

**Table 15 - Demographic Yearbook 2000**

Table 15 presents infant deaths and infant mortality rates by urban/rural residence for as many years as possible between 1996 and 2000.

Description of variables: Infant deaths are deaths of live-born infants under one year of age.

Statistics on the number of infant deaths are obtained from civil registers unless otherwise noted. Infant mortality rates are, in most instances, calculated from data on registered infant deaths and registered live births where civil registration is considered reliable (estimated completeness of 90 per cent or more). However, for countries or areas where civil registration of infant deaths is non-existent or considered unreliable (estimated completeness of less than 90 per cent or of unknown completeness), estimated rates are presented whenever possible instead of the rates based on the registered infant deaths. These estimated rates are identified by a footnote. Rates based on estimates provided by national statistical offices using well-defined estimation procedures and sources, whether based on census or sample survey data, are given first priority. If such rates are not available, rates estimated by the Population Division of the United Nations Secretariat are presented.

The urban/rural classification of infant deaths is that provided by each country or area; it is presumed to be based on the national census definitions of urban population that have been set forth at the end of the technical notes of table 6.

Rate computation: Infant mortality rates are the annual number of deaths of infants under one year of age per 1 000 live births (as shown in table 9) in the same year.

Rates by urban/rural residence are the annual number of infant deaths, in the appropriate urban or rural category, per 1 000 corresponding live births (as shown in table 9).

Rates presented in this table have been limited to those for countries or areas having at least a total of 100 infant deaths in a given year. Moreover, rates specific for individual sub-categories based on 30 or fewer infant deaths are identified by the symbol (♦).

These rates, unless otherwise noted, have been calculated by the Statistics Division of the United Nations.

In addition, some rates have been obtained from other sources, including analytical estimates based on census or survey data. To distinguish them from civil registration data, estimated rates are identified by a footnote.

Reliability of data: Each country or area has been asked to indicate the estimated completeness of the infant deaths recorded in its civil register. These national assessments are indicated by the quality codes (C), (U) and (...) that appear in the first column of this table.

C indicates that the data are estimated to be virtually complete, that is, representing at least 90 per cent of the infant deaths occurring each year, while U indicates that data are estimated to be incomplete, that is, representing less than 90 per cent of the infant deaths occurring each year. The code (...) indicates that no information was provided regarding completeness.

Data from civil registers which are reported as incomplete or of unknown completeness (coded U or ...) are considered unreliable. They appear in italics in this table. When data so coded are used to calculate rates, the rates also appear in italics.

These quality codes apply only to data from civil registers. If a series of data for a country or area contains both data from a civil register and estimated data from, for example, a sample survey, then the code applies only to the registered data. If only estimated data are presented, there is shown instead of the quality code. 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 Technical Notes.

Limitations: Statistics on infant deaths are subject to the same qualifications as have been set forth for vital statistics in general and death statistics in particular as discussed in section 4 of the Technical Notes.

The reliability of the data, an indication of which is described above, is an important factor in considering the limitations. In addition, some infant deaths are tabulated by date of registration and not by date of occurrence; these have been indicated by a (+). Whenever the lag between the date of occurrence and date of registration is prolonged and, therefore, a large proportion of the infant-death registrations are delayed, infant-death statistics for any given year may be seriously affected.

Another factor which limits international comparability is the practice of some countries or areas not to include in infant-death statistics infants who were born alive but died before the registration of the birth or within the first 24 hours of life, thus underestimating the total number of infant deaths. Statistics of this type are footnoted.

The method of reckoning age at death for infants may also introduce non-comparability. If year alone, rather than completed minutes, hours, days and months elapsed since birth, is used to calculate age at time of death, many of the infants who died during the eleventh month of life and some of those who died at younger ages will be classified as having

completed one year of age and thus be excluded from the data. The effect would be to underestimate the number of infant deaths. Information on this factor is given in footnotes when known. Reckoning of infant age is discussed in greater detail in the technical notes for table 16.

In addition, infant mortality rates are subject to the limitations of the data on live births with which they have been calculated. These have been set forth in the technical notes for table 9.

Because the two components of the infant mortality rate, infant deaths in the numerator and live births in the denominator, are both obtained from systems of civil registration, the limitations which affect live-birth statistics are very similar to those which have been mentioned above in connection with the infant-death statistics. It is important to consider the reliability of the data (the completeness of registration) and the method of tabulation (by date of occurrence or by date of registration) of live-birth statistics as well as infant-death statistics, both of which are used to calculate infant mortality rates. The quality code and use of italics to indicate unreliable data presented in this table refer only to infant deaths. Similarly, the indication of the basis of tabulation (the use of the symbol (+) to indicate data tabulated by date of registration) presented in this table also refers only to infant deaths. Table 9 provides the corresponding information for live births.

If the registration of infant deaths is more complete than the registration of live births, then infant mortality rates would be biased upwards. If, however, the registration of live births is more complete than registration of infant deaths, infant mortality rates would be biased downwards. If both infant deaths and live births are tabulated by registration, it should be noted that deaths tend to be more promptly reported than births.

Infant mortality rates may be seriously affected by the practice of some countries or areas not to consider infants who were born alive but died before the registration of the birth or within the first 24 hours of life as alive birth and subsequent infant death. Although this practice results in both the number of infant deaths in the numerator and the number of live births in the denominator being underestimated, its impact is greater on the numerator of the infant mortality rate. As a result this practice causes infant mortality rates to be biased downwards.

Infant mortality rates will also be underestimated if the method of reckoning age at death results in an underestimation of the number of infant deaths. This point has been discussed above.

Because all of these factors are important, care should be taken in comparing and rank ordering infant mortality rates.

With respect to the method of calculating infant mortality rates used in this table, it should be noted that no adjustment was made to take account of the fact that a proportion of the infant deaths which occur during a given year are deaths of infants who were born during the preceding year and hence are not taken from the universe of births used to compute the rates. However, unless the number of live births or infant deaths is changing rapidly, the error involved is not important.<sup>i</sup>

Estimated rates based directly on the results of sample surveys are subject to considerable error as a result of omissions in reporting infant deaths or as a result of erroneous reporting of those which occurred outside the period of reference. However, such rates do not have the advantage of having a "built-in" and corresponding base.

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, the possibility cannot be excluded that, for a given country or area, the same definitions of urban and rural are not used for both the vital statistics data and the population census data. 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.

Urban/rural differentials in infant mortality rates may also be affected by whether the infant deaths and live births 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 Technical Notes.

Coverage: Infant deaths are shown for 135 countries or areas. Data are presented by urban/rural residence for 57 countries or areas.

Infant mortality rates are shown for 168 countries or areas. Rates are presented by urban/rural residence for 39 countries or areas.

Earlier data: Infant deaths and infant mortality rates have been shown in previous issues of the Demographic Yearbook.

For information on specific years covered, readers should consult the Index.

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<sup>i</sup> For a more detailed discussion of the problem, see W.P.D. Logan, "The measurement of infant mortality", Population Bulletin of the United Nations, No. 2, Sales No. 53.XII.8, United Nations, New York, 1953. pp. 30-67.