate maternal deaths and deaths caused by AIDS in the most affected countries and where death registration is poor or non-existent.²³ Further research is needed to evaluate the usefulness of population censuses in producing reliable information on these issues. At the same time, clear guidelines need to be developed specifying both the types of questions that countries should include in a census to capture deaths due to maternal causes and AIDS and the methods to estimate mortality using those data.

Reliable data on morbidity, health-care practices and access to and use of health-care services are also necessary to fully assess improvements in the health status of women and men. In the case of maternal health, process indicators—i.e. measures of the services the health system is actually providing—such as attendance by skilled health personnel at delivery and utilization of emergency obstetric care facilities can be used for healthcare planning purposes. In the case of HIV/AIDS, research on the links between HIV infection and condom use, sexual and other high-risk behaviour, knowledge of HIV/AIDS, etc. are needed to better understand the spread of the disease and inform efforts to prevent its further spread.

Data on morbidity of women and men from other causes are also scant. When estimates are available, they are seldom available by sex. Even for diseases that have been highlighted by the Millennium Development Goals, such as malaria and tuberculosis, data on prevalence—i.e. the proportion of the population with the disease—often are not available. There are examples of efforts to collect certain morbidity data in countries. For instance, in some countries cancer prevalence is assessed through registries that record all cancer cases;²⁴ DOTS, the internationally recommended tuberculosis control strategy programme,²⁵ has also contributed to better monitoring of that disease. However, these efforts are

not widespread. Further methodological work is required to improve the collection, availability and quality of morbidity data.

The concept of human functioning is becoming increasingly important to the study of aging of women and men. An important challenge related to human functioning and disability involves harmonizing the definitions, concepts and methods used in data collection across countries. The International Classification of Functioning, Disability and Health and the disability measures being developed by the Washington Group for inclusion in censuses and national surveys represent important steps towards such harmonization. Further research is needed to test fully the reliability of such new concepts and measures as well as their applicability in different country settings.

Reliable data on morbidity, health-care practices and access to and use of health-care services are necessary to fully assess improvements in the health status of women and men

Further research is needed to test fully the reliability of new disability concepts and measures as well as their applicability in different country settings

Table 2.A
Number of countries or areas that reported selected mortality statistics, 1995 – 2003

	Geographic region						Development group			
	World	Africa	North America	South America	Asia	Europe	Oceania	More developed regions	Less developed regions ^a	Least developed countries
All countries or areas	204	55	27	13	50	42	17	47	107	50
Deaths										
Total, at least once	155	22	25	13	40	42	13	47	94	14
By sex, at least once	134	18	22	12	33	42	7	47	78	9
By sex and age, at least once	121	15	21	11	28	40	6	45	71	5
By sex and age, for at least five years	88	4	15	8	20	36	5	41	46	1
Infant deaths										
Total, at least once	143	19	24	11	35	41	13	46	85	12
By sex, at least once	114	12	20	9	28	39	6	44	63	7
By sex, for at least five years	81	5	13	6	22	31	4	36	44	1
Deaths by cause										
Total, at least once	110	5	22	10	27	39	7	44	63	3
By sex, at least once	110	5	22	10	27	39	7	44	63	3
By sex and age, at least once	109	5	22	10	26	39	7	44	62	3
By sex and age, for at least five years	87	3	16	9	18	37	4	42	44	1

Sources:

Prepared by the United Nations Statistics Division, Department of Economic and Social Affairs: for deaths and infant deaths, based on data from the United Nations *Demographic Yearbook* system (November 2004); for deaths by cause, based on data from World Health Organization, *WHO Mortality Database* (December 2004).

a Excluding the least developed countries.

Table 2.B
Percentage of the world and regional populations in countries or areas that reported selected mortality statistics, 1995 – 2003

	World	Geographic region						Development group		
		Africa	North America	South America	Asia	Europe	Oceania	More developed regions	Less developed regions ^a	Least developed countries
All countries or areas	100	100	100	100	100	100	100	100	100	100
Deaths										
Total, at least once	69	46	97	100	61	100	98	100	64	47
By sex, at least once	63	35	96	98	55	100	76	100	61	15
By sex and age, at least once	61	33	96	98	52	100	76	100	58	13
By sex and age, for at least five years	33	12	94	88	10	98	75	99	19	0
Infant deaths										
Total, at least once	46	40	97	98	25	100	98	100	32	41
By sex, at least once	40	35	96	88	17	99	76	99	27	18
By sex, for at least five years	28	16	94	78	10	60	75	76	18	0
Deaths by cause										
Total, at least once	59	16	98	97	51	100	78	100	56	1
By sex, at least once	59	16	98	97	51	100	78	100	56	1
By sex and age, at least once	59	16	98	97	51	100	78	100	56	1
By sex and age, for at least five years	53	10	96	97	43	98	77	99	49	0

Sources:

Prepared by the United Nations Statistics Division, Department of Economic and Social Affairs: for deaths and infant deaths, based on data from the United Nations *Demographic Yearbook* system (November 2004); for deaths by cause, based on data from World Health Organization, *WHO Mortality Database* (December 2004).

a Excluding the least developed countries.

Notes

- 1 In Africa: Chad, Côte d'Ivoire, Ethiopia, Mauritania; in North America: Dominica, Jamaica and Netherlands Antilles; in South America: Bolivia; in Asia: Bangladesh, Iran (Islamic Republic of), Iraq, Lebanon, Oman, Tajikistan, Turkey, Turkmenistan and United Arab Emirates; in Europe: Albania; in Oceania: Fiji, French Polynesia, Micronesia (Federated States of), Nauru, Papua New Guinea and Samoa.
- 2 See *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), para. 259.
- 3 Ibid.
- 4 In Africa: Botswana, Burundi, Côte d'Ivoire, Malawi, Mauritania, Seychelles and Swaziland; in North America: Dominica, Guadeloupe, Jamaica and Martinique; in South America: Bolivia and Peru; in Asia: Bangladesh, Iran (Islamic Republic of), Oman, Tajikistan, Turkey, Turkmenistan and United Arab Emirates; in Europe: Albania and Bosnia and Herzegovina; in Oceania: Fiji, French Polynesia, Micronesia (Federated States of), Nauru, Palau, Papua New Guinea and Samoa.
- 5 See *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex II, para. 97.
- 6 "Road map towards the implementation of the United Nations Millennium Declaration" Report of the Secretary-General (A/56/326) annex. Available from http://unstats.un.org/unsd/mi/mi_links.asp.
- 7 Civil registration systems with 90 per cent or better coverage of deaths.
- 8 Data for 2003 were not available.
- 9 See *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex II, para. 98.
- 10 UNAIDS, *Progress Report on the Global Response to the HIV/AIDS Epidemic 2003* (Geneva, 2003).
- 11 UNAIDS, *2004 Report on the Global AIDS Epidemic* (Geneva, 2004).
- 12 Ibid.
- 13 See *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex II, para. 101.
- 14 Ibid. para. 206 (k).
- 15 Belize, Colombia, Grenada, Guadeloupe, Haiti, Honduras, Jamaica, Papua New Guinea, Saint Lucia and Seychelles.
- 16 Sri Lanka for some years in 1985-1994 and in 1995-2003.
- 17 From 2000 onwards, the results should be regarded as preliminary as many countries or areas have not yet had enough time to report the data.
- 18 In 1995 only 4 countries had adopted the new standard. By 2003, 75 countries had adopted the new standard. See Mathers et al. *Counting the dead and what they died from: an assessment of the global status of cause of death data*. Bulletin of the World Health Organization 2005, 83: 171-177.
- 19 UNAIDS, *2004 Report on the Global AIDS Epidemic* (Geneva, 2004), p. 189-207.
- 20 World Health Organization, *International Classification of Functioning, Disability and Health* (Geneva, 2001).
- 21 For information on the Washington Group and its work, see "Report of the Washington Group on Disability Measurement", note by the Secretary-General (E/CN.3/2003/8).
- 22 *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex II, para. 97.
- 23 "Topics of emerging policy relevance and suggested minimum and essential census topics: implications for updating *Principles and Recommendations for Population and Housing Censuses*" (ESA/STAT/AC.98/1), paper presented at the Expert Group Meeting to Review Critical Issues Relevant to the Planning of the 2010 Round of Population and Housing Censuses, 15-17 September 2004 New York.
- 24 Cancer registries exist in many countries worldwide. See <http://www.iacr.com.fr>.
- 25 DOTS combines five elements: political commitments, microscopy services, drug supplies, surveillance and monitoring systems, and use of highly efficacious regimes.