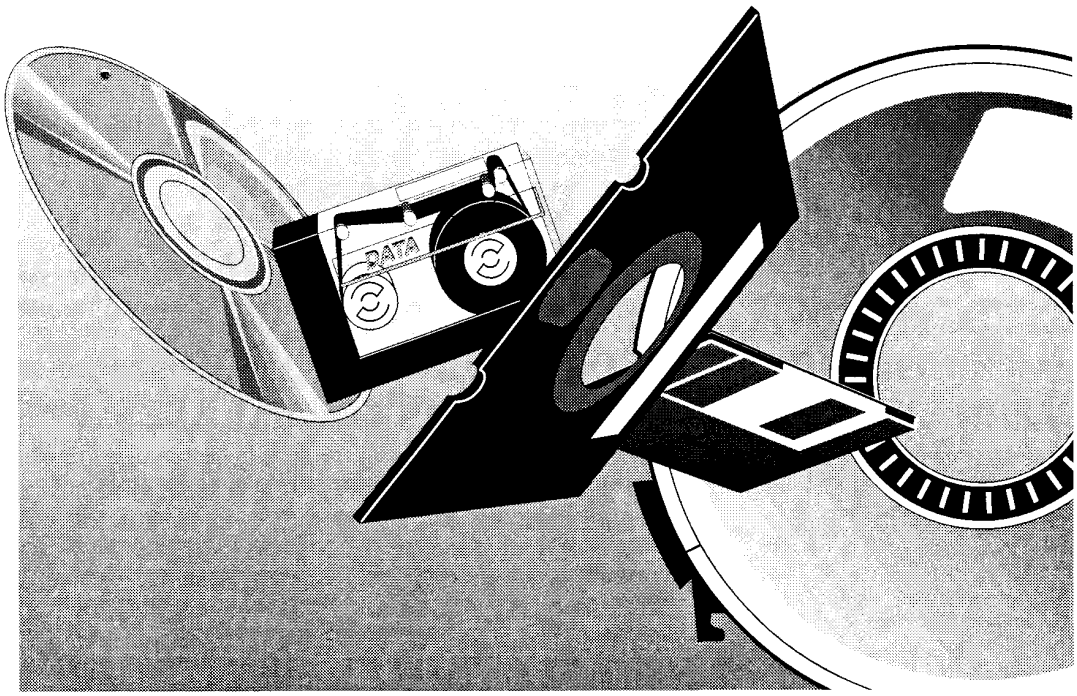
Public Use Data File Documentation

2000 Period Linked Birth/Infant Death Data Set



DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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2000 Period Linked Birth/lnfant Death Data Set

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Introduction

The linked birth/infant death data set (linked file) is released in two formats - period data and birth cohort data. This documentation is for the 2000 period linked file. Beginning with 1995 data, the period linked files have formed the basis for all official NCHS linked file statistics (except for special cohort studies). Differences between period and birth cohort data are outlined below.

Period data - The numerator for the 2000 period linked file consists of all infant deaths occurring in 2000 linked to their corresponding birth certificates, whether the birth occurred in 2000 or 1999. The denominator file for this data set is the 2000 natality file, that is, all births occurring in 2000. For the first time NCHS accepted late filed birth certificates to be used specifically for the 2000 linked file. This reduced the number of unlinked records and increased the number of births in the denominator file by fewer than 100 births.

Birth cohort data - The numerator for the 1999 birth cohort linked file consists of deaths to infants born in 1999 whether the death occurred in 1999 or 2000. The denominator file is the 1999 natality file, that is, all births occurring in 1999.

The 2000 period linked birth/infant death data set includes several data files. The first file includes all US infant deaths which occurred in the 2000 data year linked to their corresponding birth certificates, whether the birth occurred in 2000 or in 1999 - referred to as the numerator file. The second file contains information from the death certificate for all US infant death records which could not be linked to their corresponding birth certificates - referred to as the unlinked death file. The third file is the 2000 NCHS natality file for the US (plus late filed records mentioned above) in compressed format, which is used to provide denominators for rate computations. These same three data files are also available for Puerto Rico, the Virgin Islands, and Guam.

Changes Beginning with the 1995 Data Year

In part to correct for known biases in the data, changes were made to the linked file beginning with the 1995 data year, and these changes remain effective for 2000 data. A weight has been added to the linked numerator file to correct in part for biases in percent of records linked by major characteristics (see section on Percent of records linked below). The number of infant deaths in the linked file are weighted to equal the sum of the linked plus unlinked infant deaths by age at death and state. The formula for computing the weights is as follows:

$$\frac{\text{number of linked infant deaths + number of unlinked infant deaths}}{\text{number of linked infant deaths}}$$

A separate weight is computed for each State of residence of birth and each age

at death category (<1 day, 1-27 days, 28 days-1year). Thus, weights are 1.0 for states which link all of their infant deaths. The denominator file is not weighted. Weights are not computed for the Puerto Rico, Virgin Islands, and Guam file.

An imputation for not-stated birthweight has been added to the data set, to reduce potential bias in the computation of birthweight-specific infant mortality rates. Basically, if birthweight is not-stated and the period of gestation is known, birthweight is assigned the value from the previous record with the same period of gestation, race, sex, and plurality. Imputed values are flagged. The addition of this imputation has reduced the percent of not-stated responses for birthweight from 3.84% to 1.43% in the numerator file, and from 0.12% to 0.05% in the denominator file, thus reducing (but not eliminating) the potential for underestimation when computing birthweight-specific infant mortality rates.

Comparisons of infant mortality data from the linked file with infant mortality data from the vital statistics mortality file

Although the time periods are the same, numbers of infant deaths and infant mortality rates by characteristics are not always identical between the period linked file and the vital statistics mortality file. The differences can be traced to three different causes: 1) geographic differences; 2) additional quality control; and 3) weighting.

Geographic differences - To be included in the linked file for the 50 States and D.C., the birth and death must both occur inside the 50 States and D.C. In contrast, for the vital statistics mortality file, deaths which occur in the 50 States and D.C. to infants born inside and outside of the 50 States and D.C. are included. Similarly, to be included in the linked data file for Puerto Rico, the Virgin Islands, and Guam, the birth and death must both occur in Puerto Rico, the Virgin Islands or Guam. In contrast, for the vital statistics mortality file, deaths which occurred in Puerto Rico, the Virgin Islands, and Guam to infants born inside and outside of Puerto Rico, the Virgin Islands and Guam are included.

Additional quality control - The second reason for differences between the two files is that the linkage process subjects infant death records to an additional round of quality control review. Every year, a few records are voided from the file at this stage because they are found to be fetal deaths, deaths at ages greater than 1 year, or duplicate death certificates.

Weighting - The third reason is the weighting procedures added to the 1995 and subsequent linked files. Beginning with 1995 data, linked file records are now weighted to compensate for the 1-3 percent of infant death records which could not be linked to their corresponding birth certificates. Although every effort has been made to design weights which will accurately reflect the distribution of deaths by characteristics, weighting may contribute to small differences in numbers and rates by specific variables between the linked file and the vital statistics mortality files.

In most cases, differences between numbers of infant deaths and infant mortality rates between the linked file and those computed from the vital statistics

mortality file are negligible.

Methodology

The methodology used to create the national file of linked birth and infant death records takes advantage of two existing data sources:

1. State linked files for the identification of linked birth and infant death certificates; and

2. NCHS natality and mortality computerized statistical files, the source of computer records for the two linked certificates.

Virtually all States routinely link infant death certificates to their corresponding birth certificates for legal and statistical purposes. When the birth and death of an infant occur in different States, copies of the records are exchanged by the State of death and State of birth in order to effect a link. In addition, if a third State is identified as the State of residence at the time of birth or death, that State is also sent a copy of the appropriate certificate by the State where the birth or death occurred.

The NCHS natality and mortality files, produced annually, include statistical data from birth and death certificates that are provided to NCHS by States under the Vital Statistics Cooperative Program (VSCP). The data have been coded according to uniform coding specifications, have passed rigid quality control standards, have been edited and reviewed, and are the basis for official U.S. birth and death statistics.

To initiate processing, NCHS obtained matching birth certificate numbers from States for all infant deaths that occurred in their jurisdiction. We used this information to extract final, edited mortality and natality data from the NCHS natality and mortality statistical files. Individual birth and death records were selected from their respective files and linked into a single statistical record, thereby establishing a national linked record file.

After the initial linkage, NCHS returned to the States where the death occurred computer lists of unlinked infant death certificates for follow up linking. If the birth occurred in a State different from the State of death, the State of birth identified on the death certificate was contacted to obtain the linking birth certificate. State additions and corrections were incorporated, and a final, national linked file was produced. Characteristics of the natality and mortality data from which the linked file is constructed are described in detail in the Technical Appendices and Addenda included in this document.

Characteristics of Unlinked File

For the 2000 linked file 1.4% of all infant death records could not be linked to their corresponding birth certificates. Unlinked records are included in a separate data file in this data set. The unlinked record file uses the same record layout as the numerator file of linked birth and infant death records. However, except as noted below, tape locations 1-210, reserved for information from the matching birth certificate, are blank since no matching birth certificate could be found for these records. The sex field (tape location 79)

contains the sex of infant as reported on the death certificate, rather than the sex of infant from the birth certificate, which is not available. The race field (tape location 36-37) contains the race of the decedent as reported on the death certificate rather than the race of mother as reported on the birth certificate as is the case with the linked record file. The race of mother on the birth certificate is generally considered to be more accurate than the race information from the death certificate (see section on Comparison of race data from birth and death certificates in the Mortality Technical Appendix included in this documentation). Also, date of birth as reported on the death certificate is used to generate age at death. This information is used in place of date of birth from the birth certificate, which is not available.

Documentation table 6 shows counts of unlinked records by race and age at death for each State of residence. The user is cautioned in using table 6 that the race and residence items are based on information reported on the death certificate; whereas, tables 1-5 present data from the linked file in which the race and residence items are based on information reported on the birth certificate. (see section on Comparison of race data from birth and death certificates in the Mortality Technical Appendix included in this documentation).

Percent of Records Linked

The 2000 linked file includes 27,622 linked infant death records and 384 unlinked infant death records. The linked file is weighted to the sum of linked plus unlinked records, thus the total number of weighted infant deaths by place of occurrence is 28,006. While the overall percent linked for infant deaths in the 2000 file is 98.6%, there are differences in percent linked by certain variables. These differences have important implications for how the data is analyzed.

Table 1 shows the percent of infant deaths linked by State of occurrence of death. While most States link a high percentage of infant deaths, linkage rates for some States are well below the national average. Note in particular the percent linked for the Maine (95.6%), New Jersey (95.6%), New Mexico (93.2%), Ohio (95.2%) and Oklahoma (91.9%). When a high percentage of deaths remain unlinked, unweighted infant mortality rates computed for these States are underestimated. It is for this reason that weights were added to the file to correct for biases in the data due to poor data linkage for particular states.

In general, a slightly higher percentage of postneonatal (28 days to under 1 year) than neonatal (less than 28 days) deaths were linked (99.0% and 98.5%, respectively.) Variations in percent linked by underlying cause of death have also been noted (data not shown). While the weighting protocol has been designed to correct for possible bias due to variations in match rates by characteristics, no statistical method can correct perfectly for data limitations. Therefore, variations in the percent of records linked should be taken into consideration when comparing infant mortality rates by detailed characteristics.

Geographic classification

Geographic codes in this data set are based on the results of the 1990 census.

Because of confidentiality concerns, only those counties and cities with a population size of 250,000 or more are separately identified in this data set. Users should refer to the geographic code outline in this document for the list of available areas and codes.

For events to be included in the linked file, both the birth and death must occur inside the 50 States and D.C. in the case of the 50 States and D.C. file; or in Puerto Rico, the Virgin Islands or Guam in the case of the Puerto Rico, Virgin Islands and Guam file. In tabulations of linked data and denominator data events occurring in each of the respective areas to nonresidents are included in tabulations that are by place of occurrence, and excluded from tabulations by place of residence. These exclusions are based on the usual place of residence of the mother. This item is contained in both the denominator file and the birth section of the numerator (linked) file. Nonresidents are identified by a code 4 in location 11 of these files.

Table 1. Percent of infant deaths linked by state of occurrence of death: United States, 2000 linked file

United States	98.6%	Nebraska	100.0%
Alabama	100.0%	Nevada	98.9%
Alaska	100.0%	New Hampshire	100.0%
Arizona	99.3%	New Jersey	95.6%
Arkansas	100.0%	New Mexico	93.2%
California	98.0%	New York State	98.6%
Colorado	100.0%	New York City	99.6%
Connecticut	100.0%	North Carolina	99.5%
Delaware	97.8%	North Dakota	100.0%
District of Columbia	96.5%	Ohio	95.2%
Florida	99.9%	Oklahoma	91.9%
Georgia	100.0%	Oregon	100.0%
Hawaii	96.4%	Pennsylvania	99.9%
Idaho	100.0%	Rhode Island	98.9%
Illinois	99.3%	South Carolina	100.0%
Indiana	98.2%	South Dakota	100.0%
Iowa	100.0%	Tennessee	100.0%
Kansas	96.2%	Texas	96.7%
Kentucky	99.2%	Utah	97.5%
Louisiana	97.3%	Vermont	100.0%
Maine	95.6%	Virginia	98.9%
Maryland	99.6%	Washington	99.8%
Massachusetts	98.7%	West Virginia	99.4%
Michigan	99.8%	Wisconsin	100.0%
Minnesota	99.7%	Wyoming	100.0%
Mississippi	99.8%	Puerto Rico	98.8%
Missouri	99.7%	Virgin Islands	100.0%
Montana	100.0%	Guam	100.0%

Demographic and Medical Classification

The documents listed below describe in detail the procedures employed for demographic classification on both the birth and death records and medical

classification on death records. These documents, while not absolutely essential to the proper interpretation of the data for a number of general applications, should nevertheless be studied carefully prior to any detailed analysis of demographic or medical data variables. In particular, there are a number of exceptions to the ICD rules in multiple cause-of-death coding which, if not treated properly, may result in faulty analysis of the data. Volumes 1, 2 and 3 of the ICD-10 may be purchased from the World Health Organization (WHO) Publication Center USA, 49 Sheridan Avenue, Albany, New York, 12210 (http://www.who.int/whosis/icd10/index.html). Many of the instruction manuals listed below are available electronically on the NCHS website at: http://www.cdc.gov/nchs/about/major/dvs/im.htm. In addition, users who do not already have access to these documents may request them from the Chief, Mortality Medical Classification Branch, Division of Vital Statistics, National Center for Health Statistics, 4105 Hopson Road, Research Triangle Park, North Carolina 27709. The technical appendices for natality and mortality included in this document also provide information on the source of data, coding procedures, quality of the data, etc.

A.National Center for Health Statistics. Vital statistics, Instructions for Classifying the Underlying Cause-of-Death, 2000. NCHS Instruction Manual, Part 2a. Hyattsville, Maryland: Public Health Service.

B.National Center for Health Statistics. Vital statistics, Instructions for Classifying Multiple Cause-of-Death, 2000. NCHS Instruction Manual, Part 2b. Hyattsville, Maryland: Public Health Service.

C.National Center for Health Statistics. Vital statistics, ICD-10 ACME Decision Tables for Classifying Underlying Causes-of-Death, 2000. NCHS Instruction Manual, Part 2c. Hyattsville, Maryland: Public Health Service.

D.National Center for Health Statistics. Vital statistics, NCHS Procedures for Mortality Medical Data System File Preparation and Maintenance, Effective 2000. NCHS Instruction Manual, Part 2d. Hyattsville, Maryland: Public Health Service.

E.National Center for Health Statistics. Vital statistics, ICD-10 TRANSAX Disease Reference Tables for Classifying Multiple Causes-of-Death, 1999. NCHS Instruction Manual, Part 2f. Hyattsville, Maryland: Public Health Service.

F.National Center for Health Statistics. Vital statistics, Classification and Coding Instructions for Live Birth Records, 1999. NCHS Instruction Manual, Part 3a. Hyattsville, Maryland: Public Health Service.

G.National Center for Health Statistics. Vital statistics, Demographic Classification and Coding Instructions for Death Records, 2000. NCHS Instruction Manual, Part 4. Hyattsville, Maryland: Public Health Service.

H.National Center for Health Statistics. Vital statistics, Computer Edits for Natality Data, Effective 1993. NCHS Instruction Manual Part 12. Hyattsville, Maryland: Public Health Service.

I.National Center for Health Statistics. Vital statistics, Computer Edits

for Mortality Data, Effective 1999. NCHS Instruction Manual Part 11. Hyattsville, Maryland: Public Health Service.

Change in Cause-of-Death Classification

In data year 1999, a new classification system for coding causes of death was implemented in the United States: the Tenth Revision of the International Classification of Diseases (ICD-10), developed by the World Health Organization (WHO). Information about the new system can be obtained at the following address: http://www.cdc.gov/nchs/about/major/dvs/icd10des.htm

Underlying Cause of Death Data

Mortality statistics by cause of death are compiled from entries on the medical certification portion of the death certificate. The U.S. Standard Certificate of Death is shown in the Mortality Technical Appendix which is included in this documentation. Causes of death include "all those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced these injuries". The medical certification of death is divided into two sections. In Part I, the physician is asked to provide the causal chain of morbid conditions that led to death, beginning with the condition most proximate to death on line (a) and working backwards to the initiating condition. The lines (a) through (d) in Part I are connected by the phrase "due to, or as a consequence of." They were designed to encourage the physician to provide the causally related sequence of medical conditions that resulted in death. Thus, the condition on line (a) should be due to the condition on line (b), and the condition on line (b) should be a consequence of the condition on line (c), etc., until the full sequence is described back to the originating or initiating condition. If only one step in the chain of morbid events is recorded, a single entry on line (a) is adequate. Part I of the medical certification is designed to facilitate the selection of the underlying cause of death when two or more causes are recorded on the certificate. The underlying cause of death is defined by the WHO in the ICD-10 as "(a) the disease or injury which initiated the chain of morbid events leading directly to death, or (b) the circumstances of the accident or violence that produced the fatal injury" and is generally considered the most useful cause from a public health standpoint. Part II of the cause-of-death section of the death certificate solicits other conditions that the certifier believed contributed to death, but were not in the causal chain. While some details of the death certificate vary by State, all States use the same general format for medical certification outlined in the U.S. Standard Certificate. The U.S. Standard Certificate, in turn, closely follows the format recommended by the WHO.

If the death certificate is properly completed, the disease or condition listed on the lowest used line in Part I is usually accepted as the underlying cause of death. This is an application of "The General Principle." The General Principle is applied unless it is highly improbable that the condition on the lowest line used could have given rise to all of the diseases or conditions listed above it. In some cases, the sequence of morbid events entered on the death certificate is not specified correctly. A variety of errors may occur in completing the medical certification of death. Common problems include the following: The causal chain may be listed in reverse order; the distinction

between Part I and Part II may have been ignored so that the causal sequence in Part I is simply extended unbroken into Part II; or the reported underlying cause is unlikely, in an etiological sense, to have caused the condition listed above it. In addition, sometimes the certifier attributes the death to uninformative causes such as cardiac arrest or pulmonary arrest.

To resolve the problems of incorrect or implausible cause-of-death statements, the WHO designed standardized rules to select an underlying cause of death from the information available on the death certificate that is most informative from a public health perspective. The rules for the Tenth Revision as updated by WHO since the publication of ICD-10 are described in NCHS instruction manual Part 2A. Coding rules beyond the General Principle are invoked if the cause-of-death section is completed incorrectly or if their application can improve the specificity and characterization of the cause of death in a manner consistent with the ICD. The rules are applied in two steps: selection of a tentative underlying cause of death, and modification of the tentative underlying cause in view of the other conditions reported on the certificate in either Part I or Part II. Modification involves several considerations by the medical coder: determining whether conditions in Part II could have given rise to the underlying cause, giving preference to specific terms over generalized terms, and creating linkages of conditions that are consistent with the terminology of the ICD.

For a given death, the underlying cause is selected from the condition or conditions recorded by the certifier in the cause-of-death section of the death certificate. NCHS is bound by international agreement to make the selection of the underlying cause through the use of the ICD-10 classification structure, and the selection and modification rules contained in this revision of the ICD. These rules are contained in a computer software program called ACME (Automated Classification of Medical Entities). ACME does exactly what a coder would do to select the underlying cause of death. The ACME program has been used for final mortality data since 1968.

The WHO selection rules take into account the certifier's ordering of conditions and their causal relationships to systematically identify the underlying cause of death. The intent of these rules is to improve the usefulness of mortality statistics by giving preference to certain classification categories over others and consolidating two or more conditions on the certificate into a single classification category.

Multiple Cause of Death Data

The limitations of the underlying cause concept and the need for more comprehensive data suggested the need for coding and tabulating all conditions listed on the death certificate. Coding all listed conditions on the death certificate was designed with two objectives in mind. First, to facilitate studies of the relationships among conditions reported on the death certificate, which require presenting each condition and its location on the death certificate in the exact manner given by the certifier. Secondly, the coding needed to be carried out in a manner by which the underlying cause-of-death could be assigned using the WHO coding rules. Thus, the approach in developing multiple cause data was to provide two fields: 1) entity axis and 2) record axis. For entity axis, NCHS suspends the provisions of the ICD that create

linkages between conditions for the purpose of coding each individual condition, or entity, with minimum regard to other conditions present on the death certificate.

Record axis is designed for the generation of person-based multiple cause statistics. Person-based analysis requires that each condition be coded within the context of every other condition on the same death certificate and modified or linked to such conditions as provided by ICD-10. By definition, the entity data cannot meet this requirement since the linkage provisions modify the character and placement of the information originally recorded by the certifier. Essentially, the axis of the classification has been converted from a entity basis to a record (or person) basis. The record axis codes are assigned in terms of the set of codes that best describe the overall medical certification portion of the death certificate.

This translation is accomplished by a computer system called TRANSAX (Translation of Axis). TRANSAX selectively uses the traditional linkage and modification rules for mortality coding. Underlying cause linkages which simply prefer one code over another for purposes of underlying cause selection are not included. Each entity code on the record is examined and modified or deleted as necessary to create a set of codes that are free of contradictions and are the most precise within the constraints of ICD-10 and medical information on the record. Repetitive codes are deleted. The process may 1) combine two entity axis categories together to a new category thereby eliminating a contradiction or standardizing the data; or 2) eliminate one category in favor of another to promote specificity of the data or resolve contradictions. The following examples from ICD-10 illustrate the effect of this translation:

Case 1: When reported on the same record as separate entities, cirrhosis of liver and alcoholism are coded to K74.6 (Other and unspecified cirrhosis of liver) and F10.2 (Mental and behavioral disorders due to use of alcohol; dependence syndrome), respectively. Tabulation of records with K74.6 would imply that such records had no mention of alcohol. A preferable code would be K70.3 (Alcoholic cirrhosis of liver) in lieu of both K74.6 and F10.2.

Case 2: If "gastric ulcer" and "bleeding gastric ulcer" are reported on a record they are coded to K25.9 (Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation) and K25.4 (Gastric ulcer, chronic or unspecified with hemorrhage), respectively. A more concise code is K25.4 which shows both the gastric ulcer and the bleeding.

Entity Axis Codes

The original conditions coded for selection of the underlying cause-of-death are reformatted and edited prior to creating the public-use data file. The following paragraphs describe the format and application of entity axis data.

1. Format. Each entity-axis code is displayed as an overall seven byte code with subcomponents as follows:

1. Line indicator: The first byte represents the line of the death

certificate on which the code appears. Six lines (1-6) are allowable with the fourth and fifth denoting one or two written in "due to"s beyond the three lines provided in Part I of the U.S. standard death certificate. Line "6" represents Part II of the death certificate.

2. Position indicator: The next byte indicates the position of the code on the line, i.e., it is the first (1), second (2), third (3) .... eighth (8) code on the line.

3. Cause category: The next four bytes represent the ICD-10 cause code.

4. The last byte is blank.

A maximum of 20 of these seven byte codes are captured on a record for multiple cause purposes. This may consist of a maximum of 8 codes on any given line with up to 20 codes distributed across three or more lines depending on where the subject conditions are located on the certificate. Codes may be omitted from one or more lines, e.g., line 1 with one or more codes, line 2 with no codes, line 3 with one or more codes.

In writing out these codes, they are ordered as follows: line 1 first code, line 1 second code, etc. ----- line 2 first code, line 2 second code, etc. ----- line 3 ---- line 4 ----- line 5 ----- line 6. Any space remaining in the field is left blank. The specifics of locations are contained in the record layout given later in this document.

2. Edit. The original conditions are edited to remove invalid codes, reverify the coding of certain rare causes of death, and assure age/cause and sex/cause compatibility. Detailed information relating to the edit criteria and the sets of cause codes which are valid to underlying cause coding and multiple cause coding are provided in NCHS Instruction Manual Part 11.

3. Entity Axis Applications. The entity axis multiple cause data file is appropriate for analyses that require that each condition be coded as a stand alone entity without linkage to other conditions and/or require information on the placement of such conditions in the death certificate. Within this framework, the entity data are appropriate to examine relationships among conditions and the validity of traditional assumptions in underlying cause selection. Additionally, the entity data provide in certain categories a more detailed code assignment that could be excluded in creating record axis data. Where such detail is needed for a study, the user should use entity data. Finally, the researcher may not wish to be bound by the assumptions used in the axis translation process.

The main limitation of entity axis data is that it does not necessarily reflect the best code for a condition when considered within the context of the medical certification as a whole. As a result, certain entity codes can be misleading or even contradict other codes in the record. For example, category K80.2 is titled "Calculus of gallbladder without cholecystitis." Within the framework of entity codes this is interpreted to mean that the codable entity itself contained no mention of cholecystitis rather than that cholecystitis was not mentioned

anywhere on the record. Tabulation of records with a "K80.2" as a count of persons having Calculus of gallbladder without cholecystitis would therefore be erroneous. This illustrates the fact that under entity coding the ICD-10 titles cannot be taken literally. The user should study the rules for entity coding as they relate to his/her research prior to use of entity data. The user is further cautioned that the inclusion notes in ICD-10 that relate to modifying and combining categories are seldom applicable to entity coding (except where provided NCHS Instruction Manual Part 2b).

In tabulating the entity axis data, one may count codes with an individual code representing the number of times the condition(s) appears in the file. In this kind of tabulation of morbid conditions, the counts among categories may be added together to produce counts for groups of codes. Alternatively, subject to the limitations given above, one may count persons having mention of the disease represented by a code or codes. In this instance it is not correct to add counts for individual codes to create person counts for groups of codes. Since more than one code in the researcher's interest may appear together on the certificate, totaling must account for higher order interactions among codes. Up to 20 codes may be assigned on a record; therefore, a 20-way interaction is theoretically possible. All totaling must be based on mention of one or more of the categories under investigation.

Record Axis Codes

The following paragraphs describe the format and application of record-axis data. Part 2f of the Instruction Manual Series (ICD-10 TRANSAX Disease Reference Tables for classifying Multiple Causes-of-Death) describes the TRANSAX process for creating record axis data from entity axis data.

1. Format. Each record (or person) axis code is displayed in five bytes. Location information is not relevant. The Code consists of the following components:

1. Cause category: The first four bytes represent the ICD-10 cause code.

2. The last byte is blank.

Again, a maximum of 20 codes are captured on a record for multiple cause purposes. The codes are written in a 100-byte field in ascending code number (5 bytes) order with any unused bytes left blank.

2. Edit. The record axis codes are edited for rare causes and age/cause and sex/cause compatibility. Likewise, individual code validity is checked. The valid code set for record axis coding is the same as that for entity coding.

3. Record Axis Applications. The record axis multiple cause data are the basis for NCHS core multiple cause tabulations. Location of codes is not relevant to this data, and conditions have been linked into the most meaningful categories for the certification. The most immediate consequence for the user is that the codes on the record already represent mention of a disease assignable to that particular ICD-10 category. This is in contrast to the entity code which is assigned each time such a disease is reported on different lines of the certification. Secondly, the linkage implies that within the constraints of ICD-

10 the most meaningful code has been assigned. The translation process creates for the user a data file that is edited for contradictions, duplicate codes, and imprecisions. In contrast to entity axis data, record axis data are classified in a manner comparable to underlying cause of death classification thereby facilitating joint analysis of these variables. A potential disadvantage of record axis data is that some detail is sacrificed in a number of the linkages.

The user can take the record axis codes as literally representing the information conveyed in ICD-10 category titles. While knowledge of the rules for combining and linking and coding conditions is useful, it is not a prerequisite to meaningful analysis of the data as long as one is willing to accept the assumptions of the axis translation process. The user is cautioned, however, that due to special rules in mortality coding, not all linkage notes in ICD-10 are used. (NCHS Instruction Manual Part 2f).

The user should proceed with caution in using record axis data to count conditions as opposed to people with conditions, since linkages have been invoked and duplicate codes have been eliminated. As with entity data, person-based tabulations that combine individual cause categories must take into account the possible interaction of up to 20 codes on a single certificate.

Additional Information

In using the NCHS multiple cause data files, the user is urged to review the information in this document and its references. The instructional material does change from year to year and ICD revision to ICD revision. The user is cautioned that coding of specific ICD-10 categories should be checked in the appropriate instruction manual. What may appear on the surface to be the correct code by ICD-10 may in fact not be correct as given in the instruction manuals.

If on the surface it is not obvious whether entity axis or record axis data should be employed in a given application, detailed examination of NCHS Instruction Manual Part 2f and its attachments will probably provide the necessary information to make a decision. It allows the user to determine the extent of the trade-offs between the two sets of data in terms of specific categories and the assumption of axis translation. In certain situations, a combination of entity and record axis data may be the more appropriate alternative.

2000 Period Linked Birth/Infant Death Data Set

Data File Characteristics:

The data were processed using the SAS language on an IBM 9672.
The data are recorded in IBM/EBCDIC 8-bit code for each character.
Codes may be numeric, alphabets, or blank.
The record type is blocked, fixed format.
The last block for the data year may be a short block.

I. Denominator File:

United States Data Set

A. File Organization:	One of multiple files on a disk. Zipped format
B. Record count:	4,063,892
C. Record length:	210
D. Blocksize:	32130
E. Data counts:	a. By occurrence: 4,063,892
	b. By residence: 4,058,882
	c. To foreign residents: 5,010

Territories Data Set

A. File Organization:	One of multiple files on a disk.
B. Record count:	64,933
C. Record length:	210
D. Blocksize:	32130

Puerto Rico

Data counts:	a. By occurrence: 59,460
	b. By occurrence and residence: 59,329
	c. To foreign residents: 131

Virgin Islands

Data counts:	a. By occurrence: 1,685
	b. By occurrence and residence: 1,543
	c. To foreign residents: 142

Guam

Data counts:	a. By occurrence: 3,788
	b. By occurrence and residence 3,766
	c. To foreign residents: 22

1999 Period Linked Birth/Infant Death Data Set

II. Numerator File:

United States Data Set

A. File Organization:	One of multiple files on a disk		
B. Record count:	27,622		
C. Record length:	535		
D. Blocksize:	32635		
E. Data counts:	a. By occurrence:	27,622	
	b. By residence:	27,593	
	c. To foreign residents:	29	

Possessions Data Set

A. File Organization:	One of multiple files on a disk		
B. Record count:	613		
C. Record length:	535		
D. Blocksize:	32635		
Puerto Rico			
Data counts:	a. By occurrence:		576
	b. By occurrence and residence:	571	
	c. To foreign residents:	5	
Virgin Islands			
Data counts:	a. By occurrence:	14	
	b. By occurrence and residence:	14	
	c. To foreign residents:	0	
Guam			
Data counts:	a. By occurrence:	23	
	b. By occurrence and residence:	23	
	c. To foreign residents:		0

1999 Period Linked Birth/Infant Death Data Set

III. Unlinked File:

United States Data Set

A. File Organization:	One of multiple files on a disk	
B. Record count:	384	
C. Record length:	535	
D. Blocksize:	32635	
E. Data counts:	a. By occurrence:	384
	b. By residence:	379
	c. To foreign residents:	5

Possessions Data Set

A. File Organization:	One file multiple files on a disk	
B. Record count:	7	
C. Record length:	535	
D. Blocksize:	32635	
Puerto Rico		
Data counts:	a. By occurrence:	7
	b. By occurrence and residence:	2
	c. To foreign residents:	5
Virgin Islands		
Data counts:	a. By occurrence:	0
	b. By occurrence and residence:	0
	c. To foreign residents:	0
Guam		
Data counts:	a. By occurrence:	0
	b. By occurrence and residence:	0
	c. To foreign residents:	0

2000 Period Linked Birth/Infant Death Data Set
List of Data Elements and Locations

Data Items	Denominator File	Numerator File Birth	File Death	Unlinked File
1. General				
a. Year of birth	7-10	7-10	--	--
b. Year of death	--	--	524-527	524-527
c. Resident status	11	11	505	505
d. Record weight	--	--	223-230	--
e. Flag for records included in both numerator and denominator	210	--	--	--
2. Occurrence				
a. FIPS state	14-15	14-15	508-509	508-509
b. FIPS county	16-18	16-18	510-512	510-512
3. Residence				
a. FIPS state	19-20	19-20	513-514	513-514
b. FIPS county	21-23	21-23	515-517	515-517
c. FIPS place	24-28	24-28	518-522	518-522
d. NCHS state	12-13	12-13	506-507	506-507
4. Infant				
a. Age	--	--	211-214	211-214+
b. Race	--	--	--	35-38*
c. Sex	78-79	78-79	--	78-79*
d. Gestation	70-77	70-77	--	--
e. Birthweight	80-87	80-87	--	--
f. Plurality	88-89	88-89	--	--
g. Apgar score	90-91	90-91	--	--
h. Day of week of birth/death	209	209	532	532
i. Month of birth/death	205-206	205-206	528-529	528-529
5. Mother				
a. Age	29-32	29-32	--	--
b. Race	35-38	35-38	--	--
c. Education	39-41	39-41	--	--
d. Marital status	42-43	42-43	--	--
e. Place of birth	44-46	44-46	--	--
f. Hispanic origin	33-34	33-34	--	--
6. Father				
a. Age	60-62	60-62	--	--
b. Race	65-66	65-66	--	--
c. Hispanic origin	63-64	63-64	--	--

2000 Period Linked Birth/Infant Death Data Set
List of Data Elements and Locations

Data Items	Denominator File	Numerator File: Birth	Numerator File: Death	Unlinked File
7. Pregnancy items				
a. Month prenatal care began	51-53	51-53	--	--
b. Number of prenatal visits	54-55	54-55	--	--
c. Adequacy of care recode56	56	--	--	
d. Total birth order	47-48	47-48	--	--
e. Live birth order	49-50	49-50	--	--
8. Medical and Health Data				
a. Method of delivery	92-99	92-99	--	--
b. Medical risk factors	100-117	100-117	--	--
c. Other risk factors				
Tobacco	118-121	118-121	--	--
Alcohol	122-125	122-125	--	--
Weight gain during pregnancy	126-128	126-128	--	--
d. Obstetric procedures	129-136	129-136	--	--
e. Complications of labor and/or delivery	137-153	137-153	--	--
f. Abnormal conditions of the newborn	154-163	154-163	--	--
g. Congenital anomalies	164-186	164-186	--	--
h. Underlying cause of death			216-219	216-219
i. 130 Infant cause recode			220-222	220-222
j. Multiple conditions			261-504	261-504
9. Other items				
a. Place of delivery	67	67	--	--
b. Attendant at birth	68	68	--	--
c. Hospital and patient status	--	--	523	523
e. Place of accident	--	--	215	215
f. Residence reporting flags	187-203	187-203	--	--

\+ For the unlinked file, date of birth as reported on the death certificate is used to generate age at death. See section on Changes Beginning with the 1995 Data Year for explanation.

* For the unlinked file, these items are from the death certificate. See section on Changes Beginning with the 1995 Data Year for explanation.

2000
Denominator Record and Natality Section of Numerator (Linked) Record

Locations 7-210 of the linked file contain data from the Birth Certificate.
Locations 211-535 of linked file contain data from the Death Certificate.

Residence items in the Denominator Record and in the natality section of the Numerator (linked) Record refer to the usual place of residence of the Mother; whereas in the mortality section of the Numerator (Linked) Record, these items refer to the residence of the Decedent.

Item Location	Item Length	Variable Name, Item and Code Outline
1-6	6	**R0** **Reserved Positions**
7-10	4	**BIRYR** **Year of Birth** 1999 ... Born in 1999 (This code valid for numerator (linked) file only). 2000 ... Born in 2000
11	1	**RESSTATB** **Resident Status - Birth** **United States Occurrence** 1 ... RESIDENTS: State and county of occurrence and residence are the same. 2 ... INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different. 3 ... INTERSTATE NONRESIDENTS: State of occurrence and residence are different, but both are in the 50 States and D.C. 4 ... FOREIGN RESIDENTS: State of occurrence is one of the 50 States or the District of Columbia, but place of residence of mother is outside of the 50 States and D.C. **Puerto Rico Occurrence** 1 ... RESIDENTS: State and county of occurrence and residence are the same. 2 ... INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different. 4 ... FOREIGN RESIDENTS: Occurred in Puerto Rico to a resident of any other place. **Virgin Islands Occurrence** 1 ... RESIDENTS: State and county of occurrence and residence are the same. 2 ... INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different. 4 ... FOREIGN RESIDENTS: Occurred in the Virgin Islands to a resident of any other place. **Guam Occurrence** 1 ... RESIDENTS: Occurred in Guam to a resident of Guam or to a resident of the U.S. 4 ... FOREIGN RESIDENTS: Occurred in Guam to a resident of any place other than Guam or the U.S.

Item Location	Item Length	Variable Name, Item and Code Outline
12-13	2	**BRSTATE** **Expanded State of Residence - NCHS Codes - Birth**

This item is designed to separately identify New York City records from other New York State records.

United States Occurrence

01	...	Alabama
02	...	Alaska
03	...	Arizona
04	...	Arkansas
05	...	California
06	...	Colorado
07	...	Connecticut
08	...	Delaware
09	...	District of Columbia
10	...	Florida
11	...	Georgia
12	...	Hawaii
13	...	Idaho
14	...	Illinois
15	...	Indiana
16	...	Iowa
17	...	Kansas
18	...	Kentucky
19	...	Louisiana
20	...	Maine
21	...	Maryland
22	...	Massachusetts
23	...	Michigan
24	...	Minnesota
25	...	Mississippi
26	...	Missouri
27	...	Montana
28	...	Nebraska
29	...	Nevada
30	...	New Hampshire
31	...	New Jersey
32	...	New Mexico
33	...	New York
34	...	New York city
35	...	North Carolina
36	...	North Dakota
37	...	Ohio
38	...	Oklahoma
39	...	Oregon
40	...	Pennsylvania
41	...	Rhode Island
42	...	South Carolina
43	...	South Dakota
44	...	Tennessee
45	...	Texas
46	...	Utah

Item Location	Item Length	Variable Name, Item and Code Outline
12-13	2	**BRSTATE** **Expanded State of Residence - NCHS Codes - Birth (Cont'd)**

This item is designed to separately identify New York City records from other New York State records.

United States Occurrence

47	...	Vermont
48	...	Virginia
49	...	Washington
50	...	West Virginia
51	...	Wisconsin
52	...	Wyoming
53-58,60	...	Foreign Residents
53	...	Puerto Rico
54	...	Virgin Islands
55	...	Guam
56	...	Canada
57	...	Cuba
58	...	Mexico
60	...	Remainder of the World

Puerto Rico Occurrence

53	...	Puerto Rico
01-52,54-58,60	...	Foreign Residents: Refer to U.S. for specific code structure.

Virgin Islands Occurrence

54	...	Virgin Islands
01-53,55-58,60	...	Foreign Residents: Refer to U.S. for specific code structure.

Guam Occurrence

55	...	Guam
01-52	...	U.S. resident is also considered a resident of Guam.
53,54,58,60	...	Foreign Residents: Refer to U.S. for specific code structure.

FIPSOCCB
Federal Information Processing Standards (FIPS) Geographic Codes (Occurrence) - Birth

Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications.

Item Location	Item Length	Variable Name, Item and Code Outline
14-15	2	**STOCCFIPB** **State of Occurrence (FIPS) - Birth**

United States

01	...	Alabama
02	...	Alaska
04	...	Arizona
05	...	Arkansas
06	...	California
08	...	Colorado
09	...	Connecticut
10	...	Delaware
11	...	District of Columbia
12	...	Florida
13	...	Georgia
15	...	Hawaii
16	...	Idaho
17	...	Illinois
18	...	Indiana
19	...	Iowa
20	...	Kansas
21	...	Kentucky
22	...	Louisiana
23	...	Maine
24	...	Maryland
25	...	Massachusetts
26	...	Michigan
27	...	Minnesota
28	...	Mississippi
29	...	Missouri
30	...	Montana
31	...	Nebraska
32	...	Nevada
33	...	New Hampshire
34	...	New Jersey
35	...	New Mexico
36	...	New York
37	...	North Carolina
38	...	North Dakota
39	...	Ohio
40	...	Oklahoma
41	...	Oregon
42	...	Pennsylvania
44	...	Rhode Island
45	...	South Carolina
46	...	South Dakota
47	...	Tennessee
48	...	Texas

Item Location	Item Length	Variable Name, Item and Code Outline

14-15 2

STOCCFIPB
State of Occurrence (FIPS) - Birth (Cont'd)

United States

49	...	Utah
50	...	Vermont
51	...	Virginia
53	...	Washington
54	...	West Virginia
55	...	Wisconsin
56	...	Wyoming

Puerto Rico

72	...	Puerto Rico

Virgin Islands

78	...	Virgin Islands

Guam

66	...	Guam

16-18 3

CNTOCFIPB
County of Occurrence (FIPS) - Birth

001-nnn	...	Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State. (Note: To uniquely identify a county, both the State and county codes must be used.)
999	...	County with less than 250,000 population

19-23 5

FIPSRESB
Federal Information Processing Standards (FIPS) Geographic Codes (Residence) - Birth

Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications.

Item Location	Item Length	Variable Name, Item and Code Outline
19-20	2	**STRESFIPB** **State of Residence (FIPS) - Birth**

United States Occurrence

00	...	Foreign residents
01	...	Alabama
02	...	Alaska
04	...	Arizona
05	...	Arkansas
06	...	California
08	...	Colorado
09	...	Connecticut
10	...	Delaware
11	...	District of Columbia
12	...	Florida
13	...	Georgia
15	...	Hawaii
16	...	Idaho
17	...	Illinois
18	...	Indiana
19	...	Iowa
20	...	Kansas
21	...	Kentucky
22	...	Louisiana
23	...	Maine
24	...	Maryland
25	...	Massachusetts
26	...	Michigan
27	...	Minnesota
28	...	Mississippi
29	...	Missouri
30	...	Montana
31	...	Nebraska
32	...	Nevada
33	...	New Hampshire
34	...	New Jersey
35	...	New Mexico
36	...	New York
37	...	North Carolina
38	...	North Dakota
39	...	Ohio
40	...	Oklahoma
41	...	Oregon
42	...	Pennsylvania
44	...	Rhode Island
45	...	South Carolina
46	...	South Dakota
47	...	Tennessee

Item Location	Item Length	Variable Name, Item and Code Outline
19-20	2	**STRESFIPB** **State of Residence (FIPS) - Birth Cont'd)**

United States Occurrence

48	...	Texas
49	...	Utah
50	...	Vermont
51	...	Virginia
53	...	Washington
54	...	West Virginia
55	...	Wisconsin
56	...	Wyoming

Puerto Rico Occurrence

00-56,66,78	...	Foreign Residents: Refer to U.S. for specific code structure
72	...	Puerto Rico

Virgin Islands Occurrence

00-56,66,72	...	Foreign Residents: Refer to U.S. for specific code structure
78	...	Virgin Islands

Guam Occurrence

00,72,78	...	Foreign Residents: Refer to U.S. for specific code structure
01-56	...	U.S. Resident is also considered a resident of Guam. Refer to U.S. for specific code structure
66	...	Guam

21-23	3	**CNTYRFPB** **County of Residence (FIPS) - Birth**

000	...	Foreign residents
001-nnn	...	Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State (Note: To uniquely identify a county, both the State and county codes must be used.)
999	...	County with less than 250,000 population

24-28	5	**PLRES** **Place (City) of Residence (FIPS)**

A complete list of cities is shown in the Geographic Code Outline further back in this document.

00000	...	Foreign residents
00001-nnnnn	...	Code range
99999	...	Balance of county; or city less than 250,000 population

Item Location	Item Length	Variable Name, Item and Code Outline
29	1	**MAGEFLG** **Age of Mother Flag** This position is flagged whenever age is imputed or the mother's reported age is used. The reported age is used, if valid, when computed age derived from the date of birth is not available or when it is outside the 10-54 code range. Blank ... Not imputed and reported age is not used 1 ... Reported age is used 2 ... Age is imputed
30-31	2	**DMAGE** **Age of Mother** This item is: a) computed using dates of birth of mother and of delivery; b) reported; or c) imputed. This is the age item used in NCHS publications. 10-54 ... Age in single years
32	1	**MAGER9** **Age of Mother Recode 9** 1 ... Under 15 years 2 ... 15 - 19 years 3 ... 20 - 24 years 4 ... 25 - 29 years 5 ... 30 - 34 years 6 ... 35 - 39 years 7 ... 40 - 44 years 8 ... 45 - 49 years 9 ... 50 - 54 years
33	1	**ORMOTH** **Hispanic Origin of Mother** Hispanic origin is reported for all areas except Puerto Rico. 0 ... Non-Hispanic 1 ... Mexican 2 ... Puerto Rican 3 ... Cuban 4 ... Central or South American 5 ... Other and unknown Hispanic 9 ... Origin unknown or not stated

Item Location	Item Length	Variable Name, Item and Code Outline

34 1

ORRACEM
Hispanic Origin and Race of Mother Recode

Hispanic origin is reported for all areas except Puerto Rico.

1	...	Mexican
2	...	Puerto Rican
3	...	Cuban
4	...	Central or South American
5	...	Other and unknown Hispanic
6	...	Non-Hispanic White
7	...	Non-Hispanic Black
8	...	Non-Hispanic other races
9	...	Origin unknown or not stated

35 1

MRACEIMP
Race of Mother Imputation Flag

Blank	...	Race is not imputed
1	...	Race is imputed
2	...	All other races, formerly code 09, is imputed

36-37 2

MRACE
Race of Mother - Birth Record or for Unlinked Records Race of Decedent from Death Record

Beginning with 1992 data, some areas started reporting additional Asian or Pacific Islander codes for race. Codes 18-68 replace old code 08 for these areas. Code 78 replaces old code 08 for all other areas. For consistency with Census race code 09 (all other races) used prior to 1992 has been imputed.

United States Occurrence

01	...	White
02	...	Black
03	...	American Indian (includes Aleuts and Eskimos)
04	...	Chinese
05	...	Japanese
06	...	Hawaiian (includes part-Hawaiian)
07	...	Filipino
18	...	Asian Indian
28	...	Korean
38	...	Samoan
48	...	Vietnamese
58	...	Guamanian
68	...	Other Asian or Pacific Islander in areas reporting codes 18-58
78	...	Combined other Asian or Pacific Islander, includes codes 18-68 for areas that do not report them separately

Item Location	Item Length	Variable Name, Item and Code Outline
36-37	2	**MRACE** **Race of Mother - Birth Record or for Unlinked Records Race of Decedent from Death Record (Cond't)**

Puerto Rico Occurrence

00	...	Other races
01	...	White
02	...	Black

Virgin Islands Occurrence

01	...	White
02	...	Black
03	...	American Indian (includes Aleuts and Eskimos)
04	...	Chinese
05	...	Japanese
06	...	Hawaiian (includes part-Hawaiian)
07	...	Filipino
08	...	Other Asian or Pacific Islander

Guam Occurrence

01	...	White
02	...	Black
03	...	American Indian (includes Aleuts and Eskimos)
04	...	Chinese
05	...	Japanese
06	...	Hawaiian (includes part-Hawaiian)
07	...	Filipino
08	...	Other Asian or Pacific Islander
58	...	Guamanian

38	1	**MRACE3** **Race of Mother Recode**

1	...	White
2	...	Races other than White or Black
3	...	Black

Item Location	Item Length	Variable Name, Item and Code Outline
39-40	2	**DMEDUC** **Education of Mother Detail** All areas report education of mother. 00 ... No formal education 01-08 ... Years of elementary school 09 ... 1 year of high school 10 ... 2 years of high school 11 ... 3 years of high school 12 ... 4 years of high school 13 ... 1 year of college 14 ... 2 years of college 15 ... 3 years of college 16 ... 4 years of college 17 ... 5 or more years of college 99 ... Not stated
41	1	**MEDUC6** **Education of Mother Recode** 1 ... 0 - 8 years 2 ... 9 - 11 years 3 ... 12 years 4 ... 13 - 15 years 5 ... 16 years and over 6 ... Not stated
42	1	**DMARIMP** **Marital Status of Mother Imputation Flag** Blank ... Marital status is not imputed 1 ... Marital status is imputed
43	1	**DMAR** **Marital Status of Mother** Marital status is not reported by all areas. See reporting flags. **United States/Virgin Islands/Guam Occurrence** 1 ... Married 2 ... Unmarried 9 ... Unknown or not stated **Puerto Rico Occurrence** 1 ... Married 2 ... Unmarried parents living together 3 ... Unmarried parents not living together 9 ... Unknown or not stated

Item Location	Item Length	Variable Name, Item and Code Outline		
44-45	2	**MPLBIR**		
		Place of Birth of Mother		
		01	...	Alabama
		02	...	Alaska
		03	...	Arizona
		04	...	Arkansas
		05	...	California
		06	...	Colorado
		07	...	Connecticut
		08	...	Delaware
		09	...	District of Columbia
		10	...	Florida
		11	...	Georgia
		12	...	Hawaii
		13	...	Idaho
		14	...	Illinois
		15	...	Indiana
		16	...	Iowa
		17	...	Kansas
		18	...	Kentucky
		19	...	Louisiana
		20	...	Maine
		21	...	Maryland
		22	...	Massachusetts
		23	...	Michigan
		24	...	Minnesota
		25	...	Mississippi
		26	...	Missouri
		27	...	Montana
		28	...	Nebraska
		29	...	Nevada
		30	...	New Hampshire
		31	...	New Jersey
		32	...	New Mexico
		33	...	New York
		34	...	North Carolina
		35	...	North Dakota
		36	...	Ohio
		37	...	Oklahoma
		38	...	Oregon
		39	...	Pennsylvania
		40	...	Rhode Island
		41	...	South Carolina
		42	...	South Dakota
		43	...	Tennessee
		44	...	Texas
		45	...	Utah
		46	...	Vermont
		47	...	Virginia
		48	...	Washington
		49	...	West Virginia

Item Location	Item Length	Variable Name, Item and Code Outline
44-45	2	**MPLBIR** **Place of Birth of Mother (Cont'd)**

50	...	Wisconsin
51	...	Wyoming
52	...	Puerto Rico
53	...	Virgin Islands
54	...	Guam
55	...	Canada
56	...	Cuba
57	...	Mexico
59	...	Remainder of the World
99	...	Not Classifiable

46 1 **MPLBIRR**
Place of Birth of Mother Recode

United States Occurrence

1	...	Born in the 50 States and D.C.
2	...	Born outside the 50 States and DC
3	...	Unknown or not stated

Puerto Rico/Virgin Island/ Guam Occurrence

Blank	...	This item not recorded

47-48 2 **DTOTORD**
Detail Total Birth Order

Sum of live birth order and other terminations of pregnancy. If either item is unknown, this item is made unknown.

01-40	...	Total number of live births and other terminations of pregnancy
99	...	Unknown

49-50 2 **DLIVORD**
Detail Live Birth Order

Sum of live births now living and now dead plus one. If either item is unknown, this item is made unknown.

00-31	...	Number of children born alive to mother
99	...	Unknown

Item Location	Item Length	Variable Name, Item and Code Outline
51-52	2	**MONPRE** **Detail Month of Pregnancy Prenatal Care Began**

00	...	No prenatal care
01	...	1st month
02	...	2nd month
03	...	3rd month
04	...	4th month
05	...	5th month
06	...	6th month
07	...	7th month
08	...	8th month
09	...	9th month
99	...	Unknown or not stated

53	1	**MPRE5** **Month Prenatal Care Began Recode 5**

1	...	1st Trimester (1st-3rd month)
2	...	2nd Trimester (4th-6th month)
3	...	3rd Trimester (7th-9th month)
4	...	No prenatal care
5	...	Unknown or not stated

54-55	2	**NPREVIST** **Total Number of Prenatal Visits**

00	...	No prenatal visits
01-48	...	Stated number of visits
49	...	49 or more visits
99	...	Unknown or not stated

56	1	**ADEQUACY** **Adequacy of Care Recode (Kessner Index)**

This code is based on a modified Kessner criterion. Month Prenatal Care Began, Number of Prenatal Visits, and Gestation are the items used to generate this recode.

1	...	Adequate
2	...	Intermediate
3	...	Inadequate
4	...	Unknown

57-59	3	**R1** **Reserved Positions**

Item Location	Item Length	Variable Name, Item and Code Outline
60	1	**FAGERFLG** **Reported Age of Father Used Flag** This position is flagged whenever the Father's reported age in years is used. The reported age is used, if valid, when age derived from date of birth is not available or when it is less than 10. Blank ... Reported age is not used 1 ... Reported age is used
61-62	2	**DFAGE** **Age of Father** This item is either computed from date of birth of father and of child or is the reported age. This is the age item used in NCHS publications. 10-98 ... Age in single years 99 ... Unknown or not stated
63	1	**ORFATH** **Hispanic Origin of Father** Hispanic origin is reported for all areas except Puerto Rico. 0 ... Non-Hispanic 1 ... Mexican 2 ... Puerto Rican 3 ... Cuban 4 ... Central or South American 5 ... Other and unknown Hispanic 9 ... Origin unknown or not stated
64	1	**ORRACEF** **Hispanic Origin and Race of Father Recode** Hispanic origin is reported for all areas except Puerto Rico. 1 ... Mexican 2 ... Puerto Rican 3 ... Cuban 4 ... Central or South American 5 ... Other and unknown Hispanic 6 ... Non-Hispanic White 7 ... Non-Hispanic Black 8 ... Non-Hispanic other or unknown race 9 ... Origin unknown or not stated

Item Location	Item Length	Variable Name, Item and Code Outline
65-66	2	**FRACE** **Race of Father**

Beginning with 1992 data, some areas started reporting additional Asian or Pacific Islander codes for race. See reporting flags. Codes 18 -68 replace old code 08 for these areas. Code 78 replaces old code 08 for all other areas. Code 09 (all other races) has been changed to 99.

United States Occurrence

01	...	White
02	...	Black
03	...	American Indian (includes Aleuts and Eskimos)
04	...	Chinese
05	...	Japanese
06	...	Hawaiian (includes part-Hawaiian)
07	...	Filipino
18	...	Asian Indian
28	...	Korean
38	...	Samoan
48	...	Vietnamese
58	...	Guamanian
68	...	Other Asian or Pacific Islander in areas reporting codes 18-58
78	...	Combined other Asian or Pacific Islander, includes codes 18-68 for areas that do not report them separately
99	...	Unknown or not stated

Puerto Rico Occurrence

00	...	Other races
01	...	White
02	...	Black
99	...	Unknown or not stated

Virgin Islands Occurrence

01	...	White
02	...	Black
03	...	American Indian (includes Aleuts and Eskimos)
04	...	Chinese
05	...	Japanese
06	...	Hawaiian (includes part-Hawaiian)
07	...	Filipino
08	...	Other Asian or Pacific Islander
99	...	Unknown or not stated

Item Location	Item Length	Variable Name, Item and Code Outline
65-66	2	**FRACE** **Race of Father (Cont'd)** **Guam Occurrence** 01 ... White 02 ... Black 03 ... American Indian (includes Aleuts and Eskimos) 04 ... Chinese 05 ... Japanese 06 ... Hawaiian (includes part-Hawaiian) 07 ... Filipino 08 ... Other Asian or Pacific Islander 58 ... Guamanian 99 ... Unknown or not stated
67	1	**PLDEL** **Place or Facility of Delivery** 1 ... Hospital 2 ... Freestanding Birthing Center 3 ... Clinic or Doctor's Office 4 ... A Residence 5 ... Other 9 ... Unknown or not stated
68	1	**BIRATTND** **Attendant at Delivery** 1 ... Doctor of Medicine (M.D.) 2 ... Doctor of Osteopathy (D.O.) 3 ... Certified Nurse Midwife (C.N.M.) 4 ... Other Midwife 5 ... Other 9 ... Unknown or not stated
69	1	**R2** **Reserved position**
70	1	**GESTESTM** **Clinical Estimate of Gestation Used Flag** This position is flagged whenever the clinical estimate of gestation is used. It is used when gestation could not be computed or when the computed gestation is outside the 17-47 code range. Blank ... Clinical Estimate is not used 1 ... Clinical Estimate is used

Item Location	Item Length	Variable Name, Item and Code Outline
71-72	2	**CLINGEST** **Clinical Estimate of Gestation** Clinical estimate is not reported by all areas. See reporting flags. 17-47 ... Estimated gestation in weeks 99 ... Unknown or not stated
73	1	**GESTIMP** **Gestation Imputation Flag** Blank ... Gestation is not imputed 1 ... Gestation is imputed
74-75	2	**GESTAT** **Gestation - Detail in Weeks** This item is: a) computed using dates of birth of child and last normal menses; b) imputed from LMP date; c) the clinical estimate; or d) unknown when there is insufficient data to impute or no valid clinical estimate. This is the gestation item used in NCHS publications. 17-47 ... 17th through 47th week of gestation 99 ... Unknown
76-77	2	**GESTAT 10** **GESTATION RECODE 10** 01 ... Under 20 weeks 02 ... 20 - 27 weeks 03 ... 28 - 31 weeks 04 ... 32 - 35 weeks 05 ... 36 weeks 06 ... 37 - 39 weeks 07 ... 40 weeks 08 ... 41 weeks 09 ... 42 weeks and over 10 ... Not stated
78	1	**CSEXIMP** **Sex Imputation Flag** Blank ... Sex is not imputed 1 ... Sex is imputed
79	1	**CSEX** **Sex** 1 ... Male 2 ... Female

Item Location	Item Length	Variable Name, Item and Code Outline
80-87	8	**BIRTHWEIGHT**

Beginning in 1995, an imputation for not-stated birthweight was added to reduce potential bias in the data (see section on changes beginning with the 1995 data year in the introductory text to this documentation). The following imputation flag can be used to delete imputed values for those researchers wishing to use only reported birthweight data.

80 1 **BWIF**
Birthweight Imputation Flag

Blank	...	Birthweight is not imputed
1	...	Birthweight is imputed

81-84 4 **DBIRWT**
Birthweight Detail in Grams (Imputed)

0227-8165	...	Number of grams
9999	...	Not stated birth weight

85-86 2 **BIRWT12**
Birthweight Recode 12 (Imputed)

01	...	499 grams or less
02	...	500-999 grams
03	...	1000-1499 grams
04	...	1500-2000 grams
05	...	2000-2499 grams
06	...	2500-2999 grams
07	...	3000-3499 grams
08	...	3500-3999 grams
09	...	4000-4499 grams
10	...	4500-4999 grams
11	...	5000-8165 grams
12	...	Unknown or not stated

87 1 **BIRWT4**
Birthweight Recode 4 (Imputed)

1	...	1499 grams or less
2	...	1500-2499 grams
3	...	2500 grams or more
4	...	Unknown or not stated

88 1 **PLURIMP**
Plurality Imputation Flag

Blank	...	Plurality is not imputed
1	...	Plurality is imputed

Item Location	Item Length	Variable Name, Item and Code Outline
89	1	**DPLURAL** **Plurality** 1 ... Single 2 ... Twin 3 ... Triplet 4 ... Quadruplet 5 ... Quintuplet or higher
90-91	2	**FMAPS** **Five-Minute Apgar Score** Apgar score is not reported by all areas. See reporting flags. 00-10 ... A score of 0-10 99 ... Unknown or not stated
92-186	95	**MEDINFO** **Medical and Health Data** Some States do not report an entire item while other States do not report all of the categories within an item. If an item is not reported, it is indicated by code zero in the appropriate reporting flag. If a category within an item is not reported it is indicated by code 8 in the position for that category.
92-99	8	**DELMETH** **Method of Delivery** Each method is assigned a separate position, and the code structure for each method (position) is: 1 ... The method was used 2 ... The method was not used 8 ... Method not on certificate 9 ... Method unknown or not stated
92	1	**VAGINAL** **Vaginal**
93	1	**VBAC** **Vaginal Birth After Previous C-Section**
94	1	**PRIMAC** **Primary C-Section**
95	1	**REPEAC** **Repeat C-Section**
96	1	**FORCEP** **Forceps**

Item Location	Item Length	Variable Name, Item and Code Outline
97	1	**VACUUM** **Vacuum**
98	1	**R3** **Reserved Position**
99	1	**DELMETH5** **Method of Delivery Recode** 1 ... Vaginal (excludes Vaginal after previous C-section) 2 ... Vaginal birth after previous C section 3 ... Primary C-section 4 ... Repeat C-Section 5 ... Not stated
100-117	18	**MEDRISK** **Medical Risk Factors** Each risk factor is assigned a separate position, and the code structure for each risk factor (position) is: 1 ... Factor reported 2 ... Factor not reported 8 ... Factor not on certificate 9 ... Factor not classifiable
100	1	**MRFLAG** **No Medical Risk Factors Reported Flag** Blank ... One or more medical risk factors coded, one, eight, or nine 2 ... No medical risk factors reported. Each factor is coded a two.
101	1	**ANEMIA** **Anemia (Hct.<30/Hgb.<10)**
102	1	**CARDIAC** **Cardiac disease**
103	1	**LUNG** **Acute or chronic lung disease**
104	1	**DIABETES** **Diabetes**
105	1	**HERPES** **Genital herpes**
106	1	**HYDRA** **Hydramnios/Oligohydramnios**

Item Location	Item Length	Variable Name, Item and Code Outline
107	1	**HEMO** **Hemoglobinopathy**
108	1	**CHYPER** **Hypertension, chronic**
109	1	**PHYPER** **Hypertension, pregnancy-associated**
110	1	**ECLAMP** **Eclampsia**
111	1	**INCERVIX** **Incompetent cervix**
112	1	**PRE4000** **Previous infant 4000+ grams**
113	1	**PRETERM** **Previous preterm or small-for-gestational-age infant**
114	1	**RENAL** **Renal disease**
115	1	**RH** **Rh sensitization**
116	1	**UTERINE** **Uterine bleeding**
117	1	**OTHERMR** **Other Medical Risk Factors**
118-128	11	**OTHERRSK** **Other Risk Factors for this Pregnancy**
118-121	4	**TOBACRSK** **Tobacco Risks**
118	1	**TOBACCO** **Tobacco Use During Pregnancy** 1 ... Yes 2 ... No 9 ... Unknown or not stated
119-120	2	**CIGAR** **Average Number of Cigarettes Per Day** 00-97 ... As stated 98 ... 98 or more cigarettes per day 99 ... Unknown or not stated

Item Location	Item Length	Variable Name, Item and Code Outline		
121	1	**CIGAR6** **Average Number of Cigarettes Per Day Recode**		
		0	...	Nonsmoker
		1	...	1-5 cigarettes per day
		2	...	6-10 cigarettes per day
		3	...	11-20 cigarettes per day
		4	...	21-40 cigarettes per day
		5	...	41 or more cigarettes per day
		6	...	Unknown or not stated
122-125	4	**ALCOHRSK** **Alcohol**		
122	1	**ALCOHOL** **Alcohol Use During Pregnancy**		
		1	...	Yes
		2	...	No
		9	...	Unknown or not stated
123-124	2	**DRINK** **Average Number of Drinks Per Week**		
		00-97	...	As stated
		98	...	98 or more drinks per week
		99	...	Unknown or not stated
125	1	**DRINK5** **Average Number of Drinks Per Week Recode**		
		0	...	Non drinker
		1	...	1 drink per week
		2	...	2 drinks per week
		3	...	3-4 drinks per week
		4	...	5 or more drinks per week
		5	...	Unknown or not stated
126-128	3	**WTGANRSK** **Weight Gain During Pregnancy**		
126-127	2	**WTGAIN** **Weight Gain**		
		00-97	...	Stated number of pounds
		98	...	98 pounds or more
		99	...	Unknown or not stated

Item Location	Item Length	Variable Name, Item and Code Outline
128	1	**WTGAIN9** **Weight Gain Recode** 1 ... Less than 16 pounds 2 ... 16-20 pounds 3 ... 21-25 pounds 4 ... 26-30 pounds 5 ... 31-35 pounds 6 ... 36-40 pounds 7 ... 41-45 pounds 8 ... 46 or more pounds 9 ... Unknown or not stated
129-136	8	**OBSTETRC** **Obstetric Procedures** Each procedure is assigned a separate position, and the code structure for each procedure (position) is: 1 ... Procedure reported 2 ... Procedure not reported 8 ... Procedure not on certificate 9 ... Procedure not classifiable
129	1	**OBFLAG** **Obstetric Flag** Blank ... One or more obstetric procedures coded, one, eight, or nine 2 ... No obstetric procedures reported. Each factor is coded a two.
130	1	**AMNIO** **Amniocentesis**
131	1	**MONITOR** **Electronic fetal monitoring**
132	1	**INDUCT** **Induction of labor**
133	1	**STIMULA** **Stimulation of labor**
134	1	**TOCOL** **Tocolysis**
135	1	**ULTRAS** **Ultrasound**
136	1	**OTHEROB** **Other Obstetric Procedures**

Item Location	Item Length	Variable Name, Item and Code Outline
137-153	17	**LABOR** **Complications of Labor and/or Delivery** Each complication is assigned a separate position, and the code structure for each complication (position) is: 1 ... Complication reported 2 ... Complication not reported 8 ... Complication not on certificate 9 ... Complication not classifiable
137	1	**FBFLAG** **Labor Flag** Blank ... One or more labor and/or delivery complications coded, one, eight, or nine 2 ... No labor and/or delivery complication reported. Each factor is coded a two.
138	1	**FEBRILE** **Febrile (>100 degrees F. or 38 degrees C.)**
139	1	**MECONIUM** **Meconium, moderate/heavy**
140	1	**RUPTURE** **Premature rupture of membrane (>12 hours)**
141	1	**ABRUPTIO** **Abruptio placenta**
142	1	**PREPLACE** **Placenta previa**
143	1	**EXCEBLD** **Other excessive bleeding**
144	1	**SEIZURE** **Seizures during labor**
145	1	**PRECIP** **Precipitous labor (<3 hours)**
146	1	**PROLONG** **Prolonged labor (>20 hours)**
147	1	**DYSFUNC** **Dysfunctional labor**
148	1	**BREECH** **Breech/Malpresentation**

Item Location	Item Length	Variable Name, Item and Code Outline
149	1	**CEPHALO** **Cephalopelvic disproportion**
150	1	**CORD** **Cord prolapse**
151	1	**ANESTHE** **Anesthetic complications**
152	1	**DISTRESS** **Fetal distress**
153	1	**OTHERLB** **Other Complications of Labor and/or Delivery**
154-163	10	**NEWBORN** **Abnormal conditions of the Newborn** Each condition is assigned a separate position, and the code structure for each condition (position)is: 1 ... Condition reported 2 ... Condition not reported 8 ... Condition not on certificate 9 ... Condition not classifiable
154	1	**NBFLAG** **Newborn Flag** Blank ... One or more abnormal conditions of the newborn coded, one, eight, or nine 2 ... No abnormal condition of the newborn reported. Each factor is coded a two.
155	1	**NANEMIA** **Anemia Hct.>39/Hgb.<13)**
156	1	**INJURY** **Birth injury**
157	1	**ALCOSYN** **Fetal alcohol syndrome**
158	1	**HYALINE** **Hyaline membrane disease**
159	1	**MECONSYN** **Meconium aspiration syndrome**
160	1	**VENL30** **Assisted ventilation, less than 30 minutes**

Item Location	Item Length	Variable Name, Item and Code Outline
161	1	**VEN30M** **Assisted ventilation, 30 minutes or more**
162	1	**NSEIZ** **Seizures**
163	1	**OTHERAB** **Other Abnormal Conditions of the Newborn**
164-186	23	**CONGENIT** **Congenital Anomalies** Each anomaly is assigned a separate position, and the code structure for each anomaly (position) is: 1 ... Anomaly reported 2 ... Anomaly not reported 8 ... Anomaly not on certificate 9 ... Anomaly not classifiable
164	1	**CGFLAG** **Congenital Flag** Blank ... One or more congenital anomalies coded, one, eight, or nine 2 ... No congenital anomaly is reported. Each factor is coded a two.
165	1	**ANEN** **Anencephalus**
166	1	**SPINA** **Spina bifida/Meningocele**
167	1	**HYDRO** **Hydrocephalus**
168	1	**MICROCE** **Microcephalus**
169	1	**NERVOUS** **Other central nervous system anomalies**
170	1	**HEART** **Heart malformations**
171	1	**CIRCUL** **Other circulatory/respiratory anomalies**
172	1	**RECTAL** **Rectal atresia/stenosis**

Item Location	Item Length	Variable Name, Item and Code Outline
173	1	**TRACHEO** **Tracheo-esophageal fistula/Esophageal atresia**
174	1	**OMPHALO** **Omphalocele/Gastroschisis**
175	1	**GASTRO** **Other gastrointestinal anomalies**
176	1	**GENITAL** **Malformed genitalia**
177	1	**RENALAGE** **Renal agenesis**
178	1	**UROGEN** **Other urogenital anomalies**
179	1	**CLEFTLP** **Cleft lip/palate**
180	1	**ADACTYLY** **Polydactyly/Syndactyly/Adactyly**
181	1	**CLUBFOOT** **Club foot**
182	1	**HERNIA** **Diaphragmatic hernia**
183	1	**MUSCULO** **Other musculoskeletal/integumental anomalies**
184	1	**DOWNS** **Down's syndrome**
185	1	**CHROMO** **Other chromosomal anomalies**
186	1	**OTHERCON** **Other congenital anomalies**
187-203	17	**FLRES** **Reporting Flags for Place of Residence** These positions contain flags to indicate whether or not the specified item is included on the birth certificate of the State of residence or of the SMSA of residence. The code structure of each flag (position) is: 0 ... The item is not reported 1 ... The item is reported or partially reported.

Item Location	Item Length	Variable Name, Item and Code Outline
187	1	**ORIGM** **Origin of mother**
188	1	**ORIGF** **Origin of father**
189	1	**EDUCM** **Education of mother**
190	1	**R4** **Reserved Position**
191	1	**GESTE** **Clinical estimate of gestation**
192	1	**R5** **Reserved position**
193	1	**FMAPSRF** **5-minute Apgar score**
194	1	**DELMETRF** **Method of delivery**
195	1	**MEDRSK** **Medical risk factors**
196	1	**TOBUSE** **Tobacco use**
197	1	**ALCUSE** **Alcohol use**
198	1	**WTGN** **Weight gain**
199	1	**OBSTRC** **Obstetric procedures**
200	1	**CLABOR** **Complications of labor and/or delivery**
201	1	**ABNML** **Abnormal conditions of newborn**
202	1	**CONGAN** **Congenital anomalies**
203	1	**API flag** **Race codes 18-68 reported (beginning with 1992 data)**

Item Location	Item Length	Variable Name, Item and Code Outline
204	1	**CDOBMIMP** **Month of Birth of Child Imputation Flag** Blank ... Month is not imputed 1 ... Month is imputed
205-206	2	**BIRMON** **Month of Birth** 01 ... January 02 ... February 03 ... March 04 ... April 05 ... May 06 ... June 07 ... July 08 ... August 09 ... September 10 ... October 11 ... November 12 ... December
207-208	2	**R6** **Reserved Position**
209	1	**WEEKDAYB** **Day of Week Child Born** 1 ... Sunday 2 ... Monday 3 ... Tuesday 4 ... Wednesday 5 ... Thursday 6 ... Friday 7 ... Saturday
210	1	**FLGND** **Flag Indicating Records Included in Both Numerator and Denominator Files** This variable is included in the denominator file only, and identifies a record which is also included in the numerator file. Please note that not all infant deaths in the numerator file are represented in the denominator file, because some of the infants who died in 2000 were born in 1998. 1 ... Record also included in numerator file Blank ... Record not included in numerator file

Here ends the Denominator file. Documentation for the Mortality Section of the Numerator (Linked) file begins on the next page.

Locations 211-535 contain data from the Death Certificate. Residence items in the Denominator Record and in the natality section of the Numerator (Linked) Record refer to the usual place of residence of the Mother; whereas in the mortality section of the Numerator (Linked) Record, these items refer to the place of residence of the Decedent.

Item Location	Item Length	Variable Name, Item and Code Outline
211-213	3	**AGED** **Age at Death in Days** The generated age at death in days is calculated from the date of death on the death certificate minus the date of birth on the birth certificate unless the reported age of death is less than 2 days, then the reported age is used. If the exact date of birth and/or death is unknown, the age is imputed. 000-364 ... Number of days
214	1	**AGER5** **Infant Age Recode 5** 1 ... Under 1 hour 2 ... 1-23 hours 3 ... 1-6 days 4 ... 7-27 days (late neonatal) 5 ... 28 days and over (postneonatal)
215	1	**ACCIDPL** **Place of Accident for Causes W00-Y34, except Y06.- and Y07.-** Blank ... Causes other than W00-Y34, except Y06.- and Y07.- 0 ... Home 1 ... Residential institution 2 ... School, other institution and public administrative area 3 ... Sports and athletics area 4 ... Street and highway 5 ... Trade and service area 6 ... Industrial and construction area 7 ... Farm 8 ... Other specified places 9 ... Unspecified place
216-219	4	**UCOD** **ICD Code (10th Revision)** See the International Classification of Diseases, 1992 Revision, Volume 1.

Item Location	Item Length	Variable Name, Item and Code Outline
220-222	3	**UCODR130** **130 Infant Cause Recode** A recode of the ICD cause code into 130 groups for NCHS publications. Further back in this document is a complete list of recodes and the causes included. 001-158 ... Code range (not inclusive)
223-230	8	**RECWT** **Record weight** Beginning in 1995, a record weight was added to the linked file to adjust for the approximately 2-3% of records each year which cannot be linked to their corresponding birth certificates (see introduction to this tape documentation for further details). These weights are used to produce all NCHS linked file tables, including Documentation tables 1-5 included in this tape documentation. The general format for this record weight is the number one followed by a decimal point and six decimal places as follows: 1.XXXXXX

Item Location	Item Length	Variable Name, Item and Code Outline
261-504	244	**MULTCOND** **Multiple Conditions** See the "International Classification of Diseases", 1992 Revision, Volume 1. Both the entity-axis and record-axis conditions are coded according to this revision (10th).
261-262	2	**EANUM** **Number of Entity-Axis Conditions** 00-20 ... Code range
263-402	140	**ENTITY** **ENTITY - AXIS CONDITIONS** Space has been provided for a maximum of 20 conditions. Each condition takes 7 positions in the record. **The 7th position will be blank.** Records that do not have 20 conditions are blank in the unused area. Position 1: Part/line number on certificate 1 ... Part I, line 1 (a) 2 ... Part I, line 2 (b) 3 ... Part I, line 3 (c) 4 ... Part I, line 4 (d) 5 ... Part I, line 5 (e) 6 ... Part II, Position 2: Sequence of condition within part/line 1-7 ... Code range Position 3 - 6: Condition code (ICD 10th Revision) Position 7: Nature of Injury Flag 1 ... Indicates that the code in positions 3-6 is a Nature of Injury code 0 ... All other codes
263-269	7	**1st Condition**
270-276	7	**2nd Condition**
277-283	7	**3rd Condition**
284-290	7	**4th Condition**
291-297	7	**5th Condition**

Item Location	Item Length	Variable Name, Item and Code Outline
298-304	7	**6th Condition**
305-311	7	**7th Condition**
312-318	7	**8th Condition**
319-325	7	**9th Condition**
326-332	7	**10th Condition**
333-339	7	**11th Condition**
340-346	7	**12th Condition**
347-353	7	**13th Condition**
354-360	7	**14th Condition**
361-367	7	**15th Condition**
368-374	7	**16th Condition**
375-381	7	**17th Condition**
382-388	7	**18th Condition**
389-395	7	**19th Condition**
396-402	7	**20th Condition**
403-404	2	**RANUM** **Number of Record-Axis Conditions** 00-20 ... Code range
405-504	100	**RECORD** **RECORD - AXIS CONDITIONS** Space has been provided for a maximum of 20 conditions. Each condition takes 5 positions in the record. **The 5th position will be blank.** Records that do not have 20 conditions are blank in the unused area. Positions 1-4: Condition code (ICD 10th Revision) Position 5: Nature of Injury Flag 1 ... Indicates that the code in positions 1-4 is a Nature of Injury code 0 ... All other codes

Item Location	Item Length	Variable Name, Item and Code Outline
405-409	5	**1st Condition**
410-414	5	**2nd Condition**
415-419	5	**3rd Condition**
420-424	5	**4th Condition**
425-429	5	**5th Condition**
430-434	5	**6th Condition**
435-439	5	**7th Condition**
440-444	5	**8th Condition**
445-449	5	**9th Condition**
450-454	5	**10th Condition**
455-459	5	**11th Condition**
460-464	5	**12th Condition**
465-469	5	**13th Condition**
470-474	5	**14th Condition**
475-479	5	**15th Condition**
480-484	5	**16th Condition**
485-489	5	**17th Condition**
490-494	5	**18th Condition**
495-499	5	**19th Condition**
500-504	5	**20th Condition**
505	1	**RESSTATD** **Resident Status - Death** **United States Occurrence** 1 ... RESIDENTS: State and county of occurrence and residence are the same. 2 ... INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different. 3 ... INTERSTATE NONRESIDENTS: State of occurrence and residence are different, but both are in the 50 States and D.C. 4 ... FOREIGN RESIDENTS: State of occurrence is one of the 50 States or the District of Columbia, but place of residence is outside of the 50 States and D.C.

Item Location	Item Length	Variable Name, Item and Code Outline

505 1 **RESSTATD**

Resident Status - Death (Cont'd)

Puerto Rico Occurrence

1 ... RESIDENTS: State and county of occurrence and residence are the same.

2 ... INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different.

4 ... FOREIGN RESIDENTS: Occurred in Puerto Rico to a resident of any other place.

Virgin Islands Occurrence

1 ... RESIDENTS: State and county of occurrence and residence are the same.

2 ... INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different.

4 ... FOREIGN RESIDENTS: Occurred in the Virgin Islands to a resident of any other place.

Guam Occurrence

1 ... RESIDENTS: Occurred in Guam to a resident of Guam or to a resident of the U.S.

4 ... FOREIGN RESIDENTS: Occurred in Guam to a resident of any place other than Guam or the U.S.

506-507 2 **DRSTATE**

Expanded State of Residence - NCHS Codes - Deaths

This item is designed to separately identify New York City records from other New York State records.

United States Occurrence

01 ... Alabama
02 ... Alaska
03 ... Arizona
04 ... Arkansas
05 ... California
06 ... Colorado
07 ... Connecticut
08 ... Delaware
09 ... District of Columbia
10 ... Florida
11 ... Georgia
12 ... Hawaii
13 ... Idaho
14 ... Illinois
15 ... Indiana
16 ... Iowa
17 ... Kansas
18 ... Kentucky
19 ... Louisiana
20 ... Maine

Item Location	Item Length	Variable Name, Item and Code Outline
506-507	2	**DRSTATE** **Expanded State of Residence - NCHS Codes - Deaths (Cont'd)**

United States Occurrence

21	...	Maryland
22	...	Massachusetts
23	...	Michigan
24	...	Minnesota
25	...	Mississippi
26	...	Missouri
27	...	Montana
28	...	Nebraska
29	...	Nevada
30	...	New Hampshire
31	...	New Jersey
32	...	New Mexico
33	...	New York
34	...	New York City
35	...	North Carolina
36	...	North Dakota
37	...	Ohio
38	...	Oklahoma
39	...	Oregon
40	...	Pennsylvania
41	...	Rhode Island
42	...	South Carolina
43	...	South Dakota
44	...	Tennessee
45	...	Texas
46	..	Utah
47	...	Vermont
48	...	Virginia
49	...	Washington
50	...	West Virginia
51	...	Wisconsin
52	...	Wyoming
53-58,60	...	Foreign Residents
53	...	Puerto Rico
54	...	Virgin Islands
55	...	Guam
56	...	Canada
57	...	Cuba
58	...	Mexico
60	...	Remainder of the World

Puerto Rico Occurrence

53	...	Puerto Rico
01-52,54-58,60	...	Foreign Residents: Refer to U.S. for specific code structure.

Item Location	Item Length	Variable Name, Item and Code Outline
506-507	2	**DRSTATE** **Expanded State of Residence - NCHS Codes - Deaths (Cont'd)**

Virgin Islands Occurrence

54	...	Virgin Islands
01-53,55-58,60	...	Foreign Residents: Refer to U.S. for specific code structure.

Guam Occurrence

55	...	Guam
01-52	...	U.S. resident is also considered a resident of Guam.
53,54,58,60	...	Foreign Residents: Refer to U.S. for specific code structure.

508-512 5 **FIPSOCCD**
Federal Information Processing Standards (FIPS) Geographic Codes (Occurrence) - Death

Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications.

508-509 2 **STOCCFIPD**
State of Occurrence (FIPS) - Death

United States

01	...	Alabama
02	...	Alaska
04	...	Arizona
05	...	Arkansas
06	...	California
08	...	Colorado
09	...	Connecticut
10	...	Delaware
11	...	District of Columbia
12	...	Florida
13	...	Georgia
15	...	Hawaii
16	...	Idaho
17	...	Illinois
18	...	Indiana
19	...	Iowa
20	...	Kansas
21	...	Kentucky
22	...	Louisiana
23	...	Maine
24	...	Maryland
25	...	Massachusetts
26	...	Michigan
27	...	Minnesota
28	...	Mississippi
29	...	Missouri
30	...	Montana

Item Location	Item Length	Variable Name, Item and Code Outline
508-509	2	**STOCCFIPD** **State of Occurrence (FIPS) - Death (Cont'd)**

United States

31	...	Nebraska
32	...	Nevada
33	...	New Hampshire
34	...	New Jersey
35	...	New Mexico
36	...	New York
37	...	North Carolina
38	...	North Dakota
39	...	Ohio
40	...	Oklahoma
41	...	Oregon
42	...	Pennsylvania
44	...	Rhode Island
45	...	South Carolina
46	...	South Dakota
47	...	Tennessee
48	...	Texas
49	...	Utah
50	...	Vermont
51	...	Virginia
53	...	Washington
54	...	West Virginia
55	...	Wisconsin
56	...	Wyoming

Puerto Rico

72	...	Puerto Rico

Virgin Islands

78	...	Virgin Islands

Guam

66	...	Guam

510-512	3	**CNTOCFIPD** **County of Occurrence (FIPS) - Death**

001-nnn	...	Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State. (Note: To uniquely identify a county, both the State and county codes must be used.)
999	...	County with less than 250,000 population

Item Location	Item Length	Variable Name, Item and Code Outline
513-517	5	**FIPSRESD** **Federal Information Processing Standards (FIPS) Geographic Codes (Residence) - Death** Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications.
513-514	2	**STRESFIPD** **State of Residence (FIPS) - Death**

United States Occurrence

00	...	Foreign residents
01	...	Alabama
02	...	Alaska
04	...	Arizona
05	...	Arkansas
06	...	California
08	...	Colorado
09	...	Connecticut
10	...	Delaware
11	...	District of Columbia
12	...	Florida
13	...	Georgia
15	...	Hawaii
16	...	Idaho
17	...	Illinois
18	...	Indiana
19	...	Iowa
20	...	Kansas
21	...	Kentucky
22	...	Louisiana
23	...	Maine
24	...	Maryland
25	...	Massachusetts
26	...	Michigan
27	...	Minnesota
28	...	Mississippi
29	...	Missouri
30	...	Montana
31	...	Nebraska
32	...	Nevada
33	...	New Hampshire
34	...	New Jersey
35	...	New Mexico
36	...	New York
37	...	North Carolina
38	...	North Dakota
39	...	Ohio
40	...	Oklahoma

Item Location	Item Length	Variable Name, Item and Code Outline
513-514	2	**STRESFIPD** **State of Residence (FIPS) - Death (Cont'd)**

United States Occurrence

41	...	Oregon
42	...	Pennsylvania
44	...	Rhode Island
45	...	South Carolina
46	...	South Dakota
47	...	Tennessee
48	...	Texas
49	...	Utah
50	...	Vermont
51	...	Virginia
53	...	Washington
54	...	West Virginia
55	...	Wisconsin
56	...	Wyoming

Puerto Rico Occurrence

72	...	Puerto Rico
00-56, 66,78	...	Foreign resident: Refer to U.S. for specific code structure.

Virgin Islands Occurrence

78	...	Virgin Islands
00-56, 66,72	...	Foreign resident: Refer to U.S. for specific code structure.

Guam Occurrence

66	...	Guam
01-56, 00,72,78	...	Foreign resident: Refer to U.S. for specific code structure.

515-517	3	**CNTYRFPD** **County of Residence (FIPS) - Death**

000	...	Foreign residents
001-nnn	...	Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State (Note: To uniquely identify a county, both the State and county codes must be used.) A complete list of counties is shown in the Geographic Code Outline further back in this document.
999	...	County with less than 250,000 population

Item Location	Item Length	Variable Name, Item and Code Outline
518-522	5	**PLRES** **Place (City) of Residence (FIPS)** A complete list of cities is shown in the Geographic code outline further back in this document. 00000 ... Foreign residents 00001-nnnnn ... Code range 99999 ... Balance of county; or city less than 250,000 population
523	1	**HOSPD** **Hospital and Patient Status** 1 ... Hospital, Clinic or Medical Center - Inpatient 2 ... Hospital, Clinic or Medical Center - Outpatient or admitted to Emergency Room 3 ... Hospital, Clinic or Medical Center - Dead on arrival 4 ... Hospital, Clinic or Medical Center - Patient status unknown 5 ... Nursing home 6 ... Residence 7 ... Other 9 ... Place of death unknown
524-527	4	**DTHYR** **Year of Death** 1998 ... Death occurred in 1998
528-529	2	**DTHMON** **Month of Death** 01 ... January 02 ... February 03 ... March 04 ... April 05 ... May 06 ... June 07 ... July 08 ... August 09 ... September 10 ... October 11 ... November 12 ... December
530-531	2	**R9** **Reserved Position**

Item Location	Item Length	Variable Name, Item and Code Outline		
532	1	**WEEKDAYD** **Day of Week of Death**		
		1	...	Sunday
		2	...	Monday
		3	...	Tuesday
		4	...	Wednesday
		5	...	Thursday
		6	...	Friday
		7	...	Saturday
		9	...	Unknown
533-535	3	**R10** **Reserved positions**		

Listings of Counties Identified in the Linked Data Set
Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
01		Alabama
	073	Jefferson
	097	Mobile
02		Alaska
04		Arizona
	013	Maricopa
	019	Pima
05		Arkansas
	119	Pulaski
06		California
	001	Alameda
	013	Contra Costa
	019	Fresno
	029	Kern
	037	Los Angeles
	053	Monterey
	059	Orange
	065	Riverside
	067	Sacramento
	071	San Bernardino
	073	San Diego
	075	San Francisco, coext. with San Francisco city
077		San Joaquin
	081	San Mateo
	083	Santa Barbara
	085	Santa Clara
	095	Solano
	097	Sonoma
	099	Stanislaus
	107	Tulare
	111	Ventura
08		Colorado
	001	Adams
	005	Arapahoe
	031	Denver, coext. with Denver city
	041	El Paso
	059	Jefferson

State	County	State and County Name
09		Connecticut
	001	Fairfield
	003	Hartford
	009	New Haven
	011	New London
10		Delaware
	003	New Castle
11		District of Columbia
	001	District of Columbia
12		Florida
	009	Brevard
	011	Broward
	025	Dade
	031	Duval
	033	Escambia
	057	Hillsborough
	071	Lee
	095	Orange
	099	Palm Beach
	101	Pasco
	103	Pinellas
	105	Polk
	115	Sarasota
	117	Seminole
	127	Volusia
13		Georgia
	067	Cobb
	089	De Kalb
	121	Fulton
	135	Gwinnett
15		Hawaii
	003	Honolulu
16		Idaho

State	County	State and County Name
17		Illinois
	031	Cook
	043	Du Page
	089	Kane
	097	Lake
	163	St. Clair
	197	Will
	201	Winnebago
18		Indiana
	003	Allen
	089	Lake
	097	Marion
19		Iowa
	153	Polk
20		Kansas
	091	Johnson
	173	Sedgwick
21		Kentucky
	111	Jefferson
22		Louisiana
	033	East Baton Rouge
	051	Jefferson
	071	Orleans, coext. with New Orleans city
23		Maine
24		Maryland
	003	Anne Arundel
	005	Baltimore
	510	Baltimore city
	031	Montgomery
	033	Prince George's
25		Massachusetts
	005	Bristol
	009	Essex
	013	Hampden
	017	Middlesex
	021	Norfolk
	023	Plymouth

	025	Suffolk
	027	Worcester

State	County	State and County Name
26		Michigan
	049	Genesee
	065	Ingham
	081	Kent
	099	Macomb
	125	Oakland
	161	Washtenaw
	163	Wayne
27		Minnesota
	037	Dakota
	053	Hennepin
	123	Ramsey
28		Mississippi
	049	Hinds
29		Missouri
	095	Jackson
	189	St. Louis
	510	St. Louis city
30		Montana
31		Nebraska
	055	Douglas
32		Nevada
	003	Clark
	031	Washoe
33		New Hampshire
	011	Hillsborough
34		New Jersey
	003	Bergen
	005	Burlington
	007	Camden
	013	Essex
	017	Hudson

State	County	State and County Name
	021	Mercer
	023	Middlesex
	025	Monmouth
	027	Morris
	029	Ocean
34		New Jersey
	031	Passaic
	039	Union
35		New Mexico
	001	Bernalillo
36		New York
	001	Albany
	027	Dutchess
	029	Erie
	055	Monroe
	059	Nassau
	085	Staten Island borough, Richmond county
	081	Queens borough, Queens county
	061	Manhattan borough, New York county
	047	Brooklyn borough, Kings county
	005	Bronx borough, Bronx county
	065	Oneida
	067	Onondaga
	071	Orange
	087	Rockland
	103	Suffolk
	119	Westchester
37		North Carolina
	051	Cumberland
	067	Forsyth
	081	Guilford
	119	Mecklenburg
	183	Wake
38		North Dakota
39		Ohio
	017	Butler
	035	Cuyahoga
	049	Franklin

	061	Hamilton
	093	Lorain
	095	Lucas
	099	Mahoning
	113	Montgomery
	151	Stark
	153	Summit

State	County	State and County Name
40		Oklahoma
	109	Oklahoma
	143	Tulsa
41		Oregon
	005	Clackamas
	039	Lane
	051	Multnomah
	067	Washington
42		Pennsylvania
	003	Allegheny
	011	Berks
	017	Bucks
	029	Chester
	045	Delaware
	049	Erie
	071	Lancaster
	077	Lehigh
	079	Luzerne
	091	Montgomery
	101	Philadelphia, coext. with Philadelphia city
	129	Westmoreland
	133	York
44		Rhode Island
	007	Providence
45		South Carolina
	019	Charleston
	045	Greenville
	079	Richland
46		South Dakota

47		Tennessee
	037	Davidson
	065	Hamilton
	093	Knox
	157	Shelby
48		Texas
	029	Bexar
	061	Cameron
	085	Collin

State	County	State and County Name
48		Texas
	113	Dallas
	121	Denton
	141	El Paso
	201	Harris
	215	Hidalgo
	355	Nueces
	439	Tarrant
	453	Travis
49		Utah
	035	Salt Lake
	049	Utah
50		Vermont
51		Virginia
	059	Fairfax
	710	Norfolk city
	810	Virginia Beach city
53		Washington
	033	King
	053	Pierce
	061	Snohomish
	063	Spokane
54		West Virginia
55		Wisconsin
	025	Dane
	079	Milwaukee
	133	Waukesha

56		Wyoming

State	County	State and County Name
72		Puerto Rico
	127	San Juan
78		Virgin Islands
66	010	Guam
00	000	Canada
00	000	Cuba
00	000	Mexico
00	000	Remainder of World

Listing of Cities/Places Identified in the Linked Data Set
Vital Statistics Geographic Code Outline Effective With 2000 Data

State	FIPS Codes City/Place	State and City/Place Name
01		Alabama
	07000	Birmingham
02		Alaska
04		Arizona
	46000	Mesa
	55000	Phoenix
	77000	Tucson
05		Arkansas
06		California
	02000	Anaheim
	27000	Fresno
	43000	Long Beach
	44000	Los Angeles
	53000	Oakland
	64000	Sacramento
	66000	San Diego
	67000	San Francisco
	68000	San Jose
	69000	Santa Ana
08		Colorado
	16000	Colorado Springs
	20000	Denver
09		Connecticut
10		Delaware
11		District of Columbia
	50000	Washington
12		Florida
	35000	Jacksonville
	45000	Miami
	71000	Tampa
13		Georgia
	04000	Atlanta

FIPS Codes

State	City/Place	State and City/Place Name
15		Hawaii
	17000	Honolulu
16		Idaho
17		Illinois
	14000	Chicago
18		Indiana
	36000	Indianapolis
19		Iowa
20		Kansas
	79000	Wichita
21		Kentucky
	48000	Louisville
22		Louisiana
	55000	New Orleans
23		Maine
24		Maryland
	04000	Baltimore
25		Massachusetts
	07000	Boston
26		Michigan
	22000	Detroit
27		Minnesota
	43000	Minneapolis
	58000	St. Paul
28		Mississippi
29		Missouri
	38000	Kansas City
	65000	St. Louis

State	City/Place	FIPS Codes

FIPS Codes State	City/Place	State and City/Place Name
30		Montana
31		Nebraska
	37000	Omaha
32		Nevada
	4000	Las Vegas
33		New Hampshire
34		New Jersey
	51000	Newark
35		New Mexico
	02000	Albuquerque
36		New York
	51000	Bronx borough, Bronx county
	11000	Buffalo
	51000	Manhattan borough, New York county
	51000	Queens borough, Queens county
	51000	Staten Island borough, Richmond county
37		North Carolina
	12000	Charlotte
38		North Dakota
39		Ohio
	15000	Cincinnati
	16000	Cleveland
	18000	Columbus
	77000	Toledo
40		Oklahoma
	55000	Oklahoma City
	75000	Tulsa
41		Oregon
	59000	Portland

FIPS Codes
State City/Place State and City/Place Name

42		Pennsylvania
	60000	Philadelphia
	61000	Pittsburgh
44		Rhode Island
45		South Carolina
46		South Dakota
47		Tennessee
	48000	Memphis
	52010	Nashville-Davidson
48		Texas
	04000	Arlington
	05000	Austin
	17000	Corpus Christ
	19000	Dallas
	24000	El Paso
	27000	Fort Worth
	35000	Houston
	65000	San Antonio
49		Utah
50		Vermont
51		Virginia
	57000	Norfolk
	82000	Virginia Beach
53		Washington
	63000	Seattle
54		West Virginia
55		Wisconsin
	53000	Milwaukee
56		Wyoming

FIPS Codes		
State	City/Place	State and City/Place Name

72	00000	Puerto Rico
78	00000	Virgin Islands
66	00000	Guam
00	00000	Canada
00	00000	Cuba
00	00000	Mexico
00	00000	Remainder of the World

ST: 1 = Subtotal Limited: Sex: 1 = Males; 2 = Females
Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over
4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over
7 = 10 years and over

***** Cause Subtotals are not identified in this file *****

130 Recode	S T	Limited Sex	Age	Cause Title and ICD-10 Codes Included
001	1			Certain infectious and parasitic diseases (A00-B99)
002				Certain intestinal infectious diseases (A00-A08)
003				Diarrhea and gastroenteritis of infectious origin (A09)
004				Tuberculosis (A16-A19)
005				Tetanus (A33,A35)
006				Diphtheria (A36)
007				Whooping cough (A37)
008				Meningococcal infection (A39)
009			3	Septicemia (A40-A41)
010				Congenital syphilis (A50)
011				Gonococcal infection (A54)
012	1			Viral diseases (A80-B34)
013				Acute poliomyelitis (A80)
014				Varicella (chickenpox) (B01)
015				Measles (B05)
016				Human immunodeficiency virus (HIV) disease (B20-B24)
017				Mumps (B26)
018				Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34)
019				Candidiasis (B37)
020				Malaria (B50-B54)
021				Pneumocystosis (B59)
022				All other and unspecified infectious and parasitic diseases (A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99)
023	1			Neoplasms (C00-D48)
024	1			Malignant neoplasms (C00-C97)
025				Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85)
026				Leukemia (C91-C95)
027				Other and unspecified malignant neoplasms (C00-C80,C88,C90,C96-C97)
028				In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)
029	1			Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)
030				Anemias (D50-D64)
031				Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76)
032				Certain disorders involving the immune mechanism (D80-D89)
033	1			Endocrine, nutritional and metabolic diseases (E00-E88)
034				Short stature, not elsewhere classified (E34.3)
035				Nutritional deficiencies (E40-E64)
036				Cystic fibrosis (E84)
037			3	Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87)
038				All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88)
039	1			Diseases of the nervous system (G00-G98)
040				Meningitis (G00,G03)
041				Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0)
042				Infantile cerebral palsy (G80)
043				Anoxic brain damage, not elsewhere classified (G93.1)
044				Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98)
045				Diseases of the ear and mastoid process (H60-H93)
046	1			Diseases of the circulatory system (I00-I99)
047				Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)
048				Pericarditis, endocarditis and myocarditis (I30,I33,I40)
049				Cardiomyopathy (I42)
050				Cardiac arrest (I46)
051				Cerebrovascular diseases (I60-I69)
052				All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51,I70-I99)
053	1			Diseases of the respiratory system (J00-J98)
054				Acute upper respiratory infections (J00-J06)
055	1			Influenza and pneumonia (J10-J18)

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Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over
4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over
7 = 10 years and over

***** Cause Subtotals are not identified in this file *****

130 Recode	S T	Limited Sex	Age	Cause Title and ICD-10 Codes Included
056				Influenza (J10-J11)
057				Pneumonia (J12-J18)
058				Acute bronchitis and acute bronchiolitis (J20-J21)
059				Bronchitis, chronic and unspecified (J40-J42)
060				Asthma (J45-J46)
061				Pneumonitis due to solids and liquids (J69)
062				Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98)
063	1			Diseases of the digestive system (K00-K92)
064				Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55)
065				Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56)
066				All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92)
067	1			Diseases of the genitourinary system (N00-N95)
068				Renal failure and other disorders of kidney (N17-N19,N25,N27)
069				Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N95)
070	1			Certain conditions originating in the perinatal period (P00-P96)
071	1			Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04)
072				Newborn affected by maternal hypertensive disorders (P00.0)
073				Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9)
074	1			Newborn affected by maternal complications of pregnancy (P01)
075				Newborn affected by incompetent cervix (P01.0)
076				Newborn affected by premature rupture of membranes (P01.1)
077				Newborn affected by multiple pregnancy (P01.5)
078				Newborn affected by other maternal complications of pregnancy (P01.2-P01.4,P01.6-P01.9)
079	1			Newborn affected by complications of placenta, cord and membranes (P02)
080				Newborn affected by complications involving placenta (P02.0-P02.3)
081				Newborn affected by complications involving cord (P02.4-P02.6)
082				Newborn affected by chorioamnionitis (P02.7)
083				Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9)
084				Newborn affected by other complications of labor and delivery (P03)
085				Newborn affected by noxious influences transmitted via placenta or breast milk (P04)
086	1			Disorders related to length of gestation and fetal malnutrition (P05-P08)
087				Slow fetal growth and fetal malnutrition (P05)
088	1			Disorders related to short gestation and low birthweight, not elsewhere classified (P07)
089				Extremely low birthweight or extreme immaturity (P07.0,P07.2)
090				Other low birthweight or preterm (P07.1,P07.3)
091				Disorders related to long gestation and high birthweight (P08)
092				Birth trauma (P10-P15)
093	1			Intrauterine hypoxia and birth asphyxia (P20-P21)
094				Intrauterine hypoxia (P20)
095				Birth asphyxia (P21)
096				Respiratory distress of newborn (P22)
097	1			Other respiratory conditions originating in the perinatal period (P23-P28)
098				Congenital pneumonia (P23)
099				Neonatal aspiration syndromes (P24)
100				Interstitial emphysema and related conditions originating in the perinatal period (P25)
101				Pulmonary hemorrhage originating in the perinatal period (P26)
102				Chronic respiratory disease originating in the perinatal period (P27)
103				Atelectasis (P28.0-P28.1)
104				All other respiratory conditions originating in the perinatal period (P28.2-P28.9)
105	1			Infections specific to the perinatal period (P35-P39)
106				Bacterial sepsis of newborn (P36)
107				Omphalitis of newborn with or without mild hemorrhage (P38)

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7 = 10 years and over

***** Cause Subtotals are not identified in this file *****

130 Recode	S T	Limited Sex	Age	Cause Title and ICD-10 Codes Included
108				All other infections specific to the perinatal period (P35,P37,P39)
109	1			Hemorrhagic and hematological disorders of newborn (P50-P61)
110				Neonatal hemorrhage (P50-P52,P54)
111				Hemorrhagic disease of newborn (P53)
112				Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55-P59)
113				Hematological disorders (P60-P61)
114				Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2)
115				Necrotizing enterocolitis of newborn (P77)
116				Hydrops fetalis not due to hemolytic disease (P83.2)
117				Other perinatal conditions (P29,P70.3-P70.9,P71-P76,P78-P81,P83.0-P83.1, P83.3-P83.9,P90-P96)
118	1			Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
119				Anencephaly and similar malformations (Q00)
120				Congenital hydrocephalus (Q03)
121				Spina bifida (Q05)
122				Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07)
123				Congenital malformations of heart (Q20-Q24)
124				Other congenital malformations of circulatory system (Q25-Q28)
125				Congenital malformations of respiratory system (Q30-Q34)
126				Congenital malformations of digestive system (Q35-Q45)
127				Congenital malformations of genitourinary system (Q50-Q64)
128				Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)
129				Down's syndrome (Q90)
130				Edward's syndrome (Q91.0-Q91.3)
131				Patau's syndrome (Q91.4-Q91.7)
132				Other congenital malformations and deformations (Q10-Q18,Q86-Q89)
133				Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)
134	1			Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)
135				Sudden infant death syndrome (R95)
136				Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R53,R55-R94,R96-R99)
137				All other diseases (Residual) (F01-F99,H00-H57,L00-M99)
138	1			External causes of mortality (*U01,V01-Y84)
139	1			Accidents (unintentional injuries) (V01-X59)
140	1			Transport accidents (V01-V99)
141				Motor vehicle accidents(V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0,V89.2)
142				Other and unspecified transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2,V80.6-V80.9,V81.2-V81.9,V82.2-V82.9, V87.9,V88.9,V89.1,V89.3,V89.9,V90-V99)
143				Falls (W00-W19)
144				Accidental discharge of firearms (W32-W34)
145				Accidental drowning and submersion (W65-W74)
146				Accidental suffocation and strangulation in bed (W75)
147				Other accidental suffocation and strangulation (W76-W77,W81-W84)
148				Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80)
149				Accidents caused by exposure to smoke, fire and flames (X00-X09)
150				Accidental poisoning and exposure to noxious substances (X40-X49)
151				Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59)
152	1			Assault (homicide) (*U01,X85-Y09)
153				Assault (homicide) by hanging, strangulation and suffocation (X91)
154				Assault (homicide) by discharge of firearms (*U01.4,X93-X95)
155				Neglect, abandonment and other maltreatment syndromes (Y06-Y07)
156				Assault (homicide) by other and unspecified means (*U01.0-*U01.3,*U01.5-*U01.9,X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09)
157				Complications of medical and surgical care (Y40-Y84)

ST: 1 = Subtotal Limited: Sex: 1 = Males; 2 = Females
Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over
4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over
7 = 10 years and over

***** Cause Subtotals are not identified in this file *****

130 Recode	S T	Limited Sex	Age	Cause Title and ICD-10 Codes Included
158				Other external causes (X60-X84,Y10-Y36)

DOCUMENTATION TABLE 1

LIVE BIRTHS AND INFANT DEATHS BY STATE OF OCCURRENCE AND BY STATE OF RESIDENCE AT BIRTH

UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, AND GUAM - 2000 PERIOD DATA

(RESIDENCE OF BIRTH IS OF THE MOTHER)

STATE	LIVE BIRTHS		INFANT DEATHS			
			UNWEIGHTED		WEIGHTED 1/	
	OCCURRENCE	RESIDENCE	OCCURRENCE	RESIDENCE	OCCURRENCE	RESIDENCE
UNITED STATES 2/	4,063,892	4,058,882	27,622	27,593	28,006	27,961
ALABAMA.....	62,562	63,299	591	602	591	602
ALASKA.....	9,866	9,974	66	69	66	69
ARIZONA.....	85,470	85,273	567	570	571	575
ARKANSAS.....	36,840	37,783	288	307	288	310
CALIFORNIA.....	532,622	531,971	2,844	2,825	2,902	2,883
COLORADO.....	65,679	65,438	414	402	414	402
CONNECTICUT.....	43,370	43,026	279	280	279	280
DELAWARE.....	11,639	11,051	112	105	115	106
DISTRICT OF COLUMBIA	15,159	7,666	149	91	156	95
FLORIDA.....	204,306	204,126	1,428	1,408	1,430	1,410
GEORGIA.....	133,524	132,644	1,128	1,121	1,128	1,121
HAWAII.....	17,639	17,551	138	138	143	142
IDAHO.....	19,863	20,366	131	154	131	154
ILLINOIS.....	181,986	185,038	1,489	1,558	1,499	1,568
INDIANA.....	87,891	87,699	648	668	660	683
IOWA.....	38,418	38,266	227	246	227	246
KANSAS.....	39,232	39,666	253	258	262	260
KENTUCKY.....	54,425	56,031	370	395	373	397
LOUISIANA.....	68,282	67,905	605	596	622	613
MAINE.....	13,462	13,603	66	65	69	66
MARYLAND.....	69,574	74,318	502	551	504	556
MASSACHUSETTS.....	82,673	81,614	375	372	380	376
MICHIGAN.....	134,895	136,177	1,109	1,114	1,111	1,114
MINNESOTA.....	67,546	67,604	373	379	374	380
MISSISSIPPI.....	42,980	44,075	437	468	438	469
MISSOURI.....	78,302	76,463	616	547	618	550
MONTANA.....	10,927	10,957	66	65	66	66
NEBRASKA.....	24,961	24,646	185	176	185	177
NEVADA.....	30,387	30,829	187	196	189	199
NEW HAMPSHIRE.....	13,987	14,609	79	84	79	85
NEW JERSEY.....	112,311	115,632	656	699	683	724
NEW MEXICO.....	26,812	27,226	159	167	170	183
NEW YORK STATE.....	134,435	137,696	850	877	862	892
NEW YORK CITY.....	125,560	121,041	798	763	801	763
NORTH CAROLINA.....	121,347	120,311	1,043	1,032	1,048	1,035
NORTH DAKOTA.....	8,847	7,676	74	64	74	64
OHIO.....	155,955	155,484	1,165	1,140	1,224	1,193
OKLAHOMA.....	48,653	49,785	377	388	410	418
OREGON.....	46,790	45,804	272	255	272	255
PENNSYLVANIA.....	146,862	146,284	1,068	1,036	1,069	1,038
RHODE ISLAND.....	13,180	12,505	90	78	91	78
SOUTH CAROLINA.....	53,562	56,114	461	492	461	492
SOUTH DAKOTA.....	10,589	10,345	60	54	60	54
TENNESSEE.....	84,832	79,611	813	722	813	725
TEXAS.....	368,031	363,426	1,996	1,978	2,064	2,037
UTAH.....	48,454	47,353	266	246	273	253
VERMONT.....	6,277	6,500	45	41	45	42
VIRGINIA.....	96,756	98,939	655	676	662	684
WASHINGTON.....	80,455	81,038	416	419	417	421
WEST VIRGINIA.....	21,620	20,865	156	154	157	154
WISCONSIN.....	68,250	69,326	449	460	449	460
WYOMING.....	5,847	6,253	31	42	31	42
FOREIGN RESIDENTS...	-	5,009	-	28	-	28
PUERTO RICO 3/.....	59,460	59,329	576	571	-	-
VIRGIN ISLANDS 3/...	1,685	1,543	14	14	-	-
GUAM 3/.....	3,788	3,766	23	23	-	-

1/ FIGURES ARE BASED ON WEIGHTED DATA ROUNDED TO THE NEAREST INFANT, SO CATEGORIES MAY NOT ADD TO TOTALS.

2/ EXCLUDES DATA FOR PUERTO RICO, VIRGIN ISLANDS, AND GUAM OCCURRENCES.

3/ DATA FROM THE PUERTO RICO, VIRGIN ISLANDS, AND GUAM FILE.

DOCUMENTATION TABLE 2

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY RACE OF MOTHER, SEX AND BIRTHWEIGHT OF CHILD:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(RATES ARE PER 1000 LIVE BIRTHS)

RACE OF MOTHER AND SEX	TOTAL	<500 GRAMS	500-749 GRAMS	750-999 GRAMS	1000-1249 GRAMS	1250-1499 GRAMS	1500-1999 GRAMS	2000-2499 GRAMS	2500 GRAMS OR MORE	NOT STATED
ALL RACES										
BOTH SEXES										
LIVE BIRTHS.....	4,058,882	6,406	11,181	11,942	13,355	15,926	60,864	188,400	3,748,046	2,762
INFANT DEATHS...	27,960	5,420	5,325	1,861	1,033	726	1,721	2,212	9,259	403
INF.MORT.RATE...	6.9	846.1	476.3	155.8	77.3	45.6	28.3	11.7	2.5	146.0
MALE										
LIVE BIRTHS.....	2,076,998	3,237	5,711	6,218	6,959	8,144	29,736	87,347	1,928,194	1,452
INFANT DEATHS...	15,664	2,763	3,055	1,154	587	421	907	1,183	5,350	243
INF.MORT.RATE...	7.5	853.5	535.0	185.6	84.4	51.7	30.5	13.5	2.8	167.4
FEMALE										
LIVE BIRTHS.....	1,981,884	3,169	5,470	5,724	6,396	7,782	31,128	101,053	1,819,852	1,310
INFANT DEATHS...	12,297	2,657	2,270	707	446	305	814	1,029	3,909	160
INF.MORT.RATE...	6.2	838.5	415.0	123.5	69.7	39.2	26.1	10.2	2.1	122.2
WHITE										
BOTH SEXES										
LIVE BIRTHS.....	3,194,049	3,523	6,590	7,326	8,678	10,711	41,894	130,755	2,982,366	2,206
INFANT DEATHS...	18,246	2,998	3,222	1,179	695	475	1,191	1,567	6,672	248
INF.MORT.RATE...	5.7	850.9	488.9	160.9	80.1	44.4	28.4	12.0	2.2	112.6
MALE										
LIVE BIRTHS.....	1,636,101	1,749	3,434	3,828	4,591	5,511	20,602	61,163	1,534,079	1,144
INFANT DEATHS...	10,223	1,487	1,854	738	402	275	617	840	3,862	146
INF.MORT.RATE...	6.2	850.4	540.0	192.8	87.6	50.0	29.9	13.7	2.5	127.9
FEMALE										
LIVE BIRTHS.....	1,557,948	1,774	3,156	3,498	4,087	5,200	21,292	69,592	1,448,287	1,062
INFANT DEATHS...	8,023	1,510	1,368	441	293	200	574	727	2,809	102
INF.MORT.RATE...	5.1	851.4	433.3	126.0	71.6	38.5	26.9	10.4	1.9	96.1
BLACK										
BOTH SEXES										
LIVE BIRTHS.....	622,621	2,624	4,158	4,067	4,060	4,460	15,762	45,985	541,244	261
INFANT DEATHS...	8,391	2,196	1,906	576	291	200	439	536	2,116	129
INF.MORT.RATE...	13.5	836.8	458.4	141.7	71.7	44.9	27.9	11.7	3.9	495.0
MALE										
LIVE BIRTHS.....	316,123	1,357	2,073	2,092	2,051	2,239	7,509	20,589	278,070	143
INFANT DEATHS...	4,683	1,157	1,099	352	160	118	239	283	1,194	80
INF.MORT.RATE...	14.8	853.0	530.3	168.3	77.8	52.8	31.9	13.8	4.3	561.4
FEMALE										
LIVE BIRTHS.....	306,498	1,267	2,085	1,975	2,009	2,221	8,253	25,396	263,174	118
INFANT DEATHS...	3,708	1,038	807	224	132	82	200	253	923	49
INF.MORT.RATE...	12.1	819.6	386.8	113.6	65.5	36.9	24.2	10.0	3.5	414.6

DOCUMENTATION TABLE 2

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY RACE OF MOTHER, SEX AND BIRTHWEIGHT OF CHILD:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(RATES ARE PER 1000 LIVE BIRTHS)-CONTINUED

RACE OF MOTHER AND SEX	TOTAL	<500 GRAMS	500-749 GRAMS	750-999 GRAMS	1000-1249 GRAMS	1250-1499 GRAMS	1500-1999 GRAMS	2000-2499 GRAMS	2500 GRAMS OR MORE	NOT STATED
AMERICAN INDIAN 1/										
BOTH SEXES										
LIVE BIRTHS.....	41,668	49	77	112	107	148	607	1,725	38,813	30
INFANT DEATHS...	346	44	35	32	12	8	18	27	166	4
INF.MORT.RATE...	8.3	894.7	450.2	283.5	*	*	*	15.7	4.3	*
MALE										
LIVE BIRTHS.....	21,193	23	37	60	57	82	301	803	19,814	16
INFANT DEATHS...	210	23	19	17	8	5	10	16	109	2
INF.MORT.RATE...	9.9	1012.9	*	*	*	*	*	*	5.5	*
FEMALE										
LIVE BIRTHS.....	20,475	26	40	52	50	66	306	922	18,999	14
INFANT DEATHS...	137	21	15	15	4	3	8	11	57	2
INF.MORT.RATE...	6.7	790.0	*	*	*	*	*	*	3.0	*
ASIAN OR PACIFIC ISLANDER										
BOTH SEXES										
LIVE BIRTHS.....	200,544	210	356	437	510	607	2,601	9,935	185,623	265
INFANT DEATHS...	977	182	163	74	35	43	72	82	305	21
INF.MORT.RATE...	4.9	868.8	457.3	169.9	67.7	70.3	27.7	8.3	1.6	81.0
MALE										
LIVE BIRTHS.....	103,581	108	167	238	260	312	1,324	4,792	96,231	149
INFANT DEATHS...	548	95	82	48	17	22	41	45	185	14
INF.MORT.RATE...	5.3	875.8	492.6	200.7	*	71.7	30.7	9.3	1.9	*
FEMALE										
LIVE BIRTHS.....	96,963	102	189	199	250	295	1,277	5,143	89,392	116
INFANT DEATHS...	429	88	81	26	17	20	31	37	120	7
INF.MORT.RATE...	4.4	861.4	426.1	133.0	*	68.7	24.6	7.3	1.3	*

* FIGURE DOES NOT MEET STANDARDS OF RELIABILITY OR PRECISION; BASED ON FEWER THAN 20 DEATHS IN THE NUMERATOR.
1/ INCLUDES ALEUTS AND ESKIMOS.

NOTE: RATES MAY BE OVER 1,000 DUE TO THE WEIGHTING OF INDIVIDUAL CASES IN THE NUMERATOR.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
ALL RACES										
TOTAL										
LIVE BIRTHS.....	4,058,882	28,931	48,627	218,932	170,754	1,960,646	855,579	439,845	292,209	43,359
INFANT DEATHS.....	27,960	11,756	2,277	2,631	1,033	5,619	1,795	1,004	851	995
INF. MORT. RATE....	6.9	406.4	46.8	12.0	6.0	2.9	2.1	2.3	2.9	23.0
LESS THAN 2,500 GRAMS										
LIVE BIRTHS.....	308,074	27,894	36,850	102,677	34,936	78,537	11,413	5,603	6,285	3,879
INFANT DEATHS.....	18,299	11,739	2,178	1,919	473	1,150	204	121	120	393
INF. MORT. RATE....	59.4	420.9	59.1	18.7	13.5	14.6	17.9	21.7	19.1	101.4
LESS THAN 500 GRAMS										
LIVE BIRTHS.....	6,406	5,901	269	16	4	7	2	-	3	204
INFANT DEATHS.....	5,420	5,107	160	13	3	4	1	-	2	129
INF. MORT. RATE....	846.1	865.5	595.4	*	*	*	*	-	*	632.8
500-749 GRAMS										
LIVE BIRTHS.....	11,181	9,402	1,374	118	9	24	6	5	3	240
INFANT DEATHS.....	5,325	4,773	392	35	3	8	3	2	2	108
INF. MORT. RATE....	476.3	507.6	285.3	295.3	*	*	*	*	*	449.4
750-999 GRAMS										
LIVE BIRTHS.....	11,942	7,189	3,848	515	30	110	29	17	16	188
INFANT DEATHS.....	1,861	1,358	381	61	4	11	1	2	-	43
INF. MORT. RATE....	155.8	188.8	99.0	118.0	*	*	*	*	*	229.5
1,000-1,249 GRAMS										
LIVE BIRTHS.....	13,355	2,990	7,282	2,134	167	367	113	52	89	161
INFANT DEATHS.....	1,033	310	457	173	20	32	6	2	3	30
INF. MORT. RATE....	77.3	103.7	62.7	80.9	121.8	88.4	*	*	*	183.7
1,250-1,499 GRAMS										
LIVE BIRTHS.....	15,926	859	8,283	5,064	402	721	154	97	135	211
INFANT DEATHS.....	726	98	315	209	24	51	7	4	3	15
INF. MORT. RATE....	45.6	114.1	38.0	41.3	60.8	70.1	*	*	*	*
1,500-1,999 GRAMS										
LIVE BIRTHS.....	60,864	880	11,577	32,474	5,051	7,684	1,062	547	808	781
INFANT DEATHS.....	1,721	72	341	714	150	312	49	20	34	30
INF. MORT. RATE....	28.3	82.0	29.4	22.0	29.7	40.6	45.7	37.0	41.5	38.1

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
ALL RACES										
2,000-2,499 GRAMS										
LIVE BIRTHS.....	188,400	673	4,217	62,356	29,273	69,624	10,047	4,885	5,231	2,094
INFANT DEATHS.....	2,212	21	133	715	268	732	138	91	76	39
INF. MORT. RATE....	11.7	31.8	31.5	11.5	9.2	10.5	13.7	18.6	14.5	18.5
2,500-2,999 GRAMS										
LIVE BIRTHS.....	671,080	1,037	4,094	55,668	61,961	377,947	89,274	39,567	34,804	6,728
INFANT DEATHS.....	3,064	17	50	405	286	1,501	367	188	186	64
INF. MORT. RATE....	4.6	*	12.1	7.3	4.6	4.0	4.1	4.8	5.4	9.6
3,000-3,499 GRAMS										
LIVE BIRTHS.....	1,510,754	-	4,967	38,833	50,120	816,740	325,074	152,548	107,814	14,658
INFANT DEATHS.....	3,600	-	33	209	198	1,825	658	318	284	75
INF. MORT. RATE....	2.4	-	6.7	5.4	4.0	2.2	2.0	2.1	2.6	5.1
3,500-3,999 GRAMS										
LIVE BIRTHS.....	1,164,773	-	2,716	17,335	18,931	531,912	313,196	167,814	101,687	11,182
INFANT DEATHS.....	1,943	-	15	78	58	873	430	270	183	36
INF. MORT. RATE....	1.7	-	*	4.5	3.0	1.6	1.4	1.6	1.8	3.2
4,000-4,499 GRAMS										
LIVE BIRTHS.....	340,467	-	-	3,741	3,995	133,241	99,410	62,048	34,567	3,465
INFANT DEATHS.....	502	-	-	15	11	213	108	82	64	9
INF. MORT. RATE....	1.5	-	-	*	*	1.6	1.1	1.3	1.8	*
4,500-4,999 GRAMS										
LIVE BIRTHS.....	54,764	-	-	579	701	19,887	15,643	11,093	6,273	588
INFANT DEATHS.....	112	-	-	4	3	44	22	21	12	5
INF. MORT. RATE....	2.0	-	-	*	*	2.2	1.4	1.9	*	*
5,000 GRAMS OR MORE										
LIVE BIRTHS.....	6,208	-	-	99	110	2,382	1,569	1,172	779	97
INFANT DEATHS.....	38	-	-	1	3	13	5	4	2	9
INF. MORT. RATE....	6.1	-	-	*	*	*	*	*	*	*
NOT STATED										
LIVE BIRTHS.....	2,762	-	-	-	-	-	-	-	-	2,762
INFANT DEATHS.....	403	-	-	-	-	-	-	-	-	403
INF. MORT. RATE....	146.0	-	-	-	-	-	-	-	-	146.0

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
WHITE										
TOTAL										
LIVE BIRTHS.....	3,194,049	16,835	32,215	158,208	128,579	1,544,929	688,514	358,162	232,591	34,016
INFANT DEATHS.....	18,246	6,876	1,472	1,851	706	4,082	1,279	732	592	657
INF. MORT. RATE....	5.7	408.4	45.7	11.7	5.5	2.6	1.9	2.0	2.5	19.3
LESS THAN 2,500 GRAMS										
LIVE BIRTHS.....	209,477	16,222	24,416	72,969	24,564	53,132	7,554	3,740	4,234	2,646
INFANT DEATHS.....	11,326	6,865	1,415	1,337	327	811	140	85	76	270
INF. MORT. RATE....	54.1	423.2	58.0	18.3	13.3	15.3	18.5	22.7	18.0	102.1
LESS THAN 500 GRAMS										
LIVE BIRTHS.....	3,523	3,229	146	11	4	2	1	-	-	130
INFANT DEATHS.....	2,998	2,817	83	9	3	1	-	-	-	84
INF. MORT. RATE....	850.9	872.4	570.7	*	*	*	*	-	-	647.8
500-749 GRAMS										
LIVE BIRTHS.....	6,590	5,465	850	79	4	15	2	1	3	171
INFANT DEATHS.....	3,222	2,874	235	24	1	6	1	1	2	78
INF. MORT. RATE....	488.9	525.9	276.6	299.9	*	*	*	*	*	456.8
750-999 GRAMS										
LIVE BIRTHS.....	7,326	4,293	2,426	357	22	75	17	12	12	112
INFANT DEATHS.....	1,179	834	263	41	3	5	1	1	-	31
INF. MORT. RATE....	160.9	194.3	108.3	113.6	*	*	*	*	*	275.9
1,000-1,249 GRAMS										
LIVE BIRTHS.....	8,678	1,851	4,789	1,418	109	246	69	35	56	105
INFANT DEATHS.....	695	211	298	124	14	21	2	2	2	20
INF. MORT. RATE....	80.1	114.0	62.2	87.5	*	86.9	*	*	*	194.6
1,250-1,499 GRAMS										
LIVE BIRTHS.....	10,711	494	5,598	3,470	262	479	99	75	97	137
INFANT DEATHS.....	475	62	196	147	17	33	4	3	2	10
INF. MORT. RATE....	44.4	126.4	34.9	42.4	*	69.8	*	*	*	*
1,500-1,999 GRAMS										
LIVE BIRTHS.....	41,894	483	7,938	22,753	3,435	5,116	702	376	547	544
INFANT DEATHS.....	1,191	51	250	482	102	219	33	11	20	22
INF. MORT. RATE....	28.4	105.2	31.4	21.2	29.7	42.9	47.7	*	37.3	39.8

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
WHITE										
2,000-2,499 GRAMS										
LIVE BIRTHS.....	130,755	407	2,669	44,881	20,728	47,199	6,664	3,241	3,519	1,447
INFANT DEATHS.....	1,567	15	91	510	186	525	98	67	50	25
INF. MORT. RATE....	12.0	*	34.1	11.4	9.0	11.1	14.7	20.6	14.2	17.0
2,500-2,999 GRAMS										
LIVE BIRTHS.....	479,038	613	2,501	40,650	46,071	269,358	62,528	28,001	24,449	4,867
INFANT DEATHS.....	2,105	11	26	293	183	1,052	247	132	117	44
INF. MORT. RATE....	4.4	*	10.5	7.2	4.0	3.9	3.9	4.7	4.8	9.0
3,000-3,499 GRAMS										
LIVE BIRTHS.....	1,174,842	-	3,285	27,886	38,839	638,570	252,370	119,331	83,162	11,399
INFANT DEATHS.....	2,571	-	20	146	144	1,321	453	228	203	56
INF. MORT. RATE....	2.2	-	6.2	5.2	3.7	2.1	1.8	1.9	2.4	4.9
3,500-3,999 GRAMS										
LIVE BIRTHS.....	977,221	-	2,013	13,176	15,115	448,049	263,566	141,496	84,467	9,339
INFANT DEATHS.....	1,479	-	10	56	39	679	339	192	140	24
INF. MORT. RATE....	1.5	-	*	4.2	2.6	1.5	1.3	1.4	1.7	2.6
4,000-4,499 GRAMS										
LIVE BIRTHS.....	297,564	-	-	2,980	3,320	116,341	87,258	54,617	30,065	2,983
INFANT DEATHS.....	401	-	-	14	8	173	82	71	47	5
INF. MORT. RATE....	1.3	-	-	*	*	1.5	.9	1.3	1.6	*
4,500-4,999 GRAMS										
LIVE BIRTHS.....	48,344	-	-	462	575	17,455	13,866	9,958	5,531	497
INFANT DEATHS.....	86	-	-	4	2	35	14	20	7	3
INF. MORT. RATE....	1.8	-	-	*	*	2.0	*	2.0	*	*
5,000 GRAMS OR MORE										
LIVE BIRTHS.....	5,357	-	-	85	95	2,024	1,372	1,019	683	79
INFANT DEATHS.....	29	-	-	1	2	10	4	4	2	6
INF. MORT. RATE....	5.5	-	-	*	*	*	*	*	*	*
NOT STATED										
LIVE BIRTHS.....	2,206	-	-	-	-	-	-	-	-	2,206
INFANT DEATHS.....	248	-	-	-	-	-	-	-	-	248
INF. MORT. RATE....	112.6	-	-	-	-	-	-	-	-	112.6

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
BLACK										
TOTAL										
LIVE BIRTHS.....	622,621	10,915	14,076	48,967	32,737	293,071	115,898	57,946	44,121	4,890
INFANT DEATHS.....	8,391	4,405	686	645	267	1,263	424	222	212	266
INF. MORT. RATE....	13.5	403.6	48.8	13.2	8.2	4.3	3.7	3.8	4.8	54.3
LESS THAN 2,500 GRAMS										
LIVE BIRTHS.....	81,116	10,530	10,766	24,415	8,340	19,904	3,055	1,525	1,730	851
INFANT DEATHS.....	6,145	4,399	651	477	120	283	51	32	34	98
INF. MORT. RATE....	75.8	417.7	60.5	19.5	14.4	14.2	16.8	21.2	19.8	114.8
LESS THAN 500 GRAMS										
LIVE BIRTHS.....	2,624	2,431	114	3	-	5	1	-	3	67
INFANT DEATHS.....	2,196	2,078	70	2	-	3	1	-	2	40
INF. MORT. RATE....	836.8	854.9	612.0	*	-	*	*	-	*	592.7
500-749 GRAMS										
LIVE BIRTHS.....	4,158	3,592	457	38	5	8	1	4	-	53
INFANT DEATHS.....	1,906	1,731	137	10	2	2	1	1	-	23
INF. MORT. RATE....	458.4	481.8	298.8	*	*	*	*	*	-	425.0
750-999 GRAMS										
LIVE BIRTHS.....	4,067	2,554	1,278	128	7	29	6	3	3	59
INFANT DEATHS.....	576	443	104	14	1	6	-	1	-	7
INF. MORT. RATE....	141.7	173.5	81.4	*	*	*	*	*	*	*
1,000-1,249 GRAMS										
LIVE BIRTHS.....	4,060	1,023	2,160	608	48	104	32	16	31	38
INFANT DEATHS.....	291	89	138	42	3	8	2	-	1	8
INF. MORT. RATE....	71.7	86.9	64.1	68.4	*	*	*	*	*	*
1,250-1,499 GRAMS										
LIVE BIRTHS.....	4,460	336	2,315	1,324	119	214	49	17	32	54
INFANT DEATHS.....	200	33	93	49	5	15	2	1	1	2
INF. MORT. RATE....	44.9	96.7	40.1	36.7	*	*	*	*	*	*
1,500-1,999 GRAMS										
LIVE BIRTHS.....	15,762	357	3,102	8,058	1,346	2,069	300	145	226	159
INFANT DEATHS.....	439	20	76	189	39	78	13	8	9	7
INF. MORT. RATE....	27.9	56.9	24.5	23.4	29.3	37.5	*	*	*	*

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
BLACK										
2,000-2,499 GRAMS										
LIVE BIRTHS.....	45,985	237	1,340	14,256	6,815	17,475	2,666	1,340	1,435	421
INFANT DEATHS.....	536	5	33	171	70	171	32	21	21	11
INF. MORT. RATE....	11.7	*	25.0	12.0	10.2	9.8	12.1	15.8	14.8	*
2,500-2,999 GRAMS										
LIVE BIRTHS.....	142,917	385	1,352	12,084	12,283	79,177	19,689	8,688	8,228	1,031
INFANT DEATHS.....	806	6	19	95	83	380	102	44	61	15
INF. MORT. RATE....	5.6	*	*	7.9	6.7	4.8	5.2	5.1	7.5	*
3,000-3,499 GRAMS										
LIVE BIRTHS.....	236,517	-	1,396	8,634	8,631	123,788	50,281	23,758	18,408	1,621
INFANT DEATHS.....	855	-	13	55	48	411	176	75	65	12
INF. MORT. RATE....	3.6	-	*	6.3	5.6	3.3	3.5	3.1	3.5	*
3,500-3,999 GRAMS										
LIVE BIRTHS.....	128,202	-	562	3,165	2,861	56,930	33,484	18,229	12,096	875
INFANT DEATHS.....	363	-	3	19	12	154	74	61	35	5
INF. MORT. RATE....	2.8	-	*	*	*	2.7	2.2	3.3	2.9	*
4,000-4,499 GRAMS										
LIVE BIRTHS.....	28,757	-	-	574	509	11,366	8,090	4,925	3,093	200
INFANT DEATHS.....	69	-	-	-	2	28	15	9	12	2
INF. MORT. RATE....	2.4	-	-	*	*	2.5	*	*	*	*
4,500-4,999 GRAMS										
LIVE BIRTHS.....	4,308	-	-	86	104	1,668	1,172	732	503	43
INFANT DEATHS.....	18	-	-	-	1	4	6	1	4	2
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
5,000 GRAMS OR MORE										
LIVE BIRTHS.....	543	-	-	9	9	238	127	89	63	8
INFANT DEATHS.....	5	-	-	-	1	2	-	-	-	2
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
NOT STATED										
LIVE BIRTHS.....	261	-	-	-	-	-	-	-	-	261
INFANT DEATHS.....	129	-	-	-	-	-	-	-	-	129
INF. MORT. RATE....	495.0	-	-	-	-	-	-	-	-	495.0

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
AMERICAN INDIAN 1/ —										
TOTAL										
LIVE BIRTHS.....	41,668	260	548	2,489	1,914	19,251	8,515	4,531	3,630	530
INFANT DEATHS.....	346	107	25	37	14	89	30	11	21	11
INF. MORT. RATE....	8.3	412.5	44.8	14.8	*	4.6	3.6	*	5.8	*
LESS THAN 2,500 GRAMS										
LIVE BIRTHS.....	2,825	251	351	917	352	689	96	59	60	50
INFANT DEATHS.....	176	107	22	22	5	13	2	-	3	2
INF. MORT. RATE....	62.4	427.3	64.0	23.5	*	*	*	*	*	*
LESS THAN 500 GRAMS										
LIVE BIRTHS.....	49	47	2	-	-	-	-	-	-	-
INFANT DEATHS.....	44	42	2	-	-	-	-	-	-	-
INF. MORT. RATE....	894.7	889.9	*	-	-	-	-	-	-	-
500-749 GRAMS										
LIVE BIRTHS.....	77	67	9	-	-	-	-	-	-	1
INFANT DEATHS.....	35	32	3	-	-	-	-	-	-	-
INF. MORT. RATE....	450.2	472.4	*	-	-	-	-	-	-	*
750-999 GRAMS										
LIVE BIRTHS.....	112	85	22	4	-	-	-	-	-	1
INFANT DEATHS.....	32	29	3	-	-	-	-	-	-	-
INF. MORT. RATE....	283.5	336.3	*	*	-	-	-	-	-	*
1,000-1,249 GRAMS										
LIVE BIRTHS.....	107	28	55	15	2	2	3	-	1	1
INFANT DEATHS.....	12	4	6	-	-	1	1	-	-	-
INF. MORT. RATE....	*	*	*	*	*	*	*	-	*	*
1,250-1,499 GRAMS										
LIVE BIRTHS.....	148	7	77	47	6	3	2	-	1	5
INFANT DEATHS.....	8	-	4	3	-	-	-	-	-	1
INF. MORT. RATE....	*	*	*	*	*	*	*	-	*	*
1,500-1,999 GRAMS										
LIVE BIRTHS.....	607	10	120	306	45	92	10	4	10	10
INFANT DEATHS.....	18	-	1	10	3	2	-	-	2	-
INF. MORT. RATE....	*	*	*	*	*	*	*	*	*	*

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
AMERICAN INDIAN 1/										
2,000-2,499 GRAMS										
LIVE BIRTHS.....	1,725	7	66	545	299	592	81	55	48	32
INFANT DEATHS.....	27	1	3	8	2	9	1	-	1	1
INF. MORT. RATE....	15.7	*	*	*	*	*	*	*	*	*
2,500-2,999 GRAMS										
LIVE BIRTHS.....	6,346	9	55	624	612	3,405	818	373	378	72
INFANT DEATHS.....	39	-	1	6	5	16	4	1	3	2
INF. MORT. RATE....	6.1	*	*	*	*	*	*	*	*	*
3,000-3,499 GRAMS										
LIVE BIRTHS.....	14,957	-	92	543	605	7,774	3,017	1,504	1,242	180
INFANT DEATHS.....	71	-	-	6	-	37	13	5	8	1
INF. MORT. RATE....	4.7	-	*	*	*	4.8	*	*	*	*
3,500-3,999 GRAMS										
LIVE BIRTHS.....	12,579	-	50	315	275	5,496	3,197	1,721	1,388	137
INFANT DEATHS.....	38	-	1	2	4	15	6	4	4	2
INF. MORT. RATE....	3.0	-	*	*	*	*	*	*	*	*
4,000-4,499 GRAMS										
LIVE BIRTHS.....	4,029	-	-	75	61	1,545	1,144	699	458	47
INFANT DEATHS.....	14	-	-	1	-	6	3	1	3	-
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
4,500-4,999 GRAMS										
LIVE BIRTHS.....	794	-	-	14	7	293	221	152	96	11
INFANT DEATHS.....	2	-	-	-	-	1	1	-	-	-
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
5,000 GRAMS OR MORE										
LIVE BIRTHS.....	108	-	-	1	2	49	22	23	8	3
INFANT DEATHS.....	2	-	-	-	-	1	1	-	-	-
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
NOT STATED										
LIVE BIRTHS.....	30	-	-	-	-	-	-	-	-	30
INFANT DEATHS.....	4	-	-	-	-	-	-	-	-	4
INF. MORT. RATE....	*	-	-	-	-	-	-	-	-	*

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
ASIAN OR PACIFIC ISLANDER										
TOTAL										
LIVE BIRTHS.....	200,544	921	1,788	9,268	7,524	103,395	42,652	19,206	11,867	3,923
INFANT DEATHS.....	977	368	94	97	45	185	62	38	26	61
INF. MORT. RATE....	4.9	399.9	52.4	10.5	5.9	1.8	1.4	2.0	2.2	15.7
LESS THAN 2,500 GRAMS										
LIVE BIRTHS.....	14,656	891	1,317	4,376	1,680	4,812	708	279	261	332
INFANT DEATHS.....	651	368	90	84	20	43	11	4	6	24
INF. MORT. RATE....	44.4	413.4	68.0	19.3	12.1	9.0	*	*	*	71.1
LESS THAN 500 GRAMS										
LIVE BIRTHS.....	210	194	7	2	-	-	-	-	-	7
INFANT DEATHS.....	182	170	5	2	-	-	-	-	-	5
INF. MORT. RATE....	868.8	877.5	*	*	-	-	-	-	-	*
500-749 GRAMS										
LIVE BIRTHS.....	356	278	58	1	-	1	3	-	-	15
INFANT DEATHS.....	163	136	17	1	-	-	1	-	-	7
INF. MORT. RATE....	457.3	489.8	*	*	-	*	*	-	-	*
750-999 GRAMS										
LIVE BIRTHS.....	437	257	122	26	1	6	6	2	1	16
INFANT DEATHS.....	74	52	11	6	-	-	-	-	-	5
INF. MORT. RATE....	169.9	201.6	*	*	*	*	*	*	*	*
1,000-1,249 GRAMS										
LIVE BIRTHS.....	510	88	278	93	8	15	9	1	1	17
INFANT DEATHS.....	35	6	14	7	3	2	1	-	-	1
INF. MORT. RATE....	67.7	*	*	*	*	*	*	*	*	*
1,250-1,499 GRAMS										
LIVE BIRTHS.....	607	22	293	223	15	25	4	5	5	15
INFANT DEATHS.....	43	3	22	10	2	2	1	-	-	2
INF. MORT. RATE....	70.3	*	76.2	*	*	*	*	*	*	*
1,500-1,999 GRAMS										
LIVE BIRTHS.....	2,601	30	417	1,357	225	407	50	22	25	68
INFANT DEATHS.....	72	1	14	33	5	13	2	1	2	1
INF. MORT. RATE....	27.7	*	*	24.0	*	*	*	*	*	*

SEE FOOTNOTES AT END OF TABLE.

DOCUMENTATION TABLE 3

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND GESTATIONAL AGE: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT	GESTATION									
	TOTAL	<28 WEEKS	28-31 WEEKS	32-35 WEEKS	36 WEEKS	37-39 WEEKS	40 WEEKS	41 WEEKS	42 WEEKS OR MORE	NOT STATED
ASIAN OR PACIFIC ISLANDER										
2,000-2,499 GRAMS										
LIVE BIRTHS.....	9,935	22	142	2,674	1,431	4,358	636	249	229	194
INFANT DEATHS.....	82	-	5	25	10	26	6	3	4	2
INF. MORT. RATE....	8.3	*	*	9.5	*	6.0	*	*	*	*
2,500-2,999 GRAMS										
LIVE BIRTHS.....	42,779	30	186	2,310	2,995	26,007	6,239	2,505	1,749	758
INFANT DEATHS.....	114	-	3	10	15	52	14	11	5	3
INF. MORT. RATE....	2.7	*	*	*	*	2.0	*	*	*	*
3,000-3,499 GRAMS										
LIVE BIRTHS.....	84,438	-	194	1,770	2,045	46,608	19,406	7,955	5,002	1,458
INFANT DEATHS.....	103	-	-	2	6	56	15	9	9	6
INF. MORT. RATE....	1.2	-	*	*	*	1.2	*	*	*	*
3,500-3,999 GRAMS										
LIVE BIRTHS.....	46,771	-	91	679	680	21,437	12,949	6,368	3,736	831
INFANT DEATHS.....	62	-	1	1	2	24	12	13	4	4
INF. MORT. RATE....	1.3	-	*	*	*	1.1	*	*	*	*
4,000-4,499 GRAMS										
LIVE BIRTHS.....	10,117	-	-	112	105	3,989	2,918	1,807	951	235
INFANT DEATHS.....	18	-	-	-	1	5	8	1	1	2
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
4,500-4,999 GRAMS										
LIVE BIRTHS.....	1,318	-	-	17	15	471	384	251	143	37
INFANT DEATHS.....	6	-	-	-	-	4	1	-	1	-
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
5,000 GRAMS OR MORE										
LIVE BIRTHS.....	200	-	-	4	4	71	48	41	25	7
INFANT DEATHS.....	1	-	-	-	-	-	-	-	-	1
INF. MORT. RATE....	*	-	-	*	*	*	*	*	*	*
NOT STATED										
LIVE BIRTHS.....	265	-	-	-	-	-	-	-	-	265
INFANT DEATHS.....	21	-	-	-	-	-	-	-	-	21
INF. MORT. RATE....	81.0	-	-	-	-	-	-	-	-	81.0

- DATA NOT AVAILABLE.
* FIGURE DOES NOT MEET STANDARDS OF RELIABILITY OR PRECISION; BASED ON FEWER THAN 20 DEATHS IN THE NUMERATOR.
1/ INCLUDES ALEUTS AND ESKIMOS.

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ALL RACES						
TOTAL (ALL BIRTHWEIGHTS)....NUMBER..	4,058,882	27,960	18,733	14,893	3,841	9,227
RATE..		6.9	4.6	3.7	.9	2.3
LESS THAN 2,500 GRAMS.....NUMBER..	308,074	18,299	14,929	12,536	2,393	3,370
RATE..		59.4	48.5	40.7	7.8	10.9
LESS THAN 500 GRAMS.....NUMBER..	6,406	5,420	5,306	5,147	159	114
RATE..		846.1	828.3	803.4	24.8	17.8
500-749 GRAMS.....NUMBER..	11,181	5,325	4,648	3,807	841	678
RATE..		476.3	415.7	340.5	75.2	60.6
750-999 GRAMS.....NUMBER..	11,942	1,861	1,413	972	441	448
RATE..		155.8	118.3	81.4	36.9	37.5
1,000-1,249 GRAMS.....NUMBER..	13,355	1,033	722	517	205	311
RATE..		77.3	54.1	38.7	15.4	23.3
1,250-1,499 GRAMS.....NUMBER..	15,926	726	526	412	115	200
RATE..		45.6	33.0	25.8	7.2	12.6
1,500-1,999 GRAMS.....NUMBER..	60,864	1,721	1,125	867	258	596
RATE..		28.3	18.5	14.2	4.2	9.8
2,000-2,499 GRAMS.....NUMBER..	188,400	2,212	1,189	815	374	1,023
RATE..		11.7	6.3	4.3	2.0	5.4
2,500-2,999 GRAMS.....NUMBER..	671,080	3,064	1,274	749	525	1,790
RATE..		4.6	1.9	1.1	.8	2.7
3,000-3,499 GRAMS.....NUMBER..	1,510,754	3,600	1,237	696	541	2,363
RATE..		2.4	.8	.5	.4	1.6
3,500-3,999 GRAMS.....NUMBER..	1,164,773	1,943	648	371	277	1,295
RATE..		1.7	.6	.3	.2	1.1

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ALL RACES						
4,000-4,499 GRAMS.....NUMBER..	340,467	502	187	106	81	315
RATE..		1.5	.5	.3	.2	.9
4,500-4,999 GRAMS.....NUMBER..	54,764	112	55	42	13	57
RATE..		2.0	1.0	.8	*	1.0
5,000 GRAMS OR MORE.....NUMBER..	6,208	38	26	22	4	11
RATE..		6.1	4.3	3.6	*	*
NOT STATED.....NUMBER..	2,762	403	378	371	7	25
RATE..		146.0	136.8	134.2	*	9.2

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
WHITE						
TOTAL (ALL BIRTHWEIGHTS)....NUMBER..	3,194,049	18,246	12,179	9,614	2,565	6,067
RATE..		5.7	3.8	3.0	.8	1.9
LESS THAN 2,500 GRAMS.....NUMBER..	209,477	11,326	9,348	7,862	1,486	1,979
RATE..		54.1	44.6	37.5	7.1	9.4
LESS THAN 500 GRAMS.....NUMBER..	3,523	2,998	2,939	2,849	90	58
RATE..		850.9	834.3	808.8	25.5	16.6
500-749 GRAMS.....NUMBER..	6,590	3,222	2,877	2,394	484	345
RATE..		488.9	436.6	363.3	73.4	52.3
750-999 GRAMS.....NUMBER..	7,326	1,179	934	662	272	245
RATE..		160.9	127.4	90.4	37.1	33.4
1,000-1,249 GRAMS.....NUMBER..	8,678	695	514	378	136	181
RATE..		80.1	59.2	43.6	15.7	20.8
1,250-1,499 GRAMS.....NUMBER..	10,711	475	357	297	60	118
RATE..		44.4	33.3	27.7	5.6	11.0
1,500-1,999 GRAMS.....NUMBER..	41,894	1,191	827	653	173	364
RATE..		28.4	19.7	15.6	4.1	8.7
2,000-2,499 GRAMS.....NUMBER..	130,755	1,567	899	628	271	667
RATE..		12.0	6.9	4.8	2.1	5.1
2,500-2,999 GRAMS.....NUMBER..	479,038	2,105	948	574	373	1,158
RATE..		4.4	2.0	1.2	.8	2.4
3,000-3,499 GRAMS.....NUMBER..	1,174,842	2,571	924	527	396	1,647
RATE..		2.2	.8	.4	.3	1.4
3,500-3,999 GRAMS.....NUMBER..	977,221	1,479	514	296	218	965
RATE..		1.5	.5	.3	.2	1.0

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
WHITE						
4,000-4,499 GRAMS.....NUMBER..	297,564	401	153	81	72	248
RATE..		1.3	.5	.3	.2	.8
4,500-4,999 GRAMS.....NUMBER..	48,344	86	44	34	10	42
RATE..		1.8	.9	.7	*	.9
5,000 GRAMS OR MORE.....NUMBER..	5,357	29	20	16	4	9
RATE..		5.5	3.8	*	*	*
NOT STATED.....NUMBER..	2,206	248	229	223	6	19
RATE..		112.6	103.8	101.1	*	*

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
BLACK						
TOTAL (ALL BIRTHWEIGHTS)....NUMBER..	622,621	8,391	5,684	4,582	1,102	2,707
RATE..		13.5	9.1	7.4	1.8	4.3
LESS THAN 2,500 GRAMS.....NUMBER..	81,116	6,145	4,898	4,099	799	1,248
RATE..		75.8	60.4	50.5	9.8	15.4
LESS THAN 500 GRAMS.....NUMBER..	2,624	2,196	2,145	2,084	60	51
RATE..		836.8	817.3	794.3	23.0	19.6
500-749 GRAMS.....NUMBER..	4,158	1,906	1,592	1,262	330	314
RATE..		458.4	382.8	303.5	79.3	75.5
750-999 GRAMS.....NUMBER..	4,067	576	391	248	143	185
RATE..		141.7	96.2	61.0	35.1	45.6
1,000-1,249 GRAMS.....NUMBER..	4,060	291	171	113	58	120
RATE..		71.7	42.2	27.8	14.4	29.5
1,250-1,499 GRAMS.....NUMBER..	4,460	200	130	86	43	71
RATE..		44.9	29.0	19.3	9.7	15.8
1,500-1,999 GRAMS.....NUMBER..	15,762	439	238	161	77	202
RATE..		27.9	15.1	10.2	4.9	12.8
2,000-2,499 GRAMS.....NUMBER..	45,985	536	231	144	88	305
RATE..		11.7	5.0	3.1	1.9	6.6
2,500-2,999 GRAMS.....NUMBER..	142,917	806	265	143	122	541
RATE..		5.6	1.9	1.0	.9	3.8
3,000-3,499 GRAMS.....NUMBER..	236,517	855	249	128	122	606
RATE..		3.6	1.1	.5	.5	2.6
3,500-3,999 GRAMS.....NUMBER..	128,202	363	106	56	50	257
RATE..		2.8	.8	.4	.4	2.0

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
BLACK						
4,000-4,499 GRAMS.....NUMBER..	28,757	69	27	20	7	41
RATE..		2.4	1.0	.7	*	1.4
4,500-4,999 GRAMS.....NUMBER..	4,308	18	9	7	2	9
RATE..		*	*	*	*	*
5,000 GRAMS OR MORE.....NUMBER..	543	5	4	4	-	1
RATE..		*	*	*	-	*
NOT STATED.....NUMBER..	261	129	125	125	-	4
RATE..		495.0	479.4	479.4	-	*

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
AMERICAN INDIAN 1/						
TOTAL (ALL BIRTHWEIGHTS)....NUMBER..	41,668	346	183	143	40	164
RATE..		8.3	4.4	3.4	.9	3.9
LESS THAN 2,500 GRAMS.....NUMBER..	2,825	176	140	118	22	36
RATE..		62.4	49.5	41.6	7.9	12.8
LESS THAN 500 GRAMS.....NUMBER..	49	44	44	42	2	-
RATE..		894.7	894.7	853.4	*	-
500-749 GRAMS.....NUMBER..	77	35	33	30	3	2
RATE..		450.2	424.0	384.5	*	*
750-999 GRAMS.....NUMBER..	112	32	26	16	10	5
RATE..		283.5	235.3	*	*	*
1,000-1,249 GRAMS.....NUMBER..	107	12	9	6	3	3
RATE..		*	*	*	*	*
1,250-1,499 GRAMS.....NUMBER..	148	8	4	4	-	4
RATE..		*	*	*	-	*
1,500-1,999 GRAMS.....NUMBER..	607	18	10	9	1	8
RATE..		*	*	*	*	*
2,000-2,499 GRAMS.....NUMBER..	1,725	27	14	11	3	13
RATE..		15.7	*	*	*	*
2,500-2,999 GRAMS.....NUMBER..	6,346	39	10	5	5	29
RATE..		6.1	*	*	*	4.5
3,000-3,499 GRAMS.....NUMBER..	14,957	71	21	12	9	49
RATE..		4.7	1.4	*	*	3.3
3,500-3,999 GRAMS.....NUMBER..	12,579	38	5	3	2	33
RATE..		3.0	*	*	*	2.6

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
AMERICAN INDIAN 1/						
4,000-4,499 GRAMS.....NUMBER..	4,029	14	2	1	1	12
RATE..		*	*	*	*	*
4,500-4,999 GRAMS.....NUMBER..	794	2	-	-	-	2
RATE..		*	-	-	-	*
5,000 GRAMS OR MORE.....NUMBER..	108	2	1	1	-	1
RATE..		*	*	*	-	*
NOT STATED.....NUMBER..	30	4	3	3	-	1
RATE..		*	*	*	-	*

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ASIAN OR PACIFIC ISLANDER						
TOTAL (ALL BIRTHWEIGHTS)....NUMBER..	200,544	977	688	553	135	289
RATE..		4.9	3.4	2.8	.7	1.4
LESS THAN 2,500 GRAMS.....NUMBER..	14,656	651	544	458	85	107
RATE..		44.4	37.1	31.3	5.8	7.3
LESS THAN 500 GRAMS.....NUMBER..	210	182	178	171	7	4
RATE..		868.8	849.7	816.1	*	*
500-749 GRAMS.....NUMBER..	356	163	146	121	24	17
RATE..		457.3	409.0	341.1	67.9	*
750-999 GRAMS.....NUMBER..	437	74	62	46	16	12
RATE..		169.9	142.2	105.4	*	*
1,000-1,249 GRAMS.....NUMBER..	510	35	27	19	8	7
RATE..		67.7	53.8	*	*	*
1,250-1,499 GRAMS.....NUMBER..	607	43	36	25	11	7
RATE..		70.3	58.6	40.5	*	*
1,500-1,999 GRAMS.....NUMBER..	2,601	72	50	43	7	22
RATE..		27.7	19.2	16.5	*	8.6
2,000-2,499 GRAMS.....NUMBER..	9,935	82	45	33	12	37
RATE..		8.3	4.5	3.3	*	3.8
2,500-2,999 GRAMS.....NUMBER..	42,779	114	52	26	25	63
RATE..		2.7	1.2	.6	.6	1.5
3,000-3,499 GRAMS.....NUMBER..	84,438	103	43	29	14	61
RATE..		1.2	.5	.3	*	.7
3,500-3,999 GRAMS.....NUMBER..	46,771	62	22	15	7	40
RATE..		1.3	.5	*	*	.8

DOCUMENTATION TABLE 4

LIVE BIRTHS, INFANT DEATHS, AND INFANT MORTALITY RATES BY BIRTHWEIGHT, RACE OF MOTHER, AND AGE AT DEATH:
UNITED STATES, 2000 PERIOD DATA
(INFANT DEATHS WEIGHTED)

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 1000 LIVE BIRTHS)-Continued

BIRTHWEIGHT AND RACE OF MOTHER	LIVE BIRTHS	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ASIAN OR PACIFIC ISLANDER						
4,000-4,499 GRAMS.....NUMBER..	10,117	18	4	3	1	14
RATE..		*	*	*	*	*
4,500-4,999 GRAMS.....NUMBER..	1,318	6	2	1	1	4
RATE..		*	*	*	*	*
5,000 GRAMS OR MORE.....NUMBER..	200	1	1	1	-	-
RATE..		*	*	*	-	-
NOT STATED.....NUMBER..	265	21	20	19	1	1
RATE..		81.0	77.1	*	*	*

* FIGURE DOES NOT MEET STANDARDS OF RELIABILITY OR PRECISION; BASED ON FEWER THAN 20 BIRTHS IN THE NUMERATOR.
1/ INCLUDES ALEUTS AND ESKIMOS.

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ALL RACES, ALL BIRTHWEIGHTS							
ALL CAUSES	NUMBER...	4,058,882	27,960	18,733	14,893	3,841	9,227
	RATE.....		688.9	461.5	366.9	94.6	227.3
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		5,756	4,170	3,185	985	1,587
	RATE.....		141.8	102.7	78.5	24.3	39.1
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		4,401	4,323	4,198	126	77
	RATE.....		108.4	106.5	103.4	3.1	1.9
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		2,522	198	29	169	2,324
	RATE.....		62.1	4.9	.7	4.2	57.3
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		1,391	1,379	1,363	16	11
	RATE.....		34.3	34.0	33.6	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		1,042	1,027	990	37	14
	RATE.....		25.7	25.3	24.4	.9	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		1,007	936	742	194	71
	RATE.....		24.8	23.1	18.3	4.8	1.7
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		876	92	28	63	784
	RATE.....		21.6	2.3	.7	1.6	19.3
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		774	741	336	405	32
	RATE.....		19.1	18.3	8.3	10.0	.8
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		658	251	140	111	407
	RATE.....		16.2	6.2	3.4	2.7	10.0
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		625	583	422	161	42
	RATE.....		15.4	14.4	10.4	4.0	1.0
ALL OTHER CAUSES	NUMBER...		8,910	5,032	3,459	1,573	3,878
	RATE.....		219.5	124.0	85.2	38.8	95.5

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ALL RACES, LESS THAN 2,500 GRAMS							
ALL CAUSES	NUMBER...	308,074	18,299	14,929	12,536	2,393	3,370
	RATE.....		5,939.7	4,845.8	4,069.2	776.7	1,093.8
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		3,300	2,595	2,190	404	705
	RATE.....		1,071.2	842.2	711.0	131.2	229.0
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		4,191	4,115	3,991	124	76
	RATE.....		1,360.4	1,335.7	1,295.5	40.1	24.7
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		521	44	7	37	477
	RATE.....		169.1	14.4	*	12.1	154.7
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		1,306	1,296	1,281	15	10
	RATE.....		423.9	420.6	415.8	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		904	894	871	23	10
	RATE.....		293.6	290.3	282.8	7.5	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		974	913	723	190	60
	RATE.....		316.0	296.4	234.6	61.7	19.6
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		123	15	8	7	108
	RATE.....		40.1	*	*	*	35.1
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		653	627	278	349	26
	RATE.....		211.9	203.4	90.3	113.1	8.5
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		287	117	73	43	170
	RATE.....		93.2	37.9	23.8	14.0	55.3
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		291	281	223	57	10
	RATE.....		94.4	91.1	72.5	18.6	*
ALL OTHER CAUSES	NUMBER...		5,748	4,032	2,889	1,143	1,716
	RATE.....		1,865.9	1,308.9	937.9	371.0	557.0

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ALL RACES, 2,500 GRAMS OR MORE							
ALL CAUSES	NUMBER...	3,748,046	9,259	3,427	1,986	1,441	5,832
	RATE.....		247.0	91.4	53.0	38.5	155.6
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		2,425	1,549	970	580	876
	RATE.....		64.7	41.3	25.9	15.5	23.4
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		34	33	32	1	1
	RATE.....		.9	.9	.9	*	*
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		1,998	153	21	132	1,845
	RATE.....		53.3	4.1	.6	3.5	49.2
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		26	25	24	1	1
	RATE.....		.7	.7	.6	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		99	94	80	14	4
	RATE.....		2.6	2.5	2.1	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		26	16	12	4	10
	RATE.....		.7	*	*	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		749	76	19	56	674
	RATE.....		20.0	2.0	*	1.5	18.0
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		116	110	55	55	6
	RATE.....		3.1	2.9	1.5	1.5	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		368	132	64	68	237
	RATE.....		9.8	3.5	1.7	1.8	6.3
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		326	294	192	102	32
	RATE.....		8.7	7.8	5.1	2.7	.9
ALL OTHER CAUSES	NUMBER...		3,090	945	515	429	2,146
	RATE.....		82.5	25.2	13.7	11.5	57.2

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ALL RACES, NOT STATED BIRTHWEIGHT							
ALL CAUSES	NUMBER...	2,762	403	378	371	7	25
	RATE.....		14,596.8	13,679.3	13,423.5	*	917.4
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		31	26	25	1	5
	RATE.....		1,114.4	930.8	894.6	*	*
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		175	175	174	1	-
	RATE.....		6,343.4	6,343.4	6,306.9	*	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		3	1	1	-	2
	RATE.....		*	*	*	-	*
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		59	59	59	-	-
	RATE.....		2,137.1	2,137.1	2,137.1	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		39	39	39	-	-
	RATE.....		1,396.6	1,396.6	1,396.6	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		7	7	7	-	-
	RATE.....		*	*	*	-	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		3	1	1	-	2
	RATE.....		*	*	*	-	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		5	5	3	2	-
	RATE.....		*	*	*	*	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		2	2	2	-	-
	RATE.....		*	*	*	-	-
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		8	8	6	2	-
	RATE.....		*	*	*	*	-
ALL OTHER CAUSES	NUMBER...		71	55	54	1	16
	RATE.....		2,574.0	1,986.8	1,950.6	*	*

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
WHITE, ALL BIRTHWEIGHTS							
ALL CAUSES	NUMBER...	3,194,049	18,246	12,179	9,614	2,565	6,067
	RATE.....		571.3	381.3	301.0	80.3	189.9
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		4,425	3,277	2,510	767	1,148
	RATE.....		138.5	102.6	78.6	24.0	35.9
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		2,386	2,340	2,261	78	46
	RATE.....		74.7	73.2	70.8	2.4	1.4
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		1,653	126	17	109	1,527
	RATE.....		51.8	3.9	*	3.4	47.8
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		834	828	820	8	6
	RATE.....		26.1	25.9	25.7	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		712	705	680	25	7
	RATE.....		22.3	22.1	21.3	.8	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		626	578	456	122	48
	RATE.....		19.6	18.1	14.3	3.8	1.5
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		576	56	18	37	521
	RATE.....		18.0	1.7	*	1.2	16.3
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		469	453	214	238	16
	RATE.....		14.7	14.2	6.7	7.5	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		446	173	97	76	274
	RATE.....		14.0	5.4	3.0	2.4	8.6
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		436	408	297	111	28
	RATE.....		13.7	12.8	9.3	3.5	.9
ALL OTHER CAUSES	NUMBER...		5,683	3,238	2,243	995	2,446
	RATE.....		177.9	101.4	70.2	31.1	76.6

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
WHITE, LESS THAN 2,500 GRAMS							
ALL CAUSES	NUMBER...	209,477	11,326	9,348	7,862	1,486	1,979
	RATE.....		5,406.9	4,462.4	3,753.0	709.4	944.5
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		2,512	2,028	1,728	301	484
	RATE.....		1,199.2	968.3	824.8	143.5	230.8
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		2,268	2,223	2,147	76	45
	RATE.....		1,082.9	1,061.4	1,025.1	36.3	21.4
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		299	28	4	24	271
	RATE.....		142.8	13.5	*	11.6	129.3
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		786	780	773	7	6
	RATE.....		375.2	372.3	368.9	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		610	606	592	14	3
	RATE.....		291.0	289.5	282.8	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		606	564	445	120	41
	RATE.....		289.1	269.4	212.2	57.2	19.7
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		66	8	4	4	58
	RATE.....		31.5	*	*	*	27.6
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		376	365	168	197	11
	RATE.....		179.6	174.3	80.4	93.9	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		179	79	50	29	100
	RATE.....		85.4	37.7	23.8	13.9	47.7
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		178	172	139	32	6
	RATE.....		84.8	81.9	66.5	15.4	*
ALL OTHER CAUSES	NUMBER...		3,447	2,493	1,811	682	954
	RATE.....		1,645.5	1,190.1	864.6	325.6	455.4

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
WHITE, 2,500 GRAMS OR MORE							
ALL CAUSES	NUMBER...	2,982,366	6,672	2,602	1,529	1,073	4,069
	RATE.....		223.7	87.3	51.3	36.0	136.4
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		1,889	1,229	763	466	660
	RATE.....		63.3	41.2	25.6	15.6	22.1
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		24	23	22	1	1
	RATE.....		.8	.8	.7	*	*
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		1,351	97	12	85	1,255
	RATE.....		45.3	3.2	*	2.8	42.1
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		12	12	11	1	-
	RATE.....		*	*	*	*	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		77	73	62	11	4
	RATE.....		2.6	2.5	2.1	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		16	9	7	2	7
	RATE.....		*	*	*	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		508	47	13	33	462
	RATE.....		17.0	1.6	*	1.1	15.5
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		89	84	45	39	5
	RATE.....		3.0	2.8	1.5	1.3	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		267	93	46	47	174
	RATE.....		8.9	3.1	1.5	1.6	5.8
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		252	230	153	77	22
	RATE.....		8.5	7.7	5.1	2.6	.7
ALL OTHER CAUSES	NUMBER...		2,185	705	394	312	1,479
	RATE.....		73.3	23.6	13.2	10.4	49.6

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
WHITE, NOT STATED BIRTHWEIGHT							
ALL CAUSES	NUMBER...	2,206	248	229	223	6	19
	RATE.....		11,256.0	10,384.9	10,109.8	*	*
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		24	20	20	-	4
	RATE.....		1,072.3	889.1	889.1	-	*
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		93	93	92	1	-
	RATE.....		4,205.2	4,205.2	4,159.6	*	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		3	1	1	-	2
	RATE.....		*	*	*	-	*
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		36	36	36	-	-
	RATE.....		1,609.6	1,609.6	1,609.6	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		25	25	25	-	-
	RATE.....		1,147.0	1,147.0	1,147.0	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		4	4	4	-	-
	RATE.....		*	*	*	-	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		2	1	1	-	1
	RATE.....		*	*	*	-	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		3	3	1	2	-
	RATE.....		*	*	*	*	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		1	1	1	-	-
	RATE.....		*	*	*	-	-
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		6	6	4	2	-
	RATE.....		*	*	*	*	-
ALL OTHER CAUSES	NUMBER...		52	40	39	1	12
	RATE.....		2,345.4	1,795.1	1,749.7	*	*

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
BLACK, ALL BIRTHWEIGHTS							
ALL CAUSES	NUMBER...	622,621	8,391	5,684	4,582	1,102	2,707
	RATE.....		1,347.7	912.9	735.9	176.9	434.8
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		1,040	685	513	172	355
	RATE.....		167.0	110.0	82.4	27.6	57.0
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		1,828	1,799	1,757	42	29
	RATE.....		293.6	288.9	282.1	6.8	4.7
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		760	67	10	57	693
	RATE.....		122.1	10.8	*	9.2	111.3
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		501	496	489	7	5
	RATE.....		80.5	79.6	78.5	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		284	278	267	11	6
	RATE.....		45.6	44.6	42.8	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		342	324	260	64	18
	RATE.....		55.0	52.1	41.7	10.3	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		254	32	10	22	222
	RATE.....		40.8	5.2	*	3.6	35.6
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		271	256	108	149	15
	RATE.....		43.6	41.2	17.3	23.9	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		166	57	25	31	110
	RATE.....		26.7	9.1	4.1	5.0	17.6
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		149	137	97	40	12
	RATE.....		24.0	22.1	15.6	6.5	*
ALL OTHER CAUSES	NUMBER...		2,794	1,552	1,046	505	1,242
	RATE.....		448.8	249.2	168.1	81.1	199.5

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
BLACK, LESS THAN 2,500 GRAMS							
ALL CAUSES	NUMBER...	81,116	6,145	4,898	4,099	799	1,248
	RATE.....		7,576.0	6,037.7	5,053.0	984.7	1,538.3
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		615	430	347	82	185
	RATE.....		758.2	529.7	428.0	101.7	228.5
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		1,750	1,721	1,679	42	29
	RATE.....		2,157.4	2,121.5	2,069.3	52.2	35.9
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		203	16	3	13	186
	RATE.....		249.7	*	*	*	229.8
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		468	464	457	7	4
	RATE.....		577.3	572.3	563.6	*	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		256	250	242	8	6
	RATE.....		316.0	308.6	298.7	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		331	316	253	63	15
	RATE.....		408.5	389.9	311.7	78.2	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		53	7	4	3	46
	RATE.....		65.9	*	*	*	57.2
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		249	235	99	137	14
	RATE.....		307.3	289.9	121.5	168.4	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		88	27	13	14	60
	RATE.....		108.2	33.7	*	*	74.5
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		87	84	64	20	3
	RATE.....		107.1	103.4	78.6	24.8	*
ALL OTHER CAUSES	NUMBER...		2,045	1,347	938	409	698
	RATE.....		2,520.6	1,660.2	1,156.5	503.7	860.4

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
BLACK, 2,500 GRAMS OR MORE							
ALL CAUSES	NUMBER...	541,244	2,116	661	358	303	1,455
	RATE.....		391.0	122.1	66.2	55.9	268.9
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		423	253	164	90	169
	RATE.....		78.1	46.8	30.3	16.5	31.3
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		9	9	9	-	-
	RATE.....		*	*	*	-	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		558	51	7	44	507
	RATE.....		103.1	9.5	*	8.2	93.6
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		11	10	10	-	1
	RATE.....		*	*	*	-	*
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		17	17	14	3	-
	RATE.....		*	*	*	*	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		8	5	4	1	3
	RATE.....		*	*	*	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		201	25	6	19	175
	RATE.....		37.1	4.6	*	*	32.4
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		20	19	7	12	1
	RATE.....		3.7	*	*	*	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		78	28	11	17	49
	RATE.....		14.3	5.2	*	*	9.1
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		61	51	31	20	9
	RATE.....		11.2	9.5	5.8	3.7	*
ALL OTHER CAUSES	NUMBER...		731	191	94	97	540
	RATE.....		135.1	35.3	17.4	17.9	99.8

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
BLACK, NOT STATED BIRTHWEIGHT							
ALL CAUSES	NUMBER...	261	129	125	125	-	4
	RATE.....		49,502.2	47,938.9	47,938.9	-	*
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		2	2	2	-	-
	RATE.....		*	*	*	-	-
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		69	69	69	-	-
	RATE.....		26,453.0	26,453.0	26,453.0	-	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		21	21	21	-	-
	RATE.....		8,230.4	8,230.4	8,230.4	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		10	10	10	-	-
	RATE.....		*	*	*	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		3	3	3	-	-
	RATE.....		*	*	*	-	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		2	2	2	-	-
	RATE.....		*	*	*	-	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		1	1	1	-	-
	RATE.....		*	*	*	-	-
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		2	2	2	-	-
	RATE.....		*	*	*	-	-
ALL OTHER CAUSES	NUMBER...		18	14	14	-	4
	RATE.....		*	*	*	-	*

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
AMERICAN INDIAN 1/, ALL BIRTHWEIGHTS							
ALL CAUSES	NUMBER...	41,668	346	183	143	40	164
	RATE.....		831.2	438.7	343.7	95.0	392.4
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		61	42	31	11	19
	RATE.....		145.8	101.0	74.3	*	*
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		46	44	41	3	2
	RATE.....		110.6	105.4	97.7	*	*
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		50	2	-	2	48
	RATE.....		119.4	*	-	*	114.6
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		6	6	6	-	-
	RATE.....		*	*	*	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		12	12	12	-	-
	RATE.....		*	*	*	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		6	5	4	1	1
	RATE.....		*	*	*	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		24	-	-	-	24
	RATE.....		58.6	-	-	-	58.6
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		10	10	4	6	-
	RATE.....		*	*	*	*	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		7	4	3	1	3
	RATE.....		*	*	*	*	*
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		8	7	6	1	1
	RATE.....		*	*	*	*	*
ALL OTHER CAUSES	NUMBER...		116	50	36	14	65
	RATE.....		277.2	120.3	86.2	*	157.0

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
AMERICAN INDIAN 1/, LESS THAN 2,500 GRAMS							
ALL CAUSES	NUMBER...	2,825	176	140	118	22	36
	RATE.....		6,238.5	4,953.8	4,159.4	794.3	1,284.8
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		28	23	19	4	5
	RATE.....		993.9	806.5	*	*	*
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		43	41	38	3	2
	RATE.....		1,518.6	1,441.9	1,329.5	*	*
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		7	-	-	-	7
	RATE.....		*	-	-	-	*
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		6	6	6	-	-
	RATE.....		*	*	*	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		11	11	11	-	-
	RATE.....		*	*	*	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		6	5	4	1	1
	RATE.....		*	*	*	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		3	-	-	-	3
	RATE.....		*	-	-	-	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		9	9	4	5	-
	RATE.....		*	*	*	*	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		1	1	1	-	-
	RATE.....		*	*	*	-	-
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		5	5	4	1	-
	RATE.....		*	*	*	*	-
ALL OTHER CAUSES	NUMBER...		56	39	31	8	18
	RATE.....		1,997.4	1,376.2	1,090.6	*	*

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
AMERICAN INDIAN 1/, 2,500 GRAMS OR MORE							
ALL CAUSES	NUMBER...	38,813	166	40	23	17	126
	RATE.....		427.5	102.3	58.1	*	325.2
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		33	19	12	7	13
	RATE.....		84.2	*	*	*	*
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		43	2	-	2	41
	RATE.....		109.7	*	-	*	104.5
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		1	1	1	-	-
	RATE.....		*	*	*	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		20	-	-	-	20
	RATE.....		52.5	-	-	-	52.5
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		1	1	-	1	-
	RATE.....		*	*	-	*	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		6	3	2	1	3
	RATE.....		*	*	*	*	*
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		3	2	2	-	1
	RATE.....		*	*	*	-	*
ALL OTHER CAUSES	NUMBER...		59	11	5	6	48
	RATE.....		152.2	*	*	*	123.3

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
AMERICAN INDIAN 1/, NOT STATED BIRTHWEIGHT							
ALL CAUSES	NUMBER...	30	4	3	3	-	1
	RATE.....		*	*	*	-	*
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		3	3	3	-	-
	RATE.....		*	*	*	-	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		1	-	-	-	1
	RATE.....		*	-	-	-	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
ALL OTHER CAUSES	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ASIAN OR PACIFIC ISLANDER, ALL BIRTHWEIGHTS							
ALL CAUSES	NUMBER...	200,544	977	688	553	135	289
	RATE.....		487.3	343.1	275.9	67.1	144.2
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		231	166	131	35	66
	RATE.....		115.4	82.6	65.1	17.5	32.8
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		141	141	139	2	-
	RATE.....		70.4	70.4	69.3	*	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		59	3	2	1	56
	RATE.....		29.3	*	*	*	27.8
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		50	50	49	1	-
	RATE.....		24.8	24.8	24.3	*	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		34	33	32	1	1
	RATE.....		16.7	16.2	15.7	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		32	29	22	7	3
	RATE.....		16.2	14.7	11.2	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		21	4	-	4	17
	RATE.....		10.6	*	-	*	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		23	22	10	12	1
	RATE.....		11.6	11.1	*	*	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		38	17	14	3	20
	RATE.....		18.7	*	*	*	10.1
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		32	31	21	9	1
	RATE.....		15.7	15.2	10.7	*	*
ALL OTHER CAUSES	NUMBER...		317	192	133	59	124
	RATE.....		157.9	95.9	66.3	29.6	62.0

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ASIAN OR PACIFIC ISLANDER, LESS THAN 2,500 GRAMS							
ALL CAUSES	NUMBER...	14,656	651	544	458	85	107
	RATE.....		4,440.7	3,709.6	3,126.4	583.2	731.1
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		145	114	97	17	31
	RATE.....		990.0	776.3	659.8	*	213.7
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		130	130	128	2	-
	RATE.....		885.9	885.9	872.0	*	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		12	-	-	-	12
	RATE.....		*	-	-	-	*
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		46	46	45	1	-
	RATE.....		311.2	311.2	304.4	*	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		27	26	25	1	1
	RATE.....		187.3	180.5	173.7	*	*
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		30	27	21	6	3
	RATE.....		207.6	187.0	145.9	*	*
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		1	-	-	-	1
	RATE.....		*	-	-	-	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		18	17	7	10	1
	RATE.....		*	*	*	*	*
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		19	9	9	-	10
	RATE.....		*	*	*	-	*
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		21	20	16	4	1
	RATE.....		145.7	138.6	*	*	*
ALL OTHER CAUSES	NUMBER...		200	154	109	44	47
	RATE.....		1,366.0	1,048.8	747.1	301.6	317.3

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ASIAN OR PACIFIC ISLANDER, 2,500 GRAMS OR MORE							
ALL CAUSES	NUMBER...	185,623	305	124	76	48	181
	RATE.....		164.3	66.7	40.8	25.9	97.5
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		81	48	31	17	33
	RATE.....		43.7	25.8	16.6	*	18.0
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		1	1	1	-	-
	RATE.....		*	*	*	-	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		47	3	2	1	44
	RATE.....		25.1	*	*	*	23.5
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		2	2	2	-	-
	RATE.....		*	*	*	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		3	3	3	-	-
	RATE.....		*	*	*	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		2	2	1	1	-
	RATE.....		*	*	*	*	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		20	4	-	4	16
	RATE.....		10.9	*	-	*	*
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		5	5	3	2	-
	RATE.....		*	*	*	*	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		18	8	5	3	10
	RATE.....		*	*	*	*	*
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		10	10	5	5	-
	RATE.....		*	*	*	*	-
ALL OTHER CAUSES	NUMBER...		115	38	22	15	78
	RATE.....		62.2	20.2	12.1	*	42.0

DOCUMENTATION TABLE 5

LIVE BIRTHS BY BIRTHWEIGHT AND RACE OF MOTHER AND INFANT DEATHS AND INFANT MORTALITY RATES BY AGE AT DEATH, BIRTHWEIGHT, AND RACE OF MOTHER FOR 10 MAJOR CAUSES OF INFANT DEATH: UNITED STATES, 2000 PERIOD DATA

(INFANT DEATHS WEIGHTED)
(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(RATES ARE PER 100,000 LIVE BIRTHS)

CAUSE OF DEATH, BIRTHWEIGHT, AND RACE OF MOTHER		LIVE BIRTHS	INFANT DEATHS	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
ASIAN OR PACIFIC ISLANDER, NOT STATED BIRTHWEIGHT							
ALL CAUSES	NUMBER...	265	21	20	19	1	1
	RATE.....		8,102.5	7,714.0	*	*	*
CONGENITAL MALFORMATIONS (Q00-Q99)	NUMBER...		5	4	3	1	1
	RATE.....		*	*	*	*	*
SHORT GESTATION AND LOW BIRTHWEIGHT NEC (P07)	NUMBER...		10	10	10	-	-
	RATE.....		*	*	*	-	-
SUDDEN INFANT DEATH SYNDROME (R95)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
MATERNAL COMPLICATIONS OF PREGNANCY (P01)	NUMBER...		2	2	2	-	-
	RATE.....		*	*	*	-	-
COMPLICATIONS OF PLACENTA, CORD, MEMBRANES (P02)	NUMBER...		3	3	3	-	-
	RATE.....		*	*	*	-	-
RESPIRATORY DISTRESS OF NEWBORN (P22)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
ACCIDENTS (UNINTENTIONAL INJURIES) (V01-X59)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
BACTERIAL SEPSIS OF NEWBORN (P36)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
INTRAUTERINE HYPOXIA, BIRTH ASPHYXIA (P20-P21)	NUMBER...		-	-	-	-	-
	RATE.....		-	-	-	-	-
ALL OTHER CAUSES	NUMBER...		1	1	1	-	-
	RATE.....		*	*	*	-	-

* FIGURE DOES NOT MEET STANDARD OF RELIABILITY OR PRECISION; BASED ON FEWER THAN 20 DEATHS IN THE NUMERATOR.
1/ INCLUDES ALEUTS AND ESKIMOS.
—

DOCUMENTATION TABLE 6
UNLINKED INFANT DEATHS BY RACE, AGE AT DEATH, AND STATE OF RESIDENCE:
UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, GUAM -- 2000 BIRTH PERIOD DATA

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(DATA IN THIS TABLE IS FOR INFANT DEATHS IN 2000 THAT ARE NOT INCLUDED IN THE LINKED FILE BECAUSE THEY WERE NOT LINKED WITH THEIR CORRESPONDING BIRTH CERTIFICATES. SEE METHODOLOGY SECTION. RESIDENCE IS OF INFANT DECEDENT; RACE IS FROM DEATH CERTIFICATE.)

AREA AND RACE OF CHILD 1/	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
UNITED STATES 2/	379	286	255	31	93
WHITE	255	192	169	23	63
BLACK	108	85	78	7	23
AM IND	9	5	4	1	4
API	7	4	4	-	3
ALABAMA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
ALASKA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
ARIZONA	6	5	4	1	1
WHITE	4	4	3	1	-
BLACK	-	-	-	-	-
AM IND	2	1	1	-	1
API	-	-	-	-	-
ARKANSAS	1	-	-	-	1
WHITE	-	-	-	-	-
BLACK	1	-	-	-	1
AM IND	-	-	-	-	-
API	-	-	-	-	-
CALIFORNIA	59	50	48	2	9
WHITE	46	40	39	1	6
BLACK	11	9	9	-	2
AM IND	1	1	-	1	-
API	1	-	-	-	1
COLORADO	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
CONNECTICUT	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
DELAWARE	1	1	1	-	-
WHITE	-	-	-	-	-
BLACK	1	1	1	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
DISTRICT OF COLUMBIA	1	1	1	-	-
WHITE	-	-	-	-	-
BLACK	1	1	1	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
FLORIDA	2	1	-	1	1
WHITE	2	1	-	1	1
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-

DOCUMENTATION TABLE 6
UNLINKED INFANT DEATHS BY RACE, AGE AT DEATH, AND STATE OF RESIDENCE:
UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, GUAM -- 2000 BIRTH PERIOD DATA

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(DATA IN THIS TABLE IS FOR INFANT DEATHS IN 2000 THAT ARE NOT INCLUDED IN THE LINKED FILE BECAUSE THEY WERE NOT LINKED WITH THEIR CORRESPONDING BIRTH CERTIFICATES. SEE METHODOLOGY SECTION. RESIDENCE IS OF INFANT DECEDENT; RACE IS FROM DEATH CERTIFICATE.)

AREA AND RACE OF CHILD 1/	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
GEORGIA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
HAWAII	4	2	2	-	2
WHITE	3	2	2	-	1
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	1	-	-	-	1
IDAHO	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
ILLINOIS	12	7	7	-	5
WHITE	6	4	4	-	2
BLACK	6	3	3	-	3
AM IND	-	-	-	-	-
API	-	-	-	-	-
INDIANA	13	10	7	3	3
WHITE	12	9	6	3	3
BLACK	1	1	1	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
IOWA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
KANSAS	5	1	1	-	4
WHITE	4	1	1	-	3
BLACK	-	-	-	-	-
AM IND	1	-	-	-	1
API	-	-	-	-	-
KENTUCKY	3	1	1	-	2
WHITE	3	1	1	-	2
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
LOUISIANA	17	14	12	2	3
WHITE	5	3	3	-	2
BLACK	12	11	9	2	1
AM IND	-	-	-	-	-
API	-	-	-	-	-
MAINE	1	1	1	-	-
WHITE	1	1	1	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
MARYLAND	8	6	6	-	2
WHITE	3	1	1	-	2
BLACK	5	5	5	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-

DOCUMENTATION TABLE 6
UNLINKED INFANT DEATHS BY RACE, AGE AT DEATH, AND STATE OF RESIDENCE:
UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, GUAM -- 2000 BIRTH PERIOD DATA

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(DATA IN THIS TABLE IS FOR INFANT DEATHS IN 2000 THAT ARE NOT INCLUDED IN THE LINKED FILE BECAUSE THEY WERE NOT LINKED WITH THEIR CORRESPONDING BIRTH CERTIFICATES. SEE METHODOLOGY SECTION. RESIDENCE IS OF INFANT DECEDENT; RACE IS FROM DEATH CERTIFICATE.)

AREA AND RACE OF CHILD 1/	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
MASSACHUSETTS	3	3	3	-	-
WHITE	1	1	1	-	-
BLACK	2	2	2	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
MICHIGAN	3	2	1	1	1
WHITE	2	1	-	1	1
BLACK	1	1	1	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
MINNESOTA	1	1	1	-	-
WHITE	1	1	1	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
MISSISSIPPI	1	-	-	-	1
WHITE	1	-	-	-	1
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
MISSOURI	3	1	1	-	2
WHITE	3	1	1	-	2
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
MONTANA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
NEBRASKA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
NEVADA	5	2	1	1	3
WHITE	4	2	1	1	2
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	1	-	-	-	1
NEW HAMPSHIRE	1	1	1	-	-
WHITE	1	1	1	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
NEW JERSEY	26	23	20	3	3
WHITE	15	14	14	-	1
BLACK	11	9	6	3	2
AM IND	-	-	-	-	-
API	-	-	-	-	-
NEW MEXICO	13	7	5	2	6
WHITE	10	6	4	2	4
BLACK	-	-	-	-	-
AM IND	3	1	1	-	2
API	-	-	-	-	-

DOCUMENTATION TABLE 6
UNLINKED INFANT DEATHS BY RACE, AGE AT DEATH, AND STATE OF RESIDENCE:
UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, GUAM -- 2000 BIRTH PERIOD DATA

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(DATA IN THIS TABLE IS FOR INFANT DEATHS IN 2000 THAT ARE NOT INCLUDED IN THE LINKED FILE BECAUSE THEY WERE NOT LINKED WITH THEIR CORRESPONDING BIRTH CERTIFICATES. SEE METHODOLOGY SECTION. RESIDENCE IS OF INFANT DECEDENT; RACE IS FROM DEATH CERTIFICATE.)

AREA AND RACE OF CHILD 1/	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
NEW YORK STATE	12	10	9	1	2
WHITE	8	7	6	1	1
BLACK	4	3	3	-	1
AM IND	-	-	-	-	-
API	-	-	-	-	-
NEW YORK CITY	4	3	3	-	1
WHITE	3	3	3	-	-
BLACK	1	-	-	-	1
AM IND	-	-	-	-	-
API	-	-	-	-	-
NORTH CAROLINA	5	3	3	-	2
WHITE	4	2	2	-	2
BLACK	1	1	1	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
NORTH DAKOTA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
OHIO	54	49	42	7	5
WHITE	33	31	25	6	2
BLACK	19	16	15	1	3
AM IND	-	-	-	-	-
API	2	2	2	-	-
OKLAHOMA	34	21	20	1	13
WHITE	21	11	10	1	10
BLACK	11	8	8	-	3
AM IND	2	2	2	-	-
API	-	-	-	-	-
OREGON	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
PENNSYLVANIA	3	1	-	1	2
WHITE	2	1	-	1	1
BLACK	1	-	-	-	1
AM IND	-	-	-	-	-
API	-	-	-	-	-
RHODE ISLAND	1	1	1	-	-
WHITE	1	1	1	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
SOUTH CAROLINA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
SOUTH DAKOTA	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-

DOCUMENTATION TABLE 6
UNLINKED INFANT DEATHS BY RACE, AGE AT DEATH, AND STATE OF RESIDENCE:
UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, GUAM -- 2000 BIRTH PERIOD DATA

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(DATA IN THIS TABLE IS FOR INFANT DEATHS IN 2000 THAT ARE NOT INCLUDED IN THE LINKED FILE BECAUSE THEY WERE NOT LINKED WITH THEIR CORRESPONDING BIRTH CERTIFICATES. SEE METHODOLOGY SECTION. RESIDENCE IS OF INFANT DECEDENT; RACE IS FROM DEATH CERTIFICATE.)

AREA AND RACE OF CHILD 1/	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
TENNESSEE	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
TEXAS	63	49	45	4	14
WHITE	46	36	33	3	10
BLACK	16	12	11	1	4
AM IND	-	-	-	-	-
API	1	1	1	-	-
UTAH	3	3	2	1	-
WHITE	3	3	2	1	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
VERMONT	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
VIRGINIA	8	5	5	-	3
WHITE	4	2	2	-	2
BLACK	3	2	2	-	1
AM IND	-	-	-	-	-
API	1	1	1	-	-
WASHINGTON	2	-	-	-	2
WHITE	2	-	-	-	2
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
WEST VIRGINIA	1	1	1	-	-
WHITE	1	1	1	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
WISCONSIN	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
WYOMING	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
FOREIGN RESIDENCE	5	3	2	1	2
WHITE	2	1	1	-	1
BLACK	3	2	1	1	1
AM IND	-	-	-	-	-
API	-	-	-	-	-

DOCUMENTATION TABLE 6

UNLINKED INFANT DEATHS BY RACE, AGE AT DEATH, AND STATE OF RESIDENCE: UNITED STATES, PUERTO RICO, VIRGIN ISLANDS, GUAM -- 2000 BIRTH PERIOD DATA

(INFANT DEATHS ARE UNDER 1 YEAR. NEONATAL DEATHS ARE UNDER 28 DAYS; EARLY NEONATAL, 0-6 DAYS; LATE NEONATAL, 7-27 DAYS; AND POSTNEONATAL, 28 DAYS THROUGH 11 MONTHS)

(DATA IN THIS TABLE IS FOR INFANT DEATHS IN 2000 THAT ARE NOT INCLUDED IN THE LINKED FILE BECAUSE THEY WERE NOT LINKED WITH THEIR CORRESPONDING BIRTH CERTIFICATES. SEE METHODOLOGY SECTION. RESIDENCE IS OF INFANT DECEDENT; RACE IS FROM DEATH CERTIFICATE.)

AREA AND RACE OF CHILD 1/	INFANT	TOTAL NEONATAL	EARLY NEONATAL	LATE NEONATAL	POST-NEONATAL
PUERTO RICO 3/	1	1	1	-	-
WHITE	1	1	1	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-
VIRGIN ISLANDS 3/	5	3	2	1	2
WHITE	1	1	-	1	-
BLACK	4	2	2	-	2
AM IND	-	-	-	-	-
API	-	-	-	-	-
GUAM 3/	-	-	-	-	-
WHITE	-	-	-	-	-
BLACK	-	-	-	-	-
AM IND	-	-	-	-	-
API	-	-	-	-	-

/1 TOTALS FOR GEOGRAPHIC AREAS INCLUDE RACES OTHER THAN WHITE AND BLACK.
/2 EXCLUDES DATA FOR FORIEGN RESIDENTS, PUERTO RICO, VIRGIN ISLANDS, AND GUAM.
/3 DATA FROM THE PUERTO RICO, VIRGIN ISLANDS, AND GUAM FILE.

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Infant Mortality Statistics from the 2000 Period Linked Birth/Infant Death Data Set

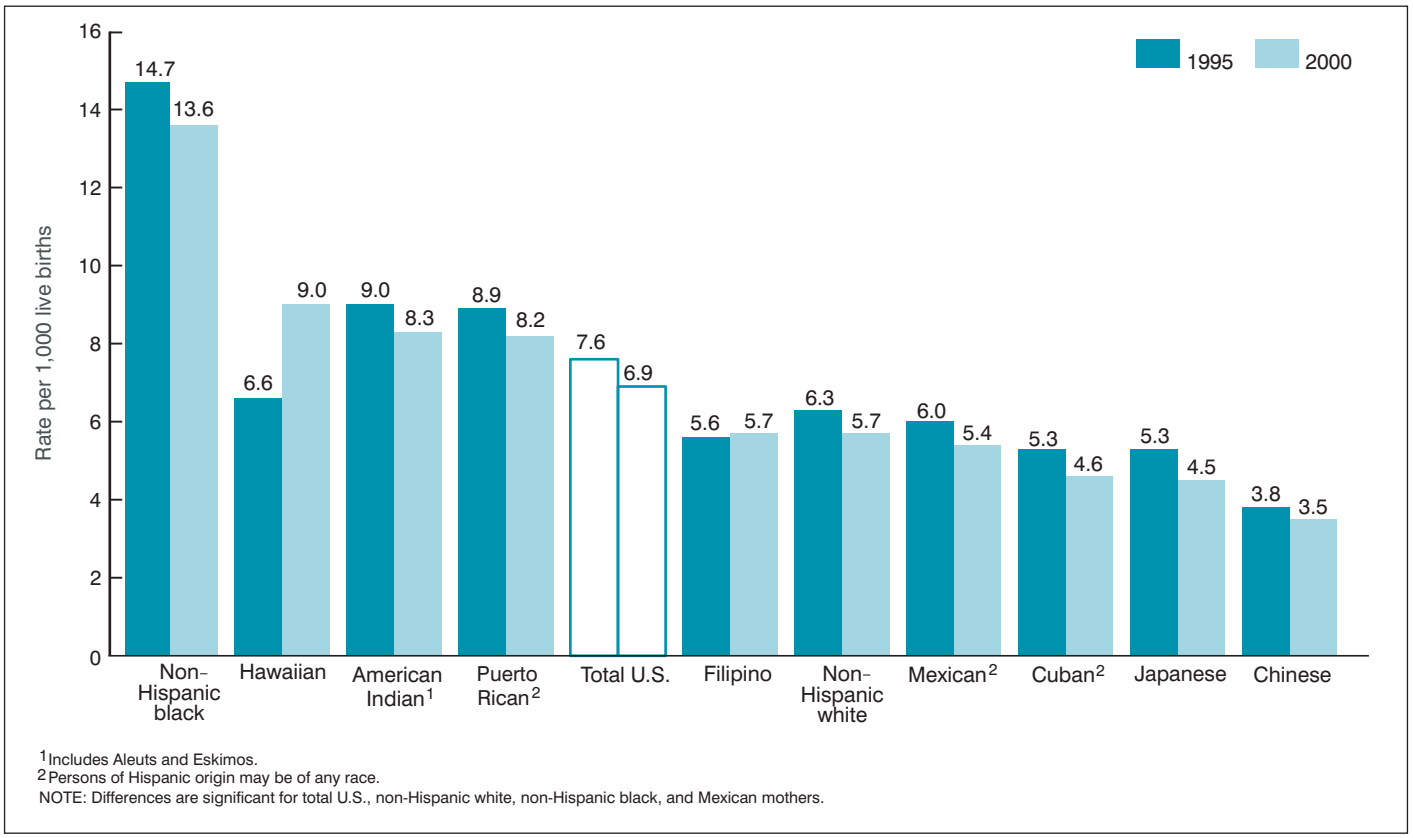
by T.J. Mathews, M.S.; Fay Menacker, Dr.P.H.; and Marian F. MacDorman, Ph.D., Division of Vital Statistics

Abstract

Objectives—This report presents the 2000 period infant mortality statistics from the linked birth/infant death data set (linked file) by a variety of maternal and infant characteristics.

Methods—Descriptive tabulations of data are presented and interpreted.

Results—Infant mortality rates ranged from 3.5 per 1,000 live births for Chinese mothers to 13.5 for black mothers. Among Hispanics, rates ranged from 4.5 for Cuban mothers to 8.2 for Puerto Rican mothers. Infant mortality rates were higher for those infants whose mothers had no prenatal care, were teenagers, had 9–11 years of education, were unmarried, or smoked during pregnancy. Infant mortality was also higher for male infants, multiple births, and infants born preterm or at low birthweight. The three leading causes of infant death—Congenital malformations, low birthweight, and Sudden infant death syndrome (SIDS)—taken together accounted for 45 percent of all infant deaths in the United States in 2000. Cause-specific mortality rates varied considerably by race and Hispanic origin. For infants of black mothers, the infant mortality rate for low birthweight was nearly



1 Includes Aleuts and Eskimos.
2 Persons of Hispanic origin may be of any race.
NOTE: Differences are significant for total U.S., non-Hispanic white, non-Hispanic black, and Mexican mothers.

Figure 1. Infant mortality rates by race and ethnicity, 1995 and 2000

four times that for white mothers. For infants of black and American Indian mothers, the SIDS rates were 2.4 and 2.3 times that for non-Hispanic white mothers.

Keywords: infant mortality • infant health • birthweight • maternal characteristics

Introduction

This report presents infant mortality data from the 2000 period linked file. In the linked file, the information from the death certificate is linked to information from the birth certificate for each infant under 1 year of age who died in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, or Guam during 2000. Linked birth/infant death data are not available for American Samoa and the Commonwealth of the Northern Marianas. The purpose of the linkage is to use the many additional variables available from the birth certificate to conduct more detailed analyses of infant mortality patterns. This report presents infant mortality data by race and Hispanic origin of the mother, birthweight, period of gestation, sex of infant, plurality, trimester of pregnancy prenatal care began, maternal age, maternal educational attainment, live-birth order, mother's marital status, mother's place of birth, maternal smoking during pregnancy, age at death, and underlying cause of death (tables 1 through 7). Other variables that are available in the linked file data set (1), but are not discussed in this report include: father's age, race, and Hispanic origin; birth attendant; place of delivery; mother's weight gain during pregnancy; and many medical and health measurements. Another report, based on data from the vital statistics mortality file, provides more detailed information on trends in infant mortality and on causes of infant death (2). Some rates calculated from the mortality file differ from those published using the linked birth/infant death file (see Technical notes).

Methods

Data shown in this report are based on birth and infant death certificates registered in all States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. As part of the Vital Statistics Cooperative Program (VSCP), each State provided to the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) matching birth and death certificate numbers for each infant under 1 year of age who died in the State during 2000. When the birth and death occurred in different States, the State of death was responsible for contacting the State of birth identified on the death certificate to obtain the original birth certificate number. NCHS used the matching birth and death certificate numbers provided by the States to extract final edited data from the NCHS natality and mortality statistical files. These data were linked to form a single statistical record, thereby establishing a national linked record file.

After the initial linkage, NCHS returned computer lists of unlinked infant death records and records with inconsistent data between the birth and death certificates to each State. State additions and corrections were incorporated, and a final national linked file was produced. In 2000, 98.6 percent of all infant death records were successfully matched to their corresponding birth records. This is higher than in 1999 (97.7). Some of the improvement in matching for 2000 was due to the acceptance of late filed birth certificate records used exclusively for the creation of the linked file. A record weight was added to the linked file in 2000 to compensate for the 1.4 percent of infant death records that were not linked to their corresponding birth certificates. See the Technical notes for more information on the weighting of the linked file.

Information on births by age, race, or marital status of mother is imputed if it is not reported on the birth certificate. These items were not reported for less than 1 percent of U.S. births in 2000.

Race and Hispanic origin are reported independently on the birth certificate. In tabulations of birth data by race and Hispanic origin, data for Hispanic persons are not further classified by race because the vast majority of women of Hispanic origin are reported as white. Data for American Indian and Asian or Pacific Islander (API) births are not shown separately by Hispanic origin because the vast majority of these populations are non-Hispanic.

Cause-of-death statistics in this publication are classified in accordance with the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD–10) (3). Previous issues of this report included causes of death classified according to the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Ninth Revision* (ICD–9) (4).

Data by maternal and infant characteristics

This report presents descriptive tabulations of infant mortality data by a variety of maternal and infant characteristics. These tabulations are useful for understanding the basic relationships between risk factors and infant mortality, *unadjusted for the possible effects of other variables*. In reality, women with one risk factor often have other risk factors as well. For example, teenage mothers are more likely to also be unmarried and of a low-income status, and mothers who do not receive prenatal care are more likely to be of a low-income status and uninsured. The preferred method for disentangling the multiple interrelationships among risk factors is multivariate analysis; however, an understanding of the basic relationships between risk factors and infant mortality is a necessary precursor to more sophisticated types of analyses and is the aim of this publication.

Race and Hispanic origin data—Infant mortality rates are presented for both detailed race of mother and Hispanic origin of mother. The linked file is particularly useful for computing accurate infant mortality rates for this purpose because the race of the mother from the birth certificate is used in both the numerator and denominator of the infant mortality rate. In contrast, for the vital statistics mortality data—the more "traditional" source of infant mortality data—race information for the denominator is the race of the mother as reported on the birth certificate, whereas the race information for the numerator is the race of the decedent as reported on the death certificate (1,5). Another source of error is misreported race on the death certificate where race of the deceased infant is reported by the funeral director based on information provided by an informant or on observation. These different reporting methods can lead to differences in race-specific infant mortality rates between the two data sources with a larger impact on rates for races other than white and black (5,6).

Rates for total Asian or Pacific Islander (API) and for Chinese, Japanese, Filipino, and other API mothers are reported for all 50 States and the District of Columbia. In addition, infant mortality rates for five other detailed API groups, including Vietnamese, Asian Indian, Korean,

Samoan, and Guamanian mothers are presented for an 11-State reporting area: California, Hawaii, Illinois, Minnesota, Missouri, New Jersey, New York, Texas, Virginia, Washington, and West Virginia.

Race and Hispanic origin of mother are reported as separate items on the birth certificate; thus, a mother of Hispanic origin may be of any race. Although the overwhelming majority of Hispanic-origin births are to white women (7), there are notable differences in infant mortality trends between Hispanic and non-Hispanic white women. Therefore, race-specific data for non-Hispanic mothers are presented for comparison in tables showing data for Hispanic mothers. Race and ethnic differentials in infant mortality rates may reflect differences in income, educational levels, access to health care, health insurance, and other factors.

Statistical significance—Text statements have been tested for statistical significance, and a statement that a given infant mortality rate is higher or lower than another rate indicates that the rates are significantly different. Information on the methods used to test for statistical significance, as well as information on differences between period and cohort data, the weighting of the linked file, and a comparison of infant mortality data between the linked file and the vital statistics mortality file are presented in the Technical notes. Additional information on marital status, period of gestation, birthweight, and cause-of-death classification is also presented in the Technical notes.

Results and Discussion

Infant mortality by race and Hispanic origin of mother

The overall 2000 infant mortality rate from the linked file was 6.9 infant deaths per 1,000 live births, similar to the rate in 1999 (7.0) and lower than the 1998 level (7.2) (8). The rate has declined 9 percent since 1995 (7.6). There was wide variation in infant mortality rates by race of mother with the highest rate, 13.5 for infants of black mothers, nearly four times greater than the lowest rate of 3.5 for infants of Chinese mothers. Rates were intermediate for infants of non-Hispanic white and Filipino mothers (both 5.7), but higher for Hawaiian (9.0) and American Indian mothers (8.3) (tables A and B).

The neonatal mortality rate (less than 28 days) for infants of black mothers (9.1) was significantly higher than for all other racial groups. Infants of black and American Indian mothers had the highest postneonatal rates (28 days to under 1 year) of any group, 4.3 and 3.9, respectively. In general, the neonatal mortality rates were about twice the postneonatal rates for nearly all groups in which both rates could be reliably computed. The exception was infants of American Indian mothers whose neonatal mortality rate was not significantly different from the postneonatal rate (4.4 versus 3.9).

In the 11-State reporting area for the expanded API subgroups, infant mortality rates were 4.5 for both Korean and Asian Indians and 4.4 for infants of Vietnamese mothers (table C).

There was wide variation in infant mortality rates for Hispanic subgroups with the rates high for infants of Puerto Rican mothers (8.2) and low for Cuban as well as Central and South American mothers (4.6). Rates were intermediate for infants of Mexican mothers (5.4) (table B). Among Hispanics, only Mexican mothers showed a significant decline from 1995 to 2000 (figure 1). The rates for non-Hispanic black and non-Hispanic white mothers also declined from 1995 to 2000. Although not significant, rates for Hawaiian mothers increased from 6.6 in 1995 to 9.0 in 2000.

Infant mortality by State

Infant mortality rates for 1998–2000 varied by State and within States by race and Hispanic origin of mother (table 1). Three years of data were combined to obtain statistically reliable rates. Rates were generally highest for States in the South and lowest for States in the West and Northeast (figure 2). Infant mortality rates ranged from 10.3 for Mississippi (unchanged from 1997–99) to 5.0 for Massachusetts. The highest rate (13.5) was noted for the District of Columbia; however, this rate is more appropriately compared with rates for other large U.S. cities, because of the high concentrations of high-risk women in these areas.

Mortality rates for infants of non-Hispanic black mothers ranged from 17.3 in Iowa to 8.5 in Oregon. Oklahoma had the highest infant mortality rate for infants of non-Hispanic white mothers (8.2), and Massachusetts had the lowest rate (4.2).

Mortality rates for infants of American Indian and API mothers could be reliably computed for only 14 and 25 States, respectively.

Table A. Infant, neonatal, and postneonatal deaths and mortality rates by specified race or national origin of mother: United States, 2000 linked file

Race of mother	Live births	Number of deaths			Mortality rate per 1,000 live births		
		Infant	Neonatal	Postneonatal	Infant	Neonatal	Postneonatal
All races	4,058,882	27,960	18,733	9,227	6.9	4.6	2.3
White	3,194,049	18,246	12,179	6,067	5.7	3.8	1.9
Black	622,621	8,391	5,684	2,707	13.5	9.1	4.3
American Indian[1]	41,668	346	183	164	8.3	4.4	3.9
Asian or Pacific Islander	200,544	977	688	289	4.9	3.4	1.4
Chinese	34,271	121	87	33	3.5	2.5	1.0
Japanese	8,969	41	24	17	4.5	2.6	*
Hawaiian	6,608	60	41	18	9.0	6.2	*
Filipino	32,108	182	131	51	5.7	4.1	1.6
Other Asian or Pacific Islander	118,588	574	405	170	4.8	3.4	1.4

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
1 Includes Aleuts and Eskimos.

NOTE: Neonatal is less than 28 days and postneonatal is 28 days to under 1 year.

Table B. Infant, neonatal, and postneonatal deaths and mortality rates by Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: United States, 2000 linked file

Hispanic origin and race of mother	Live births	Number of deaths			Mortality rate per 1,000 live births		
		Infant	Neonatal	Postneonatal	Infant	Neonatal	Postneonatal
All origins[1]	4,058,882	27,960	18,733	9,227	6.9	4.6	2.3
Total Hispanic	815,883	4,564	3,078	1,486	5.6	3.8	1.8
Mexican	581,924	3,162	2,103	1,059	5.4	3.6	1.8
Puerto Rican	58,126	477	337	140	8.2	5.8	2.4
Cuban	13,429	61	43	18	4.6	3.2	*
Central and South American	113,346	526	370	156	4.6	3.3	1.4
Other and unknown Hispanic	49,058	338	225	113	6.9	4.6	2.3
Non-Hispanic total[2]	3,200,030	22,916	15,287	7,629	7.2	4.8	2.4
Non-Hispanic white	2,362,982	13,461	8,924	4,537	5.7	3.8	1.9
Non-Hispanic black	604,367	8,212	5,552	2,660	13.6	9.2	4.4
Not stated	42,969	480	368	112	...	...	...

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
... Category not applicable.
1 Origin of mother not stated included in "All origins" but not distributed among origins.
2 Includes races other than white or black.

NOTE: Neonatal is less than 28 days and postneonatal is 28 days to under 1 year.

Table C. Infant, neonatal, and postneonatal deaths and mortality rates by race or national origin of mother: Total of 11 States, 2000 linked file

Race of mother	Live births	Number of Deaths			Mortality rate per 1,000 live births		
		Infant	Neonatal	Postneonatal	Infant	Neonatal	Postneonatal
All races	1,817,264	11,197	7,447	3,750	6.2	4.1	2.1
Total Asian or Pacific Islander	142,986	699	500	199	4.9	3.5	1.4
Chinese	27,526	93	70	23	3.4	2.5	0.8
Japanese	7,093	33	19	13	4.6	*	*
Filipino	26,495	149	106	42	5.6	4.0	1.6
Vietnamese	16,315	72	48	24	4.4	2.9	1.5
Asian Indian	24,485	109	86	23	4.5	3.5	0.9
Korean	10,274	46	29	17	4.5	2.8	*
Hawaiian	5,970	50	35	15	8.4	5.9	*
Samoan	1,705	11	8	3	*	*	*
Guamanian	556	2	2	-	*	*	*
Remaining Asian or Pacific Islander	22,567	133	96	37	5.9	4.3	1.7
White	1,435,567	7,615	5,032	2,583	5.3	3.5	1.8
Black	229,829	2,821	1,886	936	12.3	8.2	4.1
American Indian[1]	8,882	62	29	32	7.0	3.3	3.6

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
- Quantity zero.
1 Includes Aleuts and Eskimos.

NOTE: States included are California, Hawaii, Illinois, Minnesota, Missouri, New Jersey, New York, Texas, Virginia, Washington, and West Virginia. Neonatal is less than 28 days and postneonatal is 28 days to under 1 year.

Mortality rates for infants of American Indian mothers ranged from 15.4 in Nebraska to 7.6 in New Mexico. Overall, infant mortality rates for infants of API mothers were the lowest, ranging from 3.8 in Pennsylvania to 7.6 in Hawaii.

Sex of infant

In 2000 the overall infant mortality rate for male infants was 7.5 per 1,000, 21 percent higher than the rate for female infants (6.2) (tables 2 and 3). Infant mortality rates were higher for male than female infants in each racial and Hispanic origin group. Differences were not statistically significant for infants of Puerto Rican and Central and South American mothers. A similar comparison could not be made for infants of Cuban mothers due to a small number of female infant deaths.

Multiple births

For plural births, the infant mortality rate was 31.1, more than five times the rate of 6.1 for single births (table 2). Infant mortality rates that could be reliably calculated for plural births were higher than rates for single births for all race and Hispanic-origin groups.

The risk of infant death increases with the increasing number of infants in the pregnancy (9). In 2000 the infant mortality rates for quadruplets (95.5) and triplets (63.2) were more than three times and

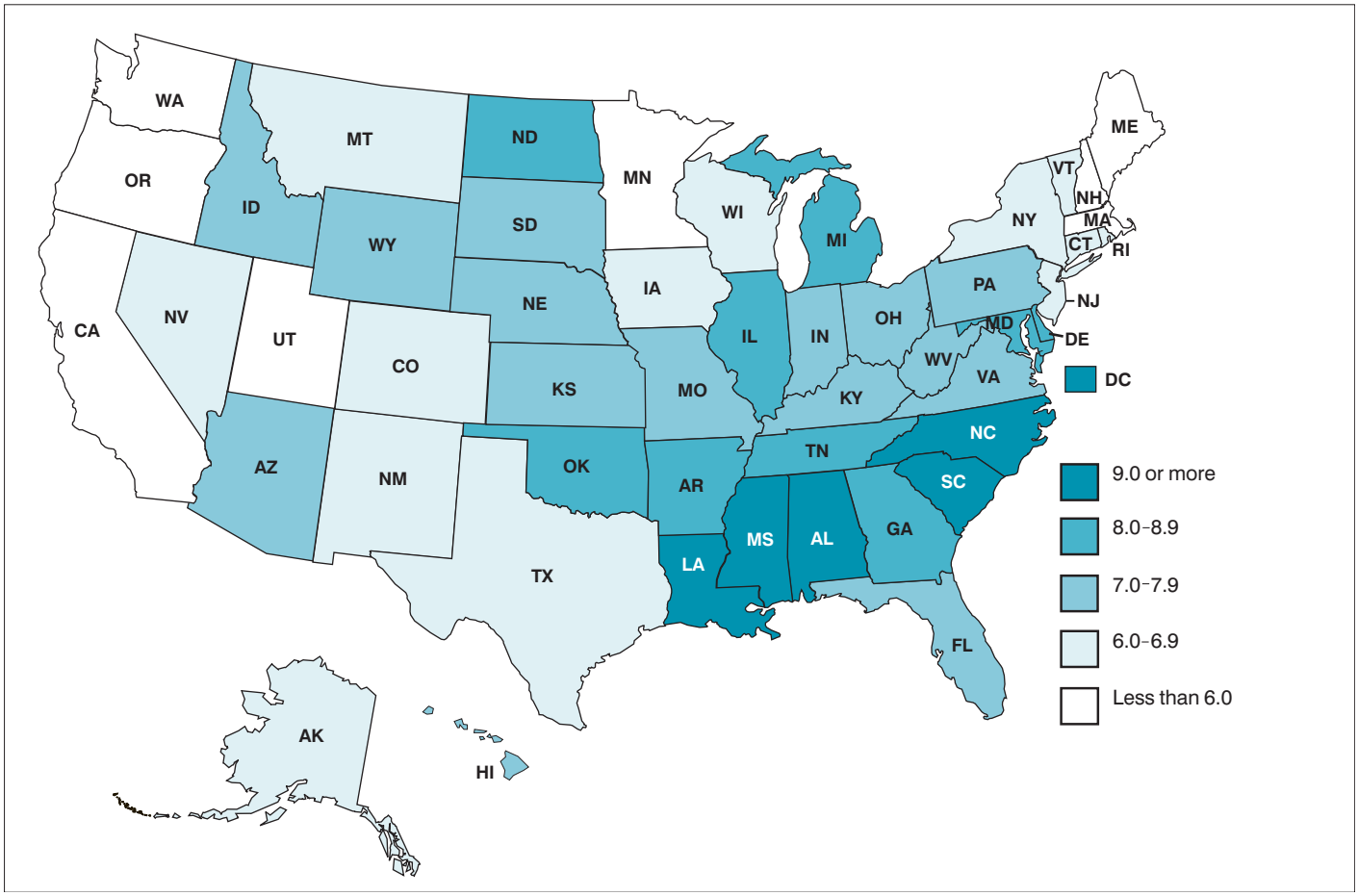


Figure 2. Infant mortality rates by State, 1998–2000

two times, respectively, the rate for twin births (28.9). Rates for quadruplets and triplets were more than 15 and 10 times respectively, the rate for single births (6.1) (tabular data not shown).

Birthweight and period of gestation

Birthweight and period of gestation are the two most important predictors of an infant's subsequent health and survival. Infants born too small or too soon have a much greater risk of death and both short-term and long-term disability than those born at term (37–41 weeks of gestation) or with birthweights of 2,500 grams or more (10–12). The percent of infants born at low birthweight ranged from 5.1 percent for births to Chinese mothers to 13.0 percent for births to black mothers (tables 4 and 5). The percent of preterm births (those born before 37 completed weeks of gestation) ranged from 7.3 percent for births to Chinese mothers to 17.3 percent for births to black mothers.

Infant mortality rates were much higher for low-birthweight infants than for infants with birthweights of 2,500 grams or more for all race and ethnic groups studied. Overall, the infant mortality rate for very low birthweight infants (those with birthweights of less than 1,500 grams) was 244.3, almost 100 times the rate for infants with birthweights of 2,500 grams or more (2.5).

Similarly, the infant mortality rate for very preterm infants (those born at less than 32 weeks of gestation) was 180.9, nearly 70 times the rate for infants born at term (2.6) (37–41 weeks of gestation) (tables 2 and 3).

Infant mortality rates for more detailed birthweight categories are presented in table 6. Eighty-five percent of infants with birthweights of less than 500 grams died within the first year of life—most within the first few days of life. An infant's chances of survival increase rapidly with increasing birthweight. At birthweights of 1,250–1,499 grams, about 95 out of 100 infants survive the first year of life. Infant mortality rates are lowest at birthweights of 3,500–4,999 grams.

From 1995 to 2000, infants weighing 3,000 to 3,499 grams had the largest decline, 17 percent, in the infant mortality rate by specified birthweight (from 2.9 to 2.4). The only nonsignificant changes were for infants weighing 4,500–4,999, and 5,000 grams or more. For infants of white mothers, the largest significant decline was for infants weighing 1,250 to 1,499 grams (20 percent). The largest decline by specified birthweight for infants of black mothers was for those 4,000 to 4,499 grams (44 percent).

Prenatal care

Prenatal care includes patient education, early recognition of symptoms and risk factors that require monitoring, and timely access to care. Therefore, prenatal care has frequently been the focus of efforts to reduce infant mortality, especially among women with medical and demographic risk factors for adverse outcomes (13–16). In 2000 infants of mothers who began prenatal care after the first trimester of pregnancy or not at all had an infant mortality rate of 8.8 per 1,000, which was 44 percent higher than the rate for those whose care began in the first trimester (6.1). For each race and Hispanic

origin group where rates could be reliably calculated, infant mortality rates were higher for mothers who began prenatal care after the first trimester or received no care than for those who received early care (tables 2 and 3). These differences were significant for all but infants of American Indian, Mexican, and Central and South American mothers.

Overall, the infant mortality rate for infants whose mothers began care in the third trimester (6.1) was lower than for those who began care in the second trimester, (7.2). This is because women who began prenatal care in the third trimester had to have a gestation period of at least 7 months, thus reducing the probability that the infant would be born preterm or of low birthweight. The relationship between month of initiation of prenatal care and length of gestation is complex. Therefore, prenatal care data are often grouped into two categories: mothers who began care in the first trimester and those who began care after the first trimester or not at all (17).

Maternal age

Infant mortality rates are highest for infants of teenage mothers, lowest for mothers in their late twenties and early thirties, and again higher for mothers in their forties and over (tables 2 and 3). Among teen births, rates were higher for the younger teenagers. In 2000 the mortality rate for infants of mothers aged 15–17 years was 10.5, compared with a rate of 9.4 for mothers aged 18–19 years (tabular data not shown). The infant mortality rate for infants of mothers less than 15 years of age was 17.7.

For all infants and for infants of non-Hispanic white mothers, mortality rates were higher for teenage mothers than for mothers 40–54 years of age. For infants of Mexican mothers, mortality rates were higher for infants of mothers 40–54 years of age than for teenagers.

Studies suggest that the higher mortality risk for infants of younger mothers may be related to the preponderance of teenage mothers who are from disadvantaged backgrounds, while for older mothers, both biological and sociological factors may play a role (18–22).

Maternal education

Infant mortality rates generally decreased with increasing educational level (tables 2 and 3). This pattern may reflect the effects of more education as well as socioeconomic differences; women with more education tend to have higher family income levels (23). In addition, most mothers with 0–8 years of education were born outside of the 50 States and the District of Columbia (24). Only nonsignificant differences between education levels are observed by race and Hispanic origin of mothers.

Live-birth order

Infant mortality rates were generally higher for first births than for second births, and then increased as birth order increased (tables 2 and 3). Overall, the infant mortality rate for first births (6.8) was 13 percent higher than for second births (6.0). The rate for fifth and higher order births (10.8) was 80 percent higher than the rate for second births. The higher parities and therefore the highest order births (fifth child and above) are more likely to be associated with older maternal age and lower socioeconomic status (25).

Marital status

Infants of mothers who are not married have been shown to be at higher risk for poor outcomes (26–28). The infant mortality rate for infants of unmarried mothers (9.9) was more than 83 percent higher than the rate for infants of married mothers (5.4) (tables 2 and 3). Infant mortality rates were higher for infants of unmarried mothers in each race and Hispanic origin group and these differences were significant.

Nativity

In 2000 the infant mortality rate for mothers born in the 50 States and the District of Columbia (7.2) was 41 percent higher than the rate for mothers born outside of the 50 States and the District of Columbia (5.1) (tables 2 and 3). This relationship was observed for most race and Hispanic origin groups.

A variety of different hypotheses have been advanced to account for the lower infant mortality rate among infants of mothers born outside the 50 States and the District of Columbia, including possible differences in the level of familial integration and social support for new mothers (29–32). Also, women born outside the 50 States and the District of Columbia have been shown to have different characteristics than their U.S.– born counterparts with regard to socioeconomic and educational status, and risk behaviors such as smoking and alcohol use (32,33).

Maternal smoking

Tobacco use during pregnancy causes the passage of substances such as nicotine, hydrogen cyanide, and carbon monoxide from the placenta into the fetal blood supply. These substances restrict the growing infant's access to oxygen and can lead to adverse pregnancy and birth outcomes such as low birthweight, preterm delivery, intrauterine growth retardation, and infant mortality (34–37).

The infant mortality rate for infants of smokers was 10.7 in 2000, 65 percent higher than the rate of 6.5 for nonsmokers. For each race and Hispanic-origin group for which these rates could be computed, the infant mortality rate for smokers was higher than for nonsmokers (tables 2 and 3).

Leading causes of infant death

Infant mortality rates for the five leading causes of infant death are presented in table 7 by race and Hispanic origin of mother. For 1999 and 2000 data, cause-of-death data in the United States are coded according to the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD–10) (3). From 1979–98 causes were classified according to the ninth revision (ICD–9) (4).

The leading cause of infant death in the United States in 2000 was Congenital malformations, deformations and chromosomal abnormalities (congenital malformations), accounting for 21 percent of all infant deaths. Disorders related to short gestation and low birthweight, not elsewhere classified (low birthweight) was second, accounting for 16 percent of all infant deaths, followed by Sudden infant death syndrome (SIDS) accounting for 9 percent of infant deaths. The fourth and fifth leading causes—Newborn affected by maternal complications of

pregnancy (maternal complications), and Newborn affected by complications of placenta, cord and membranes (cord and placental complications), accounted for 5 and 4 percent, respectively, of all infant deaths in 2000. Together the five leading causes accounted for 54 percent of all infant deaths in the United States in 2000.

The first four leading causes of death were the same in 2000 as in the previous year. However, the fifth leading cause changed between 1999 and 2000. In 1999 the fifth leading cause was Respiratory distress of newborn. Respiratory distress of newborn has continued its rapid decline (it declined by 13 percent from 1999 to 2000), and has now dropped out of the five leading causes of infant death (it is now sixth). Cord and placental complications, sixth in 1999, is the fifth leading cause of infant death in 2000.

The rank order of leading causes of infant death varied substantially by race and Hispanic origin of the mother. Congenital malformations was the leading cause of infant death for all groups except for black and Puerto Rican mothers, for whom low birthweight was the leading cause.

When changes in cause-specific infant mortality rates from 1999 to 2000 were examined, SIDS rates declined by 7 percent for the total population, and also for white mothers, continuing the rapid decline in SIDS during the 1990s. From 1999 to 2000, infant mortality rates from cord and placental complications increased by 12 percent for white mothers, but declined by 20 percent for black mothers. However, 1999 represented a low point in the long-term trend for white mothers, and a high point in the long-term trend for black mothers, so these changes should be interpreted with caution. Other changes in cause-specific infant mortality rates by race and/or ethnicity from 1999 to 2000 were not statistically significant.

When differences between cause-specific infant mortality rates by race and/or ethnicity were examined, infant mortality rates for congenital malformations were 21 percent higher for black than for white mothers. Rates were 10 percent higher for Mexican than for non-Hispanic white mothers. Differences in infant mortality rates for Congenital malformations between American Indian and white mothers were not statistically significant. Infant mortality rates from congenital malformations were 17 percent lower for API than for white mothers.

Infants of black mothers had the highest infant mortality rates from low birthweight; the rate for black mothers was nearly four times the rate for white mothers. The rate for Puerto Rican mothers was two times the rate for non-Hispanic white mothers. Rates were about 1.5 times higher for American Indian than for white mothers.

For SIDS, infant mortality rates were highest among black and American Indian mothers. SIDS rates for black mothers were 2.4 times, and for American Indian mothers 2.3 times those for white mothers. As most SIDS deaths occur during the postneonatal period, the high SIDS rates for infants of black and American Indian mothers account for much of their elevated risk of postneonatal mortality. For infants of API mothers, the SIDS rate of 29.4 was 43 percent lower than the white rate of 51.8. For Mexican mothers, the SIDS rate of 31.8 was 46 percent lower than the rate of 57.7 for non-Hispanic white mothers.

For maternal complications and cord and placental complications, infants of black mothers had the highest mortality rates. Black infant mortality rates were three times those for white mothers for maternal complications, and two times for cord and placental complications. The infant mortality rate for cord and placental complications was 71 percent higher for Puerto Rican mothers than for non-Hispanic white mothers.

In 2000, 98 percent of infant deaths from maternal complications and 90 percent of infant deaths from cord and placental complications occurred to low-birthweight infants. The higher percent of black and Puerto Rican infants born low birthweight may help to explain their higher infant mortality rates from these causes. In contrast, the infant mortality rate from maternal complications was 31 percent lower for Mexican than for non-Hispanic white mothers, and the infant mortality rate from cord and placental complications was 28 percent lower for Mexican than for non-Hispanic white mothers.

An examination of cause-specific differences in infant mortality rates between race and Hispanic origin groups can help the researcher to understand overall differences between these groups. For example, 28 percent of the elevated infant mortality rates for black mothers, when compared with white mothers, can be accounted for by their higher infant mortality rates due to low birthweight, 9 percent can be accounted for by differences in SIDS, and 7 percent by differences in maternal complications. In other words, if black infant mortality rates for these three causes could be reduced to white levels, the difference in the infant mortality rate between black and white mothers would be reduced by 44 percent.

For American Indian mothers, more than one-fourth (26 percent) of their elevated infant mortality rate, when compared with white mothers, can be accounted for by their higher SIDS rates, and 14 percent by higher rates for low birthweight. If American Indian infant mortality for SIDS and low birthweight could be reduced to white levels, the difference in the infant mortality rate between American Indian and white mothers would be reduced by 40 percent.

Similarly, 29 percent of the difference between Puerto Rican and non-Hispanic white infant mortality rates can be accounted for by differences in low birthweight, and a further 7 percent by cord and placental complications. If Puerto Rican infant mortality for these two causes could be reduced to non-Hispanic white levels, the difference in the infant mortality rate between Puerto Rican and non-Hispanic white infants would be reduced by 36 percent. In addition to helping to explain differences in infant mortality rates between various groups, comparisons such as these can be helpful in targeting prevention efforts.

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Table 1. Infant mortality rates by race and Hispanic origin of mother: United States and each State, Puerto Rico, Virgin Islands, and Guam, 1998-2000 linked files

[By place of residence]

State	Total	Race and Hispanic origin of mother						
		Race				Hispanic origin		
		White	Black	American Indian[1]	Asian/Pacific Islander	Hispanic	Non-Hispanic White	Non-Hispanic Black
		Infant mortality rates per 1,000 live births in specified group						
United States [2]	7.0	5.8	13.8	9.0	5.1	5.7	5.8	13.9
Alabama	9.8	7.1	15.4	*	*	7.3	7.1	15.4
Alaska	6.3	5.1	*	9.7	*	*	5.0	*
Arizona	7.0	6.6	15.2	8.7	5.1	6.7	6.6	15.0
Arkansas	8.4	7.3	12.7	*	*	5.7	7.4	12.6
California	5.5	5.1	11.9	9.3	4.8	5.2	4.8	12.0
Colorado	6.5	6.1	14.7	*	4.9	6.5	5.9	14.8
Connecticut	6.5	5.6	13.6	*	*	8.6	4.7	13.5
Delaware	8.8	6.6	15.6	*	*	*	6.5	15.8
District of Columbia	13.5	5.7	16.9	*	*	9.1	*	16.8
Florida	7.2	5.6	12.5	*	5.2	4.9	5.8	12.6
Georgia	8.3	5.9	13.4	*	4.5	5.1	5.9	13.5
Hawaii	7.4	6.7	*	*	7.6	7.5	6.4	*
Idaho	7.2	7.0	*	*	*	8.7	6.8	*
Illinois	8.5	6.4	17.1	*	6.7	7.2	6.2	17.1
Indiana	7.8	6.9	15.4	*	6.6	6.8	6.9	15.4
Iowa	6.2	5.8	17.2	*	*	6.1	5.8	17.3
Kansas	7.0	6.8	10.5	*	*	5.2	7.1	10.5
Kentucky	7.4	6.8	12.6	*	*	*	6.9	12.7
Louisiana	9.1	6.1	13.5	*	*	4.9	6.2	13.5
Maine	5.4	5.5	*	*	*	*	5.4	*
Maryland	8.1	5.3	13.9	*	4.8	5.8	5.2	13.9
Massachusetts	5.0	4.5	9.9	*	3.9	5.5	4.2	11.2
Michigan	8.1	6.3	16.4	*	6.7	6.6	6.0	16.4
Minnesota	5.9	5.3	13.1	10.4	6.8	6.9	5.2	13.0
Mississippi	10.3	6.6	14.7	*	*	*	6.6	14.7
Missouri	7.5	6.1	16.0	*	*	6.5	6.1	16.0
Montana	6.8	6.2	*	11.3	*	*	6.0	*
Nebraska	7.0	6.3	16.0	15.4	*	7.8	6.2	16.2
Nevada	6.7	6.2	12.5	*	6.0	6.0	6.1	12.1
New Hampshire	5.4	5.3	*	*	*	*	4.7	*
New Jersey	6.4	4.9	13.3	*	4.6	6.2	4.4	13.8
New Mexico	6.9	6.7	*	7.6	*	6.6	7.0	*
New York	6.3	5.1	11.3	*	4.0	5.9	4.7	11.8
North Carolina	9.0	6.7	15.7	11.7	6.2	6.2	6.7	15.7
North Dakota	8.0	7.2	*	15.1	*	*	7.0	*
Ohio	7.9	6.8	14.5	*	4.3	8.7	6.7	14.4
Oklahoma	8.5	8.0	13.3	8.2	*	5.4	8.2	13.5
Oregon	5.6	5.5	8.7	10.6	4.2	6.4	5.3	8.5
Pennsylvania	7.2	5.9	15.5	*	3.8	8.5	5.6	15.4
Rhode Island	6.4	5.5	14.8	*	*	6.4	4.9	13.5
South Carolina	9.5	6.3	15.6	*	*	5.9	6.3	15.5
South Dakota	7.8	6.7	*	13.3	*	*	6.7	*
Tennessee	8.4	6.4	15.6	*	5.9	5.4	6.4	15.6
Texas	6.0	5.4	11.0	*	4.2	5.2	5.5	11.0
Utah	5.3	5.2	*	*	6.2	5.7	5.2	*
Vermont	6.3	6.2	*	*	*	*	6.2	*
Virginia	7.2	5.6	12.8	*	5.4	4.7	5.6	12.8
Washington	5.3	4.9	11.0	9.2	5.3	5.0	4.8	10.1
West Virginia	7.6	7.6	9.7	*	*	*	7.6	9.8
Wisconsin	6.9	5.8	16.7	8.3	5.8	7.4	5.7	16.6
Wyoming	7.0	6.9	*	*	*	*	6.8	*
Puerto Rico	10.2	10.2	9.8	---	---	---	---	---
Virgin Islands	9.9	*	11.6	*	*	*	*	11.2
Guam	7.6	*	*	*	8.1	*	*	*

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
--- Data not available.
1 Includes Aleuts and Eskimos.
2 Excludes data for Puerto Rico, Virgin Islands, and Guam.

Table 2. Infant mortality rates, live births, and infant deaths by selected characteristics and specified race of mother: United States, 2000 linked file

Characteristics	All races	Race of mother			
		White	Black	American Indian[1]	Asian/ Pacific Islander
	Infant mortality rates per 1,000 live births in specified group				
Total	6.9	5.7	13.5	8.3	4.9
Age at death:					
Total neonatal	4.6	3.8	9.1	4.4	3.4
Early neonatal (< 7 days)	3.7	3.0	7.4	3.4	2.8
Late neonatal (7-27 days)	0.9	0.8	1.8	1.0	0.7
Postneonatal	2.3	1.9	4.3	3.9	1.4
Sex:					
Male	7.5	6.2	14.8	9.9	5.3
Female	6.2	5.1	12.1	6.7	4.4
Plurality:					
Single births	6.1	5.0	12.1	7.9	4.4
Plural births	31.1	26.7	52.7	27.2	26.2
Birthweight:					
Less than 2,500 grams	59.4	54.1	75.8	62.7	44.4
Less than 1,500 grams	244.3	232.7	266.9	265.7	234.4
1,500-2,499 grams	15.8	16.0	15.8	19.7	12.3
2,500 grams or more	2.5	2.2	3.9	4.3	1.6
Period of gestation:					
Less than 32 weeks	180.9	170.2	203.7	163.4	170.5
32-36 weeks	9.4	8.9	11.2	11.6	8.5
37-41 weeks	2.6	2.4	4.1	4.1	1.7
42 weeks or more	2.9	2.5	4.8	5.8	2.2
Trimester of pregnancy prenatal care began:					
First trimester	6.1	5.1	12.2	7.4	4.4
After first trimester or no care	8.8	7.2	14.3	9.1	5.6
Second trimester	7.2	6.2	11.0	7.5	4.6
Third trimester	6.1	5.4	8.3	7.9	3.8
No prenatal care	33.8	25.7	50.0	29.9	32.7
Age of mother:					
Under 20 years	9.9	8.5	13.8	9.1	10.4
20-24 years	7.6	6.2	13.1	7.0	5.4
25-29 years	6.1	5.1	13.1	9.1	4.1
30-34 years	5.6	4.7	13.8	9.7	4.4
35-39 years	6.4	5.4	14.5	7.0	4.8
40-54 years	7.9	7.0	15.1	*	7.4
Educational attainment of mother:					
0-8 years	6.8	6.3	13.4	*	6.5
9-11 years	9.5	8.0	14.6	9.9	6.9
12 years	7.5	6.1	13.2	7.5	5.4
13-15 years	5.9	4.8	11.7	8.1	4.5
16 years and over	4.3	3.8	10.6	*	3.7
Live-birth order:					
1	6.8	5.8	13.3	7.6	4.5
2	6.0	5.1	11.9	7.2	4.6
3	6.9	5.6	13.2	7.9	5.0
4	8.4	6.6	15.2	9.6	6.4
5 or more	10.8	8.3	17.8	12.8	10.5
Marital status:					
Married	5.4	4.9	11.5	6.3	4.5
Unmarried	9.9	7.8	14.4	9.8	7.2
Mother's place of birth:					
Born in the 50 States and D.C.	7.2	5.8	13.5	8.4	6.4
Born elsewhere	5.1	4.8	9.6	*	4.5
Maternal smoking during pregnancy:[2]					
Smoker	10.7	9.4	19.8	12.2	8.6
Nonsmoker	6.5	5.2	12.7	6.8	4.8

See footnotes at end of table.

Table 2. Infant mortality rates, live births, and infant deaths by selected characteristics and specified race of mother: United States, 2000 linked file--Con.

Characteristics	All races	Race of mother			
		White	Black	American Indian[1]	Asian/ Pacific Islander
		Live births			
Total	4,058,882	3,194,049	622,621	41,668	200,544
Sex:					
Male	2,076,998	1,636,101	316,123	21,193	103,581
Female	1,981,884	1,557,948	306,498	20,475	96,963
Plurality:					
Single births	3,932,630	3,094,255	601,471	40,750	196,154
Plural births	126,252	99,794	21,150	918	4,390
Birthweight:					
Less than 2,500 grams	308,074	209,477	81,116	2,825	14,656
Less than 1,500 grams	58,810	36,828	19,369	493	2,120
1,500-2,499 grams	249,264	172,649	61,747	2,332	12,536
2,500 grams or more	3,748,046	2,982,366	541,244	38,813	185,623
Not stated	2,762	2,206	261	30	265
Period of gestation:					
Less than 32 weeks	77,558	49,050	24,991	808	2,709
32-36 weeks	389,686	286,787	81,704	4,403	16,792
37-41 weeks	3,256,070	2,591,605	466,915	32,297	165,253
42 weeks or more	292,209	232,591	44,121	3,630	11,867
Not stated	43,359	34,016	4,890	530	3,923
Trimester of pregnancy prenatal care began:					
First trimester	3,284,281	2,649,248	444,515	27,961	162,557
After first trimester or no care	665,447	468,195	154,014	12,368	30,870
Second trimester	512,735	365,191	114,193	8,914	24,437
Third trimester	108,073	74,936	25,275	2,652	5,210
No prenatal care	44,639	28,068	14,546	802	1,223
Not stated	109,154	76,606	24,092	1,339	7,117
Age of mother:					
Under 20 years	477,520	337,462	122,763	8,215	9,080
20-24 years	1,017,815	772,818	202,598	13,633	28,766
25-29 years	1,087,563	874,190	141,974	10,053	61,346
30-34 years	929,299	764,721	94,815	6,097	63,666
35-39 years	452,064	368,714	49,299	2,983	31,068
40-54 years	94,621	76,144	11,172	687	6,618
Educational attainment of mother:					
0-8 years	234,099	208,604	15,560	1,790	8,145
9-11 years	631,992	466,162	140,204	11,124	14,502
12 years	1,273,074	965,245	243,337	16,234	48,258
13-15 years	872,288	681,775	140,829	8,534	41,150
16 years and over	986,525	828,252	71,404	3,177	83,692
Not stated	60,904	44,011	11,287	809	4,797
Live-birth order:					
1	1,622,429	1,282,509	232,361	14,551	93,008
2	1,312,692	1,048,898	184,065	11,660	68,069
3	676,606	533,632	110,864	7,370	24,740
4	259,976	197,007	51,002	3,949	8,018
5 or more	169,589	117,785	42,022	3,979	5,803
Not stated	17,590	14,218	2,307	159	906
Marital status:					
Married	2,711,813	2,327,678	195,962	17,315	170,858
Unmarried	1,347,069	866,371	426,659	24,353	29,686
Mother's place of birth:					
Born in the 50 States and D.C.	3,180,551	2,563,153	545,286	39,421	32,691
Born elsewhere	866,215	623,419	74,038	2,126	166,632
Not stated	12,116	7,477	3,297	121	1,221
Maternal smoking during pregnancy:[2]					
Smoker	425,107	360,981	52,852	7,553	3,721
Nonsmoker	3,063,543	2,372,979	529,582	30,187	130,795
Not stated	38,261	30,443	5,137	896	1,785

See footnotes at end of table.

Table 2. Infant mortality rates, live births, and infant deaths by selected characteristics and specified race of mother: United States, 2000 linked file--Con.

Characteristics	All races	Race of mother			
		White	Black	American Indian[1]	Asian/ Pacific Islander
		Infant deaths			
Total	27,960	18,246	8,391	346	977
Age at death:					
Total neonatal	18,733	12,179	5,684	183	688
Early neonatal (< 7 days)	14,893	9,614	4,582	143	553
Late neonatal (7-27 days)	3,841	2,565	1,102	40	135
Postneonatal	9,227	6,067	2,707	164	289
Sex:					
Male	15,664	10,223	4,683	210	548
Female	12,297	8,023	3,708	137	429
Plurality:					
Single births	24,037	15,578	7,276	321	862
Plural births	3,924	2,668	1,115	25	115
Birthweight:					
Less than 2,500 grams	18,299	11,326	6,145	177	651
Less than 1,500 grams	14,366	8,569	5,169	131	497
1,500-2,499 grams	3,933	2,757	976	46	154
2,500 grams or more	9,259	6,672	2,116	166	305
Not stated	403	248	129	4	21
Period of gestation:					
Less than 32 weeks	14,033	8,348	5,091	132	462
32-36 weeks	3,663	2,557	913	51	142
37-41 weeks	8,418	6,092	1,909	131	285
42 weeks or more	851	592	212	21	26
Not stated	995	657	266	11	61
Trimester of pregnancy prenatal care:					
First trimester	19,966	13,618	5,418	207	723
After first trimester or no care	5,858	3,374	2,200	112	172
Second trimester	3,687	2,247	1,261	67	112
Third trimester	660	407	211	21	20
No prenatal care	1,511	720	727	24	40
Not stated	2,136	1,254	773	27	82
Age of mother:					
Under 20 years	4,744	2,883	1,692	75	94
20-24 years	7,724	4,825	2,648	96	155
25-29 years	6,631	4,429	1,858	91	252
30-34 years	5,238	3,589	1,311	59	280
35-39 years	2,872	1,990	713	21	148
40-54 years	751	530	169	4	49
Educational attainment of mother:					
0-8 years	1,583	1,305	208	16	53
9-11 years	5,977	3,721	2,045	110	100
12 years	9,511	5,928	3,201	121	261
13-15 years	5,172	3,270	1,648	69	185
16 years and over	4,224	3,146	759	11	308
Not stated	1,495	876	530	19	70
Live-birth order:					
1	11,034	7,404	3,098	111	420
2	7,912	5,317	2,198	84	313
3	4,656	3,008	1,466	58	123
4	2,172	1,308	776	38	51
5 or more	1,834	973	750	51	61
Not stated	353	236	102	5	9
Marital status:					
Married	14,643	11,518	2,253	109	764
Unmarried	13,318	6,728	6,138	238	214

See footnotes at end of table.

Table 2. Infant mortality rates, live births, and infant deaths by selected characteristics and specified race of mother: United States, 2000 linked file--Con.

Characteristics	All races	Race of mother			
		White	Black	American Indian[1]	Asian/ Pacific Islander
	Infant deaths				
Mother's place of birth:					
Born in the 50 States and D.C.	22,795	14,870	7,385	331	209
Born elsewhere	4,446	2,974	713	10	749
Not stated	720	402	293	5	19
Maternal smoking during pregnancy:[2]					
Smoker	4,556	3,384	1,048	92	32
Nonsmoker	19,793	12,222	6,746	204	622
Not stated	729	483	190	29	27

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
1 Includes Aleuts and Eskimos.
2 Excludes data for California , which do not report tobacco use on the birth certificate.

NOTE: Infant deaths are weighted so numbers may not exactly add to totals due to rounding. Not stated responses were included in totals but not distributed among groups for rate computations.

Table 3. Infant mortality rates, live births, and infant deaths by selected characteristics and Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: United States, 2000 linked file

Characteristics	All origins[1]	Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total[2]	White	Black
	Infant mortality rates per 1,000 live births in specified group									
Total	6.9	5.6	5.4	8.2	4.5	4.6	6.9	7.2	5.7	13.6
Age at death:										
Total neonatal	4.6	3.8	3.6	5.8	3.2	3.3	4.6	4.8	3.8	9.2
Early neonatal (< 7 days)	3.7	2.9	2.8	4.4	2.4	2.5	3.8	3.8	3.0	7.4
Late neonatal (7-27 days)	0.9	0.8	0.8	1.4	*	0.8	0.8	1.0	0.8	1.8
Postneonatal	2.3	1.8	1.8	2.4	*	1.4	2.3	2.4	1.9	4.4
Sex:										
Male	7.5	6.0	5.8	8.8	6.1	5.0	7.1	7.9	6.3	14.9
Female	6.2	5.2	5.1	7.5	*	4.3	6.6	6.4	5.1	12.3
Plurality:										
Single births	6.1	5.1	5.0	7.4	3.8	4.1	6.4	6.3	5.0	12.2
Plural births	31.1	28.6	27.3	37.2	*	30.2	26.5	31.1	26.0	52.7
Birthweight:										
Less than 2,500 grams	59.4	56.1	56.4	64.4	44.7	49.9	56.6	59.6	52.8	75.6
Less than 1,500 grams	244.3	235.5	241.4	249.1	196.3	202.2	236.5	244.0	229.5	265.7
1,500-2,499 grams	15.8	22.8	17.4	78.4	*	13.9	15.9	15.6	15.6	15.9
2,500 grams or more	2.5	2.1	2.1	2.3	1.7	1.5	2.6	2.6	2.3	3.9
Period of gestation:										
Less than 32 weeks	180.9	156.0	153.0	195.1	133.3	139.5	163.1	184.5	173.4	203.0
32-36 weeks	9.4	7.8	8.3	7.7	*	5.9	7.1	9.8	9.3	11.2
37-41 weeks	2.6	2.2	2.3	2.7	1.8	1.7	2.8	2.7	2.4	4.1
42 weeks or more	2.9	2.3	2.3	*	*	*	*	3.1	2.6	4.9
Trimester of pregnancy prenatal care began:										
First trimester	6.1	5.2	5.1	7.0	4.4	4.4	6.1	6.3	5.1	12.3
After first trimester or no care	8.8	5.8	5.5	10.8	*	4.6	7.1	10.1	8.1	14.5
Second trimester	7.2	5.0	4.8	8.6	*	4.1	5.9	8.1	6.9	11.1
Third trimester	6.1	3.9	3.8	*	*	*	*	7.2	6.6	8.6
No prenatal care	33.8	20.9	18.5	48.5	*	17.3	35.9	39.3	29.7	50.2
Age of mother:										
Under 20 years	9.9	7.4	7.1	9.7	*	5.8	9.4	10.9	9.3	13.8
20-24 years	7.6	5.2	4.8	7.5	*	4.7	7.4	8.3	6.7	13.1
25-29 years	6.1	5.0	5.0	7.1	*	4.0	5.0	6.3	5.0	13.3
30-34 years	5.6	5.0	5.0	7.1	*	4.5	5.8	5.7	4.6	14.0
35-39 years	6.4	6.2	6.1	10.8	*	5.1	5.5	6.3	5.2	14.6
40-54 years	7.9	9.6	9.7	*	*	*	*	7.6	6.3	15.2
Educational attainment of mother:										
0-8 years	6.8	5.4	5.2	10.2	*	5.1	9.1	10.4	9.9	14.0
9-11 years	9.5	6.2	5.8	10.3	*	5.0	7.8	11.2	9.6	14.7
12 years	7.5	5.2	5.2	7.0	*	4.3	6.0	8.0	6.4	13.3
13-15 years	5.9	4.9	4.8	7.0	*	3.9	5.5	6.1	4.8	11.8
16 years and over	4.3	4.0	4.1	5.6	*	3.5	*	4.3	3.8	10.7
Live-birth order:										
1	6.8	6.0	5.7	9.4	5.0	4.8	7.3	7.0	5.7	13.5
2	6.0	4.9	4.9	6.3	*	4.0	6.0	6.2	5.1	12.0
3	6.9	4.9	4.8	6.4	*	4.3	5.4	7.4	5.9	13.3
4	8.4	5.9	5.4	10.7	*	5.8	8.2	9.1	6.9	15.3
5 or more	10.8	7.8	7.2	11.5	*	7.9	12.3	11.9	8.5	17.9
Marital status:										
Married	5.4	4.9	4.9	7.3	3.7	4.2	5.8	5.4	4.9	11.6
Unmarried	9.9	6.5	6.3	8.8	6.8	5.2	8.2	11.0	8.5	14.5
Mother's place of birth:										
Born in the 50 States and D.C.	7.2	6.4	6.3	7.9	5.1	5.4	6.5	7.2	5.7	13.6
Born elsewhere	5.1	5.0	4.9	8.6	4.1	4.5	5.5	5.3	3.9	10.4
Maternal smoking during pregnancy:[3]										
Smoker	10.7	10.9	11.0	12.6	*	*	8.0	10.7	9.3	19.8
Nonsmoker	6.5	5.5	5.3	7.7	4.3	4.5	6.6	6.6	5.0	12.9

See footnotes at end of table.

Table 3. Infant mortality rates, live births, and infant deaths by selected characteristics and Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: United States, 2000 linked file--Con.

Characteristics	All origins[1]	Hispanic						Non-Hispanic			Not stated
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total[2]	White	Black	
	Live births										
Total	4,058,882	815,883	581,924	58,126	13,429	113,346	49,058	3,200,030	2,362,982	604,367	42,969
Sex:											
Male	2,076,998	416,528	296,925	29,780	6,880	57,951	24,992	1,638,514	1,211,757	306,836	21,956
Female	1,981,884	399,355	284,999	28,346	6,549	55,395	24,066	1,561,516	1,151,225	297,531	21,013
Plurality:											
Single births	3,932,630	798,750	570,402	56,592	13,043	110,862	47,851	3,092,408	2,281,139	583,685	41,472
Plural births	126,252	17,133	11,522	1,534	386	2,484	1,207	107,622	81,843	20,682	1,497
Birthweight:											
Less than 2,500 grams	308,074	52,407	35,050	5,420	873	7,210	3,854	252,479	156,130	79,574	3,188
Less than 1,500 grams	58,810	9,474	6,089	1,136	163	1,380	706	48,638	27,151	19,017	698
1,500-2,499 grams	249,264	42,933	28,961	4,284	710	5,830	3,148	203,841	128,979	60,557	2,490
2,500 grams or more	3,748,046	763,302	546,775	52,681	12,555	106,112	45,179	2,945,268	2,205,071	524,556	39,476
Not stated	2,762	174	99	25	1	24	25	2,283	1,781	237	305
Period of gestation:											
Less than 32 weeks	77,558	13,531	8,927	1,456	240	1,921	987	63,201	35,364	24,518	826
32-36 weeks	389,686	76,175	53,350	6,363	1,184	10,342	4,936	309,719	209,579	79,876	3,792
37-41 weeks	3,256,070	645,011	458,961	45,437	11,032	90,961	38,620	2,577,308	1,934,500	452,617	33,751
42 weeks or more	292,209	63,102	45,225	4,603	922	8,524	3,828	226,231	168,723	42,684	2,876
Not stated	43,359	18,064	15,461	267	51	1,598	687	23,571	14,816	4,672	1,724
Trimester of pregnancy prenatal care began:											
First trimester	3,284,281	587,305	411,141	43,695	12,166	84,646	35,657	2,664,514	2,049,299	431,666	32,462
After first trimester or no care	665,447	201,946	153,062	12,000	1,108	24,388	11,388	457,011	266,172	149,634	6,490
Second trimester	512,735	151,858	114,300	9,468	922	18,544	8,624	356,020	213,187	110,934	4,857
Third trimester	108,073	36,898	28,197	1,810	135	4,688	2,068	70,154	38,355	24,377	1,021
No prenatal care	44,639	13,190	10,565	722	51	1,156	696	30,837	14,630	14,323	612
Not stated	109,154	26,632	17,721	2,431	155	4,312	2,013	78,505	47,511	23,067	4,017
Age of mother:											
Under 20 years	477,520	132,111	99,078	11,611	1,012	11,168	9,242	341,384	205,898	119,755	4,025
20-24 years	1,017,815	247,554	182,869	19,093	2,318	28,527	14,747	760,940	523,975	197,192	9,321
25-29 years	1,087,563	218,168	157,439	13,500	3,918	31,332	11,979	858,059	651,448	137,550	11,336
30-34 years	929,299	141,500	94,702	9,059	3,676	25,769	8,294	776,797	617,373	91,484	11,002
35-39 years	452,064	62,993	39,392	4,066	2,141	13,428	3,966	383,261	302,579	47,581	5,810
40-54 years	94,621	13,557	8,444	797	364	3,122	830	79,589	61,709	10,805	1,475
Educational attainment of mother:											
0-8 years	234,099	170,367	142,631	2,736	192	21,405	3,403	62,748	39,368	14,179	984
9-11 years	631,992	219,645	170,670	16,364	1,402	19,738	11,471	407,752	247,550	136,225	4,595
12 years	1,273,074	239,518	163,677	19,541	4,496	34,719	17,085	1,022,292	724,148	236,824	11,264
13-15 years	872,288	107,987	63,556	12,603	3,117	19,277	9,434	756,434	571,292	137,230	7,867
16 years and over	986,525	60,676	29,101	5,922	4,137	15,582	5,934	915,463	760,316	69,593	10,386
Not stated	60,904	17,690	12,289	960	85	2,625	1,731	35,341	20,308	10,316	7,873
Live-birth order:											
1	1,622,429	302,805	209,908	22,503	5,957	44,861	19,576	1,303,380	974,649	225,050	16,244
2	1,312,692	247,474	173,538	17,880	4,847	35,893	15,316	1,051,903	796,441	178,534	13,315
3	676,606	152,301	111,357	10,262	1,871	20,167	8,644	517,545	379,236	107,685	6,760
4	259,976	65,599	50,093	4,120	489	7,624	3,273	191,714	130,612	49,772	2,663
5 or more	169,589	43,476	33,798	2,881	239	4,532	2,026	123,983	73,491	41,230	2,130
Not stated	17,590	4,228	3,230	480	26	269	223	11,505	8,553	2,096	1,857
Marital status:											
Married	2,711,813	467,707	345,365	23,504	9,759	62,701	26,378	2,213,322	1,841,290	189,207	30,784
Unmarried	1,347,069	348,176	236,559	34,622	3,670	50,645	22,680	986,708	521,692	415,160	12,185
Mother's place of birth:											
Born in the 50 States and D.C.	3,180,551	309,350	216,952	37,420	5,678	12,494	36,806	2,834,321	2,230,808	537,528	36,880
Born elsewhere	866,215	504,587	364,074	20,511	7,743	100,616	11,643	356,610	127,302	63,807	5,018
Not stated	12,116	1,946	898	195	8	236	609	9,099	4,872	3,032	1,071
Maternal smoking during pregnancy:[3]											
Smoker	425,107	19,232	8,552	5,724	418	1,291	3,247	400,073	337,618	51,924	5,802
Nonsmoker	3,063,543	533,420	344,151	49,728	12,241	86,417	40,883	2,499,027	1,830,715	513,763	31,096
Not stated	38,261	5,118	3,582	604	35	500	397	30,335	23,097	4,841	2,808

See footnotes at end of table.

Table 3. Infant mortality rates, live births, and infant deaths by selected characteristics and Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: United States, 2000 linked file--Con.

Characteristics	All origins[1]	Hispanic						Non-Hispanic			Not stated
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total[2]	White	Black	
	Infant deaths										
Total	27,960	4,564	3,162	477	61	526	338	22,916	13,461	8,212	480
Age at death:											
Total neonatal	18,733	3,078	2,103	337	43	370	225	15,288	8,924	5,552	368
Early neonatal (< 7 days)	14,893	2,399	1,641	257	32	281	188	12,166	7,039	4,479	326
Late neonatal (7-27 days)	3,841	679	462	80	11	89	37	3,121	1,885	1,072	42
Postneonatal	9,227	1,486	1,059	140	18	156	113	7,628	4,537	2,660	112
Sex:											
Male	15,664	2,493	1,721	263	42	290	177	12,892	7,621	4,564	279
Female	12,297	2,069	1,441	213	19	236	160	10,025	5,841	3,648	202
Plurality:											
Single births	24,037	4,073	2,847	419	50	451	306	19,569	11,330	7,123	394
Plural births	3,924	490	315	57	11	75	32	3,348	2,132	1,089	86
Birthweight:											
Less than 2,500 grams	18,299	2,942	1,976	349	39	360	218	15,039	8,249	6,015	318
Less than 1,500 grams	14,366	2,231	1,470	283	32	279	167	11,869	6,232	5,053	265
1,500-2,499 grams	3,933	979	505	336	7	81	50	3,170	2,016	962	54
2,500 grams or more	9,259	1,583	1,162	122	21	160	118	7,564	5,050	2,071	112
Not stated	403	40	25	6	1	6	2	314	163	126	50
Period of gestation:											
Less than 32 weeks	14,033	2,111	1,366	284	32	268	161	11,658	6,131	4,976	264
32-36 weeks	3,663	595	443	49	7	61	35	3,032	1,948	898	36
37-41 weeks	8,418	1,440	1,033	123	20	155	109	6,881	4,618	1,871	98
42 weeks or more	851	146	105	10	*	19	12	693	441	208	11
Not stated	995	272	215	10	2	24	21	652	323	259	71
Trimester of pregnancy prenatal care:											
First trimester	19,966	3,053	2,105	308	54	369	217	16,673	10,475	5,320	239
After first trimester or no care	5,858	1,176	847	129	6	113	81	4,593	2,166	2,163	88
Second trimester	3,687	758	545	81	5	76	51	2,879	1,476	1,234	49
Third trimester	660	143	108	13	*	17	5	502	255	209	15
No prenatal care	1,511	276	195	35	1	20	25	1,212	435	719	23
Not stated	2,136	334	210	39	1	44	40	1,649	820	728	153
Age of mother:											
Under 20 years	4,744	973	700	113	8	65	87	3,712	1,907	1,654	61
20-24 years	7,724	1,279	884	144	9	133	109	6,331	3,506	2,593	116
25-29 years	6,631	1,084	784	96	18	126	60	5,425	3,273	1,824	122
30-34 years	5,238	709	470	64	11	116	48	4,421	2,815	1,284	109
35-39 years	2,872	389	242	44	13	68	22	2,429	1,572	693	54
40-54 years	751	130	82	16	2	19	11	601	390	164	19
Educational attainment of mother:											
0-8 years	1,583	916	748	28	*	109	31	652	389	199	14
9-11 years	5,977	1,356	991	169	9	98	89	4,577	2,381	2,001	43
12 years	9,511	1,247	845	136	15	149	102	8,156	4,635	3,160	107
13-15 years	5,172	534	302	88	17	75	52	4,595	2,730	1,623	42
16 years and over	4,224	242	120	33	18	55	16	3,932	2,875	743	50
Not stated	1,495	266	155	22	2	40	47	1,006	452	486	224
Live-birth order:											
1	11,034	1,805	1,206	211	30	215	143	9,066	5,525	3,040	163
2	7,912	1,220	855	113	17	143	92	6,565	4,040	2,150	126
3	4,656	748	540	66	8	87	47	3,854	2,250	1,435	54
4	2,172	390	270	44	5	44	27	1,750	906	761	32
5 or more	1,834	340	245	33	1	36	25	1,471	626	740	25
Not stated	353	61	46	9	*	2	4	211	115	86	80
Marital status:											
Married	14,643	2,301	1,679	172	36	261	153	12,054	9,032	2,193	289
Unmarried	13,318	2,263	1,483	305	25	265	185	10,863	4,429	6,019	191

See footnotes at end of table.

Table 3. Infant mortality rates, live births, and infant deaths by selected characteristics and Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: United States, 2000 linked file--Con.

Characteristics	All origins[1]	Hispanic						Non-Hispanic			Not stated
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total[2]	White	Black	
	Infant deaths										
Mother's place of birth:											
Born in the 50 States and D.C.	22,795	1,987	1,356	296	29	68	238	20,512	12,736	7,288	296
Born elsewhere	4,446	2,503	1,775	176	32	456	64	1,899	495	664	45
Not stated	720	74	31	5	-	2	36	505	230	260	140
Maternal smoking during pregnancy:[3]											
Smoker	4,556	209	94	72	3	14	26	4,278	3,133	1,030	70
Nonsmoker	19,793	2,932	1,834	382	53	393	270	16,608	9,205	6,620	253
Not stated	729	76	52	10	-	6	8	544	334	166	108

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
- Quantity zero.
1 Includes origin not stated.
2 Includes races other than black or white.
3 Excludes data for California , which does not report tobacco use on the birth certificate.

NOTE: Infant deaths are weighted so numbers may not exactly add to totals due to rounding. Not stated responses were included in totals but not distributed among groups for rate computations.

Table 4. Percent of live births with selected maternal and infant characteristics by specified race of mother: United States, 2000 linked file

Characteristic	All races	White	Black	American Indian[1]	Asian or Pacific Islander					
					Total	Chinese	Japanese	Hawaiian	Filipino	Other
Birthweight:										
Less than 1,500 grams	1.4	1.2	3.1	1.2	1.1	0.8	0.8	1.4	1.4	1.1
Less than 2,500 grams	7.6	6.6	13.0	6.8	7.3	5.1	7.1	6.8	8.5	7.7
Preterm births[2]	11.6	10.6	17.3	12.7	9.9	7.3	8.3	11.7	12.2	10.1
Prenatal care beginning in the first trimester	83.2	85.0	74.3	69.3	84.0	87.6	91.0	79.9	84.9	82.5
Births to mothers under 20 years	11.8	10.6	19.7	19.7	4.5	0.9	1.9	17.4	5.3	4.8
Fourth and higher order births	10.6	9.9	15.0	19.1	6.9	2.2	3.6	15.5	7.4	7.9
Births to unmarried mothers	33.2	27.1	68.5	58.4	14.8	7.6	9.5	50.0	20.3	13.8
Mothers completing 12 or more years of school	78.3	78.6	74.5	68.4	88.4	88.3	97.9	83.3	93.8	86.5
Mothers born in the 50 States and D.C.	78.6	80.4	88.0	94.9	16.4	9.5	41.1	97.6	20.5	10.9
Mother smoked during pregnancy[3]	12.2	13.2	9.1	20.0	2.8	0.6	4.2	14.4	3.2	2.3

1 Includes births to Aleuts and Eskimos.
2 Born prior to 37 completed weeks of gestation.
3 Excludes data for California which does not report tobacco use on the birth certificate.

Table 5. Percent of live births with selected maternal and infant characteristics by Hispanic origin of mother and race of mother for mothers of non-Hispanic origin: United States, 2000 linked file

Characteristic	All origins[1]	Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total[2]	White	Black
Birthweight:										
Less than 1,500 grams	1.4	1.2	1.0	2.0	1.2	1.2	1.4	1.5	1.1	3.1
Less than 2,500 grams	7.6	6.4	6.0	9.3	6.5	6.4	7.9	7.9	6.6	13.2
Preterm births[3]	11.6	11.2	11.0	13.5	10.6	11.0	12.2	11.7	10.4	17.4
Prenatal care beginning in the first trimester	83.2	74.4	72.9	78.5	91.7	77.6	75.8	85.4	88.5	74.3
Births to mothers under 20 years	11.8	16.2	17.0	20.0	7.5	9.9	18.8	10.7	8.7	19.8
Fourth and higher order births	10.6	13.4	14.5	12.1	5.4	10.8	10.9	9.9	8.7	15.1
Births to unmarried mothers	33.2	42.7	40.7	59.6	27.3	44.7	46.2	30.8	22.1	68.7
Mothers completing 12 or more years of school	78.3	51.1	45.0	66.6	88.1	62.8	68.6	85.1	87.8	74.7
Mothers born in the 50 States and D.C.	78.6	38.0	37.3	64.6	42.3	11.0	76.0	88.8	94.6	89.4
Mother smoked during pregnancy[4]	12.2	3.5	2.4	10.3	3.3	1.5	7.4	13.8	15.6	9.2

1 Includes origin not stated.
2 Includes races other than black or white.
3 Born prior to 37 completed weeks of gestation.
4 Excludes data for California which does not report tobacco use on the birth certificate.

Table 6. Live births, infant, neonatal, and postneonatal deaths and mortality rates by race of mother and birthweight: United States, 2000 linked file, and percent change in birthweight-specific infant mortality, 1995-2000 linked file

Race and birthweight	Number in 2000				Mortality rate per 1,000 live births in 2000			Percent change in infant mortality rate 1995-2000
	Live births	Infant deaths	Neonatal deaths	Postneonatal deaths	Infant	Neonatal	Postneonatal	
All races[1]	4,058,882	27,960	18,733	9,227	6.9	4.6	2.3	-9.2
Less than 2,500 grams	308,074	18,299	14,929	3,370	59.4	48.5	10.9	-8.0
Less than 1,500 grams	58,810	14,366	12,615	1,750	244.3	214.5	29.8	-9.0
Less than 500 grams	6,406	5,420	5,306	114	846.1	828.3	17.8	-6.4
500-749 grams	11,181	5,325	4,648	678	476.3	415.7	60.6	-9.8
750-999 grams	11,942	1,861	1,413	448	155.8	118.3	37.5	-14.4
1,000-1,249 grams	13,355	1,033	722	311	77.3	54.1	23.3	-9.6
1,250-1,499 grams	15,926	726	526	200	45.6	33.0	12.6	-16.5
1,500-1,999 grams	60,864	1,721	1,125	596	28.3	18.5	9.8	-14.8
2,000-2,499 grams	188,400	2,212	1,189	1,023	11.7	6.3	5.4	-13.3
2,500 grams or more	3,748,046	9,259	3,427	5,832	2.5	0.9	1.6	-16.7
2,500-2,999 grams	671,080	3,064	1,274	1,790	4.6	1.9	2.7	-14.8
3,000-3,499 grams	1,510,754	3,600	1,237	2,363	2.4	0.8	1.6	-17.2
3,500-3,999 grams	1,164,773	1,943	648	1,295	1.7	0.6	1.1	-15.0
4,000-4,499 grams	340,467	502	187	315	1.5	0.5	0.9	-16.7
4,500-4,999 grams	54,764	112	55	57	2.0	1.0	1.0	-9.1**
5,000 grams or more	6,208	38	26	11	6.1	4.2	*	-27.4**
Not stated	2,762	403	378	25	...	...	...	...
White	3,194,049	18,246	12,179	6,067	5.7	3.8	1.9	-9.5
Less than 2,500 grams	209,477	11,326	9,348	1,979	54.1	44.6	9.4	-9.4
Less than 1,500 grams	36,828	8,569	7,622	947	232.7	207.0	25.7	-10.7
Less than 500 grams	3,523	2,998	2,939	58	851.0	834.2	16.5	-6.6**
500-749 grams	6,590	3,222	2,877	345	488.9	436.6	52.4	-10.5
750-999 grams	7,326	1,179	934	245	160.9	127.5	33.4	-16.5
1,000-1,249 grams	8,678	695	514	181	80.1	59.2	20.9	-11.9
1,250-1,499 grams	10,711	475	357	118	44.3	33.3	11.0	-20.2
1,500-1,999 grams	41,894	1,191	827	364	28.4	19.7	8.7	-14.5
2,000-2,499 grams	130,755	1,567	899	667	12.0	6.9	5.1	-12.4
2,500 grams or more	2,982,366	6,672	2,602	4,069	2.2	0.9	1.4	-18.5
2,500-2,999 grams	479,038	2,105	948	1,158	4.4	2.0	2.4	-17.0
3,000-3,499 grams	1,174,842	2,571	924	1,647	2.2	0.8	1.4	-18.5
3,500-3,999 grams	977,221	1,479	514	965	1.5	0.5	1.0	-16.7
4,000-4,499 grams	297,564	401	153	248	1.3	0.5	0.8	-18.8
4,500-4,999 grams	48,344	86	44	42	1.8	0.9	0.9	-10.0**
5,000 grams or more	5,357	29	20	9	5.4	3.7	*	-29.9**
Not stated	2,206	248	229	19	...	...	...	...
Black	622,621	8,391	5,684	2,707	13.5	9.1	4.3	-7.5
Less than 2,500 grams	81,116	6,145	4,898	1,248	75.8	60.4	15.4	-4.3
Less than 1,500 grams	19,369	5,169	4,428	741	266.9	228.6	38.3	-6.5
Less than 500 grams	2,624	2,196	2,145	51	836.9	817.5	19.4	-6.5**
500-749 grams	4,158	1,906	1,592	314	458.4	382.9	75.5	-8.2
750-999 grams	4,067	576	391	185	141.6	96.1	45.5	-13.1
1,000-1,249 grams	4,060	291	171	120	71.7	42.1	29.6	-3.8**
1,250-1,499 grams	4,460	200	130	71	44.8	29.1	15.9	-7.8**
1,500-1,999 grams	15,762	439	238	202	27.9	15.1	12.8	-13.9
2,000-2,499 grams	45,985	536	231	305	11.7	5.0	6.6	-13.3
2,500 grams or more	541,244	2,116	661	1,455	3.9	1.2	2.7	-13.3
2,500-2,999 grams	142,917	806	265	541	5.6	1.9	3.8	-9.7
3,000-3,499 grams	236,517	855	249	606	3.6	1.1	2.6	-12.2
3,500-3,999 grams	128,202	363	106	257	2.8	0.8	2.0	-20.0
4,000-4,499 grams	28,757	69	27	41	2.4	0.9	1.4	-44.2
4,500-4,999 grams	4,308	18	9	9	*	*	*	*
5,000 grams or more	543	5	4	1	*	*	*	*
Not stated	261	129	125	4	...	...	...	...

* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
** Not significant at p<.05.
... Category not apllicable.
[1] Includes races other than white or black.

NOTE: Infant deaths are weighted so numbers may not exactly add to totals due to rounding. Neonatal is less than 28 days and postneonatal is 28 days to under 1 year

Table 7. Infant deaths and mortality rates for the five leading causes of infant death by race and Hispanic origin of mother: United States, 2000 linked file

[Rates per 100,000 live births in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All races			White			Black[1]			American Indian[2,3]			Asian and Pacific Islander[4]		
	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate
All causes	...	27,960	688.9	...	18,246	571.2	...	8,391	1347.7	. ..	346	830.4	...	977	487.2
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1	5,756	141.8	1	4,425	138.5	2	1,040	167.0	1	61	146.4	1	231	115.2
Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	2	4,401	108.4	2	2,386	74.7	1	1,828	293.6	3	46	110.4	2	141	70.3
Sudden infant death syndrome (R95)	3	2,522	62.1	3	1,653	51.8	3	760	122.1	2	50	120.0	3	59	29.4
Newborn affected by maternal complications of pregnancy (P01)	4	1,391	34.3	4	834	26.1	4	501	80.5	11	6	*	4	50	24.9
Newborn affected by complications of placenta, cord and membranes (P02)	5	1,042	25.7	5	712	22.3	6	284	45.6	5	12	*	6	34	17.0

Cause of death (Based on the Tenth Revision International Classification of Diseases, 1992)	Total Hispanic[5, 6]			Mexican[7]			Puerto Rican[8]			Central and South American[9]			Non-Hispanic White		
	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate
All causes	...	4,564	559.4	...	3,162	543.4	...	477	820.6	...	526	464.1	...	13,461	569.7
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1	1,180	144.6	1	865	148.6	2	77	132.5	1	132	116.5	1	3,189	135.0
Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	2	659	80.8	2	425	73.0	1	84	144.5	2	88	77.6	2	1,682	71.2
Sudden infant death syndrome (R95)	3	280	34.3	3	185	31.8	3	37	63.7	3	30	26.5	3	1,364	57.7
Newborn affected by maternal complications of pregnancy (P01)	4	164	20.1	5	110	18.9	6	17	*	4	21	18.5	4	647	27.4
Newborn affected by complications of placenta, cord and membranes (P02)	6	148	18.1	6	97	16.7	4	23	39.6	7	18	*	5	547	23.1

..., Category not applicable.
* Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
1 For blacks, Respiratory distress of newborn was the fifth leading cause of death with 342 deaths and a rate of 55.0.
2 Includes Aleuts and Eskimos.
3 For American Indians, Accidents (unintentional injuries) was the fourth leading cause of death with 24 deaths and a rate of 58.6.
4 For Asian and Pacific Islanders, Diseases of circulatory system was the fifth leading cause of death with 38 deaths and a rate of 18.7.
5 Includes Cuban and other and unknown Hispanic.
6 For Total Hispanic, Respiratory distress of newborn was tied for the fourth leading cause of death with 164 deaths and a rate of 20.1.
7 For Mexicans, Respiratory distress of newborn was the fourth leading cause of death with 114 deaths and a rate of 19.6.
8 For Puerto Ricans, Bacterial sepsis of newborn was the fifth leading cause of death; however with only 18 deaths a reliable infant mortality rate could not be computed.
9 For Central and South Americans, Diseases of the circulatory system and Respiratory distress of newborn were tied for the fifth leading cause of death; however with only 19 deaths each, reliable infant mortality rates could not be computed.

NOTE: Reliable cause-specific infant mortality rates cannot be computed for Cubans because of the small number of infant deaths (61).

Technical Notes

Differences between period and cohort data

From 1983–91, NCHS produced linked files in a birth cohort format (38). Beginning with 1995 data, linked files are produced first using a period format and then subsequently using a birth cohort format. Thus, the 2000 period linked file contains a numerator file that consists of all infant deaths occurring in 2000 that have been linked to their corresponding birth certificates, whether the birth occurred in 2000 or in 1999. In contrast, the 2000 birth cohort linked file will contain a numerator file that consists of all infant deaths to babies born in 2000 whether the death occurred in 2000 or 2001. In practice, there is very little difference in rates between the period and the cohort files.

For the 2000 file, NCHS accepted birth records that could be linked to infant deaths even if registered after the closure of the 2000 birth file (less than 100 cases). This improved the infant birth/death linkage and made the denominator file distinctly different from the official 2000 birth file.

The release of linked file data in two different formats allows NCHS to meet demands for more timely linked files while still meeting the needs of data users who prefer the birth cohort format. While the birth cohort format has methodological advantages, it creates substantial delays in data availability, since it is necessary to wait until the close of the following data year to include all infant deaths in the birth cohort. Beginning with 1995 data, the period linked file is the basis for all official NCHS linked file statistics (except for special cohort studies).

Weighting

A record weight is added to the linked file to compensate for the 1.4 percent (in 2000) of infant death records that could not be linked to their corresponding birth certificates. This procedure was initiated in 1995. Records for Puerto Rico, the Virgin Islands, and Guam are not weighted. The percent of records linked varied by registration area (from 91.9–100.0 percent with all but nine areas—the District of Columbia, Hawaii, Kansas, Maine, New Jersey, New Mexico, Ohio, Oklahoma, and Texas at—97 percent or higher) (table I). The number of infant deaths in the linked file for the 50 States and the District of Columbia was weighted to equal the sum of the linked plus unlinked infant deaths by State of residence at birth and age at death (less than 1 day, 1–27 days, and 28 days to under 1 year). The addition of the weight greatly reduced the potential for bias in comparing infant mortality rates by characteristics.

The 2000 linked file started with 28,006 infant death records. Of these 28,006 records, 27,622 were linked; 384 were unlinked because corresponding birth certificates could not be identified. The 28,006 linked and unlinked records contained 46 records of infants whose mothers' usual place of residence is outside of the United States. These 46 records were excluded to derive a weighted total of 27,960 infant deaths. Thus, all total calculations for 2000 in this report used a weighted total of 27,960 infant deaths (tables A, B, 2, 3, 6, and 7).

Comparison of infant mortality data between the linked file and the vital statistics mortality file

The overall infant mortality rate from the 2000 period linked file of 6.9 is the same as the 2000 vital statistics mortality file (2). The number of infant deaths differs slightly (2). Differences in numbers of infant deaths between the two data sources can be traced to three different causes:

1. geographic coverage differences
2. additional quality control
3. weighting

Differences in geographic coverage are due to the fact that for the vital statistics mortality file all deaths occurring in the 50 States

Table I. Percent of infant death records which were linked to their corresponding birth records: United States and each State, Puerto Rico, Virgin Islands, and Guam, 2000 linked file

State	Percent linked by State of occurrence of death
United States [1]	98.6
Alabama	100.0
Alaska	100.0
Arizona	99.3
Arkansas	100.0
California	98.0
Colorado	100.0
Connecticut	100.0
Delaware	97.8
District of Columbia	96.5
Florida	99.9
Georgia	100.0
Hawaii	96.4
Idaho	100.0
Illinois	99.3
Indiana	98.2
Iowa	100.0
Kansas	96.2
Kentucky	99.2
Louisiana	97.3
Maine	95.6
Maryland	99.6
Massachusetts	98.7
Michigan	99.8
Minnesota	99.7
Mississippi	99.8
Missouri	99.7
Montana	100.0
Nebraska	100.0
Nevada	98.9
New Hampshire	100.0
New Jersey	95.6
New Mexico	93.2
New York	99.1
North Carolina	99.5
North Dakota	100.0
Ohio	95.2
Oklahoma	91.9
Oregon	100.0
Pennsylvania	99.9
Rhode Island	98.9
South Carolina	100.0
South Dakota	100.0
Tennessee	100.0
Texas	96.7
Utah	97.5
Vermont	100.0
Virginia	98.9
Washington	99.8
West Virginia	99.4
Wisconsin	100.0
Wyoming	100.0
Puerto Rico	98.8
Virgin Islands	100.0
Guam	100.0

[1] Excludes data for Puerto Rico, Virgin Islands, and Guam.

and the District of Columbia are included regardless of the place of birth of the infant. In contrast, to be included in the linked file, both the birth and death must occur in the 50 States and the District of Columbia. Also, the linkage process subjects infant death records to an additional round of quality control review. Every year, a few records are voided from the file at this stage because they are found to be fetal deaths, deaths at ages over 1 year, or duplicate death certificates. Finally, although every effort has been made to design weights that will accurately reflect the distribution of deaths by characteristics, weighting may contribute to small differences in numbers and rates by specific variables between these two data sets.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status. In 2000 marital status was based on a direct question in 48 states and the District of Columbia. In the two States (Michigan and New York), which used inferential procedures to compile birth statistics by marital status in 2000, a birth is inferred as nonmarital if either of these factors, listed in priority-of-use order, is present: a paternity acknowledgment was received or the father's name is missing. For more information on the inferential procedures and on the changes in reporting; see Technical notes in *Births: Final Data for 2000* (7).

Period of gestation and birthweight

The primary measure used to determine the gestational age of the newborn is the interval between the first day of the mother's last normal menstrual period (LMP) and the date of birth. It is subject to error for several reasons, including imperfect maternal recall or misidentification of the LMP because of postconception bleeding, delayed ovulation, or intervening early miscarriage. These data are edited for LMP-based gestational ages that are clearly inconsistent with the infant's plurality and birthweight (see below), but reporting problems for this item persist and many occur more frequently among some subpopulations and among births with shorter gestations (39,40).

The U.S. Standard Certificate of Live Birth contains an item, "clinical estimate of gestation," which is compared with length of gestation computed from the date the LMP began when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and very low birthweight births reported to be full term. The clinical estimate was also used if the LMP date was not reported. The period of gestation for 5.0 percent of the births in 2000 was based on the clinical estimate of gestation. For 97 percent of these records, the clinical estimate was used because the LMP date was not reported. For the remaining 3 percent, the clinical estimate was used because it was consistent with the reported birthweight, whereas the LMP-based gestation was not. In cases where the reported birthweight was inconsistent with both the LMP-computed gestation and the clinical estimate of gestation, the LMP-computed gestation was used and birthweight was reclassified as "not stated." This was necessary for about 420 births or less than 0.01 percent of all birth records in 2000 (7).

For the linked file, not stated birthweight was imputed for 2,119 records or 0.05 percent of the birth records in 2000 when birthweight was not stated but the period of gestation was known. In this case, birthweight was assigned the value from the previous record with the same period of gestation, maternal race, sex, and plurality. If birthweight and period of gestation were both unknown (2,762 records in 2000) the not stated value for birthweight was retained. This imputation was done to improve the accuracy of birthweight-specific infant mortality rates, since the percent of records with not stated birthweight was higher for infant deaths (3.84 percent before imputation) than for live births (0.12 percent before imputation). The imputation reduced the percent of not stated records to 1.43 percent for infant deaths, and 0.05 percent for births. The not stated birthweight cases in the natality/birth file, as distinct from the linked file, are not imputed (7).

Cause-of-death classification

The mortality statistics presented in this report were compiled in accordance with the World Health Organization (WHO) regulations, which specify that member nations classify and code causes of death in accordance with the current *revision* of the *International Statistical Classification of Diseases and Related Health Problems*. The ICD provides the basic guidance used in virtually all countries to code and classify causes of death. The ICD not only details disease classification but also provides definitions, tabulation lists, the format of the death certificate, and the rules for coding cause of death. Cause-of-death data presented in this report were coded by procedures outlined in annual issues of the *NCHS Instruction Manual* (41,42).

In this report, tabulations of cause-of-death statistics are based solely on the underlying cause of death. The underlying cause is defined by WHO as "the disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury" (3). It is selected from the conditions entered by the physician in the cause-of-death section of the death certificate. When more than one cause or condition is entered by the physician, the underlying cause is determined by the sequence of conditions on the certificate, provisions of the ICD, and associated selection rules and modifications. Generally, more medical information is reported on death certificates than is directly reflected in the underlying cause of death. This is captured in NCHS multiple cause-of-death statistics (43,44).

Changes in cause-of-death classification

About every 10 to 20 years, the *International Classification of Diseases* is revised to take into account advances in medical knowledge. Effective with deaths occurring in 1999, the United States began using the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD–10) (3); during the period 1979–98, causes were coded and classified according to the Ninth Revision (ICD–9) (4).

The ICD–10 has many changes from the ICD–9, including considerably greater detail, shifts in inclusion terms and titles from one category, section, or chapter to another; regroupings of diseases; new titles and sections; and modifications in coding rules (3). As a result, serious breaks occur in comparability for a number of causes of death. Measures of this discontinuity are essential to the interpretation of mortality trends, and are discussed in detail in other NCHS publications (2,45).

Tabulation lists and cause-of-death ranking

The cause-of-death rankings for ICD–10 are based on the List of 130 Selected Causes of Infant Death. The tabulation lists and rules for ranking leading causes of death are published in the NCHS Instruction Manual, Part 9, ICD–10 Cause-of-Death Lists for Tabulating Mortality Statistics, Effective 1999 (46). Briefly, category titles that begin with the words "Other" and "All other" are not ranked to determine the leading causes of death. When one of the titles that represents a subtotal is ranked (for example, Influenza and pneumonia (J10–J18)), its component parts are not ranked (in this case, Influenza (J10–J11) and Pneumonia (J12–18)).

Computation of rates

Infant mortality rates are the most commonly used index for measuring the risk of dying during the first year of life. For the linked birth/infant death data set they are calculated by dividing the number of infant deaths in a calendar year by the number of live births registered for the same period and are presented as rates per 1,000 or per 100,000 live births. Both the mortality file and the linked birth/infant death file use this computation method but due to unique numbers of infant deaths, as explained in the section above on the comparison of these two files, the rates will often differ for specific variables (particularly for race and ethnicity). Infant mortality rates use the number of live births in the denominator to approximate the population at risk of dying before the first birthday. In contrast to the infant mortality rates based on live births, infant death rates, used only in age-specific death rates with the mortality file, use the estimated population of persons under 1 year of age as the denominator. For all variables, not stated responses were shown in tables of frequencies, but were dropped before rates were computed.

As stated previously, infant death records for the 50 States and the District of Columbia in the linked file are weighted so that the infant mortality rates are not underestimated for those areas that did not successfully link all records.

Random variation in infant mortality rates

The number of infant deaths and live births reported for an area represent complete counts of such events. As such, they are not subject to sampling error, although they are subject to nonsampling error in the registration process. However, when the figures are used for analytic purposes, such as the comparison of rates over time, for different areas, or among different subgroups, the number of events that actually occurred may be considered as one of a large series of possible results that could have arisen under the same circumstances (47). As a result, numbers of births, deaths, and infant mortality rates are subject to random variation. The probable range of values may be estimated from the actual figures according to certain statistical assumptions.

In general, distributions of vital events may be assumed to follow the binomial distribution. When the number of events is large, the relative standard error is usually small. When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. Estimates of relative standard errors (RSEs) and 95-percent confidence intervals are shown below.

The formula for the RSE of infant deaths and live births is:

$$\mathrm{RSE}(D) = 100 \bullet \sqrt{\frac{1}{D}}$$

where D is the number of deaths and

$$\mathrm{RSE}\,(B) = 100 \bullet \sqrt{\frac{1}{B}}$$

where B is the number of births.

For example, let us say that for group A the number of infant deaths was 104 while the number of live births was 27,380 yielding an infant mortality rate of 3.8 infant deaths per 1,000 live births.

$$\text{The RSE of the deaths} = 100 \bullet \sqrt{\frac{1}{104}} = 9.81,$$

$$\text{while the RSE of the births} = 100 \bullet \sqrt{\frac{1}{27{,}830}} = 0.60$$

The formula for the RSE of the infant mortality rate (IMR) is:

$$\mathrm{RSE(IMR)} = 100 \bullet \sqrt{\frac{1}{D} + \frac{1}{B}}$$

$$\text{The RSE of the IMR} = 100 \bullet \sqrt{\frac{1}{104} + \frac{1}{27{,}380}} = 9.82$$

Binomial distribution—When the number of events is greater than 100, the binomial distribution is used to estimate the 95-percent confidence intervals as follows:

$$\text{Lower: } R_1 - 1.96 \bullet R_1 \bullet \frac{\mathrm{RSE}(R_1)}{100}$$

$$\text{Upper: } R_1 + 1.96 \bullet R_1 \bullet \frac{\mathrm{RSE}(R_1)}{100}$$

Thus, for Group A:

$$\text{Lower: } 3.8 - \left(1.96 \bullet 3.8 \bullet \frac{9.82}{100}\right) = 3.1$$

$$\text{Upper: } 3.8 + \left(1.96 \bullet 3.8 \bullet \frac{9.82}{100}\right) = 4.5$$

Thus the chances are 95 out of 100 that the true infant mortality rate for Group A lies somewhere in the 3.1–4.5 interval.

Poisson distribution—When the number of events in the numerator is less than 100 the confidence interval for the rate can be estimated based on the Poisson distribution using the values in table II.

$$\text{Lower: } \mathrm{IMR} \bullet L\,(.95,\ D_{adj})$$

$$\text{Upper: } \mathrm{IMR} \bullet U\,(.95,\ D_{adj})$$

where D_{adj} is the adjusted number of infant deaths (rounded to the nearest integer) used to take into account the RSE of the number of infant deaths and live births, and is computed as follows:

$$D_{adj} = \frac{D \bullet B}{D + B}$$

Table II. Values of *L* and *U* for calculating 95-percent confidence limits for numbers of events and rates when the number of events is less than 100

N	L	U	N	L	U
1	0.02532	5.57164	51	0.74457	1.31482
2	0.12110	3.61234	52	0.74685	1.31137
3	0.20622	2.92242	53	0.74907	1.30802
4	0.27247	2.56040	54	0.75123	1.30478
5	0.32470	2.33367	55	0.75334	1.30164
6	0.36698	2.17658	56	0.75539	1.29858
7	0.40205	2.06038	57	0.75739	1.29562
8	0.43173	1.97040	58	0.75934	1.29273
9	0.45726	1.89831	59	0.76125	1.28993
10	0.47954	1.83904	60	0.76311	1.28720
11	0.49920	1.78928	61	0.76492	1.28454
12	0.51671	1.74680	62	0.76669	1.28195
13	0.53246	1.71003	63	0.76843	1.27943
14	0.54671	1.67783	64	0.77012	1.27698
15	0.55969	1.64935	65	0.77178	1.27458
16	0.57159	1.62394	66	0.77340	1.27225
17	0.58254	1.60110	67	0.77499	1.26996
18	0.59266	1.58043	68	0.77654	1.26774
19	0.60207	1.56162	69	0.77806	1.26556
20	0.61083	1.54442	70	0.77955	1.26344
21	0.61902	1.52861	71	0.78101	1.26136
22	0.62669	1.51401	72	0.78244	1.25933
23	0.63391	1.50049	73	0.78384	1.25735
24	0.64072	1.48792	74	0.78522	1.25541
25	0.64715	1.47620	75	0.78656	1.25351
26	0.65323	1.46523	76	0.78789	1.25165
27	0.65901	1.45495	77	0.78918	1.24983
28	0.66449	1.44528	78	0.79046	1.24805
29	0.66972	1.43617	79	0.79171	1.24630
30	0.67470	1.42756	80	0.79294	1.24459
31	0.67945	1.41942	81	0.79414	1.24291
32	0.68400	1.41170	82	0.79533	1.24126
33	0.68835	1.40437	83	0.79649	1.23965
34	0.69253	1.39740	84	0.79764	1.23807
35	0.69654	1.39076	85	0.79876	1.23652
36	0.70039	1.38442	86	0.79987	1.23499
37	0.70409	1.37837	87	0.80096	1.23350
38	0.70766	1.37258	88	0.80203	1.23203
39	0.71110	1.36703	89	0.80308	1.23059
40	0.71441	1.36172	90	0.80412	1.22917
41	0.71762	1.35661	91	0.80514	1.22778
42	0.72071	1.35171	92	0.80614	1.22641
43	0.72370	1.34699	93	0.80713	1.22507
44	0.72660	1.34245	94	0.80810	1.22375
45	0.72941	1.33808	95	0.80906	1.22245
46	0.73213	1.33386	96	0.81000	1.22117
47	0.73476	1.32979	97	0.81093	1.21992
48	0.73732	1.32585	98	0.81185	1.21868
49	0.73981	1.32205	99	0.81275	1.21746
50	0.74222	1.31838			

L (.95, D_{adj}) and U (.95, D_{adj}) refer to the values in table II corresponding to the value of D_{adj}.

For example, let us say that for Group B the number of infant deaths was 47, the number of live births was 8,901, and the infant mortality rate was 5.3.

$$D_{adj} = \frac{(47 \bullet 8{,}901)}{(47 + 8{,}901)} = 47$$

Therefore the 95-percent confidence interval (using the formula for 1–99 infant deaths) =

Lower: 5.3 • 0.73476 = 3.9

Upper: 5.3 • 1.32979 = 7.0

Comparison of two infant mortality rates—If either of the two rates to be compared is based on less than 100 deaths, compute the confidence intervals for both rates and check to see if they overlap. If so, the difference is not statistically significant at the 95-percent level. If they do not overlap, the difference is statistically significant. If both of the two rates (R_1 and R_2) to be compared are based on 100 or more deaths, the following z-test may be used to define a significance test statistic:

$$z = \frac{R_1 - R_2}{\sqrt{R_1^2\left(\frac{\mathrm{RSE}(R_1)}{100}\right)^2 + R_2^2\left(\frac{\mathrm{RSE}(R_2)}{100}\right)^2}}$$

If $|z| \geq 1.96$, then the difference is statistically significant at the 0.05 level and if $|z| < 1.96$, the difference is not significant.

Availability of linked file data

Linked file data are available on CD-ROM from the National Technical Information Service (NTIS) and the Government Printing Office (GPO). Data are also available in selected issues of the *Vital*

and Health Statistics, Series 20 reports and the *National Vital Statistics Reports* (formerly the *Monthly Vital Statistics Report*) through NCHS. Additional unpublished tabulations are available from NCHS through the Internet site at http://www.cdc.gov/nchs. Selected variables from the linked file are also available for tabulation on CDC WONDER at http://wonder.cdc.gov/lbdj.shtml.

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TECHNICAL APPENDIX FROM

VITAL STATISTICS OF THE UNITED STATES

2000

NATALITY

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HEALTH STATISTICS
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Introduction

This report, published by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS), is an abridged version of the annually produced Technical Appendix and focuses on information for the 2000 data file (1). This Appendix is also included in "Vital Statistics of the United States, 2000,Volume I, Natality" (in preparation). Frequent reference will be made to the report for the 1999 data file for a historical discussion of the variables, definitions, quality, and completeness of the birth data (2). This report supplements the Technical notes section of "Births: Final Data for 2000" (3) and is recommended for use with the public-use file for 2000 births, available on CD-ROM from NCHS and the tabulated data of "Vital Statistics of the United States, 2000, Volume I, Natality" (in preparation).

Definition of live birth

Every product of conception that gives a sign of life after birth, regardless of the length of the pregnancy, is considered a live birth. This concept is included in the definition set forth by the World Health Organization in 1950 and revised in 1988 by a working group formed by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists (4, 5, 6):

> Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn.

This definition distinguishes in precise terms a live birth from a fetal death (see section on fetal deaths in the Technical Appendix of volume II, *Vital Statistics of the United States*). In the interest of comparable natality statistics, both the Statistical Commission of the United Nations and CDC's NCHS have adopted this definition (7, 8, 9).

History of birth-registration area

Currently the birth-registration system of the United States covers the 50 States, the District of Columbia, the independent registration area of New York City and Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. However, in the statistical tabulations, "United States" refers only to the aggregate of the 50 States (including New York City) and the District of Columbia. Information on the history and development of the birth-registration area is available elsewhere (2).

Sources of data

Natality statistics

Since 1985 natality statistics for all States and the District of Columbia have been based on information from the total file of records. The information is received on electronic files of individual records processed by the States and provided to NCHS through the Vital Statistics Cooperative Program. NCHS receives these files from the registration offices of all States, the District of Columbia, and New York City. Information for Puerto Rico and the Virgin Islands is also received through the Vital Statistics Cooperative Program. Information for Guam is obtained from microfilm copies of original birth certificates and is based on the total file of records for all years. Data from American Samoa first became available in 1997. Data from the Commonwealth of the Northern Mariana Islands (referred to as Northern Marianas) first became available in 1998. Similar to data from Guam, the data are obtained from microfilm copies of original birth certificates and are based on the total file of records.

U.S. natality data are limited to births occurring within the United States, including those occurring to U.S. residents and nonresidents. Births to nonresidents of the United States have been excluded from all tabulations by place of residence beginning in 1970 (for further discussion see "Classification by occurrence and residence"). Births occurring to U.S. citizens outside the United States are not included in any tabulations in this report. The data for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas are limited to births registered in these areas.

Standard certificate of live birth

The U.S. Standard Certificate of Live Birth, issued by the Public Health Service, has served for many years as the principal means of attaining uniformity in the content of the documents used to collect information on births in the United States. It has been modified in each State to the extent required by the particular State's needs or by special provisions of the State's vital statistics law. However, most State certificates conform closely in content to the standard certificate.

1989 revision--Effective January 1, 1989, a revised U.S. Standard Certificate of Live Birth (figure 4-A) replaced the 1978 revision. This revision provided a wide variety of new information on maternal and infant health characteristics, representing a significant departure from previous versions in both content and format. The most significant format change was the use of check boxes to obtain detailed medical and health information about the mother and child. Details of the nature and content of the 1989 revision are available elsewhere (2).

Classification of data

One of the principal values of vital statistics data is realized through the presentation of rates that are computed by relating the vital events of a class to the population of a similarly defined class. Vital statistics and population statistics, therefore, must be classified according to similarly defined systems and tabulated in comparable groups. Even when the variables common to both,

such as geographic area, age, race, and sex, have been similarly classified and tabulated, differences between the enumeration method of obtaining population data and the registration method of obtaining vital statistics data may result in significant discrepancies.

The general rules used to classify geographic and personal items for live births are set forth in "Vital Statistics Classification and Coding Instructions for Live Birth Records, 1999-2001," *NCHS Instruction Manual*, Part 3a (10). This material is incorporated in the basic file layout on the CD-ROM. The instruction materials are for States to use in coding the data items; they do not include any NCHS recodes. So, the file layout is a better source of information on the code structure, since it provides the exact codes and re-codes that are available. The classification of certain important items is discussed in the following pages. Information on the completeness of reporting of birth certificate data is shown in table A, which presents a listing of items and the percent of records that were not stated for each State, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas.

Classification by occurrence and residence

In tabulations by place of residence, births occurring within the United States to U.S. citizens and to resident aliens are allocated to the usual place of residence of the mother in the United States, as reported on the birth certificate. Beginning in 1970 births to nonresidents of the United States occurring in the United States are excluded from these tabulations. Births to U.S. residents occurring outside this country are not included in tabulations by place of residence.

The total count of births for the United States by place of residence and by place of occurrence will not be identical. Births to nonresidents of the United States are included in data by place of occurrence but excluded from data by place of residence, as previously indicated. See table B for the number of births by residence and occurrence for the 50 States and the District of Columbia for 2000.

Residence error--A nationwide test of birth-registration completeness in 1950 provided measures of residence error for natality statistics. According to the 1950 test (which has not been repeated), errors in residence reporting for the country as a whole tend to overstate the number of births to residents of urban areas and to understate the number of births to residents of other areas (3). Recent experience demonstrates that this is still a concern based on anecdotal evidence from the States. This tendency has assumed special importance because of a concomitant development--the increased utilization of hospitals in cities by residents of nearby places--with the result that a number of births are erroneously reported as having occurred to residents of urban areas. Another factor that contributes to this overstatement of urban births is the customary practice of using "city" addresses for persons living outside the city limits. Residence error should be taken into consideration in interpreting data for small areas and for cities. Both birth and infant mortality patterns can be affected.

Incomplete residence--Beginning in 1973 where only the State of residence is reported with no city or county specified and the State named is different from the State of occurrence, the birth is allocated to the largest city of the State of residence. Before 1973 such births were allocated to the exact place of occurrence.

Geographic classification

The rules followed in the classification of geographic areas for live births are contained in the instruction manual mentioned previously. The geographic code structure itself for 2000 is given in another manual, "Vital Records Geographic Classification, 1995," *NCHS Instruction Manual*, Part 8, which is included with the documentation file on CD-ROM (1). The geographic code structure in 2000 is based on results of the 1990 Census of Population.

United States--In the statistical tabulations, "United States" refers only to the aggregate of the 50 States and the District of Columbia. Alaska has been included in the U.S. tabulations since 1959 and Hawaii since 1960.

Details of the classification of births for metropolitan statistical areas, metropolitan and nonmetropolitan counties, and population size groups for cities and urban places are presented elsewhere (2).

Places of less than 100,000 population are not separately identified on the public-use file because of confidentiality limitations.

Race or national origin

Beginning with the 1989 data year, birth data are tabulated primarily by race of mother. In 1989 the criteria for reporting the race of the parents did not change and continues to reflect the response of the informant (usually the mother). Beginning with the 1992 issue of *Vital Statistics of the United States*, Volume I, Natality, trend data for years beginning with 1980 have been retabulated by race of mother. The factors influencing the decision to tabulate births by race of the mother have been discussed in detail elsewhere (2, 11). Information on tabulation procedures for data by race prior to 1989 is presented elsewhere (2, 13).

The change in the tabulation of births by race presents some problems when analyzing birth data by race, particularly trend data. The problem is likely to be acute for races other than white and black.

The categories for race or national origin are "White," "Black," "American Indian" (including Aleuts and Eskimos), "Chinese," "Japanese," "Hawaiian," "Filipino," and "Other Asian or Pacific Islander" (including Asian Indian). Before 1992 there was also an "other" category, which is now combined with the "Not stated" category. Before 1978 the category "Other Asian or Pacific Islander" was not identified separately but included with "Other" races. The separation of this category from "other" allows identification of the category "Asian or Pacific Islander" by combining the new category "Other Asian or Pacific Islander" with Chinese, Japanese, Hawaiian, and Filipino.

Since 1992, States with the highest Asian or Pacific Islander (API) populations have provided NCHS with data for additional API subgroups. The API subgroups include births to Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and other API women. In 2000, 11 States were included in this reporting area: California, Hawaii, Illinois, Minnesota, Missouri, New Jersey, New York, Texas, Virginia, Washington, and West Virginia, . At least two-thirds of the U.S. population of each of these additional API groups lived in the 11-State reporting area (12). The data are available on the detailed natality tapes and CD-ROMs beginning with the 1992 data

year. An analytic report based on the 1992 data year is also available upon request (13).

If the race or national origin of an Asian parent is ill-defined or not clearly identifiable with one of the categories used in the classification (for example, if "Oriental" is entered), an attempt is made to determine the specific race or national origin from the entry for place of birth. If the birthplace is China, Japan, or the Philippines, the race of the parent is assigned to that category. When race cannot be determined from birthplace, it is assigned to the category "Other Asian or Pacific Islander."

Hispanic origin and race are reported independently on the birth certificate. Data for Hispanic subgroups are shown in most cases for five groups: Mexican, Puerto Rican, Cuban, Central and South American, and other (and unknown) Hispanic. In tabulations of birth data by race only, data for persons of Hispanic origin are included in the data for each race group according to the mother's reported race. The category "White" comprises births reported as white and births where race, as distinguished from Hispanic origin, is reported as Hispanic. In tabulations of birth data by race and Hispanic origin, data for persons of Hispanic origin are not further classified by race because the vast majority of births to Hispanic women are reported as white (97 percent in 2000). In these tabulations, data for non-Hispanic persons are classified according to the race of the mother because there are substantial differences in fertility and maternal and infant health between Hispanic and non-Hispanic white women. A re-code variable is available that provides cross tabulations of race by Hispanic origin.

Race or national origin not stated--If the race of the mother is not defined or not identifiable with one of the categories used in the classification (0.5 percent of births in 2000) and the race of the father is known, the race of the father is assigned to the mother. Where information for both parents is missing, the race of the mother is allocated electronically according to the specific race of the mother on the preceding record with a known race of mother. Data for both parents were missing for only 0.4 percent of birth certificates for 2000. Nearly all statistics by race or national origin for the United States as a whole in 1962 and 1963 are affected by a lack of information for New Jersey, which did not report the race of the parents in those years. Birth rates by race for those years are computed on a population base that excluded New Jersey. For the method of estimating the U.S. population by age, sex, and race excluding New Jersey in 1962 and 1963, see page 4-8 in the Technical Appendix of volume I, *Vital Statistics of the United States*, 1963. The percent of records for which Hispanic origin of the parents was not reported in 2000 is shown by State in table A.

Age of mother

Beginning in 1989 an item on the birth certificate asks for "Date of Birth." In previous years, "Age (at time of this birth)" was requested. Not all States revised this item and therefore the age of mother either is derived from the reported month and year of birth or coded as stated on the certificate. In 2000 the mother's age was reported directly by five States (Kentucky, Nevada, North Dakota, Virginia, and Wyoming) and American Samoa. From 1964 to 1996, age of mother was imputed for ages under 10 years and 50 years and over. The age of mother was considered not stated for ages under 10 years or 50 years and over. In 1997 age of mother was considered

not stated for ages under 10 years or 55 years and over. The numbers of births to women aged 50-54 years are too small for computing age-specific birth rates. These births have been included with births to women aged 45-49 years for computing birth rates.

Age-specific birth rates are based on populations of women by age, prepared by the U.S. Bureau of the Census. In census years the decennial census counts are used. In intercensal years, estimates of the population of women by age are published by the U.S. Bureau of the Census in *Current Population Reports*. The U.S. and State-level birth and fertility rates for the 2000 final report of natality data are based on estimates as of July 1 projected from the 1990 census because detailed populations based on the 2000 census were not available when the report was prepared. When the necessary population estimates based on the 2000 census and intercensal estimates become available, population-based rates for the 1990s and 2000 will be recalculated and presented in an upcoming report. Meanwhile, considerable caution should be used in interpreting the rates and trends for the Nation and States.

Median age of mother--Median age is the value that divides an age distribution into two equal parts, one-half of the values being less and one-half being greater. Median ages of mothers for 1960 to the present have been computed from birth rates for 5-year age groups rather than from birth frequencies. This method eliminates the effects of changes in the age composition of the childbearing population over time. Changes in the median ages from year to year can thus be attributed solely to changes in the age-specific birth rates. Trend data on the median age is shown in table 1-5 of *Vital Statistics of the United States*, volume 1, natality (at http://www.cdc.gov/nchs/datawh/statab/unpubd/natality/natab98.htm).

Not stated date of birth of mother– In 2000 age of mother was not reported on 0.02 percent of the records. Beginning in 1964 birth records with date of birth of mother and/or age of mother not stated have had age imputed according to the age of mother from the previous birth record of the same race and total-birth order (total of fetal deaths and live births). (See "Computer Edits for Natality Data, Effective 1993" *NCHS Instruction Manual* , Part 12, page 9; available on request from the Division of Vital Statistics.) Editing procedures for 1963 and earlier years are described elsewhere (2).

Age of father

Age of father is derived from the reported date of birth or coded as stated on the birth certificate. If the age is under 10 years, it is considered not stated and grouped with those cases for which age is not stated on the certificate. Information on age of father is often missing on birth certificates of children born to unmarried mothers, greatly inflating the number of "not stated" in all tabulations by age of father. In computing birth rates by age of father, births tabulated as age of father not stated are distributed in the same proportions as births with known age within each 5-year-age classification of the mother. This procedure is followed because, while father's age is missing in 14 percent of the birth certificates in 2000, one third of these were on records where the mother is a teenager. This distribution procedure is done separately by race. The resulting distributions are summed to form a composite frequency distribution that is the basis for computing birth rates by age of father. This procedure avoids the distortion in rates that would

result if the relationship between age of mother and age of father were disregarded. Births with age of father not stated are distributed only for rates and means, not for frequency tabulations (4).

Live-birth order and parity

Live-birth order and parity classifications refer to the total number of live births the mother has had including the 2000 birth. Fetal deaths are excluded.

Live-birth order indicates what number the present birth represents; for example, a baby born to a mother who has had two previous live births (even if one or both are not now living) has a live-birth order of three. Parity indicates how many live births a mother has had. Before delivery a mother having her first baby has a parity of zero and a mother having her third baby has a parity of two. After delivery the mother of a baby who is a first live birth has a parity of one and the mother of a baby who is a third live birth has a parity of three.

Live-birth order and parity are determined from two items on the birth certificate, "Live births now living" and "Live births now dead." Editing procedures for live birth order are summarized elsewhere (2).

Not stated birth order–All births tabulated in the "Not stated birth order" category are excluded from the computation of percents. In computing birth rates by live-birth order, births tabulated as birth order not stated are distributed in the same proportion as births of known live-birth order.

Educational attainment

National data on educational attainment are currently available only for the mother (2). Beginning in 1995, NCHS ceased to collect information on the educational attainment of the father.

The educational attainment of the mother is defined as "the number of years of school completed." Only those years completed in "regular" schools are counted, that is, a formal educational system of public schools or the equivalent in accredited private or parochial schools. Business or trade schools, such as beauty and barber schools, are not considered "regular" schools for the purposes of this item. No attempt has been made to convert years of school completed in foreign school systems, ungraded school systems, and so forth, to equivalent grades in the American school system. Such entries are included in the category "not stated."

Women who have completed only a partial year in high school or college are tabulated as having completed the highest preceding grade. For those certificates on which a specific degree is stated, years of school completed is coded to the level at which the degree is most commonly attained; for example, women reporting B.A., A.B., or B.S. degrees are considered to have completed 16 years of school.

Education not stated--The category "Not stated" includes all records in reporting areas for which there is no information on years of school completed as well as all records for which the information provided is not compatible with coding specifications.

Births tabulated as education not stated are excluded from the computations of percents.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status. Beginning in 1997, the marital status of women giving birth in California and Nevada is determined by a direct question in the birth registration process. Beginning June 15, 1998, Connecticut discontinued inferring the mother's marital status and added a direct question on mother's marital status to the State's birth certificate.

In the two States (Michigan and New York) which used inferential procedures to compile birth statistics by marital status in 1999, a birth is inferred as nonmarital if either of these factors is present: a paternity acknowledgment was received or the father's name is missing. The presence of a paternity acknowledgment is the most reliable indicator that the birth is nonmarital in the States not reporting this information directly; this is now the key indicator in the nonreporting States.

The procedures for reporting marital status in California, Nevada, New York City changed beginning January 1, 1997. The methods used to determine marital status and the impact of the procedures on the data were discussed in detail in a previous report (14).

The mother's marital status was not reported in 2000 on 0.04 percent of the birth records in States reporting this information from a direct question. Marital status was imputed as "married" for these records.

When births to unmarried women are reported as second or higher order births, it is not known whether the mother was married or unmarried when the previous deliveries occurred, because her marital status at the time of these earlier births is not available from the birth record.

Place of delivery and attendant at birth

The 1989 revision of the U.S. Standard Certificate of Live Birth included separate categories for freestanding birthing centers, the mother's residence, and clinic or doctor's office as the place of birth. Beginning in 1989 births occurring in clinics and in birthing centers not attached to a hospital are classified as "Not in hospital." This change in classification may account in part for the lower proportion of "In hospital" births compared with previous years. (The change in classification of clinics should have minor impact because comparatively few births occur in these facilities, but the effect of any change in classification of freestanding birthing centers is unknown.)

Beginning in 1975 the attendant at birth and place of delivery items were coded independently, primarily to permit the identification of the person in attendance at hospital deliveries. Additional information on these items is presented elsewhere (2).

The "Not in hospital" category includes births for which no information is reported on place of birth.

Babies born on the way to or on arrival at the hospital are classified as having been born in the hospital. This may account for some of the hospital births not delivered by physicians or midwives.

In 2000 Illinois collected data on certified nurse-midwives (CNM) and made corrections for "other midwife" and "other" categories for the first time. As a result, the number of CNMs

significantly increased while "other midwife" sharply decreased when compared to the previous year.

Procedures in some hospitals may require that a physician be listed as the attendant for every birth and that a physician sign each birth certificate, even if the birth is attended by a midwife and no physician is physically present. Therefore, the number of live births attended by midwives may be understated in some areas.

Birthweight

Birthweight is reported in some areas in pounds and ounces rather than in grams. However, the metric system has been used in tabulating and presenting the statistics to facilitate comparison with data published by other groups. The categories for birthweight were changed in 1979 to be consistent with the recommendations in the *Ninth Revision of the International Classification of Diseases* (ICD-9) and remain the same for the Tenth Revision of the International Classification of Diseases (ICD-10) (6). The categories in gram intervals and their equivalents in pounds and ounces are as follows:

Less than 500 grams = 1 lb 1 oz or less
500-999 grams = 1 lb 2 oz-2 lb 3 oz
1,000-1,499 grams = 2 lb 4 oz-3 lb 4 oz
1,500-1,999 grams = 3 lb 5 oz-4 lb 6 oz
2,000-2,499 grams = 4 lb 7 oz-5 lb 8 oz
2,500-2,999 grams = 5 lb 9 oz-6 lb 9 oz
3,000-3,499 grams = 6 lb 10 oz-7 lb 11 oz
3,500-3,999 grams = 7 lb 12 oz-8 lb 13 oz
4,000-4,499 grams = 8 lb l4 oz-9 lb l4 oz
4,500-4,999 grams = 9 lb 15 oz-11 lb 0 oz
5,000 grams or more = 11 lb l oz or more

The ICD-9 and ICD-10 define low birthweight as less than 2,500 grams. This is a shift of 1 gram from the previous criterion of 2,500 grams or less, which was recommended by the American Academy of Pediatrics in 1935 and adopted in 1948 by the World Health Organization in the *Sixth Revision of the International Lists of Diseases and Causes of Death*.

After data classified by pounds and ounces are converted to grams, median weights are computed and rounded before publication. To establish the continuity of class intervals needed to convert pounds and ounces to grams, the end points of these intervals are assumed to be half an ounce less at the lower end and half an ounce more at the upper end. For example, 2 lb 4 oz-3 lb 4 oz is interpreted as 2 lb 3 ½ oz-3 lb 4 ½ oz.

Births for which birthweight is not reported are excluded from the computation of percents and medians.

Period of gestation

The period of gestation is defined as beginning with the first day of the last normal menstrual period (LMP) and ending with the day of the birth. The LMP is used as the initial date because it can be more accurately determined than the date of conception, which usually occurs 2 weeks after the LMP.

Births occurring before 37 completed weeks of gestation are considered to be "preterm" or "premature" for purposes of classification. At 37-41 weeks gestation, births are considered to be "term," and at 42 completed weeks and over, "postterm." These distinctions are according to the ICD-9 and ICD-10 (6) definitions.

The 1989 revision of the U.S. Standard Certificate of Live Birth included a new item, "clinical estimate of gestation," that is being compared with length of gestation computed from the LMP date when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and very low birthweight births reported to be full term. The use of the clinical estimate in the 2000 data file is described in the Technical notes of "Births: Final Data for 2000" (4).

Before 1981, the period of gestation was computed only when there was a valid month, day, and year of LMP. However, length of gestation could not be determined from a substantial number of live-birth certificates each year because the day of LMP was missing. Beginning in 1981, weeks of gestation have been imputed for records with missing day of LMP when there is a valid month and year. The imputation procedure and the effect of this procedure on the data are described elsewhere (2,15).

Because of postconception bleeding or menstrual irregularities, the presumed date of LMP may be in error. In these instances the computed gestational period may be longer or shorter than the true gestational period, but the extent of such errors is unknown.

Month of pregnancy prenatal care began

For those records in which the name of the month is entered for this item, instead of first, second, third, and so forth, the month of pregnancy in which prenatal care began is determined from the month named and the month last normal menses began. For these births, if the item "Date last normal menses began" is not stated, the month of pregnancy in which prenatal care began is tabulated as not stated.

Number of prenatal visits

Tabulations of the number of prenatal visits were presented for the first time in 1972. Beginning in 1989 these data were collected from the birth certificates of all States. Percent distributions and the median number of prenatal visits exclude births to mothers who had no prenatal care.

Apgar score

The 1- and 5-minute Apgar scores were added to the U.S. Standard Certificate of Live Birth in 1978 to evaluate the condition of the newborn infant at 1 and 5 minutes after birth. The Apgar

score is a useful measure of the need for resuscitation and a predictor of the infant's chances of surviving the first year of life. It is a summary measure of the infant's condition based on heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each of these factors is given a score of 0, 1, or 2; the sum of these 5 values is the Apgar score, which ranges from 0 to 10. A score of 10 is optimum, and a low score raises some doubts about the survival and subsequent health of the infant. Beginning in 1995, NCHS collected information only on the 5-minute Apgar score. Since 1991, the reporting area for the 5-minute Apgar score has been comprised of 48 States and the District of Columbia, accounting for 78 percent of all births in the United States in 2000. California and Texas did not have information on Apgar scores on their birth certificates.

Tobacco and alcohol use during pregnancy

The checkbox format allows for classification of a mother as a smoker or drinker during pregnancy and for reporting the average number of cigarettes smoked per day or drinks consumed per week. Procedures for determining the consistency between smoking and/or drinking status and the quantity of cigarettes or drinks reported are described elsewhere (2).

For 2000 information on number of cigarettes smoked per day was reported in a consistent manner for 46 States, the District of Columbia, and New York City (figure 4-A), accounting for 87 percent of U.S. births. Indiana and New York State (except for New York City) reported this information but in a format that was inconsistent with NCHS standards. Information was not available for California and South Dakota.

Weight gain during pregnancy

Weight gain is reported in pounds. A loss of weight is reported as zero gain. Computations of median weight gain were based on ungrouped data. This item was included on the certificates of 49 States and the District of Columbia; California did not report this information. This reporting area excluding California accounted for 87 percent of all births in the United States in 2000.
Medical risk factors for this pregnancy

An item on medical risk factors was included on the 1989 birth certificate, but 2 States did not report all of the 16 risk factors in 2000. Texas did not report genital herpes or uterine bleeding, and Kansas did not report Rh sensitization.

The format allows for the designation of more than one risk factor and includes a choice of "None." Accordingly, if the item is not completed, it is classified as "Not stated."

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the Association for Vital Records and Health Statistics are available elsewhere (4).

Obstetric procedures

This item includes six specific obstetric procedures. Birth records with "Obstetric procedures" left blank are considered "not stated." Data on obstetric procedures were reported by all States and the District of Columbia in 2000.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the National Association for Public Health Statistics and Information Systems (NAPHSIS), formerly the Association for Vital Records and Health Statistics are available elsewhere (4).

Complications of labor and/or delivery

The checkbox format allows for the selection of 15 specific complications and for the designation of more than 1 complication where appropriate. A choice of "None" is also included. Accordingly, if the item is not completed, it is classified as "not stated."

All States and the District of Columbia included this item on their birth certificates in 2000. However, Texas did not report all of the complications. Texas did not report anesthetic complications or fetal distress.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials are available elsewhere (4).

Abnormal conditions of the newborn

This item provides information on eight specific abnormal conditions. More than one abnormal condition may be reported for a given birth or "None" may be selected. If the item is not completed it is tabulated as "not stated." This item was included on the birth certificates of all States and the District of Columbia in 2000. However, four areas did not include all conditions. Nebraska and Texas did not report birth injury, New York City did not report assisted ventilation less than 30 minutes or assisted ventilation of 30 minutes or more, and Wisconsin did not report fetal alcohol syndrome.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics are available elsewhere (4).

Congenital anomalies of child

The data provided in this item relate to 21 specific anomalies or anomaly groups. It is well documented that congenital anomalies, except for the most visible and most severe, are incompletely reported on birth certificates (16). The completeness of reporting specific anomalies depends on how easily they are recognized in the short time between birth and birth-registration. Forty-nine States and the District of Columbia included this item on their birth certificates (New Mexico did not). This reporting area included 99 percent of all births in the United States in 2000. The format allows for the identification of more than one anomaly including a choice of "None" should no anomalies be evident. The category "not stated" includes birth records for which the item is not completed.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials are available elsewhere (4).

Method of delivery

The birth certificate contains a checkbox item on method of delivery. The choices include

vaginal delivery, with the additional options of forceps, vacuum, and vaginal birth after previous cesarean section (VBAC), as well as a choice of primary or repeat cesarean. When only forceps, vacuum, or VBAC is checked, a vaginal birth is assumed. In 2000 this information was collected from the birth certificates of all States and the District of Columbia.

Several rates are computed for method of delivery. The overall cesarean section rate or total cesarean rate is computed as the proportion of all births that were delivered by cesarean section. The primary cesarean rate is a measure that relates the number of women having a primary cesarean birth to all women giving birth who have never had a cesarean delivery. The denominator for this rate is the sum of women with a vaginal birth excluding VBACs and women with a primary cesarean birth. The rate for vaginal birth after previous cesarean (VBAC) delivery is computed by relating all VBAC deliveries to the sum of VBAC and repeat cesarean deliveries, that is, to women with a previous cesarean section. VBAC rates for first births are computed because the rates are computed on the basis of previous pregnancies, not just live births.

Hispanic parentage

The 1989 revision of the U.S. Standard Certificate of Live Births includes items to identify the Hispanic origin of the parents. All 50 States and the District of Columbia reported Hispanic origin of the parents for 2000.

In computing birth and fertility rates for the Hispanic population, births with origin of mother not stated are included with non-Hispanic births rather than being distributed. Thus, rates for the Hispanic population are underestimates of the true rates to the extent that the births with origin of mother not stated (1.1 percent in 2000) were actually to Hispanic mothers. The population with origin not stated was imputed. The effect on the rates is believed to be small.

Quality of data

Although vital statistics data are useful for a variety of administrative and scientific purposes, they cannot be correctly interpreted unless various qualifying factors and methods of classification are taken into account. The factors to be considered depend on the specific purposes for which the data are to be used. It is not feasible to discuss all the pertinent factors in the use of vital statistics tabulations, but some of the more important ones should be mentioned.

Most of the factors limiting the use of data arise from imperfections in the original records or from the impracticability of tabulating these data in very detailed categories. These limitations should not be ignored, but their existence does not lessen the value of the data for most general purposes.

Completeness of registration

An estimated 99 percent of all births occurring in the United States in 2000 were registered; for white births registration was 99.5 percent complete and for all other births, 98.6 percent complete. These estimates are based on the results of the 1964-68 test of birth-registration completeness according to place of delivery (in or out of hospital) and race. The primary purpose

of the test was to obtain current measures of registration completeness for births in and out of hospital by race on a national basis. Data for States were not available as they had been from the previous birth-registration tests in 1940 and 1950. A detailed discussion of the method and results of the 1964-68 birth-registration test is available (17). Information on procedures for adjusting births for underregistration (for cohort fertility tables) is presented elsewhere in this report (2).

Completeness of reporting

Interpretation of these data must include evaluation of item completeness. The percent "not stated" is one measure of the quality of the data. Completeness of reporting varies among items and States. See table A for the percent of birth records on which specified items were not stated.

Quality control procedures

As electronic files are received at NCHS, they are automatically checked for completeness, individual item code validity, and unacceptable inconsistencies between data items. The registration area is notified of any problems. In addition, NCHS staff review the files on an ongoing basis to detect problems in overall quality such as inadequate reporting for certain items, failure to follow NCHS coding rules, and systems and software errors. Traditionally, quality assurance procedures were limited to review and analysis of differences between NCHS and registration area code assignments for a small sample of records. In recent years, as electronic birth registration became prevalent, this procedure was augmented by analyses of year-to-year and area-to-area variations in the data. These analyses are based on preliminary tabulations of the data that are cumulated by State on a year to date basis each month. All differences that are judged to have consequences for quality and completeness are investigated by NCHS. In the review process, statistical tests are used to call initial attention to differences for possible follow-up. As necessary, registration areas are informed of differences encountered in the tables and asked to verify the counts or to determine the nature of the differences. Missing records (except those permanently voided) and other problems detected by NCHS are resolved and corrections transmitted to NCHS in the same manner as for those corrections identified by the registration area.

Random variation and significance testing for natality data

A detailed discussion of random variation and significance testing for natality data is presented in the Technical notes of "Births: Final Data for 2000." (4) This section presents information specifically for Hispanic subgroups.

Computing confidence intervals for Hispanic subgroups

Tables 6, 8, 9, and 14 in "Births: Final Data for 2000" and tables 1-4 and 1-12 in Vital Statistics of the United States, part 1 Natality show birth and fertility rates for Mexicans, Puerto Ricans, Cubans, and "Other" Hispanics. Population estimates are derived from the U.S. Census Bureau's *Current Population Survey* and adjusted to resident population control totals as shown in Table 4-

2. As a result, the rates are subject to the variability of the denominator as well as the numerator. For these Hispanic subgroups only (not for all origin, total Hispanic, total non-Hispanic, non-Hispanic white, or non-Hispanic black populations), the following formulas are used:

Approximate 95 percent Confidence Interval: 100 or more births

When the number of events in the numerator is greater than 100, the confidence interval for the birth rate can be estimated from the following formulas:

For crude and age-specific birth rates,

$$\textit{Lower limit}: \quad R - 1.96 \left(R \left(\sqrt{\left(\frac{1}{B}\right) * f\left(a * \frac{b}{P}\right)} \right) \right)$$

$$\textit{Upper limit}: \quad R * 1.96 \left(R \left(\sqrt{\left(\frac{1}{B}\right) * f\left(a * \frac{b}{P}\right)} \right) \right)$$

where

R = rate (births per 1,000 population).
B = total number of births upon which rate is based
f = factor that depends on whether the population estimate is based on demographic analysis or CPS and the number of years used, equals 0.670 for single year.
a and b are single year averages of the 1999 and 2000 CPS standard error parameters; a equals -0.000230 and b equals 7,486 (18, 19).
P = total estimated population upon which rate is based

Example

Suppose that the fertility rate of Cuban women 15-44 years of age was 51.2 per 1,000 based on 13,088 births in the numerator and an estimated resident population of 255,399 in the denominator. The 95 percent confidence interval would be:

$$\text{Lower limit} = 51.2 - 1.96 * 51.2 * \sqrt{\left(\frac{1}{13{,}088}\right) + 0.670\left[-0.000230 + \left(\frac{7{,}486}{255{,}399}\right)\right]}$$
$$= 51.2 - 1.96 * 51.2 * \sqrt{0.000076405 + (0.670 * 0.029081)}$$
$$= 51.2 - 1.96 * 51.2 * \sqrt{0.019561}$$
$$= 51.2 - 1.96 * 51.2 * 0.139857$$
$$= 37.17$$

$$\text{Upper limit} = 51.2 + 1.96 * 51.2 * \sqrt{\left(\frac{1}{13{,}088}\right) + 0.670\left[-0.000230 + \left(\frac{7{,}486}{255{,}399}\right)\right]}$$
$$= 51.2 + 1.96 * 51.2 * \sqrt{0.000076405 + (0.670 * 0.029081)}$$
$$= 51.2 + 1.96 * 51.2 * \sqrt{0.019561}$$
$$= 51.2 + 1.96 * 51.2 * 0.139857$$
$$= 65.23$$

This means that the chances are 95 out of 100 that the actual fertility rate of Cuban women 15-44 years of age lies between 37.17 and 65.23.

Approximate 95 percent Confidence Interval: 1-99 births

When the number of events in the numerator is less than 20, an asterisk is shown in place of the rate. When the number of events in the numerator is greater than 20 but less than 100, the confidence interval for the birth rate can be estimated using the formulas that follow and the values in Table C.

For crude and age-specific birth rates,

$$\textit{Lower}: \quad R \; (\; L \; (1\&\alpha \; '.96, \; B) \; (\; \left(1\&2.576 \sqrt{f\left(\; a \; \% \; \frac{b}{P} \right)} \right)$$

$$\textit{Upper}: \quad R \; (\; U \; (1\&\alpha \; '.96, \; B) \; (\; \left(1\%2.576 \sqrt{f\left(\; a \; \% \; \frac{b}{P} \right)} \right)$$

where

R = rate (births per 1,000 population).
B = total number of births upon which rate is based.
L = the value in Table C that corresponds to the number B, using the 96 percent CI column
U = the value in Table C that corresponds to the number B, using the 96 percent CI column
f = factor that depends on whether the population estimate is based on demographic analysis or CPS and the number of years used, equals 0.670 for single year.
a and *b* factors are CPS standard error parameters. (see previous section on 95 percent confidence interval for 100 or more births for description and specific values)
P = total estimated population upon which rate is based.

Example

Suppose that the birth rate of Puerto Rican women 45-49 years of age was 0.4 per 1,000, based on 35 births in the numerator and an estimated resident population of 87,892 in the denominator. Using Table C, the 95 percent confidence interval would be:

$$\text{Lower limit} = 0.4 * 0.68419 * \left(1 - 2.576 \sqrt{0.670 \left(-0.000230 + \left(\frac{7,486}{87,892} \right) \right)} \right)$$

=0.4*0.68419*(1-2.576 / .056912)
= 0.4 *0.68419*(1-2.576*0.23856)
= 0.4 * 0.68419 * 0.38547
= 0.1

$$\text{Upper limit} = 0.4 * 1.41047 * \left(1 + 2.576 \sqrt{0.670 \left(-0.000230 + \left(\frac{7,486}{87,892} \right) \right)} \right)$$

=0.4*1.41047*(1+2.576 / .056912)

=0.4*1.41047*(1+2.576*0.23856)
= 0.4 * 1.41047 * 1.61453
= 0.9

This means that the chances are 95 out of 100 that the actual birth rate of Puerto Rican women 45-49 years of age lies between 0.1 and 0.9.

NOTE: In the formulas above, the confidence limits are estimated from the nonsampling error in the number of births, the numerator, and the sampling error in the population estimate, the denominator. A 96 percent standard error is computed for the numerator and a 99 percent standard error is computed for the denominator in order to compute a 95 percent confidence interval for the rate.

Significance Testing for Hispanic Subgroups

When both rates are based on 100 or more events, the difference between the two rates is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two rates.

$$1.96 * \sqrt{R_1^2 * \left[\left(\frac{1}{B_1}\right) + f\left(a + \frac{b}{P_1}\right)\right] + R_2^2 * \left[\left(\frac{1}{B_2}\right) + f\left(a + \frac{b}{P_2}\right)\right]}$$

If the difference is greater than this statistic, then the difference would occur by chance less than 5 times out of 100. If the difference is less than this statistic, the difference might occur by chance more than 5 times out of 100. We would therefore conclude that the difference is not statistically significant at the 95-percent confidence level.

Example

Suppose the birth rate for Puerto Rican mothers 15-19 years of age (R_1) is 80.6, based on 11,978 births and an estimated population of 148,673, and the birth rate for Cuban mothers 15-19 years of age (R_2) is 27.1, based on 997 births and an estimated population of 36,782. Using the above formula, the z score is computed as follows:

$$1.96 * \sqrt{80.6^2 * \left[\left(\frac{1}{11{,}978}\right) + 0.670\left(-0.000230 + \frac{7{,}486}{148{,}673}\right)\right] + 27.1^2 * \left[\left(\frac{1}{997}\right) + 0.670\left(-0.000230 + \frac{7{,}486}{36{,}782}\right)\right]}$$

$$1.96 * \sqrt{6{,}496.36 * [0.000083486 + 0.670(-0.000230 + 0.050352)] + 734.41 * [0.0010030 + 0.670(-0.000230 + 0.20352)]}$$

$$1.96 * \sqrt{(6{,}496.36 * 0.033665) + (734.41 * 0.13721)}$$

$$1.96 * \sqrt{218.70 + 100.77}$$

$$1.96 * 17.87$$

$$= 35.03$$

Since the difference between the two rates of 53.5 is greater than the value above, the two rates are statistically significantly different at the 0.05 level of significance.

Computation of rates and other measures

Population bases

The rates shown in this report were computed on the basis of population statistics prepared by the U.S. Bureau of the Census. Rates for 1940, 1950, 1960, 1970, 1980, and 1990 are based on the population enumerated as of April 1 in the censuses of those years. Rates for all other years are based on the estimated midyear (July 1) population for the respective years. The U.S. and State-level birth and fertility rates for 2000 are based on estimates as of July 1 projected from the 1990 census. This was necessary because detailed populations based on the 2000 census were not available when this report was prepared. (See Table 4-3) Birth rates for the United States, individual States, and metropolitan areas are based on the total resident populations of the respective areas (Table 4-4). Except as noted these populations exclude the Armed Forces abroad but include the Armed Forces stationed in each area. The resident population of the birth- and death-registration States for 1900-32 and for the United States for 1900-2000 is shown in table 4-1. In addition, the population including Armed Forces abroad is shown for the United States. Table D shows the sources for these populations. A detailed discussion of historical population bases is presented elsewhere (2).

Net census undercounts and overcounts

Studies conducted by the U.S. Bureau of the Census indicate that some age, race, and sex groups are more completely enumerated than others. These census miscounts can have consequences for vital statistics measures. For example, an adjustment to increase the population denominator would result in a smaller rate compared to the unadjusted rate. A more detailed discussion of census undercounts and overcounts can be found in the 1999 Technical appendix (2). Adjusted rates for 1990 can be computed by multiplying the reported rates by ratios of the 1990 census-level population adjusted for the estimated net census miscounts, which are shown in table E.

Cohort fertility tables

The various fertility measures shown for cohorts of women are computed from births adjusted for underregistration and population estimates corrected for under enumeration and misstatement of age. Data published after 1974 use revised population estimates prepared by the U.S. Bureau of the Census and have been expanded to include data for the two major racial groups. Heuser has prepared a detailed description of the methods used in deriving these measures as well as more detailed data for earlier years (20). These tables for current years are available at http://www.cdc.gov/nchs/datawh/statab/unpubd/natality/natab98.htm.

Parity distribution--The percent distribution of women by parity (number of children ever born alive to mother) is derived from cumulative birth rates by order of birth. The percent of zero-parity women is found by subtracting the cumulative first birth rate from 1,000 and dividing by 10. The proportions of women at parities one through six are found from the following

formula:

Percent at N parity =((cum. rate, order N) - (cum. rate, order N + 1))/10

The percent of women at seventh and higher parities is found by dividing the cumulative rate for seventh-order births by 10.

Birth probabilities–Birth probabilities indicate the likelihood that a woman of a certain parity and age at the beginning of the year will have a child during the year. Birth probabilities differ from central birth rates in that the denominator for birth probabilities is specific for parity as well as for age.

Total fertility rate

The total fertility rate is the sum of the birth rates by age of mother (in 5-year age groups) multiplied by 5. It is an age-adjusted rate because it is based on the assumption that there are the same number of women in each age group. The rate of 2,130 in 2000, for example, means that if a hypothetical group of 1,000 women were to have the same birth rates in each age group that were observed in the actual childbearing population in 2000, they would have a total of 2,130 children by the time they reached the end of the reproductive period (taken here to be age 50 years), assuming that all of the women survived to that age.

Seasonal adjustment of rates

The seasonally adjusted birth and fertility rates are computed from the X-11 variant of Census Method II (21). This method of seasonal adjustment used since 1964 differs slightly from the U.S. Bureau of Labor Statistics (BLS) Seasonal Factor Method, which was used for Vital Statistics of the United States, 1964. The fundamental technique is the same in that it is an adaptation of the ratio-to-moving-average method. Before 1964 the method of seasonal adjustment was based on the X-9 variant and other variants of Census Method II. A comparison of the Census Method II with the BLS Seasonal Factor Method shows the differences in the seasonal patterns of births to be negligible.

Computations of percents, percent distributions, and medians

Births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percents, percent distributions, and medians were computed. The percent of records with missing information for each item is shown by State in table A. The median number of prenatal visits also excludes births to mothers who had no prenatal care. Computations of the median years of school completed and the median number of prenatal visits were based on ungrouped data. The median age of mother is computed from birth rates in 5-year age groups, which eliminates the effects of changes in the age composition of the childbearing population over time. The procedures for distributing not stated age of father in order to compute mean ages are described in the section “age of father.” An asterisk is shown in place of any derived statistic based on fewer than 20 births in the numerator or denominator.

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TYPE/PRINT IN PERMANENT BLACK INK FOR INSTRUCTIONS SEE HANDBOOK

U.S. STANDARD
CERTIFICATE OF LIVE BIRTH

LOCAL FILE NUMBER

BIRTH NUMBER

CHILD

1. CHILD'S NAME *(First, Middle, Last)*

2. DATE OF BIRTH *(Month, Day, Year)*

3. TIME OF BIRTH

4. SEX

5. CITY, TOWN, OR LOCATION OF BIRTH

6. COUNTY OF BIRTH

7. PLACE OF BIRTH: ☐ Hospital ☐ Freestanding Birthing Center ☐ Clinic/Doctor's Office ☐ Residence ☐ Other *(Specify)*

8. FACILITY NAME *(If not institution, give street and number)*

CERTIFIER/ ATTENDANT

9. I certify that this child was born alive at the place and time and on the date stated.

Signature ▶

10. DATE SIGNED *(Month, Day, Year)*

11. ATTENDANT'S NAME AND TITLE *(If other than certifier) (Type/Print)*

Name

☐ M.D. ☐ D.O. ☐ C.N.M. ☐ Other Midwife

☐ Other *(Specify)*

12. CERTIFIER'S NAME AND TITLE *(Type/Print)*

Name

☐ M.D. ☐ D.O. ☐ Hospital Admin. ☐ C.N.M. ☐ Other Midwife

☐ Other *(Specify)*

13. ATTENDANT'S MAILING ADDRESS *(Street and Number or Rural Route Number, City or Town, State, Zip Code)*

DEATH UNDER ONE YEAR OF AGE
Enter State File Number of death certificate for this child

14. REGISTRAR'S SIGNATURE ▶

15. DATE FILED BY REGISTRAR *(Month, Day, Year)*

MOTHER

16a. MOTHER'S NAME *(First, Middle, Last)*

16b. MAIDEN SURNAME

17. DATE OF BIRTH *(Month, Day, Year)*

18. BIRTHPLACE *(State or Foreign Country)*

19a. RESIDENCE—STATE

19b. COUNTY

19c. CITY, TOWN, OR LOCATION

19d. STREET AND NUMBER

19e. INSIDE CITY LIMITS? *(Yes or no)*

20. MOTHER'S MAILING ADDRESS *(If same as residence, enter Zip Code on*

FATHER

21. FATHER'S NAME *(First, Middle, Last)*

22. DATE OF BIRTH *(Month, Day, Year)*

23. BIRTHPLACE *(State or Foreign Country)*

INFORMANT

24. I certify that the personal information provided on this certificate is correct to the best of my knowledge and belief.

Signature of Parent or Other Informant ▶

INFORMATION FOR MEDICAL AND HEALTH USE ONLY

	25. OF HISPANIC ORIGIN? (Specify No or Yes—If yes, specify Cuban, Mexican, Puerto Rican, etc.)	26. RACE—American Indian, Black, White, etc. *(Specify below)*	27. EDUCATION *(Specify only highest grade completed)* Elementary/Secondary (0-12) | College (1-4 or 5+
MOTHER	25a. ☐ No ☐ Yes Specify:	26a.	27a.
FATHER	25b. ☐ No ☐ Yes Specify:	26b.	27b.

28. PREGNANCY HISTORY *(Complete each section)*

LIVE BIRTHS *(Do not include this child)*		OTHER TERMINATIONS *(Spontaneous and induced at any time after conception)*
28a. Now Living Number ☐ None	28b. Now Dead Number ☐ None	28d. Number ☐ None
28c. DATE OF LAST LIVE BIRTH *(Month, Year)*		28e. DATE OF LAST OTHER TERMINATION *(Month, Year)*

29. MOTHER MARRIED? (At birth, conception, or any time between) *(Yes or no)*

30. DATE LAST NORMAL MENSES BEGAN *(Month, Day, Year)*

31. MONTH OF PREGNANCY PRENATAL CARE BEGAN—First, Second, Third, etc. *(Specify)*

32. PRENATAL VISITS—Total Number *(If none, so state)*

33. BIRTH WEIGHT *(Specify unit)*

34. CLINICAL ESTIMATE OF GESTATION *(Week*

35a. PLURALITY—Single, Twin, Triplet, etc. *(Specify)*

35b. IF NOT SINGLE BIRTH—Born First, Second, Third, etc. *(Specify)*

MULTIPLE BIRTHS
Enter State File Number for Mate(s) LIVE BIRTH(S)

FETAL DEATH(S)

36. APGAR SCORE		37a. MOTHER TRANSFERRED PRIOR TO DELIVERY? ☐ No ☐ Yes If Yes, enter name of facility transferred **from:**
36a. 1 Minute	36b. 5 Minutes	37b. INFANT TRANSFERRED? ☐ No ☐ Yes If Yes, enter name of facility transferred **to:**

38a. MEDICAL RISK FACTORS FOR THIS PREGNANCY
(Check all that apply)

Anemia (Hct. <30/Hgb. <10) . . . . . 01 ☐
Cardiac disease . . . . . 02 ☐
Acute or chronic lung disease . . . . . 03 ☐
Diabetes . . . . . 04 ☐
Genital herpes . . . . . 05 ☐
Hydramnios/Oligohydramnios . . . . . 06 ☐
Hemoglobinopathy . . . . . 07 ☐
Hypertension, chronic . . . . . 08 ☐
Hypertension, pregnancy-associated . . . . . 09 ☐
Eclampsia . . . . . 10 ☐
Incompetent cervix . . . . . 11 ☐
Previous infant 4000+ grams . . . . . 12 ☐
Previous preterm or small-for-gestational-age infant . . . . . 13 ☐
Renal disease . . . . . 14 ☐
Rh sensitization . . . . . 15 ☐
Uterine bleeding . . . . . 16 ☐
None . . . . . 00 ☐
Other _____ 17 ☐
(Specify)

38b. OTHER RISK FACTORS FOR THIS PREGNANCY
(Complete all items)

Tobacco use during pregnancy . . . . . Yes ☐ No ☐
Average number cigarettes per day _____
Alcohol use during pregnancy . . . . . Yes ☐ No ☐
Average number drinks per week _____
Weight gained during pregnancy _____ lbs.

39. OBSTETRIC PROCEDURES
(Check all that apply)

Amniocentesis . . . . . 01 ☐
Electronic fetal monitoring . . . . . 02 ☐
Induction of labor . . . . . 03 ☐
Stimulation of labor . . . . . 04 ☐
Tocolysis . . . . . 05 ☐
Ultrasound . . . . . 06 ☐
None . . . . . 00 ☐
Other _____ 07 ☐
(Specify)

40. COMPLICATIONS OF LABOR AND/OR DELIVERY
(Check all that apply)

Febrile (>100°F. or 38°C.) . . . . . 01 ☐
Meconium, moderate/heavy . . . . . 02 ☐
Premature rupture of membrane (>12 hours) . . . . . 03 ☐
Abruptio placenta . . . . . 04 ☐
Placenta previa . . . . . 05 ☐
Other excessive bleeding . . . . . 06 ☐
Seizures during labor . . . . . 07 ☐
Precipitous labor (<3 hours) . . . . . 08 ☐
Prolonged labor (>20 hours) . . . . . 09 ☐
Dysfunctional labor . . . . . 10 ☐
Breech/Malpresentation . . . . . 11 ☐
Cephalopelvic disproportion . . . . . 12 ☐
Cord prolapse . . . . . 13 ☐
Anesthetic complications . . . . . 14 ☐
Fetal distress . . . . . 15 ☐
None . . . . . 00 ☐
Other _____ 16 ☐
(Specify)

41. METHOD OF DELIVERY *(Check all that apply)*

Vaginal . . . . . 01 ☐
Vaginal birth after previous C-section . . . . . 02 ☐
Primary C-section . . . . . 03 ☐
Repeat C-section . . . . . 04 ☐
Forceps . . . . . 05 ☐
Vacuum . . . . . 06 ☐

42. ABNORMAL CONDITIONS OF THE NEWBORN
(Check all that apply)

Anemia (Hct. <39/Hgb. <13) . . . . . 01 ☐
Birth injury . . . . . 02 ☐
Fetal alcohol syndrome . . . . . 03 ☐
Hyaline membrane disease/RDS . . . . . 04 ☐
Meconium aspiration syndrome . . . . . 05 ☐
Assisted ventilation <30 min . . . . . 06 ☐
Assisted ventilation ≥30 min . . . . . 07 ☐
Seizures . . . . . 08 ☐
None . . . . . 00 ☐
Other _____ 09 ☐
(Specify)

43. CONGENITAL ANOMALIES OF CHILD
(Check all that apply)

Anencephalus 01
Spina bifida/Meningocele 02
Hydrocephalus 03
Microcephalus 04
Other central nervous system anomalies
(Specify) _____ 05

Heart malformations 06
Other circulatory/respiratory anomalies
(Specify) _____ 07

Rectal atresia/stenosis 08
Tracheo-esophageal fistula/ Esophageal atresia . . . 09
Omphalocele/ Gastroschisis 10
Other gastrointestinal anomalies
(Specify) _____ 11

Malformed genitalia 12
Renal agenesis 13
Other urogenital anomalies
(Specify) _____ 14

Cleft lip/palate 15
Polydactyly/Syndactyly/Adactyly 16
Club foot 17
Diaphragmatic hernia 18
Other musculoskeletal/integumental anomalies
(Specify) _____ 19

Down's syndrome 20
Other chromosomal anomalies
(Specify) _____ 21

None 00
Other _____ 22
(Specify)

Table A. Percent of birth records on which specified items were not stated: United States and each State and territory, 2000

[By place of residence]

Area	All births	Place of birth	Attendant at birth	Mother's birthplace	Father's age	Father's race	Hispanic Origin		Educational attainment of mother	Live-birth order	Length of gestation	Month prenatal care began	Number of prenatal visits
							Mother	Father					
Total of reporting areas 1/	4,058,814	0.0	0.0	0.3	13.7	14.4	1.1	14.1	1.5	0.4	1.1	2.7	3.7
Alabama	63,299	0.0	0.0	0.1	22.0	22.0	0.1	21.9	0.3	0.0	0.1	0.4	0.6
Alaska	9,974	0.1	0.1	0.8	13.2	14.6	3.6	15.4	3.0	1.1	0.4	3.5	4.4
Arizona	85,273	0.0	0.0	0.2	19.3	20.6	1.3	21.1	2.3	0.4	0.1	2.0	4.4
Arkansas	37,783	0.0	0.0	0.2	19.3	20.5	0.3	19.9	0.4	0.1	0.3	2.3	2.5
California	531,959	0.0	0.0	0.2	7.1	6.8	0.6	6.2	1.4	0.1	2/ 5.7	1.7	3.3
Colorado	65,438	-	-	0.4	8.3	8.8	0.1	8.9	1.3	0.1	0.1	1.4	1.5
Connecticut	43,026	-	0.0	0.2	10.4	11.7	2.2	12.2	2.3	5.7	0.2	3.4	5.9
Delaware	11,051	-	0.0	0.3	29.7	30.6	0.2	29.6	0.3	0.1	0.1	0.3	0.6
District of Columbia	7,666	-	-	0.1	41.8	50.2	0.4	41.6	7.7	0.0	0.5	17.1	18.6
Florida	204,125	0.0	0.0	0.1	16.8	17.0	0.1	18.3	0.5	0.0	0.1	1.0	2.2
Georgia	132,644	0.0	0.0	0.2	17.5	18.7	1.4	18.6	2.0	0.4	0.2	4.3	3.7
Hawaii	17,551	-	-	0.1	9.4	9.5	0.1	9.1	0.5	0.0	2.5	2.4	2.5
Idaho	20,366	0.0	0.0	0.4	7.7	11.4	0.5	10.5	2.9	0.5	0.4	2.6	3.3
Illinois	185,036	0.0	0.0	0.1	13.8	15.4	0.0	15.4	0.9	0.1	0.2	2.1	2.3
Indiana	87,699	0.0	0.0	0.1	13.1	13.1	0.4	13.1	0.8	0.1	0.1	0.9	1.9
Iowa	38,266	0.0	0.0	0.1	12.8	14.1	0.6	14.2	1.0	0.0	0.1	1.3	3.4
Kansas	39,666	0.0	0.1	0.0	10.0	10.6	1.1	11.5	0.4	0.0	0.1	0.7	1.1
Kentucky	56,029	0.0	0.1	0.0	19.2	22.1	0.1	22.0	0.3	0.1	0.1	1.2	1.5
Louisiana	67,898	0.0	0.1	0.0	21.5	21.6	0.1	21.6	0.2	0.1	0.1	0.4	0.4
Maine	13,603	0.0	0.0	0.0	8.3	12.4	0.3	8.7	0.9	0.4	0.1	0.7	0.8
Maryland	74,316	0.0	0.0	0.5	12.2	12.8	0.3	10.6	1.7	0.1	0.3	2.7	4.5
Massachusetts	81,614	0.0	0.0	0.0	7.2	7.4	0.7	6.6	0.5	1.6	1.6	2.7	1.8
Michigan	136,171	0.0	0.1	0.1	15.2	17.6	6.4	22.3	2.4	0.4	0.2	4.5	5.8
Minnesota	67,604	-	0.2	0.2	8.9	11.8	3.8	14.4	2.3	0.4	0.8	5.7	5.4
Mississippi	44,075	0.0	0.0	0.1	22.8	22.7	0.1	22.8	0.3	0.1	0.2	0.5	1.6
Missouri	76,463	-	-	0.2	17.0	18.3	0.1	17.9	0.6	0.3	0.1	2.0	3.4
Montana	10,957	0.0	0.1	0.0	9.6	10.4	3.4	13.2	0.3	0.0	0.1	0.6	0.4
Nebraska	24,646	-	-	0.0	11.9	13.0	2.0	13.7	0.1	0.0	0.0	0.4	0.7
Nevada	30,829	0.0	0.0	0.7	19.4	19.9	1.0	19.1	2.6	0.7	0.9	4.9	7.1
New Hampshire	14,609	-	-	0.0	5.6	8.1	4.2	11.6	1.1	0.7	0.5	1.8	2.0
New Jersey	115,632	0.0	0.0	0.2	8.5	10.3	0.4	9.3	3.3	0.1	0.1	4.3	5.4
New Mexico	27,223	0.0	-	1.7	26.5	26.0	0.0	26.0	3.7	1.2	0.4	4.9	4.8
New York	258,737	0.0	0.0	0.4	14.3	14.7	4.5	18.0	1.6	0.1	0.3	6.1	3.9
North Carolina	120,311	-	0.0	0.0	16.2	16.2	0.1	16.2	0.3	0.1	0.1	0.7	0.7
North Dakota	7,676	-	-	0.1	9.0	9.5	2.8	12.2	0.2	-	0.1	0.8	0.7
Ohio	155,472	0.0	0.0	1.6	15.3	15.5	0.2	2.0	0.7	0.9	0.0	1.7	2.8
Oklahoma	49,782	0.0	0.0	0.1	16.2	17.5	0.9	17.5	1.1	0.2	3.4	8.7	10.7
Oregon	45,804	-	0.0	0.1	9.8	5.4	0.3	5.9	2.5	0.0	0.0	0.3	0.6
Pennsylvania	146,281	0.0	0.0	0.9	5.4	4.7	0.5	3.8	2.7	0.7	0.3	4.4	6.0
Rhode Island	12,505	0.0	0.0	0.7	13.3	13.8	8.1	19.2	1.7	0.9	0.3	1.8	2.0
South Carolina	56,114	0.0	-	0.2	27.9	27.9	0.1	27.9	0.5	0.1	0.2	1.1	1.1
South Dakota	10,345	-	-	0.0	13.3	13.4	0.1	13.6	0.2	0.0	0.1	0.3	0.4
Tennessee	79,611	-	-	0.1	15.3	15.6	0.1	15.5	0.2	0.2	0.2	1.7	1.0
Texas	363,414	0.0	0.0	0.5	14.6	14.8	0.4	14.8	2.1	1.1	0.9	3.4	7.5
Utah	47,353	0.0	0.0	0.2	8.2	9.8	0.4	9.4	1.5	0.7	0.1	3.0	3.7
Vermont	6,500	0.0	-	0.2	8.5	13.5	2.6	15.6	1.2	0.5	0.1	4.4	2.4
Virginia	98,938	-	0.0	0.1	16.8	18.7	0.2	16.9	0.7	0.0	0.0	0.3	0.8
Washington	81,036	0.0	0.1	0.6	10.8	14.0	2.9	14.7	7.5	2.5	1.2	7.8	10.9
West Virginia	20,865	0.3	0.0	0.2	12.6	13.1	0.3	13.2	0.6	0.1	0.4	4.1	2.7
Wisconsin	69,326	-	-	0.1	28.9	29.0	0.0	28.9	0.2	0.0	0.0	0.3	0.4
Wyoming	6,253	-	-	0.1	13.0	13.4	0.1	13.3	0.4	0.0	0.1	0.5	0.5
Puerto Rico	59,333	-	0.1	-	3.3	4.1	---	---	0.3	0.0	0.1	0.3	0.1
Virgin Islands	1,564	-	0.1	-	19.7	21.5	2.6	23.9	0.7	0.3	0.7	0.1	1.7
Guam	3,770	0.1	1.4	0.7	22.1	22.1	1.0	23.0	1.7	1.4	0.4	2.5	2.5
American Samoa	1,731	-	0.1	5.1	35.5	36.0	---	---	---	-	---	---	---
Commonwealth of the Northern Marianas Islands	1,431	0.1	1.0	0.5	8.0	11.3	---	---	31.4	26.4	10.8	13.2	12.5

Table A. Percent of birth records on which specified items were not stated: United States and each State and territory, 2000

[By place of residence]

Area	All births	Birth-weight	5-minute Apgar Score	Medical risk factors	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complications of labor and/or delivery	Method of delivery	Abnormal conditions of newborn	Congenital anomalies
Total of reporting areas 1/	4,058,814	0.1	0.5	1.5	1.1	1.3	7.7	0.8	1.1	0.7	1.7	1.5
Alabama	63,299	0.1	0.2	0.0	0.1	0.1	4.5	0.0	0.0	0.3	0.0	0.0
Alaska	9,974	0.2	0.7	1.6	1.0	1.1	7.4	1.3	1.5	0.4	1.6	1.8
Arizona	85,273	0.1	0.3	0.0	1.0	1.1	13.6	0.0	0.0	0.3	0.0	0.3
Arkansas	37,783	0.1	3.4	0.2	0.4	0.5	7.1	0.1	0.2	0.4	0.2	0.2
California	531,959	0.0	---	0.0	---	---	---	0.0	0.0	0.0	0.0	0.0
Colorado	65,438	0.1	0.3	0.0	0.3	0.4	3.4	0.0	0.0	0.0	0.0	0.1
Connecticut	43,026	0.0	2.0	8.6	4.6	4.8	13.5	8.2	8.8	1.2	13.0	13.4
Delaware	11,051	0.1	0.1	0.0	0.1	0.1	1.0	0.0	0.0	-	0.0	0.0
District of Columbia	7,666	0.1	0.6	0.0	0.1	1.0	13.5	-	-	0.1	-	-
Florida	204,125	0.0	0.2	0.0	0.1	1.0	4.8	0.0	0.0	0.7	0.0	0.0
Georgia	132,644	0.0	0.4	0.3	0.5	0.5	9.0	0.0	0.0	0.5	0.0	0.0
Hawaii	17,551	0.8	4.6	17.5	0.1	0.1	10.1	7.9	7.8	0.4	17.7	19.0
Idaho	20,366	0.1	0.7	0.8	0.5	0.6	7.8	0.7	0.8	0.4	0.6	0.7
Illinois	185,036	0.1	0.3	0.0	0.2	0.1	4.0	0.0	0.0	0.3	0.0	0.1
Indiana	87,699	0.5	0.4	0.3	4/ 0.3	0.4	2.7	0.1	0.4	0.6	0.7	0.7
Iowa	38,266	0.0	0.3	0.1	1.5	1.8	6.7	0.0	0.1	0.5	0.1	0.1
Kansas	39,666	0.0	0.3	3/ 0.2	0.2	0.2	0.4	0.1	0.1	0.3	0.1	0.2
Kentucky	56,029	0.2	0.4	15.0	4.1	4.8	9.2	4.4	15.4	4.5	22.4	22.3
Louisiana	67,898	0.1	0.4	0.1	0.2	0.2	5.5	0.1	0.1	0.2	0.2	0.2
Maine	13,603	0.1	0.2	0.1	1.2	1.6	1.9	0.1	0.1	0.1	0.1	0.1
Maryland	74,316	0.0	0.4	0.0	0.6	0.7	5.9	0.0	0.0	0.2	0.0	0.0
Massachusetts	81,614	1.7	1.7	2.6	0.4	0.4	2.8	2.5	2.5	1.9	3.1	2.8
Michigan	136,171	0.2	0.4	0.1	2.4	2.4	9.4	0.1	0.1	0.5	0.1	0.2
Minnesota	67,604	0.1	0.7	6.5	6.0	6.1	18.7	5.3	6.5	2.7	7.3	7.3
Mississippi	44,075	0.1	0.3	0.1	0.3	0.3	6.3	0.0	0.1	0.3	0.0	0.0
Missouri	76,463	0.0	0.5	0.1	0.3	0.4	2.9	0.1	0.1	0.6	0.1	0.1
Montana	10,957	0.1	0.3	0.0	0.5	0.7	1.7	0.0	0.0	0.3	0.0	0.1
Nebraska	24,646	0.1	0.2	0.1	0.1	0.1	1.5	0.0	0.1	0.3	7/ 0.1	0.1
Nevada	30,829	0.1	1.2	7.5	1.6	1.8	9.7	1.4	3.3	0.7	3.6	3.8
New Hampshire	14,609	0.4	0.6	0.3	0.4	0.4	4.2	0.3	0.3	0.6	0.3	0.3
New Jersey	115,632	0.1	0.3	0.9	0.7	0.8	6.1	0.1	0.6	0.6	9.4	1.1
New Mexico	27,223	0.2	3.6	0.1	1.2	1.3	8.9	0.0	0.0	0.5	0.0	---
New York	258,737	0.1	0.2	1.8	4/ 0.2	0.2	7.1	0.2	0.4	0.4	8/ 1.4	1.4
North Carolina	120,311	0.1	0.4	0.0	0.2	0.3	2.7	0.0	0.0	0.5	0.0	0.0
North Dakota	7,676	0.1	0.2	0.2	0.2	0.6	2.4	0.2	0.2	1.4	0.4	0.2
Ohio	155,472	0.1	0.2	0.1	0.3	0.3	3.0	0.1	0.1	0.6	0.1	0.1
Oklahoma	49,782	0.3	3.8	17.5	13.0	13.2	22.4	15.5	17.4	13.2	19.4	19.5
Oregon	45,804	0.0	0.4	1.0	1.0	1.0	3.9	0.0	0.0	0.4	0.0	0.1
Pennsylvania	146,281	0.1	0.4	0.0	0.8	0.8	9.8	0.0	0.0	0.0	0.3	0.2
Rhode Island	12,505	0.3	0.3	6.8	1.5	1.7	12.1	6.3	6.6	0.4	11.4	11.7
South Carolina	56,114	0.0	0.2	0.0	0.2	0.2	2.0	0.0	-	0.5	0.0	0.0
South Dakota	10,345	0.0	0.3	0.0	5/ 0.3	5/ 0.3	1.0	0.0	0.0	0.1	0.0	0.0
Tennessee	79,611	0.0	0.3	0.1	0.3	0.3	7.1	0.0	0.1	0.5	0.1	0.1
Texas	363,414	0.1	---	6/ 1.5	1.6	1.6	15.7	0.0	9/ 0.0	0.6	7/ 0.0	0.1
Utah	47,353	0.0	0.4	0.1	0.0	0.6	4.4	0.0	0.0	0.0	0.1	0.1
Vermont	6,500	0.2	0.4	0.7	0.8	0.4	2.4	0.6	0.7	0.1	0.6	0.7
Virginia	98,938	0.1	0.2	0.1	0.0	0.0	2.6	0.0	0.1	0.3	0.3	0.1
Washington	81,036	0.4	0.6	15.0	4.5	12.0	25.5	11.1	14.4	0.4	14.6	14.8
West Virginia	20,865	0.1	0.3	1.2	0.8	1.9	10.6	0.2	0.9	0.3	3.1	2.2
Wisconsin	69,326	0.0	0.4	0.1	0.1	0.1	2.2	0.0	0.1	0.0	10/ 0.1	0.1
Wyoming	6,253	0.0	0.4	0.0	0.2	0.2	1.7	0.0	0.0	0.1	0.0	0.0
Puerto Rico	59,333	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Virgin Islands	1,564	0.2	2.7	3.1	0.9	1.0	10.3	1.3	4.3	1.5	3.8	3.7
Guam	3,770	0.3	1.2	1.5	0.4	0.8	6.0	1.3	1.6	0.7	3.7	4.5
American Samoa	1,731	-	---	---	---	---	---	---	---	---	---	---
Commonwealth of the Northern Marianas Islands	1,431	10.1	12.6	---	5/ 45.8	5/ 46.0	---	---	---	17.0	---	---

0.0 Quantity more than zero but less than 0.05.
---Data not available.
-Quantity zero.
1/ Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.
2/ California reports date last normal menses began but does not report clinical estimate of gestation.
3/ Kansas does not report Rh sensitization.
4/ Indiana and New York State report tobacco use but do not report the average number of cigarettes smoked per day in standard categories; data for New York City are reported in standard categories.
5/ South Dakota and the Commonwealth of the Northern Marianas report tobacco and alcohol use but do not report the average number of cigarettes smoked per day or the average number of drinks per week.
6/ Texas does not report genital herpes and uterine bleeding.
7/ Nebraska and Texas do not report birth injury.
8/ New York City does not report assisted ventilation less than 30 minutes and assisted ventilation of 30 minutes or more.
9/ Texas does not report anesthetic complications and fetal distress.
10/ Wisconsin does not report fetal alcohol syndrome.

Table B. Births by State of occurrence and residence for births occurring in the 50 States and the District of Columbia, 2000

Area	Occurrence	Residence
United States	4,063,823	4,058,814
Alabama	62,562	63,299
Alaska	9,866	9,974
Arizona	85,470	85,273
Arkansas	36,840	37,783
California	532,610	531,959
Colorado	65,679	65,438
Connecticut	43,370	43,026
Delaware	11,639	11,051
District of Columbia	15,159	7,666
Florida	204,305	204,125
Georgia	133,524	132,644
Hawaii	17,638	17,551
Idaho	19,863	20,366
Illinois	181,984	185,036
Indiana	87,891	87,699
Iowa	38,418	38,266
Kansas	39,232	39,666
Kentucky	54,423	56,029
Louisiana	68,275	67,898
Maine	13,462	13,603
Maryland	69,574	74,316
Massachusetts	82,673	81,614
Michigan	134,889	136,171
Minnesota	67,546	67,604
Mississippi	42,980	44,075
Missouri	78,302	76,463
Montana	10,927	10,957
Nebraska	24,961	24,646
Nevada	30,387	30,829
New Hampshire	13,987	14,609
New Jersey	112,311	115,632
New Mexico	26,809	27,223
New York State only	134,435	137,696
New York City only	125,560	121,041
North Carolina	121,347	120,311
North Dakota	8,847	7,676
Ohio	155,943	155,472
Oklahoma	48,650	49,782
Oregon	46,790	45,804
Pennsylvania	146,857	146,281
Rhode Island	13,180	12,505
South Carolina	53,562	56,114
South Dakota	10,589	10,345
Tennessee	84,832	79,611
Texas	368,019	363,414
Utah	48,454	47,353
Vermont	6,277	6,500
Virginia	96,755	98,938
Washington	80,453	81,036
West Virginia	21,620	20,865
Wisconsin	68,250	69,326
Wyoming	5,847	6,253
Occurrence in U.S. Territories or Foreign Countries	-	5,009
Puerto Rico	-	16
Virgin Islands	-	37
Guam	-	4
American Samoa	-	-
Northern Marianas	-	-
Canada	-	171
Cuba	-	1
Mexico	-	4,155
Remainder of world	-	625

- Quantity zero.

Table C. Lower and upper 95 percent and 96 percent confidence limit factors for a birth rate based on a Poisson variable of 1 through 99 births, *B*

B	L(1- a=.95,*B*)	U(1- a =.95,*B*)	L(1- a =.96,*B*)	U(1- a =.96,*B*)
1	0.02532	5.57164	0.02020	5.83392
2	0.12110	3.61234	0.10735	3.75830
3	0.20622	2.92242	0.18907	3.02804
4	0.27247	2.56040	0.25406	2.64510
5	0.32470	2.33367	0.30591	2.40540
6	0.36698	2.17658	0.34819	2.23940
7	0.40205	2.06038	0.38344	2.11666
8	0.43173	1.97040	0.41339	2.02164
9	0.45726	1.89831	0.43923	1.94553
10	0.47954	1.83904	0.46183	1.88297
11	0.49920	1.78928	0.48182	1.83047
12	0.51671	1.74680	0.49966	1.78566
13	0.53246	1.71003	0.51571	1.74688
14	0.54671	1.67783	0.53027	1.71292
15	0.55969	1.64935	0.54354	1.68289
16	0.57159	1.62394	0.55571	1.65610
17	0.58254	1.60110	0.56692	1.63203
18	0.59266	1.58043	0.57730	1.61024
19	0.60207	1.56162	0.58695	1.59042
20	0.61083	1.54442	0.59594	1.57230
21	0.61902	1.52861	0.60435	1.55563
22	0.62669	1.51401	0.61224	1.54026
23	0.63391	1.50049	0.61966	1.52602
24	0.64072	1.48792	0.62666	1.51278
25	0.64715	1.47620	0.63328	1.50043
26	0.65323	1.46523	0.63954	1.48888
27	0.65901	1.45495	0.64549	1.47805
28	0.66449	1.44528	0.65114	1.46787
29	0.66972	1.43617	0.65652	1.45827
30	0.67470	1.42756	0.66166	1.44922
31	0.67945	1.41942	0.66656	1.44064
32	0.68400	1.41170	0.67125	1.43252
33	0.68835	1.40437	0.67575	1.42480
34	0.69253	1.39740	0.68005	1.41746
35	0.69654	1.39076	0.68419	1.41047
36	0.70039	1.38442	0.68817	1.40380
37	0.70409	1.37837	0.69199	1.39743

Table C. Lower and upper 95 percent and 96 percent confidence limit factors for a birth rate based on a Poisson variable of 1 through 99 births, *B*

B	L(1- a=.95,*B*)	U(1- a =.95,*B*)	L(1- a =.96,*B*)	U(1- a =.96,*B*)
38	0.70766	1.37258	0.69568	1.39134
39	0.71110	1.36703	0.69923	1.38550
40	0.71441	1.36172	0.70266	1.37991
41	0.71762	1.35661	0.70597	1.37454
42	0.72071	1.35171	0.70917	1.36938
43	0.72370	1.34699	0.71227	1.36442
44	0.72660	1.34245	0.71526	1.35964
45	0.72941	1.33808	0.71816	1.35504
46	0.73213	1.33386	0.72098	1.35060
47	0.73476	1.32979	0.72370	1.34632
48	0.73732	1.32585	0.72635	1.34218
49	0.73981	1.32205	0.72892	1.33818
50	0.74222	1.31838	0.73142	1.33431
51	0.74457	1.31482	0.73385	1.33057
52	0.74685	1.31137	0.73621	1.32694
53	0.74907	1.30802	0.73851	1.32342
54	0.75123	1.30478	0.74075	1.32002
55	0.75334	1.30164	0.74293	1.31671
56	0.75539	1.29858	0.74506	1.31349
57	0.75739	1.29562	0.74713	1.31037
58	0.75934	1.29273	0.74916	1.30734
59	0.76125	1.28993	0.75113	1.30439
60	0.76311	1.28720	0.75306	1.30152
61	0.76492	1.28454	0.75494	1.29873
62	0.76669	1.28195	0.75678	1.29601
63	0.76843	1.27943	0.75857	1.29336
64	0.77012	1.27698	0.76033	1.29077
65	0.77178	1.27458	0.76205	1.28826
66	0.77340	1.27225	0.76373	1.28580
67	0.77499	1.26996	0.76537	1.28340
68	0.77654	1.26774	0.76698	1.28106
69	0.77806	1.26556	0.76856	1.27877
70	0.77955	1.26344	0.77011	1.27654
71	0.78101	1.26136	0.77162	1.27436
72	0.78244	1.25933	0.77310	1.27223
73	0.78384	1.25735	0.77456	1.27014
74	0.78522	1.25541	0.77598	1.26810

Table C. Lower and upper 95 percent and 96 percent confidence limit factors for a birth rate based on a Poisson variable of 1 through 99 births, *B*

B	L(1- a=.95,*B*)	U(1- a =.95,*B*)	L(1- a =.96,*B*)	U(1- a =.96,*B*)
75	0.78656	1.25351	0.77738	1.26610
76	0.78789	1.25165	0.77876	1.26415
77	0.78918	1.24983	0.78010	1.26223
78	0.79046	1.24805	0.78143	1.26036
79	0.79171	1.24630	0.78272	1.25852
80	0.79294	1.24459	0.78400	1.25672
81	0.79414	1.24291	0.78525	1.25496
82	0.79533	1.24126	0.78648	1.25323
83	0.79649	1.23965	0.78769	1.25153
84	0.79764	1.23807	0.78888	1.24987
85	0.79876	1.23652	0.79005	1.24824
86	0.79987	1.23499	0.79120	1.24664
87	0.80096	1.23350	0.79233	1.24507
88	0.80203	1.23203	0.79344	1.24352
89	0.80308	1.23059	0.79453	1.24201
90	0.80412	1.22917	0.79561	1.24052
91	0.80514	1.22778	0.79667	1.23906
92	0.80614	1.22641	0.79771	1.23762
93	0.80713	1.22507	0.79874	1.23621
94	0.80810	1.22375	0.79975	1.23482
95	0.80906	1.22245	0.80074	1.23345
96	0.81000	1.22117	0.80172	1.23211
97	0.81093	1.21992	0.80269	1.23079
98	0.81185	1.21868	0.80364	1.22949
99	0.81275	1.21746	0.80458	1.22822

Table D. Sources for resident population and population including Armed Forces abroad: Birth- and death-registration States, 1900-1932, and United States, 1900-2000.

Year	Source
2000----------	U.S. Census Bureau. Unpublished estimates of the July 1, 2000, United States population by age, sex, race, and Hispanic origin.Washington, DC: U.S. Census Bureau. 1990-based estimates, forthcoming, 2002.
1999----------	U.S. Census Bureau, United States population estimates, by age, sex, race, and Hispanic origin: 1980 to 1999. Washington: U.S. Bureau of the Census. Internet release, April 11, 2000. Http://www.census.gov/population/www/estimates/nat_90s_1.html.
1998----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1998. Washington: U.S. Bureau of the Census. Internet release, June 4, 1999. Http://www.census.gov/population/www/estimates/uspop.html.
1997----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1997. PPL-91R. Rounded populations consistent with U.S. Bureau of the Census file NESTV97. Washington: U.S. Department of Commerce. 1998.
1996----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1996. PPL-57. Washington: U.S. Department of Commerce. 1997.
1995----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1995. Census file RESD0795, PPL-41. Washington U.S. Department of Commerce. 1996.
1994----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1994. PPL-21. Washington: U.S. Department of Commerce. 1995.
1993----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1993. Census file RESO793. Washington: U.S. Department of Commerce. 1995.
1992----------	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1992. Census file RESPO792. Washington: U.S. Department of Commerce. 1994.
1991----------	U.S. Bureau of the Census, Unpublished data consistent with Current Population Reports, Series P-25, No. 1095, Feb. 1993
1990----------	U.S. Bureau of the Census, Unpublished data from the 1990 census. 1990 CPH-L-74 and unpublished data consistent with Current Population Reports, Series P-25 No. 1095, Feb. 1993.
1989----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1057, Mar. 1990.
1988----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1045, Jan. 1990.
1986-87----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1022, Mar. 1988.
1985----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1000, Feb. 1987.
1984----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 985, Apr. 1986.
1983----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 965, Mar. 1985.
1982----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 949, May 1984.
1981----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 929, May 1983.
1980----------	U.S. Bureau of the Census, U.S. Census of Population: 1980, Number of Inhabitants, PC80-1-A1, United States Summary, 1983.
1971-79----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 917, July 1982.
1970----------	U.S. Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Final Report PC(1)-A1, United States Summary, 1971.
1961-69----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 519, April 1974.
1960----------	U.S. Bureau of the Census, U.S. Census of Population: 1960, Number of Inhabitants, PC(1)-A1, United States Summary, 1964.
1951-59----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 310, June 30, 1965.
1940-50----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 499, May 1973.
1930-39----------	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 499, May 1973, and National Office of Vital Statistics, Vital Statistics Rates in the United States, 1900-1940, 1947.
1920-29----------	National Office of Vital Statistics, Vital Statistics Rates in the United States, 1900-1940, 1947.
1917-19----------	Same as for 1930-39.
1900-1916----------	Same as for 1920-29.

Table E. Ratio of census-level resident population to resident population adjusted for estimated net census undercount by age, sex, and race: April 1, 1990

Age	Total			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	0.9815	0.9721	0.9906	0.9802	0.9728	0.9873	0.9432	0.9151	0.9699
10-14	0.9882	0.9891	0.9873	0.9830	0.9841	0.9818	0.9591	0.9586	0.9595
15-19	1.0166	1.0198	1.0133	1.0094	1.0128	1.0059	0.9988	1.0016	0.9959
20-24	1.0002	0.9987	1.0017	0.9975	0.9985	0.9966	0.9593	0.9432	0.9753
25-29	0.9591	0.9439	0.9748	0.9558	0.9441	0.9681	0.9123	0.8732	0.9510
30-34	0.9687	0.9487	0.9892	0.9669	0.9518	0.9828	0.9129	0.8599	0.9651
35-39	0.9790	0.9628	0.9954	0.9764	0.9643	0.9888	0.9303	0.8808	0.9778
40-44	0.9901	0.9758	1.0044	0.9875	0.9764	0.9988	0.9410	0.8943	0.9850
45-49	0.9775	0.9633	0.9916	0.9762	0.9648	0.9877	0.9302	0.8807	0.9762
50-54	…	0.9623	…	…	0.9651	…	…	0.8802	…
55 years and over	…	0.9758	…	…	0.9783	…	…	0.9294	…
15-44	…	…	0.9954	…	…	0.9890	…	…	0.9739
15-54	…	0.9710	…	…	0.9710	…	…	0.9046	…

… Category not applicable.

Table 4-1. Population of birth- and death-registration States, 1900-1932, and United States, 1900-2000

{Population enumerated as of April 1 for 1940, 1950, 1960, 1970, 1980,and 1990 and estimated as of July 1 for all other years}

Year	United States/1		Year	United States/1		Birth-registration States		Death-registration States	
	Population including Armed Forces abroad	Population residing in area		Population including Armed Forces abroad	Population residing in area	Number of States/2	Population residing in area	Number of States/2	Population residing in area
2000	275,371,869	275,264,999							
1999	272,945,300	272,690,813	1949	149,188,000	148,665,000	. . .	. . .	. . .	. . .
1998	270,509,187	270,298,524	1948	146,631,000	146,093,000	. . .	. . .	. . .	. . .
1997	267,901,000	267,636,061	1947	144,126,000	143,446,000	. . .	. . .	. . .	. . .
1996	265,556,890	265,283,783	1946	141,389,000	140,054,000	. . .	. . .	. . .	. . .
1995	263,033,968	262,755,270	1945	139,928,000	132,481,000	. . .	. . .	. . .	. . .
1994	260,650,690	260,340,990	1944	138,397,000	132,885,000	. . .	. . .	. . .	. . .
1993	258,119,768	257,783,004	1943	136,739,000	134,245,000	. . .	. . .	. . .	. . .
1992	255,457,501	255,077,536	1942	134,860,000	133,920,000	. . .	. . .	. . .	. . .
1991	252,688,000	252,177,000	1941	133,402,000	133,121,000	. . .	. . .	. . .	. . .
1990	249,225,000	248,709,873	1940	131,820,000	131,669,275	. . .	. . .	. . .	. . .
1989	247,342,000	246,819,000	1939	131,028,000	130,879,718	. . .	. . .	. . .	. . .
1988	245,021,000	244,499,000	1938	129,969,000	129,824,939	. . .	. . .	. . .	. . .
1987	242,804,000	242,289,000	1937	128,961,000	128,824,829	. . .	. . .	. . .	. . .
1986	240,651,000	240,133,000	1936	128,181,000	128,053,180	. . .	. . .	. . .	. . .
1985	238,466,000	237,924,000	1935	127,362,000	127,250,232	. . .	. . .	. . .	. . .
1984	236,348,000	235,825,000	1934	126,485,000	126,373,773	. . .	. . .	. . .	. . .
1983	234,307,000	233,792,000	1933	125,690,000	125,578,763	. . .	. . .	. . .	. . .
1982	232,188,000	231,664,000	1932	124,949,000	124,840,471	47	118,903,899	47	118,903,899
1981	229,966,000	229,466,000	1931	124,149,000	124,039,648	46	117,455,229	47	118,148,987
1980	227,061,000	226,545,805	1930	123,188,000	123,076,741	46	116,544,946	47	117,238,278
1979	225,055,000	224,567,000	1929	- - -	121,769,939	46	115,317,450	46	115,317,450
1978	222,585,000	222,095,000	1928	- - -	120,501,115	44	113,636,160	44	113,636,160
1977	220,239,000	219,760,000	1927	- - -	119,038,062	40	104,320,830	42	107,084,532
1976	218,035,000	217,563,000	1926	- - -	117,399,225	35	90,400,590	41	103,822,683
1975	215,973,000	215,465,000	1925	- - -	115,831,963	33	88,294,564	40	102,031,555
1974	213,854,000	213,342,000	1924	- - -	114,113,463	33	87,000,295	39	99,318,098
1973	211,909,000	211,357,000	1923	- - -	111,949,945	30	81,072,123	38	96,788,197
1972	209,896,000	209,284,000	1922	- - -	110,054,778	30	79,560,746	37	92,702,901
1971	207,661,000	206,827,000	1921	- - -	108,541,489	27	70,807,090	34	87,814,447
1970	204,270,000	203,211,926	1920	- - -	106,466,420	23	63,597,307	34	86,079,263
1969	202,677,000	201,385,000	1919	105,063,000	104,512,110	22	61,212,076	33	83,157,982
1968	200,706,000	199,399,000	1918	104,550,000	103,202,801	20	55,153,782	30	79,008,412
1967	198,712,000	197,457,000	1917	103,414,000	103,265,913	20	55,197,952	27	70,234,775
1966	196,560,000	195,576,000	1916	- - -	101,965,984	11	32,944,013	26	66,971,177
1965	194,303,000	193,526,000	1915	- - -	100,549,013	10	31,096,697	24	61,894,847
1964	191,889,000	191,141,000	1914	- - -	99,117,567	. . .	. . .	24	60,963,309
1963	189,242,000	188,483,000	1913	- - -	97,226,814	. . .	. . .	23	58,156,740
1962	186,538,000	185,771,000	1912	- - -	95,331,300	. . .	. . .	22	54,847,700
1961	183,691,000	182,992,000	1911	- - -	93,867,814	. . .	. . .	22	53,929,644
1960	179,933,000	179,323,175	1910	- - -	92,406,536	. . .	. . .	20	47,470,437
1959	177,264,000	176,513,000	1909	- - -	90,491,525	. . .	. . .	18	44,223,513
1958	174,141,000	173,320,000	1908	- - -	88,708,976	. . .	. . .	17	38,634,759
1957	171,274,000	170,371,000	1907	- - -	87,000,271	. . .	. . .	15	34,552,837
1956	168,221,000	167,306,000	1906	- - -	85,436,556	. . .	. . .	15	33,782,288
1955	165,275,000	164,308,000	1905	- - -	83,819,666	. . .	. . .	10	21,767,980
1954	162,391,000	161,164,000	1904	- - -	82,164,974	. . .	. . .	10	21,332,076
1953	159,565,000	158,242,000	1903	- - -	80,632,152	. . .	. . .	10	20,943,222
1952	156,954,000	155,687,000	1902	- - -	79,160,196	. . .	. . .	10	20,582,907
1951	154,287,000	153,310,000	1901	- - -	77,585,128	. . .	. . .	10	20,237,453
1950	151,132,000	150,697,361	1900	- - -	76,094,134	. . .	. . .	10	19,965,446

- - - Data not available.

... Category not applicable.

1/Alaska included beginning 1959 and Hawaii, 1960.

2/The District of Columbia is not included in "Number of States," but it is represented in all data shown for each year.

SOURCE: Published and unpublished data from the U.S. Bureau of the Census; see text.

Table 4-2. Estimated total population by specified Hispanic origin and estimated female population by age and specified Hispanic origin and by race for women of non-Hispanic origin: United States, 2000
[Populations estimated as of July 1]

Age	Hispanic					Non-Hispanic		
	Total	Mexican	Puerto Rican	Cuban	Other Hispanic 1/	Total 2/	White	Black
Total population	32,463,770	21,505,303	2,874,227	1,287,754	6,796,474	242,801,229	196,654,437	33,474,968
Female population								
15-44 years	7,703,905	5,057,093	689,766	234,314	1,722,730	52,443,094	41,040,881	8,241,003
10-14 years	1,405,780	942,944	133,250	33,129	296,460	8,300,429	6,339,079	1,477,492
15-19 years	1,371,244	955,228	117,025	38,685	260,304	8,293,626	6,385,230	1,422,606
15-17 years	807,007	564,134	67,455	24,726	150,693	4,922,536	3,786,352	840,736
18-19 years	564,237	391,094	49,570	13,959	109,611	3,371,090	2,598,878	581,870
20-24 years	1,340,883	924,162	105,339	31,219	280,164	7,725,519	5,936,373	1,332,488
25-29 years	1,277,634	897,787	111,310	28,216	240,314	7,682,253	5,865,078	1,278,164
30-34 years	1,298,026	842,743	122,135	43,715	289,434	8,572,911	6,671,374	1,329,300
35-39 years	1,293,793	777,253	119,129	51,022	346,384	9,898,719	7,879,910	1,454,674
40-44 years	1,122,325	659,920	114,828	41,457	306,130	10,270,066	8,302,916	1,423,771
45-49 years	889,617	532,651	90,400	47,007	219,560	9,231,119	7,555,369	1,203,157

1/ Includes Central and South American and other and unknown Hispanic.
2/ Includes races other than white and black.
NOTE: These population counts are projected from the 1990 Census; see Technical notes in "Births: Final Data for 2000" (reference 4).
SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census.

Table 4-3. Estimated population of the United States, by age, race, and sex: July 1, 2000

[Figures include Armed Forces stationed in the United States but exclude those stationed outside the United States.]

Age	All races			White			Black			American Indian			Asian and Pacific Islander		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	275,264,999	134,625,673	140,639,326	226,251,833	111,196,305	115,055,528	35,303,751	16,776,358	18,527,393	2,436,153	1,206,143	1,230,010	11,273,262	5,446,867	5,826,395
Under 1	3,847,481	1,965,047	1,882,434	3,032,117	1,550,984	1,481,133	582,544	296,448	286,096	44,200	22,256	21,944	188,620	95,359	93,261
1-4 years	15,149,281	7,742,402	7,406,879	12,024,272	6,157,583	5,866,689	2,225,263	1,130,514	1,094,749	163,129	82,529	80,600	736,617	371,776	364,841
5-9 years	19,779,125	10,120,590	9,658,535	15,577,168	7,980,513	7,596,655	3,087,493	1,568,587	1,518,906	212,189	107,671	104,518	902,275	463,819	438,456
10-14 years	19,895,072	10,188,863	9,706,209	15,622,403	8,012,069	7,610,334	3,172,100	1,612,266	1,559,834	253,740	128,984	124,756	846,829	435,544	411,285
15-19 years	19,882,596	10,217,726	9,664,870	15,752,025	8,120,209	7,631,816	3,052,443	1,553,963	1,498,480	238,664	119,902	118,762	839,464	423,652	415,812
15-17 years	11,813,541	6,083,998	5,729,543	9,338,648	4,819,935	4,518,713	1,815,186	929,536	885,650	147,955	74,803	73,152	511,752	259,724	252,028
18-19 years	8,069,055	4,133,728	3,935,327	6,413,377	3,300,274	3,113,103	1,237,257	624,427	612,830	90,709	45,099	45,610	327,712	163,928	163,784
20-24 years	18,484,615	9,418,213	9,066,402	14,712,886	7,551,580	7,161,306	2,782,529	1,377,422	1,405,107	201,570	101,031	100,539	787,630	388,180	399,450
25-29 years	17,851,740	8,891,853	8,959,887	14,139,424	7,109,110	7,030,314	2,585,338	1,237,440	1,347,898	193,147	99,124	94,023	933,831	446,179	487,652
30-34 years	19,579,210	9,708,273	9,870,937	15,726,365	7,877,151	7,849,214	2,651,567	1,246,024	1,405,543	183,058	93,824	89,234	1,018,220	491,274	526,946
35-39 years	22,276,274	11,083,762	11,192,512	18,200,643	9,146,412	9,054,231	2,894,789	1,362,451	1,532,338	184,756	93,006	91,750	996,086	481,893	514,193
40-44 years	22,616,089	11,223,698	11,392,391	18,688,970	9,368,469	9,320,501	2,811,534	1,320,333	1,491,201	176,456	86,925	89,531	939,129	447,971	491,158
45-49 years	19,894,379	9,773,643	10,120,736	16,621,658	8,259,236	8,362,422	2,322,393	1,066,116	1,256,277	147,921	71,740	76,181	802,407	376,551	425,856
50-54 years	17,258,706	8,397,152	8,861,554	14,687,835	7,229,181	7,458,654	1,807,267	811,985	995,282	118,135	56,889	61,246	645,469	299,097	346,372
55-59 years	13,313,129	6,394,298	6,918,831	11,448,064	5,560,869	5,887,195	1,329,441	581,641	747,800	86,331	40,856	45,475	449,293	210,932	238,361
60-64 years	10,660,545	5,039,725	5,620,820	9,159,614	4,383,152	4,776,462	1,082,557	462,023	620,534	66,164	30,695	35,469	352,210	163,855	188,355
65-69 years	9,425,450	4,331,954	5,093,496	8,153,007	3,786,811	4,366,196	941,279	401,235	540,044	51,362	23,144	28,218	279,802	120,764	159,038
70-74 years	8,742,083	3,872,003	4,870,080	7,719,181	3,446,922	4,272,259	756,269	313,828	442,441	41,133	18,439	22,694	225,500	92,814	132,686
75-79 years	7,411,303	3,099,993	4,311,310	6,654,362	2,797,502	3,856,860	560,677	219,660	341,017	32,652	14,176	18,476	163,612	68,655	94,957
80-84 years	4,902,200	1,863,271	3,038,929	4,451,192	1,696,212	2,754,980	339,412	120,454	218,958	19,874	8,088	11,786	91,722	38,517	53,205
85 years +	4,295,721	1,293,207	3,002,514	3,880,647	1,162,340	2,718,307	318,856	93,968	224,888	21,672	6,864	14,808	74,546	30,035	44,511

SOURCE: Published and unpublished data from the U.S. Census Bureau; see text.

Table 4-4. Estimated total population and female population aged 15-44 years: United States, each division, State, and territory: July 1, 2000

[Figures include Armed Forces stationed in each area and exclude those stationed outside the United States]

Division and State	Total	Female 15-44 years
United States	275,264,999	60,146,999
New England	13,569,563	2,985,105
Maine	1,258,614	274,971
New Hampshire	1,215,870	279,609
Vermont	597,855	133,068
Massachusetts	6,203,848	1,378,669
Rhode Island	996,088	215,331
Connecticut	3,297,288	703,457
Middle Atlantic	38,467,222	8,253,331
New York	18,277,971	3,982,706
New Jersey	8,204,652	1,757,807
Pennsylvania	11,984,599	2,512,818
East North Central	44,646,401	9,788,443
Ohio	11,270,414	2,468,934
Indiana	5,976,390	1,313,619
Illinois	12,185,560	2,661,294
Michigan	9,918,687	2,196,473
Wisconsin	5,295,350	1,148,123
West North Central	18,910,010	4,069,047
Minnesota	4,827,670	1,059,884
Iowa	2,877,296	597,752
Missouri	5,502,189	1,195,083
North Dakota	629,305	130,848
South Dakota	737,302	155,060
Nebraska	1,670,358	357,517
Kansas	2,665,890	572,903
South Atlantic	50,219,123	10,960,089
Delaware	762,236	174,113
Maryland	5,218,918	1,199,661
District of Columbia	518,358	121,765
Virginia	6,970,356	1,615,486
West Virginia	1,802,371	373,148
North Carolina	7,747,514	1,680,928
South Carolina	3,924,402	886,835
Georgia	7,942,865	1,858,259
Florida	15,332,103	3,049,894
East South Central	16,693,590	3,703,956
Kentucky	3,985,662	880,571
Tennessee	5,533,229	1,221,676
Alabama	4,387,710	974,396
Mississippi	2,786,989	627,313
West South Central	30,720,426	6,783,211
Arkansas	2,576,516	547,182
Louisiana	4,374,770	981,950
Oklahoma	3,380,073	712,026
Texas	20,389,067	4,542,053
Mountain	17,453,687	3,718,453
Montana	887,875	178,857
Idaho	1,273,257	272,224
Wyoming	480,900	99,692
Colorado	4,136,615	895,241
New Mexico	1,747,813	374,412
Arizona	4,882,330	1,010,324
Utah	2,164,606	501,255
Nevada	1,880,291	386,448
Pacific	44,584,977	9,885,364
Washington	5,811,090	1,283,101
Oregon	3,341,110	696,428
California	33,631,461	7,529,362
Alaska	622,138	133,720
Hawaii	1,179,178	242,753
Puerto Rico	3,915,798	913,547
Virgin Islands	120,917	26,140
Guam	154,623	31,164
American Samoa	65,446	14,199
Northern Marianas	71,912	24,349

SOURCE: Published and unpublished data from the U.S. Census Bureau.

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Deaths: Final Data for 2000

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Technical Notes

Nature and sources of data

Data in this report are based on information from all death certificates filed in the 50 States and the District of Columbia. The U.S. Standard Certificate of Death—which is used as a model by the States—was last revised in 1989; for additional details see the 1989 revision of the U.S. standard certificates and reports (24) and Technical Appendix of *Vital Statistics of the United States, 1989*, Volume II, Mortality, part A (25). Data for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas are included in tables showing data by State, but are not included in U.S. totals.

Mortality statistics are based on information coded by the States and provided to the National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program (VSCP) and from copies of the original certificates received by NCHS from the State registration offices. In 2000 all the States and the District of Columbia participated in this program and submitted part or all of the mortality data for 2000 in electronic data files to NCHS. All States provided precoded medical (cause-of-death) data to NCHS except Illinois, Kentucky, Missouri, New Jersey, Ohio, and West Virginia, and the District of Columbia. For 2000 all States submitted precoded demographic data for all deaths.

Data for the entire United States refer to events occurring within the United States. Data shown for geographic areas are by place of residence. Beginning with 1970 mortality statistics for the United States exclude deaths of nonresidents of the United States. All data exclude fetal deaths.

Mortality statistics for Puerto Rico, Virgin Islands, American Samoa, and Northern Marianas exclude deaths of nonresidents of Puerto Rico, Virgin Islands, American Samoa, and Northern Marianas, respectively. For Guam, however, mortality statistics exclude deaths that occurred to a resident of any place other than Guam or the United States.

Cause-of-death classification

The mortality statistics presented in this report were compiled in accordance with the World Health Organization (WHO) regulations, which specify that member nations classify and code causes of death in accordance with the current revision of the *International Statistical Classification of Diseases and Related Health Problems*. The ICD provides the basic guidance used in virtually all countries to code and classify causes of death. Effective with deaths occurring in 1999, the United States began using the Tenth Revision of this classification, (ICD–10) (5). For earlier years causes of death were classified according to the revisions then in use—1979–98, Ninth Revision; 1968–78, Eighth Revision, adapted for use in the United States; 1958–67, Seventh Revision; and 1949–57, Sixth Revision.

Changes in classification of causes of death due to these revisions may result in discontinuities in cause-of-death trends. Consequently, cause-of-death comparisons among revisions require consideration of comparability ratios and, where available, estimates of their standard errors. Comparability ratios between the Ninth and Tenth Revisions, between the Eighth and Ninth Revisions, between the Seventh and Eighth Revisions, and between the Sixth and Seventh Revisions may be found in other NCHS reports (18, 26–28).

The ICD not only details disease classification but also provides definitions, tabulation lists, the format of the death certificate, and the rules for coding cause of death. Cause-of-death data presented in this publication were coded by procedures outlined in annual issues of the *NCHS Instruction Manual* (29, 30). It includes rules for selecting the underlying cause of death for tabulation purposes, definitions, tabulation lists, and regulations on the use of the ICD.

Before data for 1968, mortality medical data were based on manual coding of an underlying cause of death for each certificate in accordance with WHO rules. Effective with data year 1968, NCHS converted to computerized coding of the underlying cause and manual coding of all causes (multiple causes) on the death certificate. In this system, called "Automated Classification of Medical Entities" (ACME) (31), multiple cause codes serve as inputs to the computer software that employs WHO rules to select the underlying cause. All cause-of-death data in this report are coded using ACME.

The ACME system is used to select the underlying cause of death for all death certificates in the United States. In addition, NCHS has developed two computer systems as inputs to ACME. Beginning with 1990 data, the Mortality Medical Indexing, Classification, and Retrieval system (MICAR) (32, 33), was introduced to automate coding multiple causes of death. In addition, MICAR provides more detailed information on the conditions reported on death certificates than is available through the International Classification of Diseases (ICD) code structure. Beginning with data year 1993, SuperMICAR, an enhancement of the MICAR system, was introduced. SuperMICAR allows for literal entry of the multiple cause-of-death text as reported by the certifier. This information is then automatically processed by the MICAR and ACME computer systems. Records that cannot be automatically processed by MICAR or SuperMICAR are manually multiple-cause coded and then further processed through ACME.

For 2000 approximately 44 percent of the Nation's death records were multiple-cause coded using SuperMICAR and 56 percent, using MICAR only. This represents data from 31 States and New York City that were coded by SuperMICAR and data from 19 States and the District of Columbia that were coded by MICAR.

In this report tabulations of cause-of-death statistics are based solely on the underlying cause of death. The underlying cause is defined by WHO as "the disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury" (5). It is selected from the conditions entered by the physician in the cause-of-death section of the death certificate. When more than one cause or condition is entered by the physician, the underlying cause is determined by the sequence of conditions on the certificate, provisions of the ICD, and associated selection rules and modifications. Generally, more medical information is reported on death certificates than is directly reflected in the underlying cause of death. This is captured in NCHS multiple cause-of-death statistics (34–36).

Tabulation lists and cause-of-death ranking

Tabulation lists for ICD–10 are published in the NCHS Instruction Manual, Part 9, ICD–10 Cause-of-Death Lists for Tabulating Mortality Statistics, Effective 1999 (37). For this report, two tabulation lists are used, namely, the List of 113 Selected Causes of Death used

for deaths of all ages, and the List of 130 Selected Causes of Infant Death used for infants. These lists are also used to rank leading causes of death for the two population groups. For the List of 113 Selected Causes of Death, the group titles Major cardiovascular diseases (ICD–10 codes I00-I78) and Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (ICD–10 codes R00-R99) are not ranked. In addition, category titles that begin with the words "Other" and "All other" are not ranked to determine the leading causes of death. When one of the titles that represent a subtotal is ranked (for example, Tuberculosis (ICD–10 codes A16-A19)), its component parts are not ranked (in this case, Respiratory tuberculosis (ICD–10 code A16) and Other tuberculosis (ICD–10 codes A17-A19)). For the List of 130 Selected Causes of Infant Death, the same ranking procedures are used, except that the category Major cardiovascular diseases is not in the list.

Leading cause-of-death trends, discussed in this report, are based on cause-of-death data according to ICD–10 for 1999–2000, and on data for the most comparable ICD–9 cause-of-death titles for 1979–98. Tables showing ICD–9 categories that are comparable to the ICD–10 titles in the list of 113 selected causes of death may be found in "Comparability of Cause of Death Between ICD–9 and ICD–10: Preliminary Estimates" (18) and "Deaths: Final Data for 1999" (19). Although in some cases categories from the list of 113 selected causes are identical to those in the old list of 72 selected causes of death used with ICD–9, it is important to note that many of these categories are not comparable with categories in the list of 72 selected causes even though the cause-of-death titles may be the same.

Trend data for 1978–99 that are classified by ICD–9 but are sorted into the list of 113 selected causes of death developed for ICD–10 can be found on the mortality Web site at http://www.cdc.gov/nchs/data/hist001a.pdf.

Revision of the ICD and resulting changes in classification and rules for selecting the underlying cause of death have important implications for the analysis of mortality trends by cause of death. For some causes of death the discontinuity in trend can be substantial (18). Therefore, considerable caution should be used in analyzing cause-of-death trends for periods of time that extend across more than one revision of the ICD.

Race and Hispanic origin

Race and Hispanic origin are reported separately on the death certificate. Therefore, data shown by race include persons of Hispanic and non-Hispanic origin, and data for Hispanic origin include persons of any race. In this report, unless otherwise specified, deaths of Hispanic origin are included in the totals for each race group—white, black, American Indian, and Asian or Pacific Islander (API)—according to the decedent's race as reported on the death certificate. Data shown for Hispanic persons include all persons of Hispanic origin of any race.

Mortality data for the Hispanic-origin population are based on deaths to residents of all 50 States and the District of Columbia. Data year 1997 was the first year that mortality data for the Hispanic population were available for the entire United States.

Quality of race and Hispanic origin data—Death rates for Hispanic, American Indian, and API persons should be interpreted with caution because of inconsistencies in reporting Hispanic origin or race on the death certificate as compared with race on censuses, surveys, and birth certificates. Studies have shown underreporting on death certificates of American Indians, API, and Hispanic decedents; and undercounts of these groups in the censuses (13, 38).

A number of studies have been conducted on the reliability of race reported on the death certificate by comparing race on the death certificate with that reported on another data collection instrument, such as the Census or a survey. Differences may arise because of differences in who provides race information on the compared records. Race information on the death certificate is reported by the funeral director as provided by an informant or in the absence of an informant, on the basis of observation. In contrast, race on the census or on the Current Population Survey (CPS) is obtained while the individual is alive and is self-reported or reported by another member of the household familiar with the individual and, therefore, may be considered more valid. A high level of agreement between the death certificate and the census or survey report is essential to assure unbiased death rates by race.

Studies (38, 39) show that a person self-reported as American Indian or Asian on census or survey records was sometimes reported as white on the death certificate. The net effect of misclassification is an underestimation of deaths and death rates for races other than white and black. In addition, undercoverage of minority groups in the census and resultant population estimates introduces biases into death rates by race (4, 13, 40). Estimates of the approximate effect of the combined bias due to race misclassification on death certificates and underenumeration on the 1990 census are as follows: white, –1.0 percent; black,–5.0; American Indian, +20.6; and Asian or Pacific Islander, +10.7 (13).

The National Longitudinal Mortality Study (NLMS) examined the reliability of Hispanic origin reported on 43,520 death certificates with that reported on a total of 12 Current Population Surveys conducted by the U.S. Bureau of the Census for the years 1979–85 (13). In this study, agreement—on a record-by-record basis—was 89.7 percent for any report of Hispanic origin. The ratio of deaths for CPS divided by deaths for death certificate was 1.07, indicating net underreporting of Hispanic origin on death certificates by 7 percent as compared with self-reports on the surveys. Death rates for the Hispanic-origin population are also affected by undercoverage of this population group in the census and resultant population estimates; the estimated net correction, taking into account both sources of bias, is 1.6 percent (13, 40).

Other races and race not stated—Beginning in 1992 all records coded as "Other races" (0.03 percent of the total deaths in 2000) were assigned to the specified race of the previous record. Records for which race was unknown, not stated, or not classifiable (0.08 percent) were assigned the racial designation of the previous record.

Infant and maternal mortality rates—For 1989–2000, as in previous years, infant and maternal deaths continue to be tabulated by the race of the decedent. However, beginning with the 1989 data year, the method of tabulating live births by race was changed from race of parents to race of mother as stated on the birth certificate. This change affects infant and maternal mortality rates because live births are the denominators of these rates (41, 42). To improve continuity and ease of interpretation, trend data by race in this report have been retabulated by race of mother for all years beginning with the 1980 data year.

Quantitatively, the change in the basis for tabulating live births by race results in more white births and fewer black births and births of other races. Consequently, infant and maternal mortality rates under

the new tabulating procedure tend to be about 2 percent lower for white infants and about 5 percent higher for black infants than when they are computed by the previous method of tabulating live births by race of parents. Rates for most other minority races also are higher when computed by race of mother (25, 42).

Infant mortality rates for the Hispanic-origin population are based on numbers of resident infant deaths reported to be of Hispanic origin and numbers of resident live births by Hispanic origin of mother for the United States. In computing infant mortality rates, deaths and live births of unknown origin are not distributed among the specified Hispanic and non-Hispanic groups. In 2000 the percent of infant deaths of unknown origin was 1.3 and the percent of live births to mothers of unknown origin was 1.1 for the United States.

Small numbers of infant deaths for specific Hispanic-origin groups result in infant mortality rates subject to relatively large random variation (see "Random variation"). Infant mortality rates by Hispanic origin are less subject to reporting error when based on linked files of infant deaths and live births (23).

Infant mortality rates calculated from the general mortality file for specified race and/or Hispanic origin are in error because of reporting problems that affect the classification of race and Hispanic origin on the birth and death certificates for the same infant. Infant mortality rates by specified race and Hispanic origin are more accurate when based on the linked file of infant deaths and live births (23). The linked file computes infant mortality rates using the race and/or Hispanic origin of the mother from the birth certificate in both the numerator and denominator of the rate. In addition, mother's race and/or Hispanic origin from the birth certificate is considered to be more accurately reported than infant's race and/or Hispanic origin from the death certificate because, on the birth certificate, race is generally reported by the mother at the time of delivery whereas, on the death certificate, infant's race and/or Hispanic origin is reported by an informant, usually the mother but sometimes by the funeral director. Estimates of reporting errors have been made by comparing rates based on the linked files with those in which the race of infant death is based on information from the death certificate (13, 25).

Life tables

The life table provides a comprehensive measure of the effect of mortality on life expectancy. It is composed of sets of values showing the mortality experience of a hypothetical group of infants born at the same time and subject throughout their lifetime to the age-specific death rates of a particular time period, usually a given year. Beginning with final data reported for 1997, the life table methodology was changed from previous annual reports. Previously, U.S. life tables were abridged and constructed by reference to a standard table (43). In addition, the age range for these life tables was limited to 5-year age groups ending with the age group 85 years and over.

Beginning with 1997 mortality data, a revised life table methodology was used to construct complete life tables by single years of age that extend to age 100 (44) using a methodology similar to that of the decennial life tables (45). The advantages of the new methodology over the previous methodology are its comparability with decennial life table methodology, greater accuracy, and greater age detail. A comparison of the two methods shows small differences in resulting values for life expectancy (44). Although the new method produces complete life tables, that is, life tables by single years of age, life table data shown in this report are summarized in 5-year age groupings. To calculate the probability of dying at each age, the revised methodology uses vital statistics death rates for ages under 85 years and mortality data from the Medicare program for ages over 85 years. Medicare data were used to model the probability of dying at ages 85 and over because the data are shown to be significantly more reliable than vital statistics data at the oldest ages (46).

Causes of death contributing to changes in life expectancy

Causes of death contributing to changes in life expectancy were estimated using a life table partitioning technique. The method partitions changes into component additive parts. This method identifies the causes of death having the greatest influence, positive or negative, on changes in life expectancy (14, 47).

Codes for firearm deaths

Causes of death attributable to firearm mortality include ICD–10 codes W32-W34, Accidental discharge of firearms; X72-X74, Intentional self-harm (suicide) by discharge of firearms; X93-X95, Assault (homicide) by discharge of firearms; Y22-Y24, Discharge of firearms, undetermined intent; and Y35.0, Legal intervention involving firearm discharge. Deaths from injury by firearms exclude deaths due to explosives and other causes indirectly related to firearms.

Codes for drug-induced deaths

Causes of death attributable to drug-induced mortality include selected codes from the ICD–10 title Mental and behavioral disorders due to psychoactive substance use, specifically, ICD–10 codes F11.0–F11.5, F11.7–F11.9, F12.0–F12.5, F12.7–F12.9, F13.0–F13.5, F13.7–F13.9, F14.0–F14.5, F14.7–F14.9, F15.0–F15.5, F15.7–F15.9, F16.0–F16.5, F16.7–F16.9, F17.0, F17.3–F17.5, F17.7–F17.9, F18.0–F18.5, F18.7–F18.9, F19.0–F19.5, and F19.7–F19.9; Accidental poisoning by and exposure to drugs, medicaments and biological substances, X40–X44; Intentional self-poisoning (suicide) by and exposure to drugs, medicaments and biological substances, X60–X64; Assault (homicide) by drugs, medicaments and biological substances, X85; and Poisoning by and exposure to drugs, medicaments and biological substances, undetermined intent, Y10–Y14. Drug-induced causes exclude accidents, homicides, and other causes indirectly related to drug use. Also excluded are newborn deaths associated with mother's drug use.

Codes for alcohol-induced deaths

Causes of death attributable to alcohol-induced mortality include ICD–10 codes F10, Mental and behavioral disorders due to alcohol use; G31.2, Degeneration of nervous system due to alcohol; G62.1, Alcoholic polyneuropathy; I42.6, Alcoholic cardiomyopathy; K29.2, Alcoholic gastritis; K70, Alcoholic liver disease; R78.0, Finding of alcohol in blood; X45, Accidental poisoning by and exposure to alcohol; X65, Intentional self-poisoning by and exposure to alcohol; and Y15, Poisoning by and exposure to alcohol, undetermined intent. Alcohol-induced causes exclude accidents, homicides, and other causes indirectly related to alcohol use. This category also excludes newborn deaths associated with maternal alcohol use.

Marital status

Age-specific and age-adjusted death rates by marital status are shown in table 28 by race and in table 29 by Hispanic origin. Mortality data by marital status is generally of high quality. A study of death certificate data using the 1986 National Mortality Followback Survey showed a high level of consistency in reporting marital status (39). Age-adjusted death rates by marital status were computed based on the age-specific rates and the standard population for ages 25 years and over. While age-specific death rates by marital status are shown for the age group 15–24 years, they are not included in the computation of the age-adjusted rate because of their high variability, particularly among the widowed population. Also, the age groups 75–84 and 85 years and over are combined due to high variability in death rates in the 85 years and over age group, particularly for the never-married population.

Educational attainment

Beginning with the 1989 data year, an item indicating decedent's educational attainment was added to the certificates of numerous States. Mortality data on educational attainment for 2000 are based on deaths to residents of the 46 States and the District of Columbia whose data were approximately 80 percent or more complete on a place-of-occurrence basis. Data for Kentucky were excluded using this criterion. Data for Georgia, Rhode Island, and South Dakota were excluded because the item was not on their certificates.

Age-specific and age-adjusted death rates by educational attainment are shown in table 30. Age-adjusted death rates by educational attainment were computed based on the age-specific rates and the standard population for ages 25–64 years. Data for age groups 65 years and over are not shown because reporting quality is poorer at older than younger ages (48).

Rates by educational attainment are affected by differences in measurement of education for the numerator and the denominator. The numerator is based on number of years of education completed as reported on the death certificate whereas the denominator is based on highest degree completed as reported on census surveys (49).

Injury at work

Information on deaths attributed to injuries at work is derived from a separate item on the death certificate that asks the medical certifier whether the death resulted from an injury sustained at work. The item is on the death certificate of all States. Number of deaths, age-specific death rates, and age-adjusted death rates for injury at work are shown in tables 31 and 32. Deaths, crude death rates, and age-adjusted death rates for injury at work are shown for ages 15 years and over. Age-adjusted death rates for injury at work were computed using age-specific death rates and the U.S. standard population based on year 2000 standard for ages 15 years and over. See section on *Computing Rates*.

Infant mortality

Infant mortality rates are the most commonly used index for measuring the risk of dying during the first year of life. The rates presented in this report are calculated by dividing the number of infant deaths in a calendar year by the number of live births registered for the same period and are presented as rates per 1,000 or per 100,000 live births. For final birth figures used in the denominator for infant mortality rates, see *Births: Final Data for 2000* (50). In contrast to infant mortality rates based on live births, infant death rates are based on the estimated population under 1 year of age. Infant death rates that appear in tabulations of age-specific death rates in this report are calculated by dividing the number of infant deaths by the July 1, 2000 population estimate of persons under 1 year of age, based on 1990 census populations. These rates are presented as rates per 100,000 population in this age group. Because of differences in the denominators, infant death rates may differ from infant mortality rates.

Maternal mortality

Maternal mortality rates are also computed on the basis of the number of live births. The maternal mortality rate indicates the likelihood of a pregnant woman dying of maternal causes. They are calculated by dividing the number of maternal deaths in a calendar year by the number of live births registered for the same period and are presented as rates per 100,000 live births. The number of live births used in the denominator is an approximation of the population of pregnant women who are at risk of a maternal death.

"Maternal deaths" are defined by the World Health Organization as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes" (5). Included in these deaths are ICD–10 codes A34, O00–O95, and O98–O99.

Some State death certificates include a separate question regarding pregnancy status. A positive response to the question is interpreted as if "pregnant" was reported in Part II of the cause-of-death section of the death certificate. If a specified length of time is not provided by the medical certifier, it is assumed that the pregnancy terminated 42 days or less prior to death. Further, if only indirect maternal causes of death (that is, a previously existing disease or a disease that developed during pregnancy that was not due to direct obstetric causes but was aggravated by physiologic effects of pregnancy) are reported in Part I and pregnancy is reported in either Part I or Part II, the death is classified as a maternal death.

Quality of reporting and processing cause of death

One index of the quality of reporting causes of death is the proportion of death certificates coded to Chapter XVIII; Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (ICD–10 codes R00–R99). Although deaths occur for which the underlying causes are impossible to determine, this proportion indicates the care and consideration given to the cause-of-death statement by the medical certifier. This proportion also may be used as a rough measure of the specificity of the medical diagnoses made by the certifier in various areas. The percent of all reported deaths in the United States assigned to Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, increased from 1.12 percent in 1999 to 1.33 percent in 2000. From 1990 though 1999, the percent of deaths from this cause for all ages combined generally was fairly stable, between 1.08 and 1.18 percent.

Rare causes of death

Selected causes of death considered to be of public health concern are routinely confirmed by the States according to agreed upon procedures between the State vital statistics programs and the National Center for Health Statistics. These causes, termed "Infrequent and rare causes of death," are listed in the NCHS instruction manuals Parts 2a, 11, and 20 (29, 51, 52).

For data year 2000, complete confirmation of deaths from infrequent and rare causes were not provided by the District of Columbia and the following States: Alabama, California, Florida, Illinois, Iowa, Kentucky, Maine, Massachusetts, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, and West Virginia.

Population bases for computing rates

Populations used for computing death rates in trend tables 1, 2, 9, 22–27, and 32 represent the population residing in the United States, enumerated as of April 1 for census years prior to 2000 and estimated as of July 1 for all other years.

The populations used for computing death rates for 2000 in tables 1–5, 9, 11, 14–17, 20–27, 31, and 32 are postcensal estimates based on the 1990 census, estimated as of July 1, 2000. These populations are shown by race for 10-year age groups in table I and are available by 5-year age groups on the mortality Web site at http://www.cdc.gov/nchs (6). Similarly, population estimates for all origins, Hispanic, non-Hispanic, non-Hispanic white, and non-Hispanic black, shown in table II, are postcensal estimates based on the 1990 census and are estimated as of July 1, 2000.

Detailed populations from the 2000 census were not available when this report was prepared. A comparison of summary 2000 census results and the estimates for 2000 used in this report indicates that the total U.S. Hispanic population used for this report is 8 percent lower than the population based on the 2000 census (6–8). Similar, but less pronounced, differences were indicated in other population groups. Differences between the 2000 enumerated population and the population estimates for 2000 used in this report could result in underestimation or overestimation of death rates.

The U.S. Census Bureau provided all population estimates used in this report. Population estimates for 1991–2000 are based on the 1990 census counts, modified to be consistent with U.S. Office of Management and Budget categories and historical categories for death data (53). When the necessary population estimates based on the 2000 census and intercensal estimates become available, population-based rates for the 1990s and 2000 will be recalculated and presented in an upcoming report. Meanwhile, considerable caution should be used in interpreting the rates and trends for the Nation and States.

Population estimates in table II for Mexicans, Puerto Ricans, Cubans, and Other Hispanics, and population estimates by marital status in tables III and IV, are based on the Current Population Survey adjusted to resident population control totals for the United States (54) and, as such, are subject to sampling variation (see "Random variation"). The control totals used are 1990-based population estimates for the United States for July 1, 2000 (6).

Population estimates by educational attainment, shown in table V, are also based on the Current Population Survey (54) adjusted to resident population control totals, and are also subject to sampling variation (see "Random variation"). The control totals used are 1990-based population estimates for 46 States and the District of Columbia for July 1, 2000 (6).

Population estimates for each State, shown in table VI, were estimated from State-level postcensal population estimates based on the 1990 census and are consistent with the U.S. populations (55). Population estimates for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, also shown in table VI, are based on the 1990 census as well (56). These State and territory populations are based on demographic analysis and, therefore, are not subject to sampling variation.

Computing rates

Except for infant and maternal mortality rates, rates are on an annual basis per 100,000 estimated population residing in the specified area. Infant and maternal mortality rates are per 1,000 or per 100,000 live births. Comparisons made in the text among rates, unless otherwise specified, are statistically significant at the 0.05 level of significance. Lack of comment in the text about any two rates does not mean that the difference was tested and found not to be significant at this level.

Age-adjusted rates are used to compare relative mortality risks among groups and over time. However, they should be viewed as relative indexes rather than as actual measures of mortality risk. They were computed by the direct method, that is, by applying age-specific death rates to the U.S. standard population.

Beginning with the 1999 data year, a new population standard was adopted by NCHS for use in age-adjusting death rates. Based on the projected year 2000 population of the United States, the new standard replaces the 1940 standard population that had been used for over 50 years. The new population standard affects levels of mortality and to some extent trends and group comparisons. Of particular note are the effects on race comparison of mortality. For detailed discussion see *Age Standardization of Death Rates: Implementation of the Year 2000 Standard* (12).

All age-adjusted rates shown in this report are based on the year 2000 standard population. The year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors (RSE), excluding those by marital status, education, injury at work, and the U.S. territories, are shown in table VII.

Age-adjusted rates by marital status were computed by applying the age-specific death rates to the U.S. standard population for ages 25 years and over. Although age-specific death rates by marital status are shown for the age group 15–24 years, they are not included in the calculation of age-adjusted rates because of their high variability, particularly among the widowed population. Also, the age groups 75–84 and 85 years and over are combined because of high variability in death rates in the 85 years and over age group, particularly for the never-married population. The year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors by marital status are shown in table VIII.

Age-adjusted rates by educational attainment were computed by applying the age-specific death rates to the U.S. standard population for ages 25–64 years. Data for age groups 65 years and over are not shown because reporting quality is poorer for older than for younger ages (48). The year 2000 standard population and corresponding

Table I. Estimated population by 10-year age groups, specified race and sex: United States, 2000

Age	All races			White			Black			American Indian			Asian or Pacific Islander		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	275,264,999	134,625,673	140,639,326	226,251,833	111,196,305	115,055,528	35,303,751	16,776,358	18,527,393	2,436,153	1,206,143	1,230,010	11,273,262	5,446,867	5,826,395
Under 1 year	3,847,481	1,965,047	1,882,434	3,032,117	1,550,984	1,481,133	582,544	296,448	286,096	44,200	22,256	21,944	188,620	95,359	93,261
1–4 years	15,149,281	7,742,402	7,406,879	12,024,272	6,157,583	5,866,689	2,225,263	1,130,514	1,094,749	163,129	82,529	80,600	736,617	371,776	364,841
5–14 years	39,674,197	20,309,453	19,364,744	31,199,571	15,992,582	15,206,989	6,259,593	3,180,853	3,078,740	465,929	236,655	229,274	1,749,104	899,363	849,741
15–24 years	38,367,211	19,635,939	18,731,272	30,464,911	15,671,789	14,793,122	5,834,972	2,931,385	2,903,587	440,234	220,933	219,301	1,627,094	811,832	815,262
25–34 years	37,430,950	18,600,126	18,830,824	29,865,789	14,986,261	14,879,528	5,236,905	2,483,464	2,753,441	376,205	192,948	183,257	1,952,051	937,453	1,014,598
35–44 years	44,892,363	22,307,460	22,584,903	36,889,613	18,514,881	18,374,732	5,706,323	2,682,784	3,023,539	361,212	179,931	181,281	1,935,215	929,864	1,005,351
45–54 years	37,153,085	18,170,795	18,982,290	31,309,493	15,488,417	15,821,076	4,129,660	1,878,101	2,251,559	266,056	128,629	137,427	1,447,876	675,648	772,228
55–64 years	23,973,674	11,434,023	12,539,651	20,607,678	9,944,021	10,663,657	2,411,998	1,043,664	1,368,334	152,495	71,551	80,944	801,503	374,787	426,716
65–74 years	18,167,533	8,203,957	9,963,576	15,872,188	7,233,733	8,638,455	1,697,548	715,063	982,485	92,495	41,583	50,912	505,302	213,578	291,724
75–84 years	12,313,503	4,963,264	7,350,239	11,105,554	4,493,714	6,611,840	900,089	340,114	559,975	52,526	22,264	30,262	255,334	107,172	148,162
85 years and over	4,295,721	1,293,207	3,002,514	3,880,647	1,162,340	2,718,307	318,856	93,968	224,888	21,672	6,864	14,808	74,546	30,035	44,511

SOURCE: U.S. Census Bureau. Unpublished estimates of the July 1, 2000 United States population by age, sex, race, and Hispanic origin. Washington, DC: U.S. Census Bureau. 1990-based estimates.2002.

Table II. Estimated population by 10-year age groups, according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 2000

Hispanic origin, race for non-Hispanic population, and sex	Total	Under 1 year	1–4 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
All origins	275,264,999	3,847,481	15,149,281	39,674,197	38,367,211	37,430,950	44,892,363	37,153,085	23,973,674	18,167,533	12,313,503	4,295,721
Male	134,625,673	1,965,047	7,742,402	20,309,453	19,635,939	18,600,126	22,307,460	18,170,795	11,434,023	8,203,957	4,963,264	1,293,207
Female	140,639,326	1,882,434	7,406,879	19,364,744	18,731,272	18,830,824	22,584,903	18,982,290	12,539,651	9,963,576	7,350,239	3,002,514
Hispanic	32,463,770	739,604	2,812,565	6,227,705	5,636,903	5,283,770	4,937,962	3,109,319	1,765,285	1,153,588	592,616	204,453
Male	16,311,713	377,149	1,434,784	3,180,846	2,924,776	2,708,110	2,521,844	1,521,981	818,003	509,569	245,468	69,183
Female	16,152,057	362,455	1,377,781	3,046,859	2,712,127	2,575,660	2,416,118	1,587,338	947,282	644,019	347,148	135,270
Mexican	21,514,568	556,136	2,086,028	4,367,083	3,940,516	3,597,836	3,050,377	1,905,399	972,784	625,596	309,133	103,680
Male	11,041,222	297,804	1,044,656	2,274,101	2,060,220	1,857,225	1,613,090	971,805	465,116	284,181	141,951	31,073
Female	10,473,346	258,332	1,041,372	2,092,982	1,880,296	1,740,611	1,437,287	933,594	507,668	341,415	167,182	72,607
Puerto Rican	2,869,658	49,747	210,205	559,174	460,952	434,759	435,068	316,175	202,830	130,065	60,980	9,703
Male	1,401,428	26,755	114,889	295,630	238,476	201,356	201,150	143,907	95,877	54,048	25,224	4,116
Female	1,468,230	22,992	95,316	263,544	222,476	233,403	233,918	172,268	106,953	76,017	35,756	5,587
Cuban	1,289,218	7,479	50,047	119,612	141,721	150,805	208,360	171,070	141,930	154,466	104,739	38,989
Male	631,172	2,592	22,950	62,551	71,790	78,885	115,896	81,005	70,997	77,264	36,137	11,105
Female	658,046	4,887	27,097	57,061	69,931	71,920	92,464	90,065	70,933	77,202	68,602	27,884
Other Hispanic	6,790,334	126,243	466,275	1,181,841	1,093,724	1,100,367	1,244,154	716,671	447,747	243,472	117,763	52,077
Male	3,237,885	49,995	252,280	548,561	554,294	570,641	591,707	325,264	186,020	94,081	42,155	22,887
Female	3,552,449	76,248	213,995	633,280	539,430	529,726	652,447	391,407	261,727	149,391	75,608	29,190
Non-Hispanic[2]	242,801,229	3,107,877	12,336,716	33,446,492	32,730,308	32,147,180	39,954,401	34,043,766	22,208,389	17,013,945	11,720,887	4,091,268
Male	118,313,960	1,587,898	6,307,618	17,128,607	16,711,163	15,892,016	19,785,616	16,648,814	10,616,020	7,694,388	4,717,796	1,224,024
Female	124,487,269	1,519,979	6,029,098	16,317,885	16,019,145	16,255,164	20,168,785	17,394,952	11,592,369	9,319,557	7,003,091	2,867,244
White	196,654,437	2,354,791	9,449,719	25,540,911	25,319,085	25,048,030	32,407,297	28,485,192	18,994,289	14,811,733	10,554,882	3,688,508
Male	96,316,320	1,205,571	4,844,420	13,104,216	12,997,482	12,511,578	16,224,471	14,105,998	9,195,650	6,764,447	4,264,928	1,097,559
Female	100,338,117	1,149,220	4,605,299	12,436,695	12,321,603	12,536,452	16,182,826	14,379,194	9,798,639	8,047,286	6,289,954	2,590,949
Black	33,474,968	542,033	2,070,138	5,900,328	5,531,509	4,948,429	5,410,093	3,945,405	2,311,081	1,633,468	871,640	310,844
Male	15,864,171	275,688	1,050,975	2,995,639	2,776,415	2,340,965	2,531,648	1,787,545	997,738	687,322	328,890	91,346
Female	17,610,797	266,345	1,019,163	2,904,689	2,755,094	2,607,464	2,878,445	2,157,860	1,313,343	946,146	542,750	219,498

[1]Includes Central and South American and Other and unknown Hispanic. [2]Includes races other than white and black.

SOURCE: Population estimates for specified Hispanic subgroups based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census. Population estimates for all other groups are postcensal estimates.

Table III. Estimated population for ages 15 years and over by marital status, 10-year age groups, race, and sex: United States, 2000

Race, sex, and marital status	15 years and over	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75 years and over
All races[1]	216,594,108	38,367,204	37,430,965	44,892,380	37,153,119	23,973,677	18,167,530	16,609,233
Never married	60,146,587	33,850,393	13,332,255	7,010,407	3,308,079	1,289,191	718,528	637,734
Ever married	156,447,521	4,516,811	24,098,710	37,881,973	33,845,040	22,684,486	17,449,002	15,971,499
Married	121,350,626	4,162,222	21,460,595	31,613,263	27,233,060	17,474,825	12,088,113	7,318,548
Widowed	14,910,427	24,874	115,883	404,234	893,752	1,786,297	3,787,235	7,898,152
Divorced	20,186,468	329,715	2,522,232	5,864,476	5,718,228	3,423,364	1,573,654	754,799
All races[1], male	104,608,794	19,635,933	18,600,123	22,307,451	18,170,813	11,434,029	8,203,969	6,256,476
Never married	32,693,284	17,989,552	7,625,773	4,101,454	1,702,450	659,506	356,078	258,471
Ever married	71,915,510	1,646,381	10,974,350	18,205,997	16,468,363	10,774,523	7,847,891	5,998,005
Married	60,495,479	1,514,998	9,906,923	15,390,563	13,864,551	9,013,797	6,516,909	4,287,738
Widowed	2,749,715	6,139	23,043	89,246	155,389	330,223	696,321	1,449,354
Divorced	8,670,316	125,244	1,044,384	2,726,188	2,448,423	1,430,503	634,661	260,913
All races[1], female	111,985,314	18,731,271	18,830,842	22,584,929	18,982,306	12,539,648	9,963,561	10,352,757
Never married	27,453,303	15,860,841	5,706,482	2,908,953	1,605,629	629,685	362,450	379,263
Ever married	84,532,011	2,870,430	13,124,360	19,675,976	17,376,677	11,909,963	9,601,111	9,973,494
Married	60,855,147	2,647,224	11,553,672	16,222,700	13,368,509	8,461,028	5,571,204	3,030,810
Widowed	12,160,712	18,735	92,840	314,988	738,363	1,456,074	3,090,914	6,448,798
Divorced	11,516,152	204,471	1,477,848	3,138,288	3,269,805	1,992,861	938,993	493,886
White	179,995,906	30,464,914	29,865,791	36,889,611	31,309,505	20,607,682	15,872,197	14,986,206
Never married	45,492,209	26,512,444	9,553,220	4,949,290	2,342,124	998,891	573,743	562,497
Ever married	134,503,697	3,952,470	20,312,571	31,940,321	28,967,381	19,608,791	15,298,454	14,423,709
Married	105,055,315	3,656,749	18,149,196	26,798,959	23,580,915	15,346,385	10,796,642	6,726,469
Widowed	12,654,648	12,276	85,578	312,548	669,977	1,404,936	3,146,065	7,023,268
Divorced	16,793,734	283,445	2,077,797	4,828,814	4,716,489	2,857,470	1,355,747	673,972
White male	87,495,174	15,671,792	14,986,265	18,514,873	15,488,415	9,944,029	7,233,743	5,656,057
Never married	25,377,673	14,241,612	5,717,351	3,092,967	1,278,466	543,134	283,542	220,601
Ever married	62,117,501	1,430,180	9,268,914	15,421,906	14,209,949	9,400,895	6,950,201	5,435,456
Married	52,471,435	1,315,461	8,395,968	13,055,896	12,028,513	7,926,778	5,817,512	3,931,307
Widowed	2,327,273	3,931	21,758	67,055	120,427	252,363	588,955	1,272,784
Divorced	7,318,793	110,788	851,188	2,298,955	2,061,009	1,221,754	543,734	231,365
White female	92,500,732	14,793,122	14,879,526	18,374,738	15,821,090	10,663,653	8,638,454	9,330,149
Never married	20,114,536	12,270,832	3,835,869	1,856,323	1,063,658	455,757	290,201	341,896
Ever married	72,386,196	2,522,290	11,043,657	16,518,415	14,757,432	10,207,896	8,348,253	8,988,253
Married	52,583,880	2,341,288	9,753,228	13,743,063	11,552,402	7,419,607	4,979,130	2,795,162
Widowed	10,327,375	8,345	63,820	245,493	549,550	1,152,573	2,557,110	5,750,484
Divorced	9,474,941	172,657	1,226,609	2,529,859	2,655,480	1,635,716	812,013	442,607
Black	26,236,334	5,834,960	5,236,912	5,706,317	4,129,669	2,411,988	1,697,538	1,218,950
Never married	11,357,649	5,475,348	2,864,488	1,727,127	841,602	256,489	132,836	59,759
Ever married	14,878,685	359,612	2,372,424	3,979,190	3,288,067	2,155,499	1,564,702	1,159,191
Married	10,272,321	324,745	1,994,327	3,056,597	2,252,018	1,369,211	880,232	395,191
Widowed	1,778,524	5,409	26,699	74,403	175,898	300,363	498,349	697,403
Divorced	2,827,840	29,458	351,398	848,190	860,151	485,925	186,121	66,597
Black male	12,168,533	2,931,380	2,483,461	2,682,777	1,878,108	1,043,656	715,064	434,087
Never married	5,527,649	2,783,770	1,384,290	795,386	371,211	100,748	64,627	27,617
Ever married	6,640,884	147,610	1,099,171	1,887,391	1,506,897	942,908	650,437	406,470
Married	5,170,214	137,366	941,257	1,518,287	1,136,172	712,390	485,389	239,353
Widowed	343,706	807	0	18,281	30,482	58,976	91,673	143,487
Divorced	1,126,964	9,437	157,914	350,823	340,243	171,542	73,375	23,630
Black female	14,067,801	2,903,580	2,753,451	3,023,540	2,251,561	1,368,332	982,474	784,863
Never married	5,830,000	2,691,578	1,480,198	931,741	470,391	155,741	68,209	32,142
Ever married	8,237,801	212,002	1,273,253	2,091,799	1,781,170	1,212,591	914,265	752,721
Married	5,102,107	187,379	1,053,070	1,538,310	1,115,846	656,821	394,843	155,838
Widowed	1,434,818	4,602	26,699	56,122	145,416	241,387	406,676	553,916
Divorced	1,700,876	20,021	193,484	497,367	519,908	314,383	112,746	42,967

[1]Includes races other than white and black.

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division of the U.S. Bureau of th

weights used for computing age-adjusted rates and relative standard errors by education are shown in table IX.

Age-adjusted rates for injury at work were computed by applying the age-specific death rates to the U.S. standard population for ages 15 years and over. The year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors for injury at work are shown in table X.

Age-adjusted rates for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas were computed by applying the age-specific death rates to the U.S. standard population. Age groups for 75 years and over were combined because population counts were unavailable by age group for ages over 75 years. The year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors for the territories are shown in table XI.

Table IV. Estimated population for ages 15 years and over, by marital status, 10-year age groups, Hispanic origin, race, and sex; race for non-Hispanic population, and sex: United States, 2000

Race, sex, and marital status	15 years and over	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75 years and over
All origins	216,594,108	38,367,204	37,430,965	44,892,380	37,153,119	23,973,677	18,167,530	16,609,233
Never married	60,146,587	33,850,393	13,332,255	7,010,407	3,308,079	1,289,191	718,528	637,734
Ever married	156,447,521	4,516,811	24,098,710	37,881,973	33,845,040	22,684,486	17,449,002	15,971,499
Married	121,350,626	4,162,222	21,460,595	31,613,263	27,233,060	17,474,825	12,088,113	7,318,548
Widowed	14,910,427	24,874	115,883	404,234	893,752	1,786,297	3,787,235	7,898,152
Divorced	20,186,468	329,715	2,522,232	5,864,476	5,718,228	3,423,364	1,573,654	754,799
All origins, male	104,608,794	19,635,933	18,600,123	22,307,451	18,170,813	11,434,029	8,203,969	6,256,476
Never married	32,693,284	17,989,552	7,625,773	4,101,454	1,702,450	659,506	356,078	258,471
Ever married	71,915,510	1,646,381	10,974,350	18,205,997	16,468,363	10,774,523	7,847,891	5,998,005
Married	60,495,479	1,514,998	9,906,923	15,390,563	13,864,551	9,013,797	6,516,909	4,287,738
Widowed	2,749,715	6,139	23,043	89,246	155,389	330,223	696,321	1,449,354
Divorced	8,670,316	125,244	1,044,384	2,726,188	2,448,423	1,430,503	634,661	260,913
All origins, female	111,985,314	18,731,271	18,830,842	22,584,929	18,982,306	12,539,648	9,963,561	10,352,757
Never married	27,453,303	15,860,841	5,706,482	2,908,953	1,605,629	629,685	362,450	379,263
Ever married	84,532,011	2,870,430	13,124,360	19,675,976	17,376,677	11,909,963	9,601,111	9,973,494
Married	60,855,147	2,647,224	11,553,672	16,222,700	13,368,509	8,461,028	5,571,204	3,030,810
Widowed	12,160,712	18,735	92,840	314,988	738,363	1,456,074	3,090,914	6,448,798
Divorced	11,516,152	204,471	1,477,848	3,138,288	3,269,805	1,992,861	938,993	493,886
Hispanic	22,683,905	5,636,889	5,283,774	4,937,968	3,109,325	1,765,281	1,153,594	797,074
Never married	7,519,307	4,587,448	1,637,745	747,632	322,775	122,303	69,184	32,220
Ever married	15,164,598	1,049,441	3,646,029	4,190,336	2,786,550	1,642,978	1,084,410	764,854
Married	12,586,748	1,010,353	3,384,427	3,634,295	2,267,697	1,232,433	696,274	361,269
Widowed	965,360	5,498	18,997	57,305	93,966	178,354	251,247	359,993
Divorced	1,612,490	33,590	242,605	498,736	424,887	232,191	136,889	43,592
Hispanic male	11,318,934	2,924,768	2,708,116	2,521,841	1,521,985	818,000	509,568	314,656
Never married	4,193,389	2,546,790	960,697	439,939	158,274	55,307	24,592	7,790
Ever married	7,125,545	377,978	1,747,419	2,081,902	1,363,711	762,693	484,976	306,866
Married	6,278,493	367,718	1,645,033	1,860,761	1,186,862	616,719	383,996	217,404
Widowed	187,377	382	3,816	8,664	9,372	39,777	48,423	76,943
Divorced	659,675	9,878	98,570	212,477	167,477	106,197	52,557	12,519
Hispanic female	11,364,971	2,712,121	2,575,658	2,416,127	1,587,340	947,281	644,026	482,418
Never married	3,325,918	2,040,658	677,048	307,693	164,501	66,996	44,592	24,430
Ever married	8,039,053	671,463	1,898,610	2,108,434	1,422,839	880,285	599,434	457,988
Married	6,308,255	642,635	1,739,394	1,773,534	1,080,835	615,714	312,278	143,865
Widowed	777,983	5,116	15,181	48,641	84,594	138,577	202,824	283,050
Divorced	952,815	23,712	144,035	286,259	257,410	125,994	84,332	31,073
Non-Hispanic[1]	193,910,212	32,730,293	32,147,202	39,954,420	34,043,808	22,208,375	17,013,951	15,812,163
Never married	52,563,184	29,254,543	11,681,510	6,234,206	2,975,878	1,163,964	647,318	605,765
Ever married	141,347,028	3,475,750	20,465,692	33,720,214	31,067,930	21,044,411	16,366,633	15,206,398
Married	108,805,228	3,159,929	18,077,014	27,997,880	24,973,853	16,244,648	11,398,965	6,952,939
Widowed	13,937,237	19,169	96,379	346,037	799,235	1,605,545	3,529,331	7,541,541
Divorced	18,604,563	296,652	2,292,299	5,376,297	5,294,842	3,194,218	1,438,337	711,918
Non-Hispanic male[1]	93,289,875	16,711,168	15,892,018	19,785,619	16,648,836	10,616,019	7,694,392	5,941,823
Never married	28,477,161	15,443,266	6,662,740	3,648,068	1,540,232	602,331	330,855	249,669
Ever married	64,812,714	1,267,902	9,229,278	16,137,551	15,108,604	10,013,688	7,363,537	5,692,154
Married	54,227,715	1,146,314	8,260,793	13,537,564	12,682,705	8,397,152	6,131,519	4,071,668
Widowed	2,562,698	5,697	19,332	80,137	145,811	291,017	648,339	1,372,365
Divorced	8,022,301	115,891	949,153	2,519,850	2,280,088	1,325,519	583,679	248,121
Non-Hispanic female[1]	100,620,337	16,019,125	16,255,184	20,168,801	17,394,972	11,592,356	9,319,559	9,870,340
Never married	24,086,023	13,811,277	5,018,770	2,586,138	1,435,646	561,633	316,463	356,096
Ever married	76,534,314	2,207,848	11,236,414	17,582,663	15,959,326	11,030,723	9,003,096	9,514,244
Married	54,577,513	2,013,615	9,816,221	14,460,316	12,291,148	7,847,496	5,267,446	2,881,271
Widowed	11,374,539	13,472	77,047	265,900	653,424	1,314,528	2,880,992	6,169,176
Divorced	10,582,262	180,761	1,343,146	2,856,447	3,014,754	1,868,699	854,658	463,797

See footnotes at end of table.

Table IV. Estimated population for ages 15 years and over, by marital status, 10-year age groups, Hispanic origin, race, and sex: race for non-Hispanic population, and sex: United States, 2000—Con.

Race, sex, and marital status	15 years and over	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75 years and over
Non-Hispanic white	159,309,069	25,319,072	25,048,049	32,407,301	28,485,209	18,994,292	14,811,747	14,243,399
Never married	38,692,094	22,345,574	8,083,458	4,288,421	2,050,827	883,037	508,882	531,895
Ever married	120,616,975	2,973,498	16,964,591	28,118,880	26,434,382	18,111,255	14,302,865	13,711,504
Married	93,507,119	2,708,452	15,032,422	23,461,687	21,524,287	14,225,602	10,164,105	6,390,564
Widowed	11,750,552	9,816	66,650	262,408	580,598	1,238,530	2,907,429	6,685,121
Divorced	15,359,304	255,230	1,865,519	4,394,785	4,329,497	2,647,123	1,231,331	635,819
Non-Hispanic white male	77,162,150	12,997,487	12,511,583	16,224,470	14,106,009	9,195,652	6,764,454	5,362,495
Never married	21,581,313	11,919,785	4,856,099	2,706,773	1,135,073	490,428	260,480	212,675
Ever married	55,580,837	1,077,702	7,655,484	13,517,697	12,970,936	8,705,224	6,503,974	5,149,820
Married	46,698,429	971,524	6,874,723	11,342,896	10,947,140	7,368,725	5,464,625	3,728,796
Widowed	2,149,460	3,586	18,083	58,507	111,699	213,167	542,894	1,201,524
Divorced	6,732,948	102,592	762,678	2,116,294	1,912,097	1,123,332	496,455	219,500
Non-Hispanic white female	82,146,919	12,321,585	12,536,466	16,182,831	14,379,200	9,798,640	8,047,293	8,880,904
Never Married	17,110,781	10,425,789	3,227,359	1,581,648	915,754	392,609	248,402	319,220
Ever Married	65,036,138	1,895,796	9,309,107	14,601,183	13,463,446	9,406,031	7,798,891	8,561,684
Married	46,808,690	1,736,928	8,157,699	12,118,791	10,577,147	6,856,877	4,699,480	2,661,768
Widowed	9,601,092	6,230	48,567	203,901	468,899	1,025,363	2,364,535	5,483,597
Divorced	8,626,356	152,638	1,102,841	2,278,491	2,417,400	1,523,791	734,876	416,319
Non-Hispanic black	24,962,464	5,531,508	4,948,436	5,410,099	3,945,410	2,311,065	1,633,464	1,182,482
Never married	10,834,805	5,203,812	2,746,277	1,642,198	807,968	249,104	126,736	58,710
Ever married	14,127,659	327,696	2,202,159	3,767,901	3,137,442	2,061,961	1,506,728	1,123,772
Married	9,685,180	294,891	1,836,998	2,892,208	2,132,544	1,302,901	845,659	379,979
Widowed	1,728,076	5,277	26,322	67,978	171,396	290,267	486,089	680,747
Divorced	2,714,403	27,528	338,839	807,715	833,502	468,793	174,980	63,046
Non-Hispanic black male	11,541,849	2,776,411	2,340,963	2,531,646	1,787,545	997,732	687,322	420,230
Never married	5,261,832	2,643,797	1,321,547	751,707	356,933	98,228	62,622	26,998
Ever married	6,280,017	132,614	1,019,416	1,779,939	1,430,612	899,504	624,700	393,232
Married	4,865,912	123,102	865,010	1,430,117	1,074,965	675,595	466,187	230,936
Widowed	333,768	789	0	17,862	29,680	56,865	89,237	139,335
Divorced	1,080,337	8,723	154,406	331,960	325,967	167,044	69,276	22,961
Non-Hispanic black female	13,420,615	2,755,097	2,607,473	2,878,453	2,157,865	1,313,333	946,142	762,252
Never married	5,572,973	2,560,015	1,424,730	890,491	451,035	150,876	64,114	31,712
Ever married	7,847,642	195,082	1,182,743	1,987,962	1,706,830	1,162,457	882,028	730,540
Married	4,819,268	171,789	971,988	1,462,091	1,057,579	627,306	379,472	149,043
Widowed	1,394,308	4,488	26,322	50,116	141,716	233,402	396,852	541,412
Divorced	1,634,066	18,805	184,433	475,755	507,535	301,749	105,704	40,085

[1]Includes races other than white and black.

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division of the U.S. Bureau of the Census.

Table V. Estimated population for ages 25–64 years, by educational attainment and sex: Total of 46 reporting States and the District of Columbia, 2000

Years of school completed and sex	25–64 years	25–34 years	35–44 years	45–54 years	55–64 years
All races					
Both sexes	136,194,721	35,475,114	42,579,834	35,293,913	22,845,860
Under 12 years	16,920,099	4,261,471	4,826,325	3,794,391	4,037,912
12 years	43,881,113	10,645,855	14,229,804	10,903,550	8,101,904
13 or more years	75,393,509	20,567,788	23,523,705	20,595,972	10,706,044
Male	66,960,498	17,644,393	21,127,471	17,289,611	10,899,023
Under 12 years	8,489,615	2,269,765	2,489,210	1,853,764	1,876,876
12 years	21,417,138	5,639,149	7,272,099	5,007,347	3,498,543
13 or more years	37,053,745	9,735,479	11,366,162	10,428,500	5,523,604
Female	69,234,223	17,830,721	21,452,363	18,004,302	11,946,837
Under 12 years	8,430,484	1,991,706	2,337,115	1,940,627	2,161,036
12 years	22,463,975	5,006,706	6,957,705	5,896,203	4,603,361
13 or more years	38,339,764	10,832,309	12,157,543	10,167,472	5,182,440

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics.

Table VI. Estimated population for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2000

Area	Total	Area	Total
United States	275,264,999	Nevada	1,880,291
		New Hampshire	1,215,870
Alabama	4,387,710	New Jersey	8,204,652
Alaska	622,138	New Mexico	1,747,813
Arizona	4,882,330	New York	18,277,971
Arkansas	2,576,516	North Carolina	7,747,514
California	33,631,461	North Dakota	629,305
Colorado	4,136,615	Ohio	11,270,414
Connecticut	3,297,288	Oklahoma	3,380,073
Delaware	762,236	Oregon	3,341,110
District of Columbia	518,358	Pennsylvania	11,984,599
Florida	15,332,103	Rhode Island	996,088
Georgia	7,942,865	South Carolina	3,924,402
Hawaii	1,179,178	South Dakota	737,302
Idaho	1,273,257	Tennessee	5,533,229
Illinois	12,185,560	Texas	20,389,067
Indiana	5,976,390	Utah	2,164,606
Iowa	2,877,296	Vermont	597,855
Kansas	2,665,890	Virginia	6,970,356
Kentucky	3,985,662	Washington	5,811,090
Louisiana	4,374,770	West Virginia	1,802,371
Maine	1,258,614	Wisconsin	5,295,350
Maryland	5,218,918	Wyoming	480,900
Massachusetts	6,203,848		
Michigan	9,918,687		
Minnesota	4,827,670	Puerto Rico	3,915,798
Mississippi	2,786,989	Virgin Islands	120,917
Missouri	5,502,189	Guam	154,623
Montana	887,875	American Samoa	65,446
Nebraska	1,670,358	Northern Marianas	71,912

SOURCES: U.S. Census Bureau. Unpublished estimates of the July 1, 2000 population for States by age and sex. Washington, DC: U.S. Census Bureau. 1990-based estimates, 2002. U.S. Census Bureau, International Programs Center. Unpublished tabulations. May 2001.

Table VII. United States standard population: Numbers and proportions (weights)

Age	Number	Weights (w_i)
All ages	1,000,000	1.000000
Under 1 year	13,818	0.013818
1–4 years	55,317	0.055317
5–14 years	145,565	0.145565
15–24 years	138,646	0.138646
25–34 years	135,573	0.135573
35–44 years	162,613	0.162613
45–54 years	134,834	0.134834
55–64 years	87,247	0.087247
65–74 years	66,037	0.066037
75–84 years	44,842	0.044842
85 years and over	15,508	0.015508

Using the same standard population, death rates for the total population and for each race-sex group were adjusted separately. The age-adjusted rates were based on 10-year age groups. It is important not to compare age-adjusted death rates with crude rates.

Death rates for the Hispanic population are based only on events to persons reported as Hispanic. Rates for non-Hispanic white persons are based on the sum of all events to white decedents reported as

Table VIII. United States standard population for ages 25 years and over: Numbers and proportions (weights)

Age	Number	Weights (w_i)
25 years and over	646,654	1.000000
25–34 years	135,573	0.209653
35–44 years	162,613	0.251468
45–54 years	134,834	0.208510
55–64 years	87,247	0.134921
65–74 years	66,037	0.102121
75 years and over	60,350	0.093327

Table IX. United States standard population for ages 25–64 years: Numbers and proportions (weights)

Age	Number	Weights (w_i)
25–64 years	520,267	1.000000
25–34 years	135,573	0.260584
35–44 years	162,613	0.312557
45–54 years	134,834	0.259163
55–64 years	87,247	0.167697

Table X. United States standard population for ages 15 years and over: Numbers and proportions (weights)

Age	Number	Weights (w_i)
15 years and over	785,300	1.000000
15–24 years	138,646	0.176552
25–34 years	135,573	0.172638
35–44 years	162,613	0.207071
45–54 years	134,834	0.171697
55–64 years	87,247	0.111100
65 years and over	126,387	0.160941

Table XI. United States standard population: Numbers and proportions (weights)

Age	Number	Weights (w_i)
All ages	1,000,000	1.000000
Under 1 year	13,818	0.013818
1–4 years	55,317	0.055317
5–14 years	145,565	0.145565
15–24 years	138,646	0.138646
25–34 years	135,573	0.135573
35–44 years	162,613	0.162613
45–54 years	134,834	0.134834
55–64 years	87,247	0.087247
65–74 years	66,037	0.066037
75 years and over	60,350	0.060350

non-Hispanic and white decedents with origin not stated. Hispanic origin is not imputed if it is not reported.

Random variation

The mortality data in this report, with the exception of data for 1972, are not subject to sampling error. In 1972 mortality data were based on a 50-percent sample of deaths because of resource constraints. Mortality data, even based on complete counts, may be affected by random variation. Random variation is discussed for demographic data and cause-of-death data separately because of problems in comparing cause-of-death between ICD revisions.

Demographic data—When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. For computing relative standard errors (RSEs), a useful measure of relative variation, formula 1 may be used for all tables except for the death rates shown in tables 5, 28, 29, and 30 (see subsection below).

$$1.\quad \mathrm{RSE}(D) = \mathrm{RSE}(R) = 100\sqrt{\frac{1}{D}}$$

where

D = number of deaths
R = rate

Beginning with 1989 data, an asterisk is shown in place of a rate based on fewer than 20 deaths, the equivalent of an RSE of 23 percent or more. An RSE of 23 percent is considered statistically unreliable. For age-adjusted death rates, this criterion was based on the sum of the age-specific deaths. This same procedure is used in this report except for the death rates shown in tables 5, 28, 29, and 30 (see subsection below).

For tables showing the number of deaths (D) (where D is 100 or more) the chances are 95 in 100 that formula 2 covers the "true" number of deaths.

$$2.\quad D - \left(1.96 \bullet D \bullet \frac{\mathrm{RSE}(D)}{100}\right) \text{ and } D + \left(1.96 \bullet D \bullet \frac{\mathrm{RSE}(D)}{100}\right)$$

This is referred to as a 95-percent confidence interval. For computing 95-percent confidence intervals when D is less than 100 deaths, see the NCHS Web site at http://www.cdc.gov/nchs and refer to "Technical Appendix from *Vital Statistics of United States*: Mortality, 1995" (4).

For tables showing a crude death rate (R) or an age-specific death rate (based on 100 or more deaths) for the ith age group (R_i) (except for rates in tables 5, 28, 29, and 30) the chances are 95 in 100 that the actual rate falls within the confidence interval as computed using formula 3.

$$3.\quad R - \left(1.96 \bullet R \bullet \frac{\mathrm{RSE}(R)}{100}\right) \text{ and } R + \left(1.96 \bullet R \bullet \frac{\mathrm{RSE}(R)}{100}\right)$$

For computing 95-percent confidence intervals for R when D is less than 100 deaths, see the Web site mentioned above.

For testing the difference between two rates (R_1 and R_2, each based on 100 or more deaths), formula 4 may be used to calculate a test statistic:

$$4.\quad z = \frac{R_1 - R_2}{\sqrt{R_1^2\left(\frac{\mathrm{RSE}(R_1)}{100}\right)^2 + R_2^2\left(\frac{\mathrm{RSE}(R_2)}{100}\right)^2}}$$

If $|z| \geq 1.96$, then the difference is statistically significant at the 0.05 level and if $z < 1.96$, the difference is not statistically significant. For computing statistical tests when R_1 and/or R_2 are based on less than 100 deaths, see the Web site mentioned above.

For tables showing an age-adjusted death rate (R') (except for rates in tables 5, 28, 29, and 30) the RSEs in formulas 3 and 4 above would be replaced by an RSE calculated from formula 5.

$$5.\quad \mathrm{RSE}(R') = 100\,\frac{\sqrt{\sum\left\{w_i^2\, R_i^2\, \left(\frac{1}{D_i}\right)\right\}}}{R'}$$

where

R_i = age-specific rate for the ith age group
w_i = ith age-specific U.S. standard population such that $\sum(w_i) = 1.000000$ (see table X and age-adjusted death rate under "Definition of terms")
D_i = number of deaths for the ith age group

For tables showing an infant mortality rate (IMR) based on live births in the denominator, the RSEs in formulas 3 and 4 would be replaced by an RSE calculated using formula 6.

$$6.\quad \mathrm{RSE}(\mathrm{IMR}) = 100\sqrt{\frac{1}{D} + \frac{1}{B}}$$

where

B = number of live births

For tables showing a maternal mortality rate based on live births in the denominator, the RSEs in formulas 3 and 4 would also be replaced with an RSE calculated using formula 6.

Tables 5, 28, 29, and 30—Rates for Mexicans, Puerto Ricans, Cubans, and Other Hispanics in table 5, rates by marital status in tables 28 and 29, and rates by educational attainment in table 30 are based on population estimates derived from the U.S. Bureau of the Census' Current Population Survey and adjusted to resident population control totals. As a result, the rates are subject to the sampling variability in the denominator as well as random variability in the numerator. For tables 5, 28, 29, and 30 formulas 7 and 8 were used to determine whether the rate should be shown or replaced by an asterisk (when the RSE is 23 percent or more).

For crude, R, and age-specific death rates, R_i, formula 7 is used to calculate the RSE

$$7.\quad \mathrm{RSE}(R) = 100\sqrt{\left(\frac{1}{D}\right) + 0.67\left(a + \frac{b}{P}\right)}$$

and for age-adjusted death rates, R', formula 8 is used

$$8.\quad \mathrm{RSE}(R') = 100\,\frac{\sqrt{\sum\left\{w_i^2 R_i^2\left[\left(\frac{1}{D_i}\right) + 0.67\left(a + \frac{b}{P_i}\right)\right]\right\}}}{R'}$$

where

D = number of deaths

P = population estimate used for computing the rate (see table II for population estimates used for computing rates in table 5; see tables III and IV for population estimates used for computing rates in tables 28 and 29; and see table V for population estimates used for computing rates in table 30)

D_i = number of deaths for the ith age group

P_i = population estimate used for computing the ith age-specific death rate (see table II for population estimates used for computing rates in table 5; see tables III and IV for population estimates used for computing rates in tables 28 and 29; and see table V for population estimates used for computing rates in table 30)

w_i = age-specific U.S. standard population such that $\sum(w_i) = 1.000000$ (see table VII for weights (w_i) used for computing age-adjusted rates in table 5; see table VIII for weights used for computing age-adjusted rates in tables 28 and 29; and see table IX for weights used for computing age-adjusted rates in table 30)

w_i^2 = the square of the age-specific U.S. standard population

In table 5, for all origins, total Hispanic, total non-Hispanic, non-Hispanic white, and non-Hispanic black populations,

$$a = 0.000000 \text{ and } b = 0$$

and for Mexican, Puerto Rican, Cuban, and Other Hispanic populations,

$$a = -0.000238 \text{ and } b = 7{,}486$$

In table 28, for all marital status groups combined for all races, white, and black populations,

$$a = 0.000000 \text{ and } b = 0,$$

for each marital status group for all races and the white population,

$$a = -0.000019 \text{ and } b = 5{,}211,$$

and for each marital status group for the black population,

$$a = -0.000213 \text{ and } b = 7{,}486$$

In table 29, for all marital status groups combined for all origins, Hispanic, non-Hispanic, non-Hispanic white, and non-Hispanic black populations,

$$a = 0.000000 \text{ and } b = 0,$$

for each marital status group for all origins, non-Hispanic, and non-Hispanic white populations,

$$a = -0.000019 \text{ and } b = 5{,}211,$$

for each marital status group for the non-Hispanic black population,

$$a = -0.000211 \text{ and } b = 7{,}486$$

and for each marital status group for the Hispanic population,

$$a = -0.000230 \text{ and } b = 7{,}486$$

In table 30, for all education groups combined,

$$a = 0.000000 \text{ and } b = 0$$

and for each education group,

$$a = -0.000011 \text{ and } b = 2{,}369$$

The "a" and "b" parameters are averages of the 2000 and 2001 CPS standard error parameters (57, 58).

To compute 95-percent confidence intervals and z-tests for the death rates (based on 100 or more deaths) shown in tables 5, 28, 29, and 30, the RSEs calculated from formulas 7 and 8 may replace, as appropriate, the RSEs in formulas 3 and 4.

Availability of mortality data

Mortality data are available in publications, unpublished tables, and electronic products as described on the mortality Web site at the following address: http://www.cdc.gov/nchs. More detailed analysis than provided in this report is possible by using the Mortality public-use data set issued each data year. Since 1991, the data set is available through NCHS in CD-ROM format. Data are also available in the *Vital Statistics of the United States*, Mortality, and *Vital and Health Statistics*, Series 20 reports, and the *National Vital Statistics Reports* through NCHS.

Definitions of terms

Infant deaths—Deaths of infants aged under 1 year.

Neonatal deaths—Deaths of infants aged 0–27 days.

Postneonatal deaths—Deaths of infants aged 28 days–1 year.

Crude death rate—Total deaths per 100,000 population for a specified period. The crude death rate represents the average chance of dying during a specified period for persons in the entire population.

Age-specific death rate—Deaths per 100,000 population in a specified age group, such as 1–4 years or 5–9 years for a specified period.

Age-adjusted death rate—The death rate used to make comparisons of relative mortality risks across groups and over time. This rate should be viewed as a construct or an index rather than as direct or actual measure of mortality risk. Statistically, it is a weighted average of the age-specific death rates, where the weights represent the fixed population proportions by age (59).