Table 19 - *Demographic Yearbook 2007*

Table 19 presents deaths and death rates by age and sex for latest available year between 1998 and 2007.

**Description of variables:** Age is defined as age at last birthday, that is, the difference between the date of birth and the date of the occurrence of the event, expressed in completed solar years. The age classification used in this table is the following: under 1 year, 1-4 years, 5-year age groups through 95-99 years, and 100 years or over.

**Rate computation:** Death rates specific for age and sex are the annual number of deaths in each age-sex group per 1,000 population in the same age-sex group.

Death rates by age and sex are the annual number of deaths that occurred in a specific age-sex group per 1,000 population in the corresponding age-sex group. These rates are calculated by the Statistics Division of the United Nations.

Deaths at unknown age and the population of unknown age are excluded from age-specific rate calculations but are part of the death rate for all ages combined.

Death rates for infants under one year of age in this table differ from the infant mortality rates shown elsewhere, because the latter are computed per 1,000 live births rather than per 1,000 population.

The population used in computing the rates is estimated or enumerated distributions by age and sex. First priority was given to an estimate and second priority to census returns of the year to which the deaths referred.

Rates presented in this table have been limited to those for countries or areas having at least a total of 1,000 deaths in a given year. Moreover, rates specific for individual sub-categories that are based on 30 or fewer deaths are identified by the symbol “♦”.

**Reliability of data:** Data from civil registers of deaths that are reported as incomplete (less than 90 per cent completeness) or of unknown completeness are considered unreliable and are set in italics rather than in roman type. Table 18 and the technical notes for that table provide more detailed information on the completeness of death registration. For more information about the quality of vital statistics data in general and the information available on the basis of the completeness estimates in particular, see section 4.2 of the Introduction.

Rates are not computed if data from civil registers of deaths are reported as incomplete (less than 90 per cent completeness) or of unknown completeness, and therefore deemed unreliable.

**Limitations:** Statistics on deaths by age and sex are subject to the same qualifications as are set forth for vital statistics in general and death statistics in particular as discussed in section 4 of the Introduction.

The reliability of the data is an important factor in considering the limitations. In addition, some deaths are tabulated by date of registration and not by date of occurrence; these have been indicated by a plus sign “+”. Whenever the lag between the date of occurrence and date of registration is prolonged and, therefore, a large proportion of the death registrations are delayed, death statistics for any given year may be seriously affected. However, delays in the registration of deaths are less common and shorter than in the registration of live births.

International comparability in mortality statistics may also be affected by the exclusion of deaths of infants who were born alive but died before the registration of the birth or within the first 24 hours of life. Statistics of this type are footnoted.

Because these statistics are classified according to age, they are subject to the limitations with respect to accuracy of age reporting similar to those already discussed in connection with section 3.1.3 of the Introduction. The factors influencing the accuracy of reporting may be somewhat dissimilar in vital statistics (because of the differences in the method of taking a census and registering a death) but, in general, the same errors can be observed.
The absence of frequencies in the unknown age group does not necessarily indicate completely accurate reporting and tabulation of the age item. It is often an indication that the unknowns have been eliminated by assigning ages to them before tabulation, or by proportionate distribution after tabulation.

International comparability of statistics on deaths by age is also affected by the use of different methods to determine age at death. If age is obtained from an item that simply requests age at death in completed years or is derived from information on year of birth and death rather than from information on complete date (day, month and year) of birth and death, the number of deaths classified in the under-one-year age group will tend to be reduced and the number of deaths in the next age group will tend to be somewhat increased. A similar bias may affect other age groups but its impact is usually negligible. Information on this factor is given in the footnotes when known.

The comparability of data by urban/rural residence is affected by the national definitions of urban and rural used in tabulating these data. It is assumed, in the absence of specific information to the contrary, that the definitions of urban and rural used in connection with the national population census were also used in the compilation of the vital statistics for each country or area. However, it cannot be excluded that, for a given country or area, different definitions of urban and rural are used for the vital statistics data and the population census data respectively. When known, the definitions of urban used in national population censuses are presented at the end of the technical notes for table 6. As discussed in detail in the technical notes for table 6, these definitions vary considerably from one country or area to another.

Limitations of rates: Rates shown in this table are subject to the same limitations that affect the corresponding frequencies and are set forth in the technical notes for table 18. These include differences in the completeness of registration, the treatment of infants who were born alive but died before the registration of their birth or within the first 24 hours of life, the method used to determine age at death and the quality of the reported information relating to age at death. In addition, some rates are based on deaths tabulated by date of registration and not by date of occurrence; these have been indicated with a plus sign "+'.

The problem of obtaining precise correspondence between deaths (numerator) and population (denominator) as regards the inclusion or exclusion of armed forces, refugees, displaced persons and other special groups is particularly difficult where age-specific death rates are concerned. This is the case for Japan and Malta. For Japan, deaths refer to Japanese nationals only while the population include foreigners except foreign military and civilian personnel and their dependants stationed in the area. Similarly for Malta, deaths are for Maltese nationals only while the population include foreigners who hold work and resident permit and reside in the country. One should also note that male rates in the age range 20 to 40 years may be especially affected by this non-correspondence, and care should be exercised in using these rates for comparative purposes.

Even when deaths and population do correspond conceptually, comparability of the rates may be affected by abnormal conditions such as absence from the country or area of large numbers of young men in the military forces or working abroad as temporary workers. Death rates may appear high in the younger ages, simply because a large section of the able-bodied members of the age group, whose death rates under normal conditions might be less than the average for persons of their age, is not included.

Also, in a number of cases the rates shown here for all ages combined differ from crude death rates shown elsewhere, because in this table they are computed on the population for which an appropriate age-sex distribution was available, while the crude death rates shown elsewhere may utilize a different total population. The population by age and sex might refer to a census date within the year rather than to the mid-point, or it might be more or less inclusive as regards ethnic groups, armed forces and so forth. In a few instances, the difference is attributable to the fact that the rates in this table were computed on the mean population whereas the corresponding rates in other tables were computed on an estimate for 1 July.

In addition to problems of comparability, vital rates classified by urban/rural residence are also subject to certain special types of bias. If, when calculating vital rates, different definitions of urban are used in connection with the vital events and the population data and if this results in a net difference between the numerator and denominator of the rate in the population at risk, then the vital rates would be biased. Urban/rural differentials in vital rates may also be affected by whether the vital events have been tabulated in terms of place of occurrence or place of usual residence. This problem is discussed in more detail in section 4.1.4.1 of the Introduction.
Earlier data: Deaths by age and sex and death rates specific for age and sex have been shown for the latest available year in each issue of the Yearbook since the 1955 issue. Data included in this table update the series covering a period of years as follows:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Years Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>32nd issue, 1980</td>
<td>1971 – 1979</td>
</tr>
<tr>
<td>Historical Supplement, 1979</td>
<td>1948 – 1977</td>
</tr>
</tbody>
</table>

Data have been presented by urban/rural residence in each regular issue of the Yearbook since the 1967 issue.