User Guide to the 2015 Period Linked Birth/Infant Death Public Use File

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2015 Period Linked Birth/Infant 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 2015 period linked file.

Period data - The numerator for the 2015 period linked file consists of all infant deaths occurring in 2015 linked to their corresponding birth certificates, whether the birth occurred in 2014 or 2015. The denominator file for this data set is the 2015 natality file, that is, all births occurring in 2015.

The 2015 period linked birth/infant death data set includes several data files. The first file includes all US infant deaths which occurred in the 2015 data year linked to their corresponding birth certificates, whether the birth occurred in 2014 or 2015 - 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 2015 NCHS natality file for the US, which is used to provide denominators for rate computations. These same three data files are also available for Puerto Rico and Guam.

Incomplete National Reporting - Using Reporting Flags

As a result of the delayed, phased transition to the 2003 U.S. Standard Certificate of Live Birth, the 2015 linked file includes data for reporting areas that use the 2003 revision of the U.S. Standard Certificate of Live Birth (revised) and data for reporting areas that use the 1989 Standard Certificate of Live Birth (unrevised) (see the 2015 Natality User Guide). Although many data items are comparable across certificate revisions and are available for the entire United States, some items have more limited reporting areas. In addition, the 2015 linked file contains information on infants born in both 2014 and 2015. As reporting areas changed between 2014 and 2015, this complicates the file. Also, birth data are collected by place of occurrence but are typically tabulated by mother's place of residence. Reporting flags were developed to help the user more readily identify reporting areas for items with less than national reporting for the entirety of 2014 and 2015. Reporting flags are included in the file to assist in accurately excluding records from areas that do not report items when tabulating data by mother's place of residence.

Reporting areas for the 2015 linked file are different from those for the 2015 birth file, as items had to be reported by a state in both 2014 and 2015 to be able to provide complete data. Thus, data for non-comparable items from states that revised in 2015 are excluded from all tabulations. Positions for reporting flags are noted along with each data item in the file layout. Reporting flags must be invoked to generate accurate numbers by residence for items which are not reported by all states. Where applicable, reporting flags are shown in the column "Reporting Flag Position" in the file layout. Reporting flag codes are 0 (item reported in neither the current or previous year or item reported in the previous but not in the current year or item reported in the current but not in the previous year) and 1 (item reported in both current and previous year). When using these data, select

reporting flag=1 to get valid and complete data for an item (see SAS code examples below).

Translating "blanks" - In the 2015 linked file, for data items which are not common or comparable across certificate revisions, events to residents of a revised state occurring in an unrevised state, and events to residents in an unrevised state occurring in a revised state, are often represented by "blanks." Blanks should be treated as "unknowns" for tabulations.

The correct use of reporting flags and translation of blanks will result in an accurate tally of births and infant deaths for items with incomplete national reporting.

Example of SAS code using reporting flags (and translating blanks)

An example of SAS code that may be used to incorporate the correct use of reporting flags and the translation of blanks is shown below. This example is for the revised prenatal care item. Prenatal care data based on the revised certificate are not considered comparable with data based on the unrevised certificate.

<u>Sample SAS program</u>

```
DATA work;
        INFILE 'C:VS15LINK.USNUMPUB' LRECL=1743;
        INPUT
                restatus 104
                precare 224-225
                f_mpcb 226;

        /*Exclude foreign residents*/
        IF restatus NE 4;
        /*Select reporting area*/
        IF f_mpcb=1;
        /*Convert blanks to unknown*/
        IF precare=. THEN precare=99;

PROC FREQ;
        TABLE precare;
RUN;
```

In this example, "restatus" is used to exclude births to foreign residents (this is standard practice for all NCHS tabulations). Also in this example, blanks are represented by numeric values SAS code = (.). However, for some items in the file, e.g., obstetric procedures, blanks are represented by character values for which the SAS code is empty single quotes (' ').

Alternatives to the use of reporting flags - The use of reporting flags provides a quick way to select records for all areas reporting comparable data for a given item in a particular

year. However, should a limited reporting area be needed, specific state(s) of residence may also be selected, or unselected. This approach may be useful, for example, in trend analysis where reporting areas have changed over time.

Example of SAS code using state of residence (and translating blanks)

```
DATA work;
        INFILE ‘C:VS15LINK.USNUMPUB ‘ LRECL=1743;
        INPUT
                restatus 104
                xmrstate $ 87-88
                precare 224-225;

        /*Exclude foreign residents*/
        IF restatus NE 4;
        /*Select reporting area*/
        IF xmrstate in (‘FL’,’MO’,’NC’,’NH’,’NV’,’PA’);
        /*Convert blanks to unknown*/
        IF precare=. THEN precare=99;

PROC FREQ;
        TABLE precare;
RUN;
```

Single, Multiple, and Bridged Race

In 1997, the Office of Management and Budget (OMB) issued revised standards requiring Federal collection programs to allow respondents to select *one or more race categories.* In 2014 data, forty-nine states and DC reported multiple race data, representing 99% of all U.S. births. For the 2015 period linked file, complete data for both 2014 and 2015 births are available from 49 states and DC, representing 99% of all U.S. births.

In 2015, multiple race data were reported on the death certificates of 48 states and DC. In order to provide uniformity and comparability of the data before all or most of the data are available in the new multiple-race format, it was necessary to ‘‘bridge’’ the responses of those for whom more than one race was reported (multiple race) to one, single race.

Weighting

A weight is added to the linked numerator file to correct in part for biases in percent of records linked by major characteristics. 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 (<7 days, 7-27 days, 28 days-1 year). 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 and Guam file.

Marital

National estimates of births to unmarried women are based on two methods of determining marital status. In 2015, marital status was based on a direct question in 49 states, the District of Columbia, and New York City. New York (excluding New York City) used inferential procedures to compile birth statistics by marital status; a birth is categorized as nonmarital if either of these factors, listed in priority-of-use order, is present: a paternity acknowledgement was received or the father's name is missing.

Birthweight

An imputation for not-stated birthweight is added to the data set to reduce potential bias in the computation of birthweight-specific infant mortality rates. 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 4.08 to 0.6% in the numerator file, and from 0.09 to 0.02% in the denominator file, thus reducing the potential for underestimation when computing birthweight-specific infant mortality rates.

Period of gestation

Information on period of gestation is available for the entire United States. Beginning with the 2014 data year, NCHS transitioned to a new standard for estimating the gestational age of the newborn. The new measure – the obstetric estimate of gestation at delivery (OE) replaces the measure based on the data of the last normal menses (LMP). Accordingly, gestational age data in standard tables are based on the OE. However, LMP-based data are also available in data files.

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. Differences in numbers of infant deaths between the two data sources are primarily due to geographic coverage differences. For the vital statistics mortality file, all deaths occurring in the 50 states 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, 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. 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.

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 dataset 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 in the linked file 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 subtracted before rates were computed. Rates per 1,000 live births display two digits after the decimal place to provide a more precise and sensitive measurement. For rates per 100,000 live births (by cause of death) the infant mortality rate is shown for one decimal place. Adding an additional decimal for rates per 100,000 does not increase precision as it does for rates per 1,000.

As stated previously, infant death records for the 50 States and the District of Columbia in the US 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 (61). 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 normal distribution. When the number of events is large, the relative standard error is usually small. When the number of events is small (i.e., 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 (3,4).

Estimates of relative standard errors (RSE's) and 95-percent confidence intervals are shown below.

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

RSE(D)=100* $\sqrt{\frac{1}{D}}$ where *D* is the number of deaths and

RSE(B)=100* $\sqrt{\frac{1}{B}}$ where *B* is the number of births.

For example, let us say that for group A the number of infant deaths was 497 while the number of live births was 81,555 yielding an infant mortality rate of 6.09 infant deaths per 1,000 live births.

The RSE of the deaths = 100* $\sqrt{\frac{1}{497}}$ = 4.49, while the RSE of the births = 100* $\sqrt{\frac{1}{81{,}555}}$ = 0.35.

The formula for the RSE of the IMR is:

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

The RSE of the IMR for the example above

= 100* $\sqrt{\frac{1}{497}+\frac{1}{81{,}555}}$ = 4.50.

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

Lower: $R_1 - 1.96 * R_1 * \frac{RSE(R_1)}{100}$

Upper: $R_1 + 1.96 * R_1 * \frac{RSE(R_1)}{100}$

Thus, for Group A:

Lower: $6.09 – (1.96 * 6.09 * \frac{4.50}{100}) = 5.55$

Upper: $6.09 + (1.96 * 6.09 * \frac{4.50}{100}) = 6.63$

Thus the chances are 95 out of 100 that the true IMR for Group A lies somewhere in the 5.55–6.63 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.

Lower: IMR*L(.95, D_{adj})

Upper: IMR*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:

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

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 53, the number of live births was 9,241, and the infant mortality rate was 5.74.

$$D_{adj} = \frac{53 * 9{,}241}{53 + 9{,}241} = 53$$

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

Lower: 5.74*0.74907 = 4.30
Upper: 5.74*1.30802 = 7.51

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:

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

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

Methodology

The methodology used to create the national file of linked birth and infant death records uses two 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.

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 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 use 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.

Characteristics of Unlinked File

For the 2015 linked file 0.6% 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, locations reserved for information from the matching birth certificate are blank since no matching birth certificate could be found for these records. The sex field 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 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. 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.

Percent of Records Linked

The 2015 linked file for the 50 States and D.C. includes 23,347 linked infant death records and 143 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 23,490.

Table 1 below shows the percent of infant deaths linked by state of occurrence of death. While many states link all of their infant deaths, linkage rates for some states are below the national average. 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 are added to the file to correct for biases in the data due to poor data linkage for particular states.

Table 1. Percent of infant deaths linked by state of occurrence of death: United States, 2015 linked file

United States	99.4		Nebraska	99.4
Alabama	100		Nevada	100
Alaska	100		New Hampshire	100
Arizona	99.1		New Jersey	98.1
Arkansas	99.6		New Mexico	100
California	98.2		New York State	99
Colorado	100		New York City	100
Connecticut	99.5		North Carolina	99.9
Delaware	99		North Dakota	100
District of Columbia	100		Ohio	99.5
Florida	100		Oklahoma	100
Georgia	100		Oregon	100
Hawaii	100		Pennsylvania	99.5
Idaho	100		Rhode Island	100
Illinois	99.8		South Carolina	100
Indiana	99		South Dakota	100
Iowa	100		Tennessee	99.4
Kansas	100		Texas	97.9
Kentucky	98.8		Utah	100
Louisiana	100		Vermont	100
Maine	98.7		Virginia	100
Maryland	100		Washington	100
Massachusetts	99.7		West Virginia	99.3
Michigan	99.9		Wisconsin	100
Minnesota	100		Wyoming	100
Mississippi	100		Puerto Rico	100
Missouri	99.8		Virgin Islands	NA
Montana	100		Guam	100

Confidentiality

To minimize the risk of disclosure of individual or institutional information NCHS public-use data files do not contain the actual day of the birth or the dates of birth of the mother or father. Also, for public-use files from 2005 forward, no U.S. geographic detail is identified.

Documents

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 details about multiple cause-of-death coding which, if not understood and analyzed 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, see http://www.cdc.gov/nchs/icd/icd10.htm . Many of the instruction manuals listed below are available electronically on the NCHS website.

A. National Center for Health Statistics. Vital statistics, Instructions for Classifying the Underlying Cause-of-Death, ICD-10, 2015. 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, ICD-10, 2014. 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, 2014. NCHS Instruction Manual, Part 2c. Hyattsville, Maryland: Public Health Service.

D. National Center for Health Statistics. Specifications for U.S. Standard Certificate of Birth – 2003 Revision. NCHS Instruction manual, Part 3A. Hyattsville, Maryland: Public Health Service.

E. National Center for Health Statistics. Specifications for U.S. Standard Certificate of Death – 2003 Revision. NCHS Instruction manual, Part 4. Hyattsville, Maryland: Public Health Service.

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

G. National Center for Health Statistics. Vital statistics, Computer Edits for Mortality Data, Effective 2014. NCHS Instruction Manual Part 11. Hyattsville, Maryland: Public Health Service.

Instructions manuals are available at:
http://www.cdc.gov/nchs/nvss/instruction_manuals.htm

Also see: http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm for the most recent information about revised certificates.

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. 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 (50,51).

About every 10-20 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 Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) (5); during the period 1979-98, causes were coded and classified according to the Ninth Revision (ICD-9) (52).

Changes in classification of causes of death due to these revisions may result in discontinuities in cause-of-death trends. Measures of this discontinuity are essential to the interpretation of mortality trends, and are discussed in detail in other NCHS publications (4,53,54).

Underlying Cause of Death Data

Mortality statistics by cause of death are compiled from entries on the medical certification portion of the death certificate. 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. 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.

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. Additional information on the underlying cause of death can be found at http://www.cdc.gov/nchs/data/dvs/mort99doc.pdf .

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 an 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. Additional information on multiple cause data processing can be found at http://www.cdc.gov/nchs/data/dvs/mort99doc.pdf .

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 in 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.

2015 Period Linked Birth/Infant Death Data Set

Numerator Files:

United States

A. Record count:	23,347
B. Record length:	1,743

Territories

A. Record count:	268
B. Record length:	1,743

Denominator Files:

United States

A. Record count:	3,988,733
B. Record length:	1346

Territories

A. Record count:	34,602
B. Record length:	1346

Unlinked Files:

United States

A. Record count:	143
B. Record length:	1,743

Territories

A. Record count:	N/A
B. Record length:	N/A

(N/A: There were no unlinked records in the territories file for 2015.)

2015 Linked Public Use File Layout

Position	Len	File*	Field	Description	Flag Position	Values	Definition
1-7	1		FILLER01	**FILLER**		Blank	
8	1		LATEREC	**Late Record Flag**		0, blank	Not late record
						1	Late record
9-12	4	P,G	DOB_YY	**Birth Year**		2014	2014
						2015	2015
13-14	2	P,G	DOB_MM	**Birth Month**		01	January
						02	February
						03	March
						04	April
						05	May
						06	June
						07	July
						08	August
						09	September
						10	October
						11	November
						12	December
15-18	4		FILLER02	**FILLER**		Blank	
19-22	4	P,G	DOB_TT	**Time of Birth**	126	0000-2359	Time of Birth
						9999	Not Stated
23	1	P,G	DOB_WK	**Birth Day of Week**		1	Sunday
						2	Monday
						3	Tuesday
						4	Wednesday
						5	Thursday
						6	Friday
						7	Saturday
24-31	8		FILLER03	**FILLER**		Blank	
32	1	P,G	BFACIL	**Birth Place (Revised)**	33	1	Hospital
				Revised data only.		2	Freestanding Birth Center
				See field 1330 for national data.		3	Home (intended)
						4	Home (not intended)
						5	Home (unknown if intended)
						6	Clinic / Doctor’s Office
						7	Other
						9	Unknown
33	1	P,G	F_FACILITY	**Reporting Flag for Birth Place**			See footnote

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
34-49	16		FILLER04	**FILLER**		Blank	
50	1	P,G	BFACIL3	**Facility Recode**		1	In Hospital
						2	Not in Hospital
						3	Unknown or Not Stated
51-72	22		FILLER05	**FILLER**		Blank	
73	1	P,G	MAGEIMP	**Mother's Age Imputed**		Blank	Age not imputed
				Due to missing data, age imputed.		1	Age imputed
74	1	P,G	MAGEREP	**Reported Age of Mother Used Flag**		Blank	Reported age not used
				Due to missing date of birth, reported age used.		1	Reported age used
75-76	2	P,G	MAGER	**Mother's Age Recode 41**		12 10 – 12 years, 13 13 years, 14 14 years, 15 15 years, 16 16 years, 17 17 years, 18 18 years, 19 19 years, 20 20 years, 21 21 years, 22 22 years, 23 23 years, 24 24 years, 25 25 years, 26 26 years, 27 27 years, 28 28 years, 29 29 years, 30 30 years, 31 31 years, 32 32 years, 33 33 years, 34 34 years, 35 35 years, 36 36 years, 37 37 years, 38 38 years, 39 39 years, 40 40 years, 41 41 years, 42 42 years, 43 43 years, 44 44 years, 45 45 years, 46 46 years, 47 47 years, 48 48 years, 49 49 years, 50 50 years and over	
77-78	2	P,G	MAGER14	**Mother's Age Recode 14**		01	Under 15 Years
						03	15 years
						04	16 years
						05	17 years
						06	18 years
						07	19 years
						08	20-24 years
						09	25-29 years
						10	30-34 years
						11	35-39 years
						12	40-44 years
						13	45-49 years
						14	50-54 years
79	1	P,G	MAGER9	**Mother's Age 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

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						8	45-49 years
						9	50-54 years
80-83	4		FILLER06	**FILLER**		Blank	
84	1	P,G	MBSTATE_REC	**Mother's Nativity**		1	Born in the U.S. (50 US States)
						2	Born outside the U.S. (includes possessions)
						3	Unknown or Not Stated
85-103	19		FILLER07	**FILLER**		Blank	
104	1	P,G	RESTATUS	**Residence Status**			
				United States		1	RESIDENT: State and county of occurrence and residence are the same.
						2	INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different.
						3	INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia.
						4	FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
				U.S. Territories		1	RESIDENT: State and county of occurrence and residence residence are the same. (Unique to Guam, all US residents are considered residents of Guam and thus are assigned 1.)
						2	INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different.
						2	INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories.
						3	FOREIGN RESIDENT: The residence is not a US Territory.
105-106	2	P,G	MRACE31	**Mother's Race Recode 31**			
				United States and all Outlying Areas of the United States except Puerto Rico		01	White (only) [only one race reported]
						02	Black (only)
						03	AIAN (American Indian or Alaskan Native) (only)
						04	Asian (only)
						05	NHOPI (Native Hawaiian or Other Pacific Islander) (only)
						06	Black and White
						07	Black and AIAN
						08	Black and Asian
						09	Black and NHOPI
						10	AIAN and White
						11	AIAN and Asian
						12	AIAN and NHOPI
						13	Asian and White

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						14	Asian and NHOPI
						15	NHOPI and White
						16	Black, AIAN, and White
						17	Black, AIAN, and Asian
						18	Black, AIAN, and NHOPI
						19	Black, Asian, and White
						20	Black, Asian, and NHOPI
						21	Black, NHOPI, and White
						22	AIAN, Asian, and White
						23	AIAN, NHOPI, and White
						24	AIAN, Asian, and NHOPI
						25	Asian, NHOPI, and White
						26	Black, AIAN, Asian, and White
						27	Black, AIAN, Asian, and NHOPI
						28	Black, AIAN, NHOPI, and White
						29	Black, Asian, NHOPI, and White
						30	AIAN, Asian, NHOPI, and White
						31	Black, AIAN, Asian, NHOPI, and White
107	1	P,G	MRACE6	**Mother's Race Recode 6**			
				United States and all Outlying Areas of the United States except Puerto Rico		1	White (only)
						2	Black (only)
						3	AIAN (only)
						4	Asian (only)
						5	NHOPI (only)
						6	More than one race
108-109	2	P,G	MRACE15	**Mother's Race Recode 15**			
				United States and all Outlying Areas of the United States except Puerto Rico		01	White (only)
						02	Black (only)
						03	AIAN (only)
						04	Asian Indian (only)
						05	Chinese (only)
						06	Filipino (only)
						07	Japanese (only)
						08	Korean (only)
						09	Vietnamese (only)
						10	Other Asian (only)
						11	Hawaiian (only)
						12	Guamanian (only)
						13	Samoan (only)
						14	Other Pacific Islander (only)
						15	More than one race
110	1	P,G	MBRACE	**Bridged Race Mother**			
				Includes individuals reporting only one race and			

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
				individuals reporting more than one race bridged to a single race.			
				United States and all Outlying Areas of the United States except Puerto Rico		1	White
						2	Black
						3	American Indian or Alaskan Native
						4	Asian or Pacific Islander
				Puerto Rico		1	White
						2	Black
						0	Other (not classified as White or Black)
111	1	P,G	MRACEIMP	**Mother's Race Imputed**		Blank	Mother's race not imputed
						1	Unknown race imputed
						2	All other races, formerly coded 09, imputed.
112-114	3		FILLER08	**FILLER**		Blank	
115	1	P,G	MHISP_R	**Mother's Hispanic Origin Recode**	116	0	Non-Hispanic
						1	Mexican
						2	Puerto Rican
						3	Cuban
						4	Central and South American
						5	Other and Unknown Hispanic origin
						9	Hispanic origin not stated
116	1	P,G	F_MHISP	**Reporting Flag for Mother's Origin**			See footnote
117	1	P,G	MRACEHISP	**Mother's Race/Hispanic Origin**		1	Non-Hispanic White (only)
				Based on single/multiple-race (fields 105-106,		2	Non-Hispanic Black (only)
				107, and 108-109); for coding to create bridged-		3	Non-Hispanic AIAN (only)
				race categories (field 110) see "Coding for		4	Non-Hispanic Asian (only)
				bridge-race and Hispanic origin categories"		5	Non-Hispanic NHOPI (only)
				in the Detailed Technical Notes.		6	Non-Hispanic more than one race
						7	Hispanic
						8	Origin unknown or not stated
118	1		FILLER09	**FILLER**		Blank	
119	1	P,G	MAR_P	**Paternity Acknowledged**	123	Y	Yes
						N	No
						U	Unknown
						X	Not Applicable
120	1	P,G	DMAR	**Marital Status**			
				United States and all Outlying Areas		1	Married
				Of the United States except Puerto		2	Unmarried

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
				Rico		9	Unknown, NS
				Puerto Rico		1	Yes
						2	Unmarried parents living together
						3	Unmarried parents not living together
						9	Unknown or not stated
121	1	P,G	MAR_IMP	**Mother's Marital Status Imputed**		Blank	Marital Status not imputed
						1	Marital Status imputed
122	1		FILLER10	**FILLER**		Blank	
123	1	P,G	F_MAR_P	**Reporting Flag for Paternity Acknowledged**			See footnote
124	1	P,G	MEDUC	**Mother's Education**		1	8th grade or less
					126	2	9th through 12th grade with no diploma
						3	High school graduate or GED completed
						4	Some college credit, but not a degree.
						5	Associate degree (AA,AS)
						6	Bachelor's degree (BA, AB, BS)
						7	Master's degree (MA, MS, MEng, MEd, MSW, MBA)
						8	Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD)
						9	Unknown
125	1		MEDUC_BYP	**Mother's Education Bypass**		0	Edit Passed
						1	Edit failed, data queried and verified
						2	Edit failed, data queried but not verified
						Blank	Bypass not used
126	1	P,G	F_MEDUC	**Reporting Flag for Education of Mother**			See footnote
127-141	15		FILLER11	**FILLER**		Blank	
142	1	P,G	FAGERPT_FLG	**Father's Reported Age Used**		Blank	Father's reported age not used
						1	Father's reported age used
143-146	4		FILLER12	**FILLER**		Blank	
147-148	2	P,G	FAGECOMB	**Father's Combined Age (Revised)**		09-98	Father's combined age in years
						99	Unknown or not stated
149-150	2	P,G	FAGE11	**Father's Age Recode 11**		01	Under 15 years
						02	15-19 years
						03	20-24 years
						04	25-29 years

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						05	30-34 years
						06	35-39 years
						07	40-44 years
						08	45-49 years
						09	50-54 years
						10	55-98 years
						11	Not stated
151-152	2	P,G	FRACE31	**Father's Race Recode 31**		01	White (only) [only one race reported]
						02	Black (only)
						03	AIAN (American Indian or Alaskan Native) (only)
						04	Asian (only)
						05	NHOPI (Native Hawaiian or Other Pacific Islander) (only)
						06	Black and White
						07	Black and AIAN
						08	Black and Asian
						09	Black and NHOPI
						10	AIAN and White
						11	AIAN and Asian
						12	AIAN and NHOPI
						13	Asian and White
						14	Asian and NHOPI
						15	NHOPI and White
						16	Black, AIAN, and White
						17	Black, AIAN, and Asian
						18	Black, AIAN, and NHOPI
						19	Black, Asian, and White
						20	Black, Asian, and NHOPI
						21	Black, NHOPI, and White
						22	AIAN, Asian, and White
						23	AIAN, NHOPI, and White
						24	AIAN, Asian, and NHOPI
						25	Asian, NHOPI, and White
						26	Black, AIAN, Asian, and White
						27	Black, AIAN, Asian, and NHOPI
						28	Black, AIAN, NHOPI, and White
						29	Black, Asian, NHOPI, and White
						30	AIAN, Asian, NHOPI, and White
						31	Black, AIAN, Asian, NHOPI, and White
						99	Unknown or Not Stated
153	1	P,G	FRACE6	**Father's Race Recode 6**		1	White (only)
						2	Black (only)
						3	AIAN (only)
						4	Asian (only)
						5	NHOPI (only)

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						6	More than one race
						9	Unknown or Not Stated
154-155	2	P,G	FRACE15	**Father's Race Recode 15**		01	White (only)
						02	Black (only)
						03	AIAN (only)
						04	Asian Indian (only)
						05	Chinese (only)
						06	Filipino (only)
						07	Japanese (only)
						08	Korean (only)
						09	Vietnamese (only)
						10	Other Asian (only)
						11	Hawaiian (only)
						12	Guamanian (only)
						13	Samoan (only)
						14	Other Pacific Islander (only)
						15	More than one race
						99	Unknown or Not Stated
156	1	P,G	FBRACE	**Bridged Race Father**			
				Includes individuals reporting only one race and individuals reporting more than one race bridged to a single race.			
				United States and all Outlying Areas of the United States except Puerto Rico		1	White
						2	Black
						3	American Indian or Alaskan Native
						4	Asian or Pacific Islander
				Puerto Rico		1	White
						2	Black
						0	Other (not classified as White or Black)
157-159	3		FILLER13	**FILLER**		Blank	
160	1	P,G	FHISP_R	**Father's Hispanic Origin Recode**	161	0	Non-Hispanic
						1	Mexican
						2	Puerto Rican
						3	Cuban
						4	Central and South American
						5	Other and Unknown Hispanic origin
						9	Hispanic origin not stated
161	1	P,G	F_FHISP	**Reporting Flag for Father's Origin**			See footnote
162	1	P,G	FRACEHISP	**Father's Race/Hispanic Origin**		1	Non-Hispanic White (only)

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
				Based on single/multiple-race (fields 151-152, 153, and 154-155); for coding to create bridged-race categories (field 156) see "Coding for bridge-race and Hispanic origin categories" in. the Detailed Technical Notes		2 3 4 5 6 7 8 9	Non-Hispanic Black (only) Non-Hispanic AIAN (only) Non-Hispanic Asian (only) Non-Hispanic NHOPI (only) Non-Hispanic more than one race Hispanic Origin unknown or not stated Race unknown or not stated (Non-Hispanic)
163	1	P,G	FEDUC	**Father's Education**	165	1 2 3 4 5 6 7 8 9	8th grade or less 9th through 12th grade with no diploma High school graduate or GED completed Some college credit, but not a degree. Associate degree (AA,AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS, MEng, MEd, MSW, MBA) Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown
164	1		FILLER14	**FILLER**		Blank	
165	1	P,G	F_FEDUC	**Reporting Flag for Education of Father**			See footnote
166-170	5		FILLER15	**FILLER**		Blank	
171-172	2	P,G	PRIORLIVE	**Prior Births Now Living**		00-30 99	Number of children still living from previous live births. Unknown or not stated
173-174	2	P,G	PRIORDEAD	**Prior Births Now Dead**		00-30 99	Number of children dead from previous live births. Unknown or not stated
175-176	2	P,G	PRIORTERM	**Prior Other Terminations**		00-30 99	Number other terminations Unknown or not stated
177-178	2		FILLER16	**FILLER**		Blank	
179	1	P,G	LBO_REC	**Live Birth Order Recode**		1-7 8 9	Number of live birth order. 8 or more live births Unknown or not stated
180-181	2		FILLER17	**FILLER**		Blank	
182	1	P,G	TBO_REC	**Total Birth Order Recode**		1-7 8 9	Number of total birth order. 8 or more total births Unknown or not stated

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
183-197	15		FILLER18	**FILLER**		Blank	
198-200	3	P,G	ILLB_R	**Interval of Last Live Birth Recode**	126	000-003	Plural delivery
						004-300	Months since last live birth
						888	Not applicable / 1st live birth
						999	Unknown or not stated
201-202	2	P,G	ILLB_R11	**Interval of Last Live Birth Recode 11**	126	00	Zero to 3 months (plural delivery)
						01	4 to 11 months
						02	12 to 17 months
						03	18 to 23 months
						04	24 to 35 months
						05	36 to 47 months
						06	48 to 59 months
						07	60 to 71 months
						08	72 months and over
						88	Not applicable (1st live birth)
						99	Unknown or not stated
203-205	3		FILLER19	**FILLER**		Blank	
206-208	3	P,G	ILOP_R	**Interval of Last Other Pregnancy Recode**	126	000-003	Plural delivery
						004-300	Months since last live birth
						888	Not applicable / 1st natality event
						999	Unknown or not stated
209-210	2	P,G	ILOP_R11	**Interval of Last Other Pregnancy Recode 11**	126	00	Zero to 3 months (plural delivery)
						01	4 to 11 months
						02	12 to 17 months
						03	18 to 23 months
						04	24 to 35 months
						05	36 to 47 months
						06	48 to 59 months
						07	60 to 71 months
						08	72 months and over
						88	Not applicable (1st natality event)
						99	Unknown or not stated
211-213	3		FILLER20	**FILLER**		Blank	
214-216	3	P,G	ILP_R	**Interval of Last Pregnancy Recode**	126	000-003	Plural delivery
						004-300	Months since last live birth
						888	Not applicable / no previous pregnancy
						999	Unknown or not stated

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
217-218	2	P,G	ILP_R11	**Interval of Last Pregnancy Recode 11**	126	00	Zero to 3 months (plural delivery)
						01	4 to 11 months
						02	12 to 17 months
						03	18 to 23 months
						04	24 to 35 months
						05	36 to 47 months
						06	48 to 59 months
						07	60 to 71 months
						08	72 months and over
						88	Not applicable (no previous pregnancy)
						99	Unknown or not stated
219-223	5		FILLER21	**FILLER**		Blank	
224-225	2	P,G	PRECARE	**Month Prenatal Care**	226	00	No prenatal care
						01-10	Month prenatal care began
						99	Unknown or not stated
226	1	P,G	F_MPCB	**Reporting Flag for Month Prenatal Care Began**			See footnote
227	1	P,G	PRECARE5	**Month Prenatal Care Began Recode**	226	1	1st to 3rd month
						2	4th to 6th month
						3	7th to final month
						4	No prenatal care
						5	Unknown or not stated
228-237	10		FILLER22	**FILLER**		Blank	
238-239	2	P,G	PREVIS	**Number of Prenatal Visits (Revised)**		00-98	Number of prenatal visits
				See field 242-243 for national data		99	Unknown or not stated
240-241	2		FILLER23	**FILLER**		Blank	
242-243	2	P,G	PREVIS_REC	**Number of Prenatal Visits Recode**	244	01	No visits
						02	1 to 2 visits
						03	3 to 4 visits
						04	5 to 6 visits
						05	7 to 8 visits
						06	9 to 10 visits
						07	11 to 12 visits
						08	13 to 14 visits
						09	15 to 16 visits
						10	17 to 18 visits
						11	19 or more visits
						12	Unknown or not stated

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
244	1	P,G	F_TPCV	**Reporting Flag for Total Prenatal Care Visits**			See footnote
245-250	6		FILLER24	**FILLER**		Blank	
251	1	P,G	WIC	**WIC**	252	Y	Yes
						N	No
						U	Unknown or not stated
252	1	P,G	F_WIC	**Reporting Flag for WIC**			See footnote
253-254	2	P,G	CIG_0	**Cigarettes Before Pregnancy**		00-97	Number of cigarettes daily
					265	98	98 or more cigarettes daily
						99	Unknown or not stated
255-256	2	P,G	CIG_1	**Cigarettes 1st Trimester**	266	00-97	Number of cigarettes daily
						98	98 or more cigarettes daily
						99	Unknown or not stated
257-258	2	P,G	CIG_2	**Cigarettes 2nd Trimester**	267	00-97	Number of cigarettes daily
						98	98 or more cigarettes daily
						99	Unknown or not stated
259-260	2	P,G	CIG_3	**Cigarettes 3rd Trimester**	268	00-97	Number of cigarettes daily
						98	98 or more cigarettes daily
						99	Unknown or not stated
261	1	P,G	CIG0_R	**Cigarettes Before Pregnancy Recode**		0	Nonsmoker
					265	1	1-5
						2	6-10
						3	11-20
						4	21-40
						5	41 or more
						6	Unknown or not stated
262	1	P,G	CIG1_R	**Cigarettes 1st Trimester Recode**		0	Nonsmoker
					266	1	1-5
						2	6-10
						3	11-20
						4	21-40
						5	41 or more
						6	Unknown or not stated
263	1	P,G	CIG2_R	**Cigarettes 2nd Trimester Recode**		0	Nonsmoker
					267	1	1-5
						2	6-10

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						3	11-20
						4	21-40
						5	41 or more
						6	Unknown or not stated
264	1	P,G	CIG3_R	**Cigarettes 3rd Trimester Recode**	268	0	Nonsmoker
						1	1-5
						2	6-10
						3	11-20
						4	21-40
						5	41 or more
						6	Not stated / Not on certificate
265	1	P,G	F_CIGS_0	**Reporting Flag for Cigarettes before Pregnancy**			See footnote
266	1	P,G	F_CIGS_1	**Reporting Flag for Cigarettes 1st Trimester**			See footnote
267	1	P,G	F_CIGS_2	**Reporting Flag for Cigarettes 2nd Trimester**			See footnote
268	1	P,G	F_CIGS_3	**Reporting Flag for Cigarettes 3rd Trimester**			See footnote
269	1	P,G	CIG_REC	**Cigarette Recode (Revised)**	270	Y	Yes
						N	No
						U	Unknown or not stated
270	1	P,G	F_TOBACO	**Reporting Flag for Tobacco use**			See footnote
271-279	9	P,G	FILLER25	**FILLER**		Blank	
280-281	2	P,G	MHTR	**Mother's Height in Inches (Recode)**	282	30-78	Height in inches
						99	Unknown or not stated
282	1	P,G	F_M_HT	**Reporting Flag for Mother's Height**			See footnote
283-286	4	P,G	BMI	**BMI**	282	13.0-69.9	Body Mass Index
						99.9	Unknown or not stated
287	1	P,G	BMI_R	**Body Mass Index Recode**	282	1	Underweight <18.5
						2	Normal 18.5-24.9
						3	Overweight 25.0-29.9
						4	Obesity I 35.0-39.9
						5	Obesity II 35.0-39.9
						6	Extreme Obesity III ≥ 40.0
						9	Unknown or not stated

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
288-291	4		FILLER26	**FILLER**		Blank	
292-294	3	P,G	PWGT_R	**Pre-pregnancy Weight Recode**		075-375	Weight in pounds
					295	999	Unknown or not stated
295	1	P,G	F_PWGT	**Reporting Flag for Pre-pregnancy Weight**			See footnote
296-298	3		FILLER27	**FILLER**		Blank	
299-301	3	P,G	DWGT_R	**Delivery Weight Recode**	303	100-400	Weight in pounds
						999	Unknown or not stated
302	1		FILLER28	**FILLER**		Blank	
303	1	P,G	F_DWGT	**Reporting Flag for Delivery Weight**			See footnote
304-305	2	P,G	WTGAIN	**Weight Gain**	307	00-97	Weight gain in pounds
						98	98 pounds and over
						99	Unknown or not stated
306	1	P,G	WTGAIN_REC	**Weight Gain Recode**	307	1	Less than 11 pounds
						2	11 to 20 pounds
						3	21 to 30 pounds
						4	31 to 40 pounds
						5	41 to 98 pounds
						9	Unknown or not stated
307	1	P,G	F_WTGAIN	**Reporting Flag for Weight Gain**			See footnote
308-312	5		FILLER29	**FILLER**		Blank	

The following checkbox fields 313-432 include data for revised states only. For national data for items that are comparable across revisions see fields 1330-1345.

313-337	25	**Risk Factors**					
313	1	P,G	RF_PDIAB	**Pre-pregnancy Diabetes**	319	Y	Yes
314	1	P,G	RF_GDIAB	**Gestational Diabetes**	320	N	No
315	1	P,G	RF_PHYPE	**Pre-pregnancy Hypertension**	321	U	Unknown or not stated
316	1	P,G	RF_GHYPE	**Gestational Hypertension**	322		
317	1	P,G	RF_EHYPE	**Hypertension Eclampsia**	323		
318	1	P,G	RF_PPB	**Previous Preterm Birth**	324		
319	1	P,G	F_RF_PDIAB	**Reporting Flag for Pre-pregnancy Diabetes**			See footnote
320	1	P,G	F_RF_GDIAB	**Reporting Flag for Gestational Diabetes**			
321	1	P,G	F_RF_PHYPE	**Reporting Flag for Pre-pregnancy Hypertension**			

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
322	1	P,G	F_RF_GHYPE	**Reporting Flag for Gestational Hypertension**			
323	1	P,G	F_RF_EHYPE	**Reporting Flag for Hypertension Eclampsia**			
324	1	P,G	F_RF_PPB	**Reporting Flag for Previous Preterm Birth**			
325	1	P,G	RF_INFT	**Infertility Treatment**	328	Y	Yes
				Use reporting flag in field 319 for 2015		N	No
						U	Unknown or not stated
326	1	P,G	RF_DRG	**Fertility Enhancing Drugs**	329	Y	Yes
						N	No
						X	Not applicable
						U	Unknown or not stated
327	1	P,G	RF_ART	**Asst. Reproductive Technology**		Y	Yes
					330	N	No
						X	Not applicable
						U	Unknown or not stated
328	1		FILLER30	**FILLER**		Blank	
329	1	P,G	F_RF_DRG	**Reporting Flag for Fertility Enhance Drugs**			See footnote
330	1	P,G	F_RF_ART	**Reporting Flag for Reproductive Technology**			See footnote
331	1	P,G	RF_CESAR	**Previous Cesareans**	335	Y	Yes
						N	No
						U	Unknown or not stated
332-333	2	P,G	RF_CESARN	**Number of Previous Cesareans**		00	None
					336	01-30	Number of previous cesareans
						99	Unknown or not stated
334	1		RF_CES_BYP	**Cesarean Bypass**		0	Edit passed
						1	Edit failed, verified
						2	Invalid response
						Blank	Bypass not used
335	1	P,G	F_RF_CESAR	**Reporting Flag for Previous Cesarean**			See footnote
336	1	P,G	F_RF_NCESAR	**Reporting Flag for Number of Previous Cesareans**			See footnote
337	1	P,G	NO_RISKS	**No Risk Factors Checked**	126	1	True
						0	False
						9	Not Reported

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
338-342	5		FILLER31	**FILLER**		Blank	
343-353	11	**Infections Present**					
343	1	P,G	IP_GON	**Gonorrhea**	348	Y	Yes
344	1	P,G	IP_SYPH	**Syphilis**	349	N	No
345	1	P,G	IP_CHLAM	**Chlamydia**	350	U	Unknown or not stated
346	1	P,G	IP_HEPB	**Hepatitis B**	351		
347	1	P,G	IP_HEPC	**Hepatitis C**	352		
348	1	P,G	F_IP_GON	**Reporting Flag for Gonorrhea**			See footnote
349	1	P,G	F_IP_SYPH	**Reporting Flag for Syphilis**			
350	1	P,G	F_IP_CHLAM	**Reporting Flag for Chlamydia**			
351	1	P,G	F_IP_HEPB	**Reporting Flag for Hepatitis B**			
352	1	P,G	F_IP_HEPC	**Reporting Flag for Hepatitis C**			
353	1	P,G	NO_INFEC	**No Infections Checked**	126	1	True
						0	False
						9	Not Reported
354-359	6		FILLER32	**FILLER**		Blank	
360-364	5	**Obstetric Procedures**					
360	1	P,G	OB_SUCC	**Successful External Cephalic Version**		Y	Yes
					363	N	No
						U	Unknown or not stated
361	1	P,G	OB_FAIL	**Failed External Cephalic Version**		Y	Yes
					364	N	No
						U	Unknown or not stated
362	1		FILLER33	**FILLER**		Blank	
363	1	P,G	F_OB_SUCC	**Reporting Flag for Successful External Cephalic Version**			See footnote
364	1	P,G	F_OB_FAIL	**Reporting Flag for Failed External Cephalic Version**			See footnote
365-382	18		FILLER34	**FILLER**		Blank	
383-395	13	**Characteristics of Labor and Delivery**					
383	1	P,G	LD_INDL	**Induction of Labor**	389	Y	Yes
384	1	P,G	LD_AUGM	**Augmentation of Labor**	390	N	No

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
385	1	P,G	LD_STER	**Steroids**	391	U	Unknown or not stated
386	1	P,G	LD_ANTB	**Antibiotics**	392		
387	1	P,G	LD_CHOR	**Chorioamnionitis**	393		
388	1	P,G	LD_ANES	**Anesthesia**	394		
389	1	P,G	F_LD_INDL	**Reporting Flag for Induction of Labor**			See footnote
390	1	P,G	F_LD_AUGM	**Reporting Flag for Augmentation of Labor**			
391	1	P,G	F_LD_STER	**Reporting Flag for Steroids**			
392	1	P,G	F_LD_ANTB	**Reporting Flag for Antibiotics**			
393	1	P,G	F_LD_CHOR	**Reporting Flag for Chorioamnionitis**			
394	1	P,G	F_LD_ANES	**Reporting Flag for Anesthesia**			
395	1	P,G	NO_LBRDLV	**No Characteristics of Labor Checked**		1	True
					126	0	False
						9	Not Reported
396-400	5		FILLER35	**FILLER**		Blank	
401-409	9	**Method of Delivery**					
401	1	P,G	ME_PRES	**Fetal Presentation**	404	1	Cephalic
						2	Breech
						3	Other
						9	Unknown or not stated
402	1	P,G	ME_ROUT	**Final Route & Method of Delivery**		1	Spontaneous
					405	2	Forceps
						3	Vacuum
						4	Cesarean
						9	Unknown or not stated
403	1	P,G	ME_TRIAL	**Trial of Labor Attempted**	406	Y	Yes
						N	No
						X	Not applicable
						U	Unknown or not stated
404	1	P,G	F_ME_PRES	**Reporting Flag for Fetal Presentation**			See footnote
405	1	P,G	F_ME_ROUT	**Reporting Flag for Final Route and Method of Delivery**			See footnote
406	1	P,G	F_ME_TRIAL	**Reporting Flag for Trial of Labor Attempted**			See footnote
407	1	P,G	RDMETH_REC	**Delivery Method Recode**	409	1	Vaginal (excludes vaginal after previous C-section)
						2	Vaginal after previous c-section
						3	Primary C-section

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						4	Repeat C-section
						5	Vaginal (unknown if previous c-section)
						6	C-section (unknown if previous c-section)
						9	Not stated
408	1	P,G	DMETH_REC	**Delivery Method Recode Combined**		1	Vaginal
						2	C-Section
						9	Unknown
409	1	P,G	F_DMETH_REC	**Reporting Flag for Method of Delivery Recode**			See footnote
410-414	5		FILLER36	**FILLER**		Blank	
415-427	13	**Maternal Morbidity**					
415	1	P,G	MM_MTR	**Maternal Transfusion**	421	Y	Yes
416	1	P,G	MM_PLAC	**Perineal Laceration**	422	N	No
417	1	P,G	MM_RUPT	**Ruptured Uterus**	423	U	Unknown or not stated
418	1	P,G	MM_UHYST	**Unplanned Hysterectomy**	424		
419	1	P,G	MM_AICU	**Admit to Intensive Care**	425		
420	1		FILLER37	**FILLER**		Blank	
421	1	P,G	F_MM_MTR	**Reporting Flag for Maternal Transfusion**			See footnote
422	1	P,G	F_MM_ PLAC	**Reporting Flag for Perineal Laceration**			
423	1	P,G	F_MM_RUPT	**Reporting Flag for Ruptured Uterus**			
424	1	P,G	F_MM_UHYST	**Reporting Flag for Unplanned Hysterectomy**			
425	1	P,G	F_MM_AICU	**Reporting Flag for Admission to Intensive Care**			
426	1		FILLER38	**FILLER**		Blank	
427	1	P,G	NO_MMORB	**No Maternal Morbidity Checked**		1	True
					126	0	False
						9	Not Reported
428-432	5		FILLER39	**FILLER**		Blank	
433	1	P,G	ATTEND	**Attendant**		1	Doctor of Medicine (MD)
						2	Doctor of Osteopathy (DO)
						3	Certified Nurse Midwife (CNM)
						4	Other Midwife
						5	Other
						9	Unknown or not stated
434	1	P,G	MTRAN	**Mother Transferred**	126	Y	Yes
						N	No

1/ Flag Definitions: 0 Not reported either year, or not reported in either the previous or the current year, 1 Reported both years

Position	Len	File*	Field	Description	Flag Position	Values	Definition
						U	Unknown
435	1	P,G	PAY	**Payment Source**	437	1	Medicaid
						2	Private Insurance
						3	Self-Pay
						4	Indian Health Service
						5	CHAMPUS/TRICARE
						6	Other Government (Federal, State, Local)
						8	Other
						9	Unknown
436	1	P,G	PAY_REC	**Payment Recode**	438	1	Medicaid
						2	Private Insurance
						3	Self Pay
						4	Other
						9	Unknown
437	1	P,G	F_PAY	**Reporting Flag for Source of Payment**			See footnote
438	1	P,G	F_PAY_REC	**Reporting Flag for Payment Recode**			See footnote
439-443	5		FILLER40	**FILLER**		Blank	
444-445	2	P,G	APGAR5	**Five Minute APGAR Score**	447	00-10	A score of 0-10
						99	Unknown or not stated
446	1	P,G	APGAR5R	**Five Minute APGAR Recode**		1	A score of 0-3
					447	2	A score of 4-6
						3	A score of 7-8
						4	A score of 9-10
						5	Unknown or not stated
447	1	P,G	F_APGAR5	**Reporting Flag for Five minute APGAR**		0	Non-Reporting
						1	Reporting
448-449	2	P,G	APGAR10	**Ten Minute APGAR Score**		00-10	A score of 0-10
				Use reporting flag in field 126 for 2015		88	Not applicable
						99	Unknown or not stated
450	1	P,G	APGAR10R	**Ten Minute APGAR Recode**		1	A score of 0-3
				Use reporting flag in field 126 for 2015		2	A score of 4-6
						3	A score of 7-8
						4	A score of 9-10
						5	Not stated/not applicable
451-453	3		FILLER41	**FILLER**		Blank	

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
454	1	P,G	DPLURAL	**Plurality Recode**		1	Single
						2	Twin
						3	Triplet
						4	Quadruplet
						5	Quintuplet or higher
455	1		FILLER42	**FILLER**		Blank	
456	1	P,G	IMP_PLUR	**Plurality Imputed**		Blank	Plurality is imputed
						1	Plurality is not imputed
457-458	2		FILLER43	**FILLER**		Blank	
459	1	P,G	SETORDER_R	**Set Order Recode**	126	1	1st , 2 2nd, 3 3rd, 4 4th, 5 5th to 16th
						9	Unknown or not stated
460-474	15		FILLER44	**FILLER**		Blank	
475	1	P,G	SEX	**Sex of Infant**		M	Male
						F	Female
476	1	P,G	IMP_SEX	**Imputed Sex**		Blank	Infant Sex not Imputed
						1	Infant Sex is Imputed
477-478	2	P,G	DLMP_MM	**Last Normal Menses Month**		01	January
						02	February
						03	March
						04	April
						05	May
						06	June
						07	July
						08	August
						09	September
						10	October
						11	November
						12	December
						99	Unknown or not stated
479-480	2		FILLER45	**FILLER**		Blank	
481-484	4	P,G	DLMP_YY	**Last Normal Menses Year**		nnnn	Year of last normal menses
						9999	Unknown or not stated
485-487	3		FILLER46	**FILLER**		Blank	

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
488	1	P,G	COMBGST_IMP	**Combined Gestation Imputed**		Blank	Combined Gestation is not imputed
						1	Combined Gestation is imputed
489	1	P,G	OBGEST_FLG	**Obstetric Estimate of Gestation Used Flag**		Blank	Clinical Estimate is not used
						1	Clinical Estimate is used
490-491	2	P,G	COMBGEST	**Combined Gestation – Detail in Weeks**		17-47	17th through 47th week of Gestation
						99	Unknown
492-493	2	P,G	GESTREC10	**Combined Gestation Recode 10**		01	Under 20 weeks
						02	20-27 weeks
						03	28-31 weeks
						04	32-33 weeks
						05	34-36 weeks
						06	37-38 weeks
						07	39 weeks
						08	40 weeks
						09	41 weeks
						10	42 weeks and over
						99	Unknown
494	1	P,G	GESTREC3	**Combined Gestation Recode 3**		1	Under 37 weeks
						2	37 weeks and over
						3	Not stated
495-497	3		FILLER47	**FILLER**		Blank	
498	1	P,G	LMPUSED	**Computed (LMP) Gestation Used Flag**		Blank	LMP not used for gestation
						1	LMP used for gestation
499-500	2	P,G	OEGest_Comb	**Obstetric Estimate Edited** (NCHS Standard item)		17-47	Weeks of gestation
						99	Not stated
501-502	2	P,G	OEGest_R10	**Obstetric Estimate Recode10** (NCHS Standard item)		01	Under 20 weeks
						02	20-27 weeks
						03	28-31 weeks
						04	32-33 weeks
						05	34-36 weeks
						06	37-38 weeks
						07	39 weeks
						08	40 weeks
						09	41 weeks
						10	42 weeks and over
						99	Unknown
503	1	P,G	OEGest_R3	**Obstetric Estimate Recode 3**		1	Under 37 weeks

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
				(NCHS Standard Item)		2	37 weeks and over
						3	Not stated
504-508	5		FILLER48	**FILLER**		Blank	
509-510	2	P,G	BWTR14	**Birth Weight Recode 14**		01	227 - 499 grams
						02	500 – 749 grams
						03	750 – 999 grams
						04	1000 - 1249 grams
						05	1250 – 1499 grams
						06	1500 – 1999 grams
						07	2000 – 2499 grams
						08	2500 – 2999 grams
						09	3000 – 3499 grams
						10	3500 – 3999 grams
						11	4000 – 4499 grams
						12	4500 – 4999 grams
						13	5000 – 8165 grams
						14	Not Stated
511	1	P,G	BWTR4	**Birth Weight Recode 4**		1	227 - 1499 grams
						2	1500 – 2499 grams
						3	2500 - 8165 grams
						4	Unknown or not stated
512-515	4	P,G	BRTHWGT	**Imputed Birth Weight**		0227-8165	Number of grams
						9999	Not stated birth weight
516	1		FILLER49	**FILLER**		Blank	

The following checkbox fields 517-566 include data for revised states only. For national data for items that are comparable across revisions see fields 1340-1345.

517-531	15	**Abnormal Conditions of the Newborn**					
517	1	P,G	AB_AVEN1	**Assisted Ventilation**	524	Y	Yes
518	1	P,G	AB_AVEN6	**Assisted Ventilation > 6 hrs**	525	N	No
519	1	P,G	AB_NICU	**Admission to NICU**	526	U	Unknown or not stated
520	1	P,G	AB_SURF	**Surfactant**	527		
521	1	P,G	AB_ANTI	**Antibiotics**	528		
522	1	P,G	AB_SEIZ	**Seizures**	529		
523	1		FILLER50	**FILLER**		Blank	
524	1	P,G	F_AB_AVEN1	**Reporting Flag for Assisted Ventilation**			See footnote
525	1	P,G	F_AB_AVEN6	**Reporting Flag for Assisted Ventilation >6 hrs**			

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
526	1	P,G	F_AB_NICU	**Reporting Flag for Admission to NICU**			
527	1	P,G	F_AB_SURF	**Reporting Flag for Surfactant**			
528	1	P,G	F_AB_ANTI	**Reporting Flag for Antibiotics**			
529	1	P,G	F_AB_SEIZ	**Reporting Flag for Seizures**			
530	1	P,G	FILLER51	**FILLER**		Blank	
531	1	P,G	NO_ABNORM	**No Abnormal Conditions Checked**		1	True
					126	0	False
						9	Not Reported
532-536	5	P,G	FILLER52	**FILLER**		Blank	
537-561	25	**Congenital Anomalies of the Newborn**					
537	1	P,G	CA_ANEN	**Anencephaly**	543	Y	Yes
538	1	P,G	CA_MNSB	**Meningomyelocele / Spina Bifida**	544	N	No
539	1	P,G	CA_CCHD	**Cyanotic Congenital Heart Disease**	545	U	Unknown or not stated
540	1	P,G	CA_CDH	**Congenital Diaphragmatic Hernia**	546		
541	1	P,G	CA_OMPH	**Omphalocele**	547		
542	1	P,G	CA_GAST	**Gastroschisis**	548		
543	1	P,G	F_CA_ANEN	**Reporting Flag for Anencephaly**			See footnote
544	1	P,G	F_CA_MNSB	**Flag for Meningomyelocele/Spina Bifida**			
545	1	P,G	F_CA_CCHD	**Reporting Flag for Cyanotic Congenital Heart Disease**			
546	1	P,G	F_CA_CDH	**Reporting Flag for Congenital Diaphragmatic Hernia**			
547	1	P,G	F_CA_OMPH	**Reporting Flag for Omphalocele**			
548	1	P,G	F_CA_GAST	**Reporting Flag for Gastroschisis**			
549	1	P,G	CA_LIMB	**Limb Reduction Defect**	555	Y	Yes
550	1	P,G	CA_CLEFT	**Cleft Lip w/ or w/o Cleft Palate**	556	N	No
551	1	P,G	CA_CLPAL	**Cleft Palate alone**	557	U	Unknown or not stated
552	1	P,G	CA_DOWN	**Down Syndrome**	558	C	Confirmed
						P	Pending
						N	No
						U	Unknown
553	1	P,G	CA_DISOR	**Suspected Chromosomal Disorder**		C	Confirmed
					559	P	Pending
						N	No
						U	Unknown
554	1	P,G	CA_HYPO	**Hypospadias**	560	Y	Yes, anomaly reported
						N	No, anomaly not reported
						U	Unknown

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
555	1	P,G	F_CA_LIMB	**Reporting Flag for Limb Reduction Defect**			See footnote
556	1	P,G	F_CA_CLEFT	**Flag for Cleft Lip with or without Cleft Palate**			
557	1	P,G	F_CA_CLPAL	**Reporting Flag for Cleft Plate Alone**			
558	1	P,G	F_CA_DOWN	**Reporting Flag for Down Syndrome**			
559	1	P,G	F_CA_DISOR	**Reporting Flag for Suspected Chromosomal Disorder**			
560	1	P,G	F_CA_HYPO	**Reporting Flag for Hypospadias**			
561	1	P,G	NO_CONGEN	**No Congenital Anomalies Checked**		1	True
					126	0	False
						9	Not Reported
562-566	5	P,G	FILLER53	**FILLER**		Blank	
567	1	P,G	ITRAN	**Infant Transferred**	126	Y	Yes
						N	No
						U	Unknown or not stated
568	1	P,G	ILIVE	**Infant Living at Time of Report**		Y	Yes
					126	N	No
						U	Unknown or not stated
569	1	P,G	BFED	**Infant Being Breastfed**	570	Y	Yes
						N	No
						U	Unknown or not stated
570	1	P,G	F_BFED	**Reporting Flag for Breastfed at Discharge**		0	Non-Reporting
						1	Reporting
571-1329	759		FILLER54	**FILLER**		Blank	

The following items (fields 1330-1338 and 1340-1345) are comparable across revisions and include data for revised and unrevised reporting areas.

1330	1	P,G	uBFacil	**Place of birth**		1	Hospital
						2	Freestanding Birthing Center
						3	Clinic / Doctor's Office
						4	Residence
						5	Other
						9	Unknown
1331-1345	**Unrevised Check Boxes**			All checkbox items below follow this coding structure:		1	Yes
						2	No
						9	Unknown

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
1331	1	P,G	uRF_Diab	**Diabetes**			
1332	1	P,G	uRF_Chype	**Chronic Hypertension**			
1333	1	P,G	uRF_Phype	**Prepregnacy Associated Hypertension**			
1334	1	P,G	uRf_Ehype	**Eclampsia**	338		
1335	1	P,G	uME_Forc	**Forceps**			
1336	1	P,G	uME_Vacu	**Vacuum**			
1337	1	P,G	uOB_Indu	**Induction of Labor**			
1338	1	P,G	uLD_Bree	**Breech**			
1339	1	P,G	FILLER55	**FILLER**		Blank	
1340	1	P,G	uCA_Anen	**Anencephaly**			
1341	1	P,G	uCA_Spina	**Spina Bifida / Meningocele**			
1342	1	P,G	uCA_Omph	**Omphalocele / Gastroschisis**			
1343	1	P,G	uCA_Clip	**Cleft Lip / Palate**			
1344	1	P,G	uCA_Hern	**Diaphragmatic Hernia**			
1345	1	P,G	uCA_Down	**Down Syndrome**			
1346	1	P,G	FLGND	**Match Status**		1	Record in both files
						Blank	Record not in both files

Here ends the Denominator file. Documentation of the Mortality Section of the Numerator (Linked) file begins below.

1347-1355	9	FILLER56	**FILLER**	Blank	
1356-1358	3	AGED	**Age at Death in Days**	000-365	Number of days
1359	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)
1360-1361	2	AGER22	**Infant age recode 22**	Blank	Age 1 year and over or not stated
				01	Under 1 hour (includes not stated hours and minutes)
				02	1 – 23 hours
				03	1 day (includes not stated days)
				04	2 days
				05	3 days
				06	4 days
				07	5 days
				08	6 days
				09	7 days (includes not stated weeks)
				10	14 – 20 days
				11	21 – 27 days

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
						12	1 month (includes not stated months)
						13	2 months
						14	3 months
						15	4 months
						16	5 months
						17	6 months
						18	7 months
						19	8 months
						20	9 months
						21	10 months
						22	11 months
1362	1	MANNER		**Manner of Death**		1	Accident
						2	Suicide
						3	Homicide
						4	Pending investigation
						5	Could not determine
						6	Self-inflicted
						7	Natural
						Blank	Not specified
1363	1	DISPO		**Method of Disposition**		B	Burial
						C	Cremation
						O	Other
						U	Unknown
1364	1	AUTOPSY		**Autopsy**		Y	Yes
						N	No
						U	Unknown
1365	1	FILLER57		**FILLER**		Blank	
1366	1	PLACE		**Place of injury for causes W00-Y34, except Y06.- and Y07. -**		0	Home
						1	Residential institution
						2	School, other institution and public administrative area
						1	Sports and athletics area
						2	Street and highway
						3	Trade and service area
						4	Industrial and construction area
						5	Farm
						6	Other Specified Places
						7	Unspecified place
						Blank	Cause other than W00-Y34, except Y06.- and Y07.-
1367	1	FILLER58		**FILLER**		Blank	

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
		UNDERLYING CAUSE OF DEATH					
1368-1371	4	UC0D		**ICD Code (10th Revision) See the International Classification of Diseases, 1992 Revision, Volume 1.**			
1372	1	FILLER59		**FILLER**		Blank	
1373-1375	3	UCODR130		**130 Infant Cause Recode**			
1376	1	FILLER60		**FILLER**		Blank	
1377-1384	8	RECWT		**Record Weight (no weights computed for possessions file)**		1.XXXXXX	
1385-1386	2	FILLER61		**FILLER**		Blank	
		MULTIPLE CONDITIONS					
1387-1388	2	EANUM		**Number of Entity-Axis Conditions**	00-20	Code range	
1389-1528	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			
1389-1395	7			1st Condition			
1396-1402	7			2nd Condition			
1403-1409	7			3rd Condition			
1410-1416	7			4th Condition			
1417-1423	7			5th Condition			
1424-1430	7			6th Condition			
1431-1437	7			7th Condition			
1438-1444	7			8th Condition			
1445-1451	7			9th Condition			

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
1452-1458	7			10th Condition			
1459-1465	7			11th Condition			
1466-1472	7			12th Condition			
1473-1479	7			13th Condition			
1480-1486	7			14th Condition			
1487-1493	7			15th Condition			
1494-1500	7			16th Condition			
1501-1507	7			17th Condition			
1508-1514	7			18th Condition			
1515-1521	7			19th Condition			
1522-1528	7			20th Condition			
1529-1530	2	FILLER62		**FILLER**		Blank	
1531-1532	2	RANUM		**Number of Record-Axis Conditions**		00-20	Code range
1533-1632	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			
1533-1537	5			1st Condition			
1538-1542	5			2nd Condition			
1543-1547	5			3rd Condition			
1548-1552	5			4th Condition			
1553-1557	5			5th Condition			
1558-1562	5			6th Condition			
1563-1567	5			7th Condition			
1568-1572	5			8th Condition			
1573-1577	5			9th Condition			
1578-1582	5			10th Condition			
1583-1587	5			11th Condition			
1588-1592	5			12th Condition			
1593-1597	5			13th Condition			
1598-1602	5			14th Condition			
1603-1607	5			15th Condition			
1608-1612	5			16th Condition			
1613-1617	5			17th Condition			
1618-1622	5			18th Condition			
1623-1627	5			19th Condition			
1628-1632	5			20th Condition			
1633-1669	37	FILLER63		**FILLER**		Blank	
1670	1	HOSPD		**Place of Death and Decendent's Status**		1	Hospital, clinic or Medical Center – Inpatient

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
						2	Hospital, clinic or Medical Center – Outpatient or admitted to Emergency Room
						8	Hospital, clinic or Medical Center – Dead on Arrival
						9	Decedent's home
						10	Hospice facility
						11	Nursing home/long term care
						12	Other
						9	Place of death unknown
1671	1	DWEEKDAY		**Day of Week of Death**		1	Sunday
						2	Monday
						3	Tuesday
						4	Wednesday
						5	Thursday
						6	Friday
						7	Saturday
						9	Unknown
1672-1675	4	DOD_YY		**Data Year**		2015	2015
1676-1741	66	FILLER64		**FILLER**		Blank	
1742-1743	2	DOD_MM		**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

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Position	Len	File*	Field	Description	Flag Position	Values	Definition

ADDENDUM
Detailed geographic information for the territories.

24-25	2	T,G	OSTATE	**Occurrence Postal State**			
				U.S. Territories		GU Guam, PR Puerto Rico, VI Virgin Islands	
28-30	3	T,G	OCNTYFIPS	**Occurrence FIPS County**		000-nnn	County of Occurrence
31	1	T,G	OCNTYPOP	**Occurrence County Population**		0	County of 1,000,000 or more
						1	County of 500,000 to 1,000,000
						2	County of 250,000 to 500,000
						3	County of 100,000 to 250,000
						4	County of 50,000 to 100,000
						5	County of 25,000 to 50,000
						6	County of 10,000 to 25,000
						9	County less than 10,000
80-81	2	T,G	MBCNTRY	**Mother's Birth Country**		AA-ZZ	See Geographic Documentation
85-86	2	G	MRCNTRY	**Mother's Residence Country**		AA-ZZ	See Geographic Documentation
89-90	2	T,G	MRSTATEPSTL	**Mother's Residence Postal State**			
				U.S. Territories		GU Guam, PR Puerto Rico, VI Virgin Islands	
				Foreign		CC Canada, CU Cuba, MX Mexico, XX Not Applicable, ZZ Not Classifiable	
91-93	3	T,G	MRCNTYFIPS	**Mother's FIPS County**		000-998	See Geographic Tables
						999	Foreign
99	1	T,G	RCNTY_POP	**Population of Residence County**		0	County of 1,000,000 or more
						1	County of 500,000 to 1,000,000
						2	County of 250,000 to 500,000
						3	County of 100,000 to 250,000
						4	County of 50,000 to 100,000
						5	County of 25,000 to 50,000
						6	County of 10,000 to 25,000
						9	County less than 10,000
						Z	Foreign resident
100	1	G	RCITY_POP	**Population of Residence City**		0	County of 1,000,000 or more
						1	County of 500,000 to 1,000,000
						2	County of 250,000 to 500,000
						3	County of 100,000 to 250,000
						4	County of 50,000 to 100,000
						5	County of 25,000 to 50,000
						6	County of 10,000 to 25,000

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
						9	County less than 10,000
						Z	Foreign resident
103	1	T,G	RECTYPE	**Record Type**		1	RESIDENT: State and county of occurrence and residence are the same.
						2	NONRESIDENT: State and county of occurrence and residence are different.
1635	1		D_RESTATUS	**Death Resident Status**			
				Puerto Rico Occurrence			
						1	RESIDENTS Territory and County-equivalent of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS Territory of Occurrence and Residence are the same, but County-equivalent is different.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in Puerto Rico to a resident of any other place.
				Virgin Islands Occurrence			
						1	RESIDENTS Territory and County-equivalent of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS Territory of Occurrence and Residence are the same, but County-equivalent is different.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in 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.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in Guam to a resident of any place other than Guam or the U.S.
1636-1637	2		DOSTATE	**State of Occurrence (FIPS) of Death**		PR	Puerto Rico
						VI	Virgin Islands
						GU	Guam

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
1638-1640	3		DOCNTY	**County of Occurrence (FIPS) of Death** Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State and identify each county. (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.			
						001-nnn	Code range
1641-1643	3		FILLER65	**FILLER**		Blank	
1644-1645	2		DRSTATE	**State of Residence (FIPS)**		PR	Puerto Rico
						VI	Virgin Islands
						GU	Guam
				Puerto Rico Occurrence		PR	Puerto Rico
						AL-WY, VI,AS,GU, MP,ZZ	
						Foreign residents: refer to U.S. for specific code structure.	
				Virgin Islands Occurrence		VI	Virgin Islands
						AL-WY, PR,AS,GU, MP, ZZ	
						Foreign residents: refer to U.S. for specific code structure.	
				Guam Occurrence		GU	Guam
						AL-WY U.S. resident. Also considered a resident of Guam.	
						PR, AS, VI, MP, ZZ	
						Foreign residents: refer to U.S. for specific code structure.	
1646-1647	2		FILLER66	**FILLER**		Blank	
1648-1649	2		DRSTCNTRY	**State/Country of Residence of Death Recode**			
				Territorial resident		PR	Puerto Rico
						VI	Virgin Islands
						GU	Guam
				Foreign residents		CC	Canada
						MX	Mexico
						CU	Cuba
						YY	Remainder of the world
				Puerto Rico Occurrence		PR	Puerto Rico
						AL-ZZ	Foreign residents: refer to U.S. for specific code structure.
				Virgin Islands Occurrence		VI	Virgin Islands
						AL-ZZ	Foreign residents: refer to U.S. for specific code structure.
				Guam Occurrence		GU	Guam

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Position	Len	File*	Field	Description	Flag Position	Values	Definition
						AL-WY	U.S. resident. Also considered a resident of Guam
						PR,VI,AS, MP,ZZ	
						Foreign residents: refer to U.S. for specific code structure.	
1650-1652	3		DRCNTY	**County of Residence (FIPS) of Death**			
				(To uniquely identify a county, both the state and county codes must be used.)			
						000	Foreign residents
						001-nnn	Code range
1653-1665	13		FILLER67	**FILLER**		Blank	
1666	1		DRCNTYPOP	**Population Size of County of Residence of Death**			
Based on the results of the 2010 Census					0	County of 1,000,000 or more	
						1	County of 500,000 to 1,000,000
						2	County of 250,000 to 500,000
						3	County of 100,000 to 250,000
						4	County of 50,000 to 100,000
						5	County of 25,000 to 50,000
						6	County of 10,000 to 25,000
						9	County less than 10,000
						Z	Foreign residents

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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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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)

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

Documentation Table 1. Live births and infant death by state of occurrence of birth and by state of residence at birth and the infant mortality rate: United States, Puerto Rico, Virgin Islands, and Guam, 2015 Period Data.
(Residence of birth is of the Mother)

	Live Births		Infant Deaths				
			Unweighted		Weighted 1/		
State	Occurrence	Residence	Occurrence	Residence	Occurrence	Residence	Infant Mortality Rate
United States /2	3,988,733	3,978,497	23,348	23,320	23,490	23,462	5.90
Alabama	58,034	59,657	471	496	471	496	8.31
Alaska	11,176	11,282	74	78	74	78	6.91
Arizona	86,399	85,351	455	463	459	467	5.47
Arkansas	37,571	38,886	264	292	265	293	7.53
California	492,759	491,748	2,141	2,139	2,180	2,178	4.43
Colorado	67,162	66,581	337	310	337	310	4.66
Connecticut	37,242	35,746	200	201	201	202	5.65
Delaware	11,511	11,166	99	102	99	102	9.13
Dist of Columbia	14,615	9,578	124	84	124	84	8.77
Florida	224,530	224,269	1,406	1,399	1,406	1,399	6.24
Georgia	132,678	131,404	1,041	1,024	1,041	1,024	7.79
Hawaii	18,453	18,420	106	105	105	104	5.65
Idaho	22,474	22,827	97	107	97	107	4.69
Illinois	154,193	158,116	884	946	886	948	6.00
Indiana	84,995	84,040	599	608	605	614	7.31
Iowa	39,491	39,482	150	167	150	167	4.23
Kansas	40,238	39,154	212	233	212	233	5.95
Kentucky	53,515	55,971	342	370	347	375	6.70
Louisiana	64,774	64,692	489	489	489	489	7.56
Maine	12,385	12,607	79	82	80	83	6.58
Maryland	70,314	73,616	471	485	471	485	6.59
Massachusetts	71,993	71,492	314	308	315	309	4.32
Michigan	112,309	113,312	742	739	742	739	6.52
Minnesota	69,092	69,834	372	361	372	361	5.17
Mississippi	37,589	38,394	341	363	341	363	9.45
Missouri	76,170	75,061	547	486	548	487	6.49
Montana	12,523	12,583	69	73	69	73	5.80
Nebraska	27,120	26,679	157	151	158	152	5.70
Nevada	35,951	36,298	187	188	187	188	5.18
New Hampshire	12,494	12,433	62	51	62	51	4.10
New Jersey	100,883	103,127	454	474	463	483	4.68
New Mexico	24,296	25,816	115	131	115	131	5.07
New York	116,319	120,224	582	613	588	619	5.15
New York City	121,674	117,050	508	479	508	479	4.09
North Carolina	122,670	120,843	894	887	895	888	7.35
North Dakota	12,839	11,314	80	81	80	81	7.16
Ohio	140,050	139,264	1,019	995	1,024	1,000	7.18
Oklahoma	51,900	53,122	383	388	384	389	7.32
Oregon	46,101	45,655	243	235	243	235	5.15
Pennsylvania	140,130	141,047	890	863	894	867	6.15
Rhode Island	11,552	10,993	74	65	74	65	5.91
South Carolina	54,754	58,139	379	402	379	402	6.91
South Dakota	12,969	12,336	97	90	97	90	7.30
Tennessee	87,432	81,685	634	564	638	568	6.95

Documentation Table 1. Live births and infant death by state of occurrence of birth and by state of residence at birth and the infant mortality rate: United States, Puerto Rico, Virgin Islands, and Guam, 2015 Period Data -Con.
(Residence of birth is of the Mother)

	Live Births		Infant Deaths				
			Unweighted		Weighted 1/		
State	Occurrence	Residence	Occurrence	Residence	Occurrence	Residence	Infant Mortality Rate
Texas	412,672	403,618	2,301	2,257	2,350	2,305	5.71
Utah	51,723	50,778	271	255	271	255	5.02
Vermont	5,720	5,903	13	27	13	27	4.57
Virginia	102,182	103,303	588	610	588	610	5.90
Washington	88,905	88,990	434	434	434	434	4.88
West Virginia	20,422	19,805	153	139	155	141	7.12
Wisconsin	66,677	67,041	380	389	380	389	5.80
Wyoming	7,113	7,765	23	38	23	38	4.89
Foreign Residents	-	10,236	-	31	-	31	3.03
Puerto Rico	31,235	31,157	220	217	219	216	6.93
Guam	3,367	3,358	48	48	47	47	14.00

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 and Guam.

Documentation Table 2. Live births,infant deaths and infant mortality rates by race of mother, sex and birthweight of child: United States, 2015 Period Data.
[Rates are per 1,000 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.....	3,978,497	6,647	9,700	11,185	12,947	16,213	62,972	202,601	3,655,556	676
Infant deaths.....	23,458	5,623	3,729	1,354	812	671	1,558	2,060	7,511	137
Infant Mortality Rate.....	5.90	845.95	384.43	121.05	62.72	41.39	24.74	10.17	2.05	202.66
Male										
Live births.....	2,036,161	3,346	4,869	5,629	6,462	8,261	30,738	92,392	1,884,092	372
Infant deaths.....	12,998	2,921	2,143	794	434	387	819	1,056	4,345	100
Infant Mortality Rate.....	6.38	872.98	440.13	141.06	67.16	46.85	26.64	11.43	2.31	268.82
Female										
Live births.....	1,942,336	3,301	4,831	5,556	6,485	7,952	32,234	110,209	1,771,464	304
Infant deaths.....	10,459	2,702	1,587	561	378	284	739	1,005	3,166	37
Infant Mortality Rate.....	5.38	818.54	328.5	100.97	58.29	35.71	22.93	9.12	1.79	121.71
Non-Hispanic White										
Both sexes										
Live births.....	2,130,279	2,273	3,531	4,605	5,664	7,459	29,775	94,771	1,982,030	171
Infant deaths.....	10,444	1,967	1,465	588	398	300	743	965	3,972	47
Infant Mortality Rate.....	4.90	865.38	414.9	127.69	70.27	40.22	24.95	10.18	2.00	274.85
Male										
Live births.....	1,092,789	1,108	1,745	2,353	2,829	3,842	14,416	43,039	1,023,371	86
Infant deaths.....	5,837	986	840	344	206	176	390	504	2,358	32
Infant Mortality Rate.....	5.34	889.89	481.38	146.2	72.82	45.81	27.05	11.71	2.30	372.09
Female										
Live births.....	1,037,490	1,165	1,786	2,252	2,835	3,617	15,359	51,732	958,659	85
Infant deaths.....	4,607	980	625	244	192	124	353	461	1,614	15
Infant Mortality Rate.....	4.44	841.2	349.94	108.35	67.72	34.28	22.98	8.91	1.68	*
Non-Hispanic Black										
Both sexes										
Live births.....	589,047	2,527	3,471	3,469	3,700	4,215	15,382	46,188	510,014	81
Infant deaths.....	6,624	2,073	1,183	389	185	176	375	513	1,680	49
Infant Mortality Rate.....	11.25	820.34	340.82	112.14	50.00	41.76	24.38	11.11	3.29	604.94
Male										
Live births.....	299,319	1,261	1,750	1,721	1,806	2,028	7,229	20,599	262,870	55
Infant deaths.....	3,642	1,067	674	230	99	99	218	258	959	37
Infant Mortality Rate.....	12.17	846.15	385.14	133.64	54.82	48.82	30.16	12.52	3.65	672.73

Documentation Table 2. Live births,infant deaths and infant mortality rates by race of mother, sex and birthweight of child: United States, 2015 Period Data -Con.
[Rates are per 1,000 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
Female										
Live births.....	289,728	1,266	1,721	1,748	1,894	2,187	8,153	25,589	247,144	26
Infant deaths.....	2,982	1,006	509	160	85	77	158	255	721	12
Infant Mortality Rate.....	10.29	794.63	295.76	91.53	44.88	35.21	19.38	9.97	2.92	*
American Indian or Alaskan Native /1										
Both sexes										
Live births.....	44,299	59	91	101	144	185	658	2,116	40,939	6
Infant deaths.....	366	48	43	16	15	12	22	31	178	1
Infant Mortality Rate.....	8.26	813.56	472.53	*	*	*	33.43	14.65	4.35	*
Male										
Live births.....	22,706	31	46	54	75	105	337	1,022	21,032	4
Infant deaths.....	200	27	24	10	10	7	8	12	100	1
Infant Mortality Rate.....	8.81	870.97	521.74	*	*	*	*	*	4.75	*
Female										
Live births.....	21,593	28	45	47	69	80	321	1,094	19,907	2
Infant deaths.....	166	21	19	6	5	5	14	19	77	-
Infant Mortality Rate.....	7.69	750.00	*	*	*	*	*	*	3.87	-
Asian or Pacific Islander										
Both sexes										
Live births.....	281,264	337	532	661	779	952	4,126	16,314	257,528	35
Infant deaths.....	1,179	301	206	77	32	38	70	126	325	4
Infant Mortality Rate.....	4.19	893.18	387.22	116.49	41.08	39.92	16.97	7.72	1.26	*
Male										
Live births.....	144,867	177	290	330	414	489	2,139	7,614	133,393	21
Infant deaths.....	667	164	130	46	19	21	29	70	183	4
Infant Mortality Rate.....	4.60	926.55	448.28	139.39	*	42.94	13.56	9.19	1.37	*
Female										
Live births.....	136,397	160	242	331	365	463	1,987	8,700	124,135	14
Infant deaths.....	512	137	76	30	13	17	41	55	142	-
Infant Mortality Rate.....	3.75	856.25	314.05	90.63	*	*	20.63	6.32	1.14	*
Hispanic										
Both sexes										
Live births.....	924,048	1,324	2,008	2,288	2,601	3,334	12,739	42,548	857,151	55
Infant deaths.....	4,583	1,120	778	270	177	140	339	415	1,321	22
Infant Mortality Rate.....	4.96	845.92	387.45	118.01	68.05	41.99	26.61	9.75	1.54	400.00

Documentation Table 2. Live births,infant deaths and infant mortality rates by race of mother, sex and birthweight of child: United States, 2015 Period Data -Con.
[Rates are per 1,000 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
Male										
Live births.....	471,456	706	1,000	1,144	1,307	1,761	6,479	19,840	439,186	33
Infant deaths.....	2,518	620	443	155	97	83	167	209	729	15
Infant Mortality Rate.....	5.34	878.19	443	135.49	74.22	47.13	25.78	10.53	1.66	*
Female										
Live births.....	452,592	618	1,008	1,144	1,294	1,573	6,260	22,708	417,965	22
Infant deaths.....	2,065	501	335	115	80	57	172	206	592	7
Infant Mortality Rate.....	4.56	810.68	332.34	100.52	61.82	36.24	27.48	9.07	1.42	*

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

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
All Races										
Total										
Live births.....	3,978,497	26,996	36,149	46,515	273,126	2,477,819	840,254	258,999	15,713	2,926
Infant deaths.....	23,458	10,570	1,651	967	2,392	5,925	1,280	404	66	203
Infant Mortality Rate.....	5.90	391.54	45.67	20.79	8.76	2.39	1.52	1.56	4.20	69.38
Less than 2,500 grams										
Live births.....	322,265	26,895	35,151	42,865	117,895	93,234	4,907	854	119	345
Infant deaths.....	15,809	10,564	1,614	864	1,462	1,104	100	33	16	52
Infant Mortality Rate.....	49.06	392.79	45.92	20.16	12.4	11.84	20.38	38.64	*	150.72
Less than 500 grams										
Live births.....	6,647	6,505	80	3	4	3	-	-	-	52
Infant deaths.....	5,623	5,563	37	1	1	-	-	-	-	21
Infant Mortality Rate.....	845.95	855.19	462.5	*	*	-	-	-	-	403.85
500-749 grams										
Live births.....	9,700	8,957	673	29	18	1	-	-	-	22
Infant deaths.....	3,729	3,579	135	7	2	-	-	-	-	7
Infant Mortality Rate.....	384.43	399.58	200.59	*	*	-	-	-	-	*
750-999 grams										
Live births.....	11,185	7,587	3,206	215	70	60	26	4	2	15
Infant deaths.....	1,354	1,033	269	25	17	4	1	-	-	5
Infant Mortality Rate.....	121.05	136.15	83.91	116.28	*	*	*	-	-	*
1,000-1,999 grams										
Live births.....	92,132	3,749	29,655	26,627	25,537	6,030	339	90	21	84
Infant deaths.....	3,042	380	1,066	586	646	317	17	12	5	12
Infant Mortality Rate.....	33.02	101.36	35.95	22.01	25.3	52.57	*	*	*	*
2,000-2,499 grams										
Live births.....	202,601.0	97.0	1,537.0	15,991.0	92,266.0	87,140.0	4,542.0	760	96	172
Infant deaths.....	2,060.0	10.0	107.0	244.0	796.0	783.0	81.0	21	11	6
Infant Mortality Rate.....	10.17	*	69.62	15.26	8.63	8.99	17.83	27.63	*	*
2,500 grams or more										
Live births.....	3,655,556	101	998	3,650	155,231	2,384,585	835,347	258,145	15,594	1,905
Infant deaths.....	7,511	6	37	103	930	4,821	1,181	371	49	14
Infant Mortality Rate.....	2.05	*	37.07	28.22	5.99	2.02	1.41	1.44	3.14	*

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data -Con.
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Not Stated										
Live births.....	676	-	-	-	-	-	-	-	-	676
Infant deaths.....	137	-	-	-	-	-	-	-	-	137
Infant Mortality Rate.....	202.66	-	-	-	-	-	-	-	-	202.66
Non-Hispanic white										
Total										
Live births.....	2,130,279	10,162	16,905	22,750	139,329	1,303,981	469,152	156,719	10,085	1,196
Infant deaths.....	10,444	3,969	786	427	1,216	3,050	671	215	38	72
Infant Mortality Rate.....	4.90	390.57	46.5	18.77	8.73	2.34	1.43	1.37	3.77	60.20
Less than 2,500 grams										
Live births.....	148,078.0	10,114.0	16,447.0	20,952.0	56,598.0	41,232.0	2,127.0	395	59	154
Infant deaths.....	6,425.0	3,966.0	761.0	377.0	711.0	525.0	44.0	14	9	18
Infant Mortality Rate.....	43.39	392.13	46.27	17.99	12.56	12.73	20.69	*	*	*
Less than 500 grams										
Live births.....	2,273	2,212	37	1	4	1	-	-	-	18
Infant deaths.....	1,967	1,940	21	1	1	-	-	-	-	3
Infant Mortality Rate.....	865.38	877.03	567.57	*	*	-	-	-	-	*
500-749 grams										
Live births.....	3,531	3,195	309	11	13	-	-	-	-	3
Infant deaths.....	1,465	1,393	67	1	1	-	-	-	-	2
Infant Mortality Rate.....	414.9	435.99	216.83	*	*	-	-	-	-	*
750-999 grams										
Live births.....	4,605	3,021	1,366	113	37	36	19	2	1	10
Infant deaths.....	588	440	114	19	9	2	1	-	-	3
Infant Mortality Rate.....	127.69	145.65	83.46	*	*	*	*	-	-	*
1,000-1,999 grams										
Live births.....	42,898	1,640	13,993	12,496	11,746	2,763	163	44	9	44
Infant deaths.....	1,441	185	512	247	308	166	8	5	2	8
Infant Mortality Rate.....	33.59	112.8	36.59	19.77	26.22	60.08	*	*	*	*
2,000-2,499 grams										
Live births.....	94,771	46	742	8,331	44,798	38,432	1,945	349	49	79
Infant deaths.....	965	7	47	108	392	357	35	9	7	2
Infant Mortality Rate.....	10.18	*	63.34	12.96	8.75	9.29	17.99	*	*	*

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data -Con.
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
2,500 grams or more										
Live births.....	1,982,030	48	458	1,798	82,731	1,262,749	467,025	156,324	10,026	871
Infant deaths.....	3,972	3	25	50	505	2,525	627	201	29	7
Infant Mortality Rate.....	2.00	*	54.59	27.81	6.10	2.00	1.34	1.29	2.89	*
Not Stated										
Live births.....	171	-	-	-	-	-	-	-	-	171
Infant deaths.....	47	-	-	-	-	-	-	-	-	47
Infant Mortality Rate.....	274.85	-	-	-	-	-	-	-	-	274.85
Non-Hispanic black										
Total										
Live births.....	589,047	9,118	9,060	10,260	50,473	367,887	109,003	30,847	1,948	451
Infant deaths.....	6,624	3,577	427	255	547	1,362	299	76	13	67
Infant Mortality Rate.....	11.25	392.3	47.13	24.85	10.84	3.70	2.74	2.46	*	148.56
Less than 2,500 grams										
Live births.....	78,952	9,097	8,848	9,645	26,514	23,352	1,204	185	28	79
Infant deaths.....	4,895	3,576	424	234	361	245	32	6	4	12
Infant Mortality Rate.....	62.00	393.1	47.92	24.26	13.62	10.49	26.58	*	*	*
Less than 500 grams										
Live births.....	2,527	2,486	26	-	-	2	-	-	-	13
Infant deaths.....	2,073	2,057	9	-	-	-	-	-	-	7
Infant Mortality Rate.....	820.34	827.43	*	-	-	-	-	-	-	*
500-749 grams										
Live births.....	3,471	3,245	207	10	2	1	-	-	-	6
Infant deaths.....	1,183	1,140	39	3	-	-	-	-	-	1
Infant Mortality Rate.....	340.82	351.31	188.41	*	-	-	-	-	-	*
750-999 grams										
Live births.....	3,469	2,387	1,011	41	13	9	3	2	1	2
Infant deaths.....	389	297	83	3	4	1	-	-	-	1
Infant Mortality Rate.....	112.14	124.42	82.10	*	*	*	-	-	-	*
1,000-1,999 grams										
Live births.....	23,297	954	7,317	6,773	6,596	1,532	70	27	7	21
Infant deaths.....	736	81	278	167	149	51	3	4	2	1
Infant Mortality Rate.....	31.59	84.91	37.99	24.66	22.59	33.29	*	*	*	*
2,000-2,499 grams										
Live births.....	46,188	25	287	2,821	19,903	21,808	1,131	156	20	37
Infant deaths.....	513	1	15	61	208	193	29	2	2	2
Infant Mortality Rate.....	11.11	*	*	21.62	10.45	8.85	25.64	*	*	*

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data -Con.
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
2,500 grams or more										
Live births.....	510,014	21	212	615	23,959	344,535	107,799	30,662	1,920	291
Infant deaths.....	1,680	1	3	21	186	1,117	267	70	9	6
Infant Mortality Rate.....	3.29	*	*	34.15	7.76	3.24	2.48	2.28	*	*
Not Stated										
Live births.....	81	-	-	-	-	-	-	-	-	81
Infant deaths.....	49	-	-	-	-	-	-	-	-	49
Infant Mortality Rate.....	604.94	-	-	-	-	-	-	-	-	604.94
American Indian or Alaskan Native/1										
Total										
Live births.....	44,299	281	414	550	3,415	27,744	8,900	2,741	177	77
Infant deaths.....	366	110	20	23	40	135	26	8	1	2
Infant Mortality Rate.....	8.26	391.46	48.31	41.82	11.71	4.87	2.92	*	*	*
Less than 2,500 grams										
Live births.....	3,354	280	393	482	1,224	908	43	11	2	11
Infant deaths.....	188	110	19	20	15	19	2	1	-	1
Infant Mortality Rate.....	56.05	392.86	*	41.49	*	*	*	*	-	*
Less than 500 grams										
Live births.....	59	56	1	-	-	-	-	-	-	2
Infant deaths.....	48	47	-	-	-	-	-	-	-	1
Infant Mortality Rate.....	813.56	839.29	-	-	-	-	-	-	-	*
500-749 grams										
Live births.....	91	87	3	1	-	-	-	-	-	-
Infant deaths.....	43	41	-	2	-	-	-	-	-	-
Infant Mortality Rate.....	472.53	471.26	-	*	-	-	-	-	-	-
750-999 grams										
Live births.....	101	77	21	1	1	1	-	-	-	-
Infant deaths.....	16	12	4	-	-	-	-	-	-	-
Infant Mortality Rate.....	*	*	*	-	- -		-	-	-	-
1,000-1,999 grams										
Live births.....	987	59	342	269	242	68	3	1	-	3
Infant deaths.....	49	10	15	12	7	3	1	1	-	-
Infant Mortality Rate.....	49.65	*	*	*	*	*	*	*	-	-
2,000-2,499 grams										
Live births.....	2,116	1	26	211	981	839	40	10	2	6
Infant deaths.....	31	-	-	6	8	16	1	-	-	-
Infant Mortality Rate.....	14.65	-	-	*	*	*	*	-	-	-

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data -Con.
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
2,500 grams or more										
Live births.....	40,939	1	21	68	2,191	26,836	8,857	2,730	175	60
Infant deaths.....	178	-	1	3	25	116	24	7	1	-
Infant Mortality Rate.....	4.35	-	*	*	11.41	4.32	2.71	*	*	-
Not Stated										
Live births.....	6	-	-	-	-	-	-	-	-	6
Infant deaths.....	1	-	-	-	-	-	-	-	-	1
Infant Mortality Rate.....	*	-	-	-	-	-	-	-	-	*
Asian or Pacific Islander										
Total										
Live births.....	281,264	1,469	2,037	2,762	17,996	182,727	57,968	15,541	614	150
Infant deaths.....	1179	567	85	55	119	260	60	24	2	6
Infant Mortality Rate.....	4.19	385.98	41.73	19.91	6.61	1.42	1.04	1.54	*	*
Less than 2,500 grams										
Live births.....	23,701	1,461	1,974	2,567	8,643	8,561	401	69	3	22
Infant deaths.....	850	567	83	50	80	61	5	2	-	2
Infant Mortality Rate.....	35.86	388.09	42.05	19.48	9.26	7.13	*	*	-	*
Less than 500 grams										
Live births.....	337	331	3	-	-	-	-	-	-	3
Infant deaths.....	301	298	2	-	-	-	-	-	-	1
Infant Mortality Rate.....	893.18	900.3	*	-	-	-	-	-	-	*
500-749 grams										
Live births.....	532	481	47	1	1	-	-	-	-	2
Infant deaths.....	206	198	8	-	-	-	-	-	-	-
Infant Mortality Rate.....	387.22	411.64	*	-	-	-	-	-	-	-
750-999 grams										
Live births.....	661	441	195	19	1	1	3	-	-	1
Infant deaths.....	77	57	17	2	-	1	-	-	-	-
Infant Mortality Rate.....	116.49	129.25	*	*	-	*	-	-	-	-
1,000-1,999 grams										
Live births.....	5,857	204	1,649	1,604	1,882	486	21	7	1	3
Infant deaths.....	141	15	47	27	34	12	2	2	-	1
Infant Mortality Rate.....	24.07	*	28.5	16.83	18.07	*	*	*	-	*
2,000-2,499 grams										
Live births.....	16314	4	80	943	6759	8074	377	62	2	13
Infant deaths.....	126	-	8	21	45	48	3	-	-	-
Infant Mortality Rate.....	7.72	-	*	22.27	6.66	5.95	*	-	-	-

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data -Con.
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
2,500 grams or more										
Live births.....	257,528	8	63	195	9,353	174,166	57,567	15,472	611	93
Infant deaths.....	325	-	2	5	39	199	55	22	2	-
Infant Mortality Rate.....	1.26	-	*	*	4.17	1.14	0.96	1.42	*	-
Not Stated										
Live births.....	35	-	-	-	-	-	-	-	-	35
Infant deaths.....	4	-	-	-	-	-	-	-	-	4
Infant Mortality Rate.....	*	-	-	-	-	-	-	-	-	*
Hispanic										
Total										
Live births.....	924,048	5,732	7,560	9,974	61,152	591,492	192,938	51,880	2,719	601
Infant deaths.....	4,583	2,172	314	195	454	1,099	218	85	10	36
Infant Mortality Rate.....	4.96	378.93	41.53	19.55	7.42	1.86	1.13	1.64	*	59.9
Less than 2,500 grams										
Live births.....	66,842	5,710	7,318	9,016	24,476	18,946	1,108	186	28	54
Infant deaths.....	3,239	2,171	308	175	288	254	17	10	3	12
Infant Mortality Rate.....	48.46	380.21	42.09	19.41	11.77	13.41	*	*	*	*
Less than 500 grams										
Live births.....	1,324	1,298	12	1	-	-	-	-	-	13
Infant deaths.....	1,120	1,109	5	-	-	-	-	-	-	6
Infant Mortality Rate.....	845.92	854.39	*	-	-	-	-	-	-	*
500-749 grams										
Live births.....	2,008	1,885	106	5	2	-	-	-	-	10
Infant deaths.....	778	756	17	1	1	-	-	-	-	3
Infant Mortality Rate.....	387.45	401.06	*	*	*	-	-	-	-	*
750-999 grams										
Live births.....	2,288	1,621	596	39	18	12	1	-	-	1
Infant deaths.....	270	217	47	-	4	-	-	-	-	1
Infant Mortality Rate.....	118.01	133.87	78.86	-	*	-	-	-	-	*
1,000-1,999 grams										
Live births.....	18,674	887	6,214	5,340	4,949	1,180	80	12	4	8
Infant deaths.....	655	87	204	128	147	85	3	-	1	1
Infant Mortality Rate.....	35.08	98.08	32.83	23.97	29.7	72.03	*	-	*	*
2,000-2,499 grams										
Live births.....	42,548	19	390	3,631	19,507	17,754	1,027	174	24	22
Infant deaths.....	415	2	35	46	136	169	14	10	2	1
Infant Mortality Rate.....	9.75	*	89.74	12.67	6.97	9.52	*	*	*	*

Documentation Table 3. Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United States, 2015 period data -Con.
[Rates are per 1,000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
2,500 grams or more										
Live births.....	857,151	22	242	958	36,676	572,546	191,830	51,694	2,691	492
Infant deaths.....	1321	1	6	20	166	845	200	75	7	1
Infant Mortality Rate.....	1.54	*	*	20.88	4.53	1.48	1.04	1.45	*	*
Not Stated										
Live births.....	55	-	-	-	-	-	-	-	-	55
Infant deaths.....	22	-	-	-	-	-	-	-	-	22
Infant Mortality Rate.....	400.00	-	-	-	-	-	-	-	-	400.00

-/ Quality Zero

*/ 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 4. Live births, infant deaths and infant mortality rates by birthweight, race of mother, and age at death: United States, 2015 period data.
[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

Birthweight and race of mother	Live Births	Infant	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
All Races						
Total (all birthweights)	3,978,497	23,458	15,672	12,579	3,093	7,786
Rate		5.90	3.94	3.16	0.78	1.96
Less than 2,500 grams	322,265	15,809	12,886	10,880	2,007	2,923
Rate		49.06	39.99	33.76	6.23	9.07
Less than 500 grams	6,647	5,623	5,495	5,324	172	128
Rate		845.95	826.69	800.96	25.88	19.26
500-749 grams	9,700	3,729	3,144	2,437	707	585
Rate		384.43	324.12	251.24	72.89	60.31
750-999 grams	11,185	1,354	1,050	730	320	305
Rate		121.05	93.88	65.27	28.61	27.27
1,000-1,249 grams	12,947	812	607	449	158	206
Rate		62.72	46.88	34.68	12.20	15.91
1,250-1,499 grams	16,213	671	485	376	108	186
Rate		41.39	29.91	23.19	6.66	11.47
1,500-1,749 grams	24,069	789	541	419	122	248
Rate		32.78	22.48	17.41	5.07	10.30
1,750-1,999 grams	38,903	769	469	357	111	301
Rate		19.77	12.06	9.18	2.85	7.74
2,000-2,499 grams	202,601	2,060	1,096	788	309	964
Rate		10.17	5.41	3.89	1.53	4.76
2,500 grams or more	3,655,556	7,511	2,653	1,567	1,085	4,859
Rate		2.05	0.73	0.43	0.30	1.33
Not Stated	676	137	133	132	1	4
Rate		202.66	196.75	195.27	*	*
Non-Hispanic White						
Total (all birthweights)	2,130,279	10,444	6,724	5,306	1,417	3,721
Rate		4.90	3.16	2.49	0.67	1.75

Documentation Table 4. Live births, infant deaths and infant mortality rates by birthweight, race of mother, and age at death: United States, 2015 period data -Con.

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

Birthweight and race of mother	Live Births	Infant	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
Less than 2,500 grams	148,078	6,425	5,235	4,415	820	1,190
Rate		43.39	35.35	29.82	5.54	8.04
Less than 500 grams	2,273	1,967	1,923	1,858	64	44
Rate		865.38	846.02	817.42	28.16	19.36
500-749 grams	3,531	1,465	1,256	1,002	254	208
Rate		414.90	355.71	283.77	71.93	58.91
750-999 grams	4,605	588	475	340	135	112
Rate		127.69	103.15	73.83	29.32	24.32
1,000-1,249 grams	5,664	398	306	231	75	92
Rate		70.27	54.03	40.78	13.24	16.24
1,250-1,499 grams	7,459	300	228	188	40	71
Rate		40.22	30.57	25.20	5.36	9.52
1,500-1,749 grams	11,225	381	271	213	58	110
Rate		33.94	24.14	18.98	5.17	9.80
1,750-1,999 grams	18,550	362	238	185	53	123
Rate		19.51	12.83	9.97	2.86	6.63
2,000-2,499 grams	94,771	965	536	397	140	429
Rate		10.18	5.66	4.19	1.48	4.53
2,500 grams or more	1,982,030	3,972	1,444	846	598	2528
Rate		2.00	0.73	0.43	0.30	1.28
Not Stated	171	47	45	45	-	2
Rate		274.85	263.16	263.16	-	*
Non-Hispanic Black						
Total (all birthweights)	589,047	6,624	4,348	3,529	819	2,276
Rate		11.25	7.38	5.99	1.39	3.86
Less than 2,500 grams	78,952	4,895	3,849	3,240	609	1,045
Rate		62.00	48.75	41.04	7.71	13.24
Less than 500 grams	2,527	2,073	2,016	1,941	75	57
Rate		820.34	797.78	768.10	29.68	22.56

Documentation Table 4. Live births, infant deaths and infant mortality rates by birthweight, race of mother, and age at death: United States, 2015 period data -Con.

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

Birthweight and race of mother	Live Births	Infant	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
500-749 grams	3,471	1,183	943	688	255	240
Rate		340.82	271.68	198.21	73.47	69.14
750-999 grams	3,469	389	269	171	98	120
Rate		112.14	77.54	49.29	28.25	34.59
1,000-1,249 grams	3,700	185	126	93	33	59
Rate		50.00	34.05	25.14	8.92	15.95
1,250-1,499 grams	4,215	176	100	69	31	76
Rate		41.76	23.72	16.37	7.35	18.03
1,500-1,749 grams	6,061	182	101	80	21	81
Rate		30.03	16.66	13.20	3.46	13.36
1,750-1,999 grams	9,321	194	88	62	26	105
Rate		20.81	9.44	6.65	2.79	11.26
2,000-2,499 grams	46,188	513	206	136	70	306
Rate		11.11	4.46	2.94	1.52	6.63
2,500 grams or more	510,014	1,680	449	240	210	1,231
Rate		3.29	0.88	0.47	0.41	2.41
Not Stated	81	49	49	49	-	-
Rate		604.94	604.94	604.94	-	-
American Indian or Alaskan Native /1						
Total (all birthweights)	44,299	366	193	143	50	173
Rate		8.26	4.36	3.23	1.13	3.91
Less than 2,500 grams	3,354	188	136	115	21	51
Rate		56.05	40.55	34.29	6.26	15.21
Less than 500 grams	59	48	48	47	1	-
Rate		813.56	813.56	796.61	*	-
500-749 grams	91	43	37	33	4	6
Rate		472.53	406.59	362.64	*	*
750-999 grams	101	16	10	5	5	6
Rate		*	*	*	*	*
1,000-1,249 grams	144	15	10	6	4	5
Rate		*	*	*	*	*

Documentation Table 4. Live births, infant deaths and infant mortality rates by birthweight, race of mother, and age at death: United States, 2015 period data -Con.

neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

Birthweight and race of mother	Live Births	Infant	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
1,250-1,499 grams	185	12	9	8	1	3
Rate		*	*	*	*	*
1,500-1,749 grams	263	13	7	5	2	6
Rate		*	*	*	*	*
1,750-1,999 grams	395	9	3	3	-	6
Rate		*	*	*	-	*
2,000-2,499 grams	2,116	31	12	8	4	19
Rate		14.65	*	*	*	*
2,500 grams or more	40,939	178	55	26	29	122
Rate		4.35	1.34	0.64	0.71	2.98
Not Stated	6	1	1	1	-	-
Rate		*	*	*	-	-
Asian or Pacific Islander						
Total (all birthweights)	281,264	1,179	854	691	163	325
Rate		4.19	3.04	2.46	0.58	1.16
Less than 2,500 grams	23,701	850	719	603	115	131
Rate		35.86	30.34	25.44	4.85	5.53
Less than 500 grams	337	301	293	285	8	8
Rate		893.18	869.44	845.70	*	*
500-749 grams	532	206	183	149	34	23
Rate		387.22	343.98	280.08	63.91	43.23
750-999 grams	661	77	65	51	14	12
Rate		116.49	98.34	77.16	*	*
1,000-1,249 grams	779	32	26	16	10	6
Rate		41.08	33.38	*	*	*
1,250-1,499 grams	952	38	29	22	7	9
Rate		39.92	30.46	23.11	*	*
1,500-1,749 grams	1,516	35	27	17	10	8
Rate		23.09	17.81	*	*	*

Documentation Table 4. Live births, infant deaths and infant mortality rates by birthweight, race of mother, and age at death: United States, 2015 period data -Con.

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

Birthweight and race of mother	Live Births	Infant	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
1,750-1,999 grams	2,610	35	18	10	8	17
Rate		13.41	*	*	*	*
2,000-2,499 grams	16,314	126	78	54	24	48
Rate		7.72	4.78	3.31	1.47	2.94
2,500 grams or more	257,528	325	131	84	47	194
Rate		1.26	0.51	0.33	0.18	0.75
Not Stated	35	4	4	4	-	-
Rate		*	*	*	-	-
Hispanic						
Total (all birthweights)	924,048	4,583	3,325	2,685	640	1,258
Rate		4.96	3.60	2.91	0.69	1.36
Less than 2,500 grams	66,842	3,239	2,748	2,308	440	491
Rate		48.46	41.11	34.53	6.58	7.35
Less than 500 grams	1,324	1,120	1,101	1,078	23	19
Rate		845.92	831.57	814.20	17.37 *	
500-749 grams	2,008	778	675	517	158	103
Rate		387.45	336.16	257.47	78.69	51.29
750-999 grams	2,288	270	214	147	67	55
Rate		118.01	93.53	64.25	29.28	24.04
1,000-1,249 grams	2,601	177	137	101	36	40
Rate		68.05	52.67	38.83	13.84	15.38
1,250-1,499 grams	3,334	140	114	85	28	26
Rate		41.99	34.19	25.49	8.40	7.80
1,500-1,749 grams	4,881	173	131	101	30	42
Rate		35.44	26.84	20.69	6.15	8.60
1,750-1,999 grams	7,858	166	119	93	25	47
Rate		21.12	15.14	11.84	3.18	5.98
2,000-2,499 grams	42,548	415	258	186	72	158
Rate		9.75	6.06	4.37	1.69	3.71
2,500 grams or more	857,151	1,321	555	356	199	767
Rate		1.54	0.65	0.42	0.23	0.89
Not Stated	55	22	22	21	1	-
Rate		400.00	400.00	381.82	*	-

* 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

Documentation Table 5. Infant deaths and infant mortality rates by age of death and birthweight for 10 major causes of infant death: United States, 2015 period data

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 100,000 live births]

Cause of death and birthweight	Live Births	Total Infant Deaths	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
All birthweights						
All Causes	3978497	23458	15672	12579	3093	7786
		589.6	393.9	316.2	77.7	195.7
Congenital malformations (Q00-Q99)		4847	3491	2678	813	1357
		121.8	87.7	67.3	20.4	34.1
Short gestation and low birthweight nec (P07)		4087	3985	3865	119	102
		102.7	100.2	97.1	3	2.6
Maternal complications of pregnancy (P01)		1527	1514	1504	10	13
		38.4	38.1	37.8 *	*	
Sudden infant death syndrome (R95)		1567	151	23	127	1416
		39.4	3.8	0.6	3.2	35.6
Accidents (unintentional injures) (V01-X59)		1289	120	27	93	1168
		32.4	3	0.7	2.3	29.4
Complications of placenta, cord, membranes (P02)		909	897	868	29	12
		22.8	22.5	21.8	0.7 *	
Bacterial sepsis of newborn (P36)		599	581	245	336	18
		15.1	14.6	6.2	8.4 *	
Respiratory distress of newborn (P22)		462	452	347	105	10
		11.6	11.4	8.7	2.6 *	
Diseases of the circulatory system (I00-I99)		425	96	55	41	330
		10.7	2.4	1.4	1	8.3
Neonatal hemorrhage (P50-P52, P54)		408	402	295	106	6
		10.3	10.1	7.4	2.7 *	
All other causes		7338	3984	2672	1312	3354
		184.4	100.1	67.2	33	84.3
Less than 2,500 grams						
All Causes	322265	15809	12886	10880	2007	2923
		4905.6	3998.6	3376.1	622.8	907
Congenital malformations (Q00-Q99)		3024	2346	1937	408	679
		938.4	728	601.1	126.6	210.7
Short gestation and low birthweight nec (P07)		3989	3890	3771	119	99
		1237.8	1207.1	1170.2	36.9	30.7
Maternal complications of pregnancy (P01)		1471	1458	1448	10	13
		456.5	452.4	449.3 *	*	
Sudden infant death syndrome (R95)		314	30	5	25	284
		97.4	9.3 *		7.8	88.1
Accidents (unintentional injures) (V01-X59)		213	16	6	10	197
		66.1 *	*	*		61.1
Complications of placenta, cord, membranes (P02)		795	784	763	21	11
		246.7	243.3	236.8	6.5 *	
Bacterial sepsis of newborn (P36)		546	530	220	310	16
		169.4	164.5	68.3	96.2 *	

Documentation Table 5. Infant deaths and infant mortality rates by age of death and birthweight for 10 major causes of infant death: United States, 2015 period data -Con.

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 100,000 live births]

Cause of death and birthweight	Live Births	Total Infant Deaths	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
Respiratory distress of newborn (P22)		457	447	342	105	10
		141.8	138.7	106.1	32.6 *	
Diseases of the circulatory system (I00-I99)		218	46	30	16	171
		67.6	14.3	9.3 *		53.1
Neonatal hemorrhage (P50-P52, P54)		363	357	270	87	6
		112.6	110.8	83.8	27 *	
All other causes		4418	2981	2086	895	1437
		1370.9	925	647.3	277.7	445.9
2,500 grams or more						
All Causes	3655556	7511	2653	1567	1085	4859
		205.5	72.6	42.9	29.7	132.9
Congenital malformations (Q00-Q99)		1820	1142	738	405	678
		49.8	31.2	20.2	11.1	18.5
Short gestation and low birthweight nec (P07)		27	24	24 -		3
		0.7	0.7	0.7 -	*	
Maternal complications of pregnancy (P01)		30	30	30 -	-	
		0.8	0.8	0.8 -	-	
Sudden infant death syndrome (R95)		1252	120	18	102	1132
		34.2	3.3 *		2.8	31
Accidents (unintentional injures) (V01-X59)		1074	104	21	83	970
		29.4	2.8	0.6	2.3	26.5
Complications of placenta, cord, membranes (P02)		99	98	91	7	1
		2.7	2.7	2.5 *	*	
Bacterial sepsis of newborn (P36)		52	50	24	26	2
		1.4	1.4	0.7	0.7 *	
Respiratory distress of newborn (P22)		5	5	5 -	-	
	*	*	*	-	-	
Diseases of the circulatory system (I00-I99)		208	49	24	25	158
		5.7	1.3	0.7	0.7	4.3
Neonatal hemorrhage (P50-P52, P54)		44	44	25	19 -	
		1.2	1.2	0.7 *	-	
All other causes		2899	984	566	418	1915
		79.3	26.9	15.5	11.4	52.4
Not state birthweight						
All Causes	676	137	133	132	1	4
		20266.3	19674.6	19526.6 *	*	
Congenital malformations (Q00-Q99)		3	3	3 -	-	
	*	*	*	-	-	
Short gestation and low birthweight nec (P07)		70	70	70 -	-	
		10355	10355	10355 -	-	
Maternal complications of pregnancy (P01)		25	25	25 -	-	
		3698.2	3698.2	3698.2 -	-	
Sudden infant death syndrome (R95)		1 -	-	-		1
	*	-	-	-	*	
Accidents (unintentional injures) (V01-X59)		1 -	-	-		1
	*	-	-	-	*	
Complications of placenta, cord, membranes (P02)		15	15	14	1 -	
	*	*	*	*	-	
Bacterial sepsis of newborn (P36)	-	-	-	-	-	
	-	-	-	-	-	
Respiratory distress of newborn (P22)	-	-	-	-	-	
	-	-	-	-	-	

Documentation Table 5. Infant deaths and infant mortality rates by age of death and birthweight for 10 major causes of infant death: [Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal

Cause of death and birthweight	Live Births	Total Infant Deaths	Total Neonatal	Early Neonatal	Late Neonatal	Post-Neonatal
Diseases of the circulatory system (I00-I99).....	-	-	-	-	-	
	-	-	-	-	-	
Neonatal hemorrhage (P50-P52, P54).....	-	-	-	-	-	
	-	-	-	-	-	
All other causes.....		21	19	19	-	2
		3106.5	*	*	-	*

*/Figure does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
/ Quantity zero.

Documentation Table 6. Unlinked infant deaths by age at death and state of residence: United States and each state, 2015.

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

State /1	Total Infant	Total neonatal	Early neonatal	Late neonatal	Post-neonatal
United States /2	142	125	113	12	17
Alabama	-	-	-	-	-
Alaska	-	-	-	-	-
Arizona	4	2	1	1	2
Arkansas	1	-	-	-	1
California	39	33	30	3	6
Colorado	-	-	-	-	-
Connecticut	1	1	1	-	-
Delaware	-	-	-	-	-
Dist of Columbia	-	-	-	-	-
Florida	-	-	-	-	-
Georgia	-	-	-	-	-
Hawaii	-	-	-	-	-
Idaho	-	-	-	-	-
Illinois	2	2	2	-	-
Indiana	6	6	6	-	-
Iowa	-	-	-	-	-
Kansas	-	-	-	-	-
Kentucky	5	5	4	1	-
Louisiana	-	-	-	-	-
Maine	1	1	1	-	-
Maryland	-	-	-	-	-
Massachusetts	1	1	1	-	-
Michigan	1	-	-	-	1
Minnesota	-	-	-	-	-
Mississippi	-	-	-	-	-
Missouri	1	1	1	-	-
Montana	-	-	-	-	-
Nebraska	1	1	1	-	-
Nevada	-	-	-	-	-
New Hampshire	-	-	-	-	-
New Jersey	9	9	9	-	-
New Mexico	1	-	-	-	1
New York	5	5	5	-	-
New York City	-	-	-	-	-
North Carolina	1	1	1	-	-
North Dakota	-	-	-	-	-
Ohio	6	4	3	1	2

Documentation Table 6. Unlinked infant deaths by age at death and state of residence: United States and each state, 2015 -Con.

[Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days. Postneonatal deaths are 28 days to less than 12 months. Rates are per 1,000 live births]

State /1	Total Infant	Total neonatal	Early neonatal	Late neonatal	Post-neonatal
Oklahoma	2	1	-	1	1
Oregon	-	-	-	-	-
Pennsylvania	4	3	3	-	1
Rhode Island	-	-	-	-	-
South Carolina	-	-	-	-	-
South Dakota	-	-	-	-	-
Tennessee	3	3	3	-	-
Texas	47	45	40	5	2
Utah	-	-	-	-	-
Vermont	-	-	-	-	-
Virginia	-	-	-	-	-
Washington	-	-	-	-	-
West Virginia	1	1	1	-	-
Wisconsin	-	-	-	-	-
Wyoming	-	-	-	-	-
Foreign Residents	1	1	1	-	-
Puerto Rico	-	-	-	-	-
Virgin Islands	-	-	-	-	-
Guam	-	-	-	-	-

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.

Table 1. 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, 2015 linked file

Characteristics	All origins[1]	Non-Hispanic				Hispanic				
		White	Black	American Indian or Alaska Native2	Asian or Pacific Islander	Total	Mexican	Puerto Rican	Cuban	Central and South American
	Infant mortality rates per 1,000 live births in specified group									
Total	5.90	4.90	11.25	8.26	4.19	4.96	4.87	6.42	4.22	4.03
Age at death										
Total neonatal	3.94	3.16	7.38	4.36	3.04	3.60	3.48	4.65	3.32	3.00
Early neonatal (< 7 days)	3.16	2.49	5.99	3.23	2.46	2.91	2.79	3.75	2.84	2.45
Late neonatal (7-27 days)	0.78	0.67	1.39	1.13	0.58	0.69	0.68	0.90	*	0.55
Postneonatal	1.96	1.75	3.86	3.91	1.16	1.36	1.39	1.77	*	1.02
Sex										
Male	6.38	5.34	12.17	8.81	4.60	5.34	5.24	6.85	4.63	4.39
Female	5.38	4.44	10.29	7.69	3.75	4.56	4.48	5.98	3.69	3.65
Plurality										
Single births	5.22	4.32	10.03	7.55	3.58	4.47	4.45	5.75	3.33	3.59
Twin births	23.87	18.99	39.52	34.17	22.26	23.64	21.61	26.49	30.03	21.69
Triplet and higher order births	51.90	50.82	63.41	*	*	37.64	*	*	*	*
Birthweight										
Less than 2,500 grams	49.06	43.39	62.00	56.05	35.86	48.46	48.73	48.89	47.56	44.40
Less than 1,500 grams	215.04	200.45	230.53	231.03	200.55	215.06	218.77	214.17	206.08	201.22
1,500-2,499 grams	13.63	13.71	14.42	19.11	9.59	13.64	14.34	10.82	*	12.28
2,500 grams or more	2.05	2.00	3.29	4.35	1.26	1.54	1.63	1.96	*	1.06
Period of gestation										
Less than 32 weeks	193.54	175.68	220.32	187.05	185.97	187.11	189.08	186.14	201.89	173.64
32-33 weeks	20.79	18.77	24.85	41.82	19.91	19.55	20.64	*	*	21.78
34-36 weeks	8.76	8.73	10.84	11.71	6.61	7.42	7.78	6.55	*	6.09
37-41 weeks	2.17	2.10	3.48	4.42	1.33	1.68	1.72	2.16	*	1.15
37-38 weeks	3.25	3.32	4.63	4.85	1.89	2.54	2.55	2.57	*	1.91
39-40 weeks	1.71	1.63	2.89	4.17	1.07	1.28	1.35	1.97	*	0.82
41 weeks	1.56	1.37	2.46	*	1.54	1.64	2.02	*	*	*
42 weeks or more	4.20	3.77	*	*	*	*	*	*	*	*
Age of mother										
Under 20 years	8.32	8.13	11.69	7.72	9.92	6.12	5.78	7.92	*	5.69
20-24 years	7.01	6.13	11.68	8.55	6.23	4.83	4.54	6.23	*	4.30
25-29 years	5.69	4.79	11.04	7.79	3.80	4.70	4.56	6.43	4.38	3.83
30-34 years	4.78	3.89	10.36	8.35	3.59	4.54	4.46	6.04	3.59	3.64
35-39 years	5.36	4.43	11.25	6.80	4.16	4.94	5.35	5.31	*	3.51
40-54 years	7.82	6.23	13.77	*	5.25	8.24	8.76	*	*	6.23
Marital status										
Married	4.48	3.94	9.20	7.38	3.77	4.55	4.80	4.84	3.94	3.49
Unmarried	8.00	7.25	12.10	8.75	6.31	5.32	4.93	7.32	4.39	4.55
Mother's place of birth										
Born in the 50 States and D.C	6.23	4.97	11.81	8.49	5.60	5.35	5.03	6.24	4.90	4.29
Born elsewhere	4.49	3.61	7.39	*	3.69	4.51	4.64	6.98	3.52	3.97

See footnotes at end of table.

Table 1. 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, 2015 linked file--Con.

Characteristics	All origins[1]	Non-Hispanic		American Indian or Alaska Native[2]	Asian or Pacific Islander	Hispanic				
		White	Black			Total	Mexican	Puerto Rican	Cuban	Central and South American
					Live births					
Total	3,978,497	2,130,279	589,047	44,299	281,264	924,048	546,169	70,987	21,107	142,249
Sex										
Male	2,036,161	1,092,789	299,319	22,706	144,867	471,456	278,503	36,369	10,807	72,583
Female	1,942,336	1,037,490	289,728	21,593	136,397	452,592	267,666	34,618	10,300	69,666
Plurality										
Single births	3,841,219	2,050,814	565,228	43,170	272,633	900,844	533,304	68,674	20,421	138,727
Twin births	133,155	76,848	23,204	1,112	8,402	22,593	12,539	2,265	666	3,411
Triplet and higher order births	4,123	2,617	615	17	229	611	326	48	20	111
Birthweight										
Less than 2,500 grams	322,265	148,078	78,952	3,354	23,701	66,842	37,304	6,709	1,514	9,617
Less than 1,500 grams	56,692	23,532	17,382	580	3,261	11,555	6,276	1,256	296	1,635
1,500-2,499 grams	265,573	124,546	61,570	2,774	20,440	55,287	31,028	5,453	1,218	7,982
2,500 grams or more	3,655,556	1,982,030	510,014	40,939	257,528	857,151	508,830	64,275	19,593	132,621
Not stated	676	171	81	6	35	55	35	3	*	11
Period of gestation										
Less than 32 weeks	63,145	27,067	18,178	695	3,506	13,292	7,272	1,472	317	1,889
32-33 weeks	46,515	22,750	10,260	550	2,762	9,974	5,619	980	265	1,423
34-36 weeks	273,126	139,329	50,473	3,415	17,996	61,152	35,594	5,340	1,372	9,034
37-41 weeks	3,318,073	1,773,133	476,890	36,644	240,695	784,430	465,383	58,722	18,162	120,651
37-38 weeks	993,599	494,807	162,705	12,156	77,183	245,306	145,277	18,654	5,088	37,238
39-40 weeks	2,324,474	1,278,326	314,185	24,488	163,512	539,124	320,106	40,068	13,074	83,413
41 weeks	258,999	156,719	30,847	2,741	15,541	51,880	30,196	4,296	954	8,648
42 weeks or more	15,713	10,085	1,948	177	614	2,719	1,683	143	32	548
Not stated	2,926	1,196	451	77	150	601	422	34	5	56
Age of mother										
Under 20 years	232,215	91,415	50,884	4,791	4,334	81,350	50,891	6,947	775	8,430
20-24 years	850,509	399,373	175,597	13,458	26,174	236,264	143,962	21,012	4,115	26,296
25-29 years	1,152,311	642,150	165,895	12,842	73,386	256,106	150,279	20,213	6,845	38,594
30-34 years	1,094,693	646,767	119,976	8,506	105,490	209,647	120,961	14,246	5,857	39,047
35-39 years	527,996	290,877	60,863	3,824	57,400	112,045	63,524	6,962	2,772	23,618
40-54 years	120,773	59,697	15,832	878	14,480	28,636	16,552	1,607	743	6,264
Marital status										
Married	2,376,970	1,508,965	173,493	15,169	235,016	434,690	264,775	25,388	10,404	69,684
Unmarried	1,601,527	621,314	415,554	29,130	46,248	489,358	281,394	45,599	10,703	72,565
Mother's place of birth										
Born in the 50 States and D.C	3,070,685	1,987,686	496,926	41,821	65,150	469,158	280,679	52,902	10,003	24,221
Born elsewhere	899,131	139,579	89,597	2,406	214,976	453,798	265,040	17,776	11,095	117,925
Not stated	8,681	3,014	2,524	72	1,138	1,092	450	309	9	103

See footnotes at end of table.

Table 1. 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, 2015 linked file--Con.

Characteristics	All origins[1]	Non-Hispanic		American Indian or Alaska Native[2]	Asian or Pacific Islander	Hispanic				
		White	Black			Total	Mexican	Puerto Rican	Cuban	Central and South American
					Infant deaths					
Total	23,458	10,444	6,624	366	1,179	4,583	2,658	456	89	573
Age at death										
Total neonatal	15,672	6,724	4,348	193	854	3,325	1,898	330	70	427
Early neonatal (< 7 days)	12,579	5,306	3,529	143	691	2,685	1,524	266	60	349
Late neonatal (7-27 days)	3,093	1,417	819	50	163	640	374	64	10	78
Postneonatal	7,786	3,721	2,276	173	325	1,258	759	126	18	145
Sex										
Male	12,998	5,837	3,642	200	667	2,518	1,458	249	50	319
Female	10,459	4,607	2,982	166	512	2,065	1,200	207	38	254
Plurality										
Single births	20,066	8,852	5,668	326	976	4,025	2,375	395	68	498
Twin births	3,178	1,459	917	38	187	534	271	60	20	74
Triplet and higher order births	214	133	39	2	16	23	12	1	1	9
Birthweight										
Less than 2,500 grams	15,809	6,425	4,895	188	850	3,239	1,818	328	72	427
Less than 1,500 grams	12,191	4,717	4,007	134	654	2,485	1,373	269	61	329
1,500-2,499 grams	3,619	1,708	888	53	196	754	445	59	11	98
2,500 grams or more	7,511	3,972	1,680	178	325	1,321	829	126	16	141
Not stated	137	47	49	1	4	22	11	2	-	6
Period of gestation										
Less than 32 weeks	12,221	4,755	4,005	130	652	2,487	1,375	274	64	328
32-33 weeks	967	427	255	23	55	195	116	14	2	31
34-36 weeks	2,392	1,216	547	40	119	454	277	35	6	55
37-41 weeks	7,205	3,721	1,661	162	321	1,316	802	127	15	139
37-38 weeks	3,234	1,641	754	59	146	624	371	48	9	71
39-40 weeks	3,971	2,080	907	102	175	692	431	79	6	68
41 weeks	404	215	76	8	24	85	61	4	1	9
42 weeks or more	66	38	13	1	2	10	6	-	-	3
Not stated	203	72	67	2	6	36	21	2	-	7
Age of mother										
Under 20 years	1,932	743	595	37	43	498	294	55	3	48
20-24 years	5,959	2,447	2,051	115	163	1,141	653	131	18	113
25-29 years	6,560	3,078	1,832	100	279	1,203	686	130	30	148
30-34 years	5,230	2,515	1,243	71	379	952	539	86	21	142
35-39 years	2,830	1,290	685	26	239	553	340	37	7	83
40-54 years	945	372	218	16	76	236	145	17	9	39
Marital status										
Married	10,642	5,942	1,596	112	887	1,979	1,270	123	41	243
Unmarried	12,815	4,503	5,028	255	292	2,604	1,388	334	47	330
Mother's place of birth										
Born in the 50 States and D.C	19,135	9,874	5,869	355	365	2,508	1,411	330	49	104
Born elsewhere	4,039	504	662	11	794	2,047	1,230	124	39	468
Not stated	283	66	93	-	19	28	17	3	-	1

* Figure does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.
- Quantity zero.
1 Includes other and unknown Hispanic origin not stated, not shown separately.
2 Includes Aleuts and Eskimos.

NOTES: Infant deaths are weighted so numbers may not exactly add to totals due to rounding. Race and Hispanic origin are reported separately on birth certificates.

Table 2. Infant mortality rates by race and Hispanic origin of mother: United States and each State, Puerto Rico, and Guam, 2013-2015 linked files

[By place of residence]

	Total	Race and Hispanic origin of mother					Ratio of rate, non-Hispanic black and non-Hispanic white
		Non-Hispanic White	Non-Hispanic Black	American Indian or Alaska Native[1]	Asian or Pacific Islander	Hispanic	
	Infant mortality rates per 1,000 live births in specified group						
United States[2]	5.89	4.95	11.09	7.82	4.04	4.99	2.2
Alabama	8.53	6.44	13.39	*	*	6.50	2.1
Alaska	6.45	4.42	*	13.51	*	*	*
Arizona	5.61	4.91	10.97	7.98	4.77	5.43	2.2
Arkansas	7.63	7.04	11.06	*	6.84	5.43	1.6
California	4.50	3.75	9.55	5.74	3.46	4.43	2.5
Colorado	4.85	4.13	8.88	*	4.98	5.47	2.2
Connecticut	5.09	3.53	9.92	*	*	6.89	2.8
Delaware	7.43	5.67	11.94	*	*	6.56	2.1
District of Columbia	7.65	2.53	11.48	*	*	5.96	4.5
Florida	6.16	5.13	10.68	*	4.31	4.23	2.1
Georgia	7.44	5.10	11.56	*	3.87	5.60	2.3
Hawaii	5.51	4.24	13.10	*	5.86	4.33	3.1
Idaho	5.21	5.20	*	*	*	5.24	*
Illinois	6.18	4.82	12.11	*	4.34	5.18	2.5
Indiana	7.21	6.37	13.25	*	6.01	6.27	2.1
Iowa	4.42	4.15	8.47	*	5.59	3.94	2.0
Kansas	6.21	5.75	11.48	*	5.44	5.98	2.0
Kentucky	6.74	6.44	10.68	*	*	5.48	1.7
Louisiana	7.92	5.73	11.66	*	5.38	4.64	2.0
Maine	6.77	6.65	*	*	*	*	*
Maryland	6.57	4.17	10.77	*	4.75	5.21	2.6
Massachusetts	4.27	3.45	8.28	*	2.91	5.18	2.4
Michigan	6.68	5.22	12.10	*	4.49	7.29	2.3
Minnesota	5.09	4.09	10.28	9.53	5.81	5.14	2.5
Mississippi	9.08	6.91	11.95	*	*	6.87	1.7
Missouri	6.38	5.45	11.40	*	4.71	5.90	2.1
Montana	5.72	4.97	*	10.70	*	*	*
Nebraska	5.33	4.77	9.69	*	*	5.56	2.0
Nevada	5.34	4.69	9.90	*	4.49	4.57	2.1
New Hampshire	4.69	4.53	*	*	*	*	*
New Jersey	4.53	3.15	9.92	*	3.05	4.52	3.1
New Mexico	5.20	4.83	*	5.38	*	4.95	*
New York	4.73	3.81	8.77	*	3.14	4.62	2.3
North Carolina	7.16	5.51	12.25	8.61	4.73	5.55	2.2
North Dakota	6.10	5.35	*	11.52	*	*	*
Ohio	7.13	5.76	13.46	*	4.12	6.94	2.3
Oklahoma	7.42	6.86	12.93	7.11	6.31	6.05	1.9
Oregon	5.06	4.93	9.37	*	4.41	4.56	1.9
Pennsylvania	6.23	4.92	11.36	*	4.08	6.28	2.3
Rhode Island	5.61	3.98	10.59	*	*	6.01	2.7
South Carolina	6.74	4.97	10.52	*	*	5.00	2.1
South Dakota	6.48	5.35	*	11.71	*	*	*
Tennessee	6.87	5.69	11.35	*	6.56	5.24	2.0
Texas	5.79	5.00	10.53	*	4.14	5.30	2.1
Utah	5.04	4.67	11.26	*	5.99	5.53	2.4
Vermont	4.50	4.56	*	*	*	*	*
Virginia	5.91	4.70	10.64	*	3.53	4.81	2.3
Washington	4.63	4.21	8.56	8.35	4.01	4.62	2.0
West Virginia	7.22	7.03	11.90	*	*	*	1.7
Wisconsin	5.92	4.71	14.28	8.61	6.42	5.16	3.0
Wyoming	5.37	5.27	*	*	*	*	*
Puerto Rico	6.99	---	---	---	---	---	---
Guam	10.41	*	*	*	11.14	*	*

* Figure does not meet standards 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 and Guam.

NOTES: Race and Hispanic origin are reported separately on birth certificates.

Table 3. Percentage of live births with selected maternal and infant characteristics by race and Hispanic origin of mother: United States, 2015 linked file

Characteristic	All races and origins[1]	Non-Hispanic				Hispanic				
		White	Black	American Indian or Alaska Native	Asian or Pacific Islander	Total[1]	Mexican	Puerto Rican	Cuban	Central and South American
Birthweight:										
Less than 1,500 grams	1.43	1.10	2.99	1.30	1.20	1.25	1.15	1.77	1.40	1.15
Less than 2,500 grams	8.1	6.9	13.6	7.6	8.4	7.2	6.8	9.5	7.2	6.8
Preterm births[2]	9.6	8.9	13.5	10.5	8.6	9.1	8.9	11.0	9.3	8.7
Births to mothers under 20 years	5.8	4.3	8.5	10.8	1.5	8.8	9.3	9.8	3.7	5.9
Fourth and higher order births	12.4	10.2	16.7	21.7	6.7	16.1	18.3	12.9	5.6	13.9
Births to unmarried mothers	40.3	28.9	70.7	65.8	16.4	53.0	51.5	64.2	50.7	51.0
Mothers born in the 50 States and D.C.	77.4	93.6	84.6	94.6	23.3	50.8	51.4	74.8	47.4	17.0

1 Includes other and unknown Hispanic and origin not stated not shown separately.
2 Born prior to 37 completed weeks of gestation.

NOTES: D.C. is District of Columbia. Race and Hispanic origin are reported separately on birth certificates.

Table 4. Live births, infant, neonatal, and postneonatal deaths and mortality rates by race and Hispanic origin of mother and birthweight: United States, 2015 linked file

Race and Birthweight	Number in 2015					Mortality rate per 1,000 live births in 2015		
	Live births	Infant deaths	Neonatal deaths	Postneonatal deaths		Infant	Neonatal	Postneonatal
All races 1	3,978,497	23,458	15,672	7,786		5.90	3.94	1.96
Less than 2,500 grams	322,265	15,809	12,886	2,923		49.06	39.99	9.07
Less than 1,500 grams	56,692	12,191	10,781	1,410		215.04	190.17	24.87
Less than 500 grams	6,647	5,623	5,495	128		845.95	826.69	19.26
500-749 grams	9,700	3,729	3,144	585		384.43	324.12	60.31
750-999 grams	11,185	1,354	1,050	305		121.05	93.88	27.27
1,000-1,249 grams	12,947	812	607	206		62.72	46.88	15.91
1,250-1,499 grams	16,213	671	485	186		41.39	29.91	11.47
1,500-1,999 grams	62,972	1,558	1,009	549		24.74	16.02	8.72
2,000-2,499 grams	202,601	2,060	1,096	964		10.17	5.41	4.76
2,500 grams or more	3,655,556	7,511	2,653	4,859		2.05	0.73	1.33
2,500-2,999 grams	730,025	2,677	1,059	1,619		3.67	1.45	2.22
3,000-3,499 grams	1,544,610	2,892	930	1,961		1.87	0.60	1.27
3,500-3,999 grams	1,062,916	1,462	474	987		1.38	0.45	0.93
4,000-4,499 grams	274,528	378	136	243		1.38	0.50	0.89
4,500-4,999 grams	38,819	78	34	44		2.01	0.88	1.13
5,000 grams or more	4,658	24	19	5		5.15	*	*
Not stated	676	137	133	4		...	...	...
Non-Hispanic White	2,130,279	10,444	6,724	3,721		4.90	3.16	1.75
Less than 2,500 grams	148,078	6,425	5,235	1,190		43.39	35.35	8.04
Less than 1,500 grams	23,532	4,717	4,189	528		200.45	178.01	22.44
Less than 500 grams	2,273	1,967	1,923	44		865.38	846.02	19.36
500-749 grams	3,531	1,465	1,256	208		414.90	355.71	58.91
750-999 grams	4,605	588	475	112		127.69	103.15	24.32
1,000-1,249 grams	5,664	398	306	92		70.27	54.03	16.24
1,250-1,499 grams	7,459	300	228	71		40.22	30.57	9.52
1,500-1,999 grams	29,775	743	509	233		24.95	17.09	7.83
2,000-2,499 grams	94,771	965	536	429		10.18	5.66	4.53
2,500 grams or more	1,982,030	3,972	1,444	2,528		2.00	0.73	1.28
2,500-2,999 grams	336,545	1,293	536	758		3.84	1.59	2.25
3,000-3,499 grams	802,159	1,568	526	1,042		1.95	0.66	1.30
3,500-3,999 grams	635,739	813	276	537		1.28	0.43	0.84
4,000-4,499 grams	179,262	241	80	160		1.34	0.45	0.89
4,500-4,999 grams	25,588	48	20	28		1.88	0.78	1.09
5,000 grams or more	2,737	9	6	3		*	*	*
Not stated	171	47	45	2		...	...	...
Non-Hispanic Black	589,047	6,624	4,348	2,276		11.25	7.38	3.86
Less than 2,500 grams	78,952	4,895	3,849	1,045		62.00	48.75	13.24
Less than 1,500 grams	17,382	4,007	3,454	553		230.53	198.71	31.81
Less than 500 grams	2,527	2,073	2,016	57		820.34	797.78	22.56
500-749 grams	3,471	1,183	943	240		340.82	271.68	69.14
750-999 grams	3,469	389	269	120		112.14	77.54	34.59
1,000-1,249 grams	3,700	185	126	59		50.00	34.05	15.95
1,250-1,499 grams	4,215	176	100	76		41.76	23.72	18.03
1,500-1,999 grams	15,382	375	189	186		24.38	12.29	12.09
2,000-2,499 grams	46,188	513	206	306		11.11	4.46	6.63
2,500 grams or more	510,014	1,680	449	1,231		3.29	0.88	2.41
2,500-2,999 grams	146,600	717	205	512		4.89	1.40	3.49
3,000-3,499 grams	226,372	628	154	475		2.77	0.68	2.10
3,500-3,999 grams	110,750	258	54	203		2.33	0.49	1.83
4,000-4,499 grams	22,676	60	26	34		2.65	1.15	1.50
4,500-4,999 grams	3,137	13	7	6		*	*	*
5,000 grams or more	479	4	3	1		*	*	*
Not stated	81	49	49	-		...	...	...

See footnotes at end of table.

Table 4. Live births, infant, neonatal, and postneonatal deaths and mortality rates by race and Hispanic origin of mother and birthweight: United States, 2015 linked file--Con

Race and Birthweight	Number in 2015				Mortality rate per 1,000 live births in 2015		
	Live births	Infant deaths	Neonatal deaths	Postneonatal deaths	Infant	Neonatal	Postneonatal
American Indian 2	44,299	366	193	173	8.26	4.36	3.91
Less than 2,500 grams	3,354	188	136	51	56.05	40.55	15.21
Less than 1,500 grams	580	134	114	20	231.03	196.55	34.48
Less than 500 grams	59	48	48	-	813.56	813.56	*
500-749 grams	91	43	37	6	472.53	406.59	*
750-999 grams	101	16	10	6	*	*	*
1,000-1,249 grams	144	15	10	5	*	*	*
1,250-1,499 grams	185	12	9	3	*	*	*
1,500-1,999 grams	658	22	10	12	33.43	*	*
2,000-2,499 grams	2,116	31	12	19	14.65	*	*
2,500 grams or more	40,939	178	55	122	4.35	1.34	2.98
2,500-2,999 grams	7,388	64	25	39	8.66	3.38	5.28
3,000-3,499 grams	16,548	67	19	48	4.05	*	2.90
3,500-3,999 grams	12,545	34	9	25	2.71	*	1.99
4,000-4,499 grams	3,686	12	2	10	*	*	*
4,500-4,999 grams	652	-	-	-	*	*	*
5,000 grams or more	120	-	-	-	*	*	*
Not stated	6	1	1	-	...	...	...
Asian/Pacific Islander	281,264	1,179	854	325	4.19	3.04	1.16
Less than 2,500 grams	23,701	850	719	131	35.86	30.34	5.53
Less than 1,500 grams	3,261	654	596	58	200.55	182.77	17.79
Less than 500 grams	337	301	293	8	893.18	869.44	*
500-749 grams	532	206	183	23	387.22	343.98	43.23
750-999 grams	661	77	65	12	116.49	98.34	*
1,000-1,249 grams	779	32	26	6	41.08	33.38	*
1,250-1,499 grams	952	38	29	9	39.92	30.46	*
1,500-1,999 grams	4,126	70	45	25	16.97	10.91	6.06
2,000-2,499 grams	16,314	126	78	48	7.72	4.78	2.94
2,500 grams or more	257,528	325	131	194	1.26	0.51	0.75
2,500-2,999 grams	66,438	118	56	61	1.78	0.84	0.92
3,000-3,499 grams	118,295	117	39	77	0.99	0.33	0.65
3,500-3,999 grams	59,400	69	26	43	1.16	0.44	0.72
4,000-4,499 grams	11,827	17	7	10	*	*	*
4,500-4,999 grams	1,384	3	1	2	*	*	*
5,000 grams or more	184	1	1	-	*	*	*
Not stated	35	4	4	-	...	...	...
Hispanic	924,048	4,583	3,325	1,258	4.96	3.60	1.36
Less than 2,500 grams	66,842	3,239	2,748	491	48.46	41.11	7.35
Less than 1,500 grams	11,555	2,485	2,241	244	215.06	193.94	21.12
Less than 500 grams	1,324	1,120	1,101	19	845.92	831.57	*
500-749 grams	2,008	778	675	103	387.45	336.16	51.29
750-999 grams	2,288	270	214	55	118.01	93.53	24.04
1,000-1,249 grams	2,601	177	137	40	68.05	52.67	15.38
1,250-1,499 grams	3,334	140	114	26	41.99	34.19	7.80
1,500-1,999 grams	12,739	339	249	89	26.61	19.55	6.99
2,000-2,499 grams	42,548	415	258	158	9.75	6.06	3.71
2,500 grams or more	857,151	1,321	555	767	1.54	0.65	0.89
2,500-2,999 grams	171,446	461	225	236	2.69	1.31	1.38
3,000-3,499 grams	378,254	502	188	314	1.33	0.50	0.83
3,500-3,999 grams	242,073	286	108	178	1.18	0.45	0.74
4,000-4,499 grams	56,327	47	18	29	0.83	*	0.51
4,500-4,999 grams	7,937	15	6	9	*	*	*
5,000 grams or more	1,114	10	9	1	*	*	*
Not stated	55	22	22	-	...	...	...

* Figure does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.
... Category not apllicable.
\- Quantity zero
1 Includes races other than white or black.
2 Includes Aleuts and Eskimos.

NOTES: 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. Race and Hispanic origin are reported separately on birth certificates.