

# **User Guide to the 2018 Fetal Death Public Use File**



# **2018 Fetal Death Data Set**

## **User's Guide**

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Questions on the documentation or substantive questions concerning the data should be directed to the Reproductive Statistics Branch, Division of Vital Statistics, NCHS, 3311 Toledo Road, Hyattsville, MD 20782-2003 (1-800) 232-4636.

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National Center for Health Statistics  
Division of Vital Statistics

# 2018 Fetal Death Data Set

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Cause of fetal death: Data from the fetal death report, 2014

[https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65\\_07.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_07.pdf)

Cause-of-death Data From the Fetal Death File, 2015–2017

<https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr69-04-508.pdf>

Births: Final Data for 2018

[https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68\\_13-508.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf)

User Guide to the 2018 Period Linked Birth/Infant Death Public Use File (Forthcoming)

## **Introduction**

This User Guide is for use with the 2018 fetal death public use data. The 2018 fetal death micro-data file may be downloaded at:

[http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm) [[1]. The micro-data fetal death file for the U.S. does not include geographic detail (e.g., state or county of birth). The territories file contains selected geographic detail. Selected fetal death data for 2005-2017, including some geographic data and cause of death data, are available in CDC WONDER (<http://wonder.cdc.gov>), an interactive online data access tool. Selected fetal death data for 2018 will be available in WONDER later in 2020.

## **Definition of fetal death**

“Fetal death” means death prior to the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy and which is not an induced termination of pregnancy. The death is indicated by the fact that after such expulsion or extraction, the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps.

This definition [2] has been adopted by the Centers for Disease Control and Prevention’s National Center for Health Statistics (NCHS) as the nationally recommended standard and is based on the definition published by the World Health Organization in 1950 and revised in 1988. The term “fetal death” is defined on an all-inclusive basis to end confusion arising from the use of such terms as stillbirth, spontaneous abortion, and miscarriage. All U.S. states and registration areas have definitions similar to the standard definition, except for Puerto Rico and Wisconsin,

which have no formal definition [3]. Fetal deaths do not include induced terminations of pregnancy.

### **Reporting requirements for fetal death data**

Reporting requirements for fetal deaths vary by state, and these differences have implications for comparisons of fetal and perinatal mortality rates by state [2]. Table A shows the period of gestation at which fetal death reporting is required for each reporting area for 2018. The majority of states require reporting of fetal deaths at 20 weeks of gestation or more, or a minimum of 350 grams birthweight (roughly equivalent to 20 weeks), or some combination of the two. Six states (Colorado, Georgia, Hawaii, New York, Rhode Island, and Virginia), American Samoa, and the U.S. Virgin Islands require reporting of fetal deaths at all periods of gestation (although one of these does not send data for fetal deaths at less than 20 weeks to NCHS), two states require reporting beginning at 12 weeks of gestation (although one of these does not send data for fetal deaths at less than 20 weeks to NCHS), and one state requires reporting beginning at 16 weeks of gestation. At the other end of the spectrum, one state requires reporting of fetal deaths with birthweights of 500 grams or more (roughly equivalent to 22 weeks of gestation).

### **Classification of fetal deaths at 20 weeks of gestation or greater**

To maximize the comparability of data by year and by state while including as much meaningful data as possible, most tables published by NCHS are based on fetal deaths occurring at gestations of 20 weeks or more. These tabulations also include fetal deaths for which gestation is not stated for those states requiring reporting at 20 weeks of gestation or more only. Fetal deaths of not-stated gestation are excluded for states requiring reporting of all products of conception, except for those with a stated birthweight of 350 grams or more. In 2018, this rule

was applied to the following reporting areas: Arkansas, Colorado, Georgia, Hawaii, New York (including New York City), Oklahoma, Pennsylvania, Rhode Island, and Virginia (American Samoa and the Virgin Islands did not report data for 2018) (see Table A). The summation of these rules results in the creation of the tabulation flag (position 10), which, when invoked, produces the number of records with a stated or presumed period of gestation of 20 weeks or more.

### **Classification of fetal deaths by occurrence and residence**

In tabulations by place of residence, fetal deaths occurring within the United States to U.S. citizens and to residents who are not citizens are allocated to the usual place of residence of the mother in the United States, as reported on the report of fetal death. Fetal deaths to U.S. residents occurring outside this country are not included in tabulations by place of residence or place of occurrence. Accordingly, the total count of fetal deaths for the United States by place of residence and by place of occurrence will not be identical. Fetal deaths to nonresidents of the United States are included in data by place of occurrence but excluded from data by place of residence, as previously indicated. See Tables 2 and 3, respectively, for the number of births by residence and occurrence for the 50 states and the District of Columbia for 2018.

*Geographic classification:* The geographic code structure for the 2018 fetal death file is given in the NCHS manual, “Vital Records Geographic Classification, 2014,” and in the country, county, and place geographic code files [4]. The geographic code structure on the 2018 file is based on results of the 2010 Census of Population.

### **Standard Report of Fetal Death**

The U.S. Standard Report of Fetal Death, issued by the U.S. Department of Health and Human Services, has served for many years as the principal means for attaining uniformity in the

content of the documents used to collect information on fetal deaths in the United States. The U.S. Standard Report of Fetal Death has historically been revised every 10-15 years. Most state reports conform closely in content to the standard report, but are modified to the extent required by the particular state's needs or by special provisions of the state's vital statistics law.

*The 2003 revision:* In 2003, a revised U.S. Standard Report of Fetal Death was adopted (Figure 1). For more information on the 2003 standard report and details regarding the certificate revision and links to the documents referenced below, see the NCHS website of the 2003 report revision at [http://www.cdc.gov/nchs/nvss/vital\\_certificate\\_revisions.htm](http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm). The 2003 report of fetal death replaces the previous 1989 U.S. Standard Report of Fetal Death [5,6]. Implementation of the 2003 U.S. Standard Report of Fetal Death (revised) by the states and independent reporting areas was phased in from 2003 to 2018. All states, the District of Columbia, Guam, the Northern Marianas, and Puerto Rico had implemented the revised report of fetal death as of January 1, 2018. American Samoa and the Virgin Islands continue to use the 1989 (unrevised) revision of the U.S. Standard Report of Fetal Death (see User Guide to the 2017 Fetal Death Public Use File [7] for a detailed implementation schedule).

The 2003 Revision of the U.S. Standard Report of Fetal Death introduced substantial changes to data content and quality. Many key data items are common between revisions; however, a number of items were substantively modified. The 2003 revision also includes many new items never before collected on the Standard Report [5,6]. For details on data items comparable between revisions see the User Guide to the 2013 Fetal Death Public Use File [8].

A key aspect of the 2003 revision of the U.S. Standard Report of Fetal Death was the reengineering of the data collection and transmission system to improve data quality, speed of data collection and transmission, and to enhance standardization of data [5,9]. To encourage

collection of data from the best sources, two worksheets were developed: the “Patient’s Worksheet” (available at: <https://www.cdc.gov/nchs/data/dvs/patientwkstfetaldeath.pdf>) [10] and the “Facility Worksheet” (available at: <https://www.cdc.gov/nchs/data/dvs/FacilityFetal04.pdf>) [11]. For the Patient’s Worksheet, data are directly obtained from the mother and include items such as race, Hispanic origin and educational attainment. For the Facility Worksheet, data are obtained directly from the medical records of the mother for items such as date of first prenatal care visit, pregnancy risk factors, and method of delivery. To assist hospital staff in completing the Facility Worksheet, a comprehensive instruction manual was developed: Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) (“Guide to the Facility Worksheet”; available at: <https://www.cdc.gov/nchs/data/dvs/GuidetoCompleteFacilityWks.pdf>) [12]. Detailed definitions and instructions for data items that are collected from the Facility Worksheet are in the “Guide to the Facility Worksheet”.

Additionally, a review of 2003-based report of fetal death revision items in 2014 by a collaborative effort among representatives from several vital statistics jurisdictions: The National Association for Public Health Statistics and Information Systems (NAPHSIS), and NCHS, resulted in the decision to drop a number of items from the national report of fetal death data file for reasons of poor data quality. For more information on this effort and for a full list of items that were dropped, see:

[https://www.cdc.gov/nchs/nvss/deleted\\_items\\_from\\_birth\\_fetal\\_death\\_files.htm](https://www.cdc.gov/nchs/nvss/deleted_items_from_birth_fetal_death_files.htm).

The first ever eLearning training, “Applying Best Practices for Reporting Medical and Health Information on Birth Certificates,” on completing the medical and health information for the birth certificate and report of fetal death was launched in October 2016. The training



emphasizes the importance and uses of birth certificate and report of fetal death data and best practices for collecting specific medical and health items. The audience for the training includes birth information specialists, physicians, nurses, and hospital administrators. Continuing education credits for nurses, physicians, and non-clinical staff are also available. The training is internet-based and approximately 45 minutes in length. It is available at:

[www.cdc.gov/nchs/training/BirthCertificateElearning](http://www.cdc.gov/nchs/training/BirthCertificateElearning).

### **Fetal death data files**

Micro-data files: Fetal death micro-data files for data years 1982-2018 may be downloaded at: [http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm). The general rules used to classify characteristics of fetal deaths are presented in several NCHS manuals [4, 9, 13]. These instructions are for states to use to collect and code the data items; they do not include NCHS edit recodes.

The 2003-2006 fetal death micro-data files include data items common to both the 1989 and 2003 revisions of the U.S. Standard Report of Fetal Death, as well as items exclusive to the 2003 revision. For 2007-2013, in an effort to improve the timeliness of fetal death data, the fetal death files only included items that were comparable across the 1989 and 2003 revisions of the U.S. Standard Report of Fetal Death. From 2014-2017, the fetal mortality files again included data comparable between the two revisions, as well as items exclusive to the 2003 revision. Beginning with 2018, the fetal death file only includes data exclusive to the 2003 revision.

The U.S. micro-data fetal death files for 2005 through 2018 do not include geographic detail (e.g., mother's state of residence). Tabulations of fetal death data by state-level geographic detail and many other demographic and health items are available in the CDC WONDER web

application (<http://wonder.cdc.gov/>) for data years 2005-2017. Additionally, certain geographic level data may also be available upon request: See “NCHS Data Release and Access Policy for Micro-data and Compressed Vital Statistics Files”, available at:

[http://www.cdc.gov/nchs/nvss/dvs\\_data\\_release.htm](http://www.cdc.gov/nchs/nvss/dvs_data_release.htm).

The territories file includes data on fetal deaths occurring in Guam, the Northern Marianas, and Puerto Rico (American Samoa and the Virgin Islands did not report data for 2018). It includes limited geographical data such as information identifying individual territories and counties (or their equivalent) with populations of 100,000 or more by place of occurrence and residence.

### **Race of Mother**

The 2003 revision of the U.S. Standard Report of Fetal Death allows the reporting of the five race categories either alone (i.e., single-race) or in combination (i.e., more than one race or multiple races) for the mother [6], in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997 [14]. The five categories for race specified in the revised standards are: American Indian or Alaska Native (AIAN), Asian, Black or African American, Native Hawaiian or Other Pacific Islander (NHOPI), and White. Information on this change is presented elsewhere [15-17]. Starting in 2018, all states and the District of Columbia, in addition to Puerto Rico, Guam, and Northern Marianas, reported race according to the 1997 revised OMB standards.

Data from American Samoa and the Virgin Islands still follow the 1977 OMB standards, which required a minimum set of four single-race categories [American Indian or Alaska Native (AIAN), Asian or Pacific Islander (API, with Asian combined with Pacific Islander), black, and white] and to allow respondents to select only one race category [18].

Prior to 2018, in order to provide uniformity and comparability of the data before all or most of the data were 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. Beginning in 2018, data by race are shown according to the 1997 OMB standards. To provide a comparison of 2018 data by race between the 1977 and 1997 OMB standards, the responses of women who reported more than one race (multiple races) have been “bridged” to a single race; see Table B. Differences between the percentage of non-Hispanic bridged- and single-race (or race reported alone) white and black women were not significant; see Table B.

### **Hispanic Origin of Mother**

Hispanic origin and race Hispanic origin: Hispanic origin and race are reported separately on the birth certificate (Figure 1). It is recommended that this information be reported directly by the mother via the Mother’s Worksheet [10]. For 1989 through 2018, data on the public use file and in NCHS reports for specified Hispanic groups are shown in most cases for five specified Hispanic groups: Mexican, Puerto Rican, Cuban, Central and South American, and “other and unknown Hispanic.” In tabulations of fetal death data by race and Hispanic origin, data for persons of Hispanic origin are not further classified by race because the vast majority of Hispanic women are reported as white. In tabulations of fetal death data by race only, data for persons of Hispanic origin are included in the data for each race group according to the mother’s reported race. In tabulations that include Hispanic origin, data for non-Hispanic persons are classified according to the race of the mother.

*Imputation of Hispanic origin for records occurring in New York for 2018-Mother’s* Hispanic origin was not reported on 52% of fetal death records that occurred in New York (excluding New York City) in 2018. For these records, Hispanic origin was imputed based on

distributions of 2016 New York (excluding New York City) fetal deaths to one of the following three categories: non-Hispanic, Hispanic, Hispanic origin unknown.

### **Cause of Death Data**

A cause-of-fetal death item has been included on the report of fetal death since 1939 because it was considered critical information. However, the data were not released on public-use files or published until 2014 due to resource constraints and quality concerns. National data on cause of death are now released annually and are available for 2014-2018.

A major redesign of the cause of death (COD) section of the U.S. Standard Report of Fetal Death was undertaken with the 2003 revision. The goals of the redesign were to be consistent with instructions in the World Health Organization's (WHO) International Classification of Diseases (ICD) [19], and to thereby improve the quality and specificity of COD information, provide additional reporting guidance, and retain the flexibility to report any cause of death [20].

As with other deaths, the intent is for an attending physician or medical examiner or coroner to report cause of death [19]. The cause-of-fetal-death item requests a medical opinion from this person on the conditions and diseases resulting in or contributing to death, but also asks the medical certifier to report one cause separately (item 18a) from all other causes (item 18b) reported on the fetal death report. The certifier may form this medical opinion upon various medical tests, investigations, and examinations as is the case with other deaths. However, the term "initiating cause" used to refer to the one cause reported separately is unique to fetal deaths because of differences in the format of the cause item and how the initiating cause is determined for fetal deaths compared with the "underlying cause" term used with other deaths [20].

NCHS codes cause of fetal death reported by the certifier using the ICD-10 classification [19]. Coding is accomplished through a combination of automated and manual processes following the guidelines laid out in Instruction manual part 2k, Instructions for the Automated Classification of the Initiating and Multiple Causes of Fetal Deaths [21]. Literal text stated on the fetal death report is assigned ICD-10 codes, and a single cause of death, the initiating cause of death, is selected from the conditions entered by the medical certifier in the cause-of-death section of the fetal death report. One section of the report (18a) is for the medical certifier to state the single condition that he or she considers the cause that initiated or triggered problems that resulted in the fetus dying at this point in time, so this is anticipated to be the initiating cause of death. If more than one cause or condition is entered by the medical certifier, the initiating cause is determined by the placement of the condition on the report, provisions of the ICD, and associated selection rule and modifications. A second section of the report (18b) is for the medical certifier to state any other conditions or causes that he or she felt played a role in causing the fetal death. Since more medical information may be reported on the report than is directly reflected in the initiating cause of death, this additional information is captured in multiple cause-of-fetal-death data.

The fetal death data file also includes a cause of death data item for 124 Selected Causes of Fetal Death (fetal cause list) (tables 15A and 15B). The reporting area for these tables includes areas that used the 2003 revision format and where less than 50 percent of an area's cause data were attributed to the Fetal death of unspecified cause (unspecified cause) (P95).

### **Incomplete national reporting: The use of reporting flags**

The 2018 national fetal death file includes items that are not reported by all vital statistics jurisdictions. Reporting flags were developed to help the user more readily identify the correct

number of fetal deaths for items with less than full national reporting. Reporting flags are available for many items in the file, and positions for reporting flags are noted along with each data item in the file layout.

### ***Translating “blanks”***

In the 2018 fetal death file, for data items which are not reported by all states, fetal deaths to residents of a state reporting the item that occurred in a state not reporting the item, are represented by “blanks.” Blanks should be treated as “unknowns” for tabulations. In sum, the correct use of reporting flags and translation of blanks will result in an accurate tally of fetal deaths for items with incomplete national reporting. For an example of SAS code that may be used to incorporate the correct use of reporting flags and the translation of blanks, see below.

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

The example below is for the receipt of WIC item, which is reported by 48 states and the District of Columbia in 2018.

#### Sample SAS program

```
01    DATA work;
02        INFILE 'c:fet16us.dat' LRECL=3050;
03        INPUT
04            oe_tabflg    10
05            wic    $229
06            restatus    131
07            f_wic    $377;
08
09        /*Include if 20 weeks gestation or more*/
10        IF oe_tabflg EQ 2;
```

```

11          /*Exclude foreign residents*/
12          IF restatus NE 4;
13          /*Select reporting area*/
14          IF f_wic=1;
15          /*Convert blanks to unknown*/
16          IF wic = ' ' THEN wic = 'U';
17
18  PROC FREQ;
19          TABLE wic;
20  RUN;

```

In this example, “oe\_tabflg” is used to select fetal deaths of 20 weeks gestation or more. Also, “restatus” is used to exclude fetal deaths to foreign residents (this is standard practice for all NCHS tabulations). As well in this example, blanks are represented by character values SAS code = (‘ ’). However, for some items in the file, e.g., number of previous cesarean deliveries, blanks are represented by numeric values for which the SAS code is (‘.’).

## **Quality of Data**

### **Percentage of unknown responses**

Information on the completeness of reporting of fetal death (with a stated or presumed period of gestation of 20 weeks or more) data is shown in Table C, which presents a listing of items and the percentage of records that were not stated for each reporting area: all 50 states, the District of Columbia, New York City, Puerto Rico, Guam, American Samoa, the Northern Marianas, and the Virgin Islands. In general, percentages of unknown responses are

considerably higher for fetal deaths than for live births, and among fetal deaths the percentage unknown is higher for fetal deaths that occur earlier in the gestational period. In fetal mortality tables, unknown responses are shown in frequencies tables but are excluded from the computation of percent distributions and fetal and perinatal mortality rates. Thus, rates for variables with a substantial percentage of unknown responses (such as birthweight) may understate the “true” rates of fetal mortality for that characteristic.

As high levels of missing data are a data quality concern, beginning with the 2017 data year, jurisdictions with a 50% or greater unknown level for a particular item are flagged as not reporting that item.

### ***State Specific Issues***

The items below had unknown levels of 50% or higher and were flagged as not reporting for the following jurisdictions in 2018:

- Father’s date of birth (all components) - Alabama, the District of Columbia, Georgia, New Jersey, New York (including New York City), Virginia, , and Guam.
- WIC-Indiana, Rhode Island
- Date of first prenatal care visit-Oregon, Rhode Island, Virginia
- Estimated time of fetal death-District of Columbia, Hawaii, Kansas, Missouri, Montana, Nevada, New York, Guam, Northern Marianas, Puerto Rico
- Mother’s education-Rhode Island
- Mother’s height-Rhode Island
- Mother’s pre-pregnancy weight-Rhode Island
- Date of last live birth-Washington
- Risk factors in this pregnancy (all) – Washington



- Cause of death- Alaska, California, Georgia, Michigan, Mississippi, North Carolina, North Dakota, Vermont, New York City, and Guam

### **Computation of rates**

Fetal mortality rates are computed as the number of fetal deaths at 20 weeks of gestation or more per 1,000 live births and fetal deaths at 20 weeks or more. Perinatal mortality rates are computed in a similar fashion, as shown below. The denominators for all fetal and perinatal mortality rates are live births plus fetal deaths in the specified gestational age group, thus representing the population at risk of the event [2].

$$\text{Fetal mortality rate} = \frac{\text{Fetal deaths at 20 weeks of gestation or more}}{\text{Live births and fetal deaths at 20 weeks or more}} \times 1,000$$

Perinatal mortality rate, definition I =

$$\frac{\text{Fetal deaths at 28 weeks or more and infant deaths under 7 days}}{\text{Live births and fetal deaths at 28 weeks or more}} \times 1,000$$

Perinatal mortality rate, definition II =

$$\frac{\text{Fetal deaths at 20 weeks or more and infant deaths under 28 days}}{\text{Live births and fetal deaths at 20 weeks or more}} \times 1,000$$

In each case, the fetal deaths included in the denominator of each rate mirror the fetal deaths included in the numerator. A previous NCHS report [22] contains information on the historical development of various perinatal measures. An asterisk (\*) is shown in place of any rate based on fewer than 20 fetal or perinatal deaths in the numerator.

## Random variation in fetal and perinatal mortality

The number of fetal deaths, perinatal 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 [23]. As a result, numbers of births, fetal deaths, perinatal deaths, and fetal and perinatal 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 (RSE) is usually small. When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be used in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. Estimates of RSEs and 95% confidence intervals are shown below. In the formulas, D is the number of fetal or perinatal deaths and B is the number of live births plus fetal deaths used as the denominator in computing fetal and perinatal mortality rates.

The formulas for the two RSEs are as follows:

$$\text{RSE}(D)=100*\sqrt{\frac{1}{D}} \text{ and}$$

$$\text{RSE}(B)=100*\sqrt{\frac{1}{B}} .$$

For example, let us say that for group A the number of fetal deaths was 238, whereas the number of live births plus fetal deaths in the denominator was 32,650 yielding a fetal mortality rate of 7.29 fetal deaths per 1,000 live births and fetal deaths.

$$\text{The RSE of the deaths} = 100 * \sqrt{\frac{1}{238}} = 6.48,$$

whereas the RSE for the births plus fetal deaths in the denominator is

$$\text{RSE} = 100 * \sqrt{\frac{1}{32,650}} = 0.55.$$

The formula for the RSE of the fetal mortality rate is:

$$\text{RSE} = 100 * \sqrt{\frac{1}{D} + \frac{1}{B}}$$

Thus the RSE for the example above is:

$$= 100 * \sqrt{\frac{1}{238} + \frac{1}{32,650}} = 6.51.$$

### **Normal distribution**

When the number of events is greater than 100, the normal distribution is used to estimate the 95 percent confidence intervals of a rate,  $R_I$ , as follows:

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

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

Thus, for Group A:

$$\text{Lower: } 7.29 - (1.96 * 7.29 * \frac{6.51}{100}) = 6.36$$

$$\text{Upper: } 7.29 + (1.96 * 7.29 * \frac{6.51}{100}) = 8.22$$

Thus the chances are 95 out of 100 that the true fetal or perinatal mortality rate for Group A lies somewhere in the 6.36–8.22 interval.

### **Poisson distribution**

When the number of events in the numerator is less than 100 the confidence interval for the rate,  $R_I$ , can be estimated based on the Poisson distribution using the values in Table IV.

$$\text{Lower: } R_I * L(.95, D_{\text{adj}})$$

$$\text{Upper: } R_I * U(.95, D_{\text{adj}})$$

where  $D_{\text{adj}}$  is the adjusted number of fetal or perinatal deaths (rounded to the nearest integer) used to take into account the RSE of the number of deaths in the numerator and the number of live births plus fetal deaths in the denominator, and is computed as follows:

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

$L(.95, D_{\text{adj}})$  and  $U(.95, D_{\text{adj}})$  refer to the values in Table IV corresponding to the value of  $D_{\text{adj}}$ .

For example, let us say that for Group B the number of fetal deaths was 73, and the number of live births plus fetal deaths in the denominator was 11,422, and the fetal mortality rate was 6.39.

$$D_{\text{adj}} = \frac{73 * 11,422}{73 + 11,422} = 73$$

Therefore the 95 percent confidence interval (using the formula in Table IV for 1\N99 infant deaths) =

$$\text{Lower: } 6.39 * 0.78384 = 5.01$$

$$\text{Upper: } 6.39 * 1.25735 = 8.03$$

### **Comparison of two fetal or perinatal 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 should 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  $|z| \geq 1.96$ , then the difference is statistically significant at the 0.05 level and if  $|z| < 1.96$ , the difference is not significant.

## References

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## Control Count of Records

### File Characteristics: Fetal Public Use File 2018

#### All files:

Record format: Blocked, Fixed, Format  
Code scheme: Numeric/Alphabetic/Blank  
Record length: 3150

#### **Record counts**

#### U.S. file record count:

##### Counts of all fetal deaths:

Record count	47,676
By occurrence	47,676
By residence	47,563
To foreign residents	113

##### Counts of 20 weeks or more:

Record count	22,540
By occurrence	22,540
By residence	22,459
To foreign residents	81

##### Counts of less than 20 weeks:

Record count	25,136
By occurrence	25,136
By residence	25,104
To foreign residents	32

#### U.S. territories file record count:

##### Counts of all fetal deaths:

Record count	307
By occurrence	307
By residence	302
To foreign residents	5

##### Counts of 20 weeks or more:

Record count	304
By occurrence	304
By residence	301
To foreign residents	3

##### Counts of less than 20 weeks:

Record count	3
By occurrence	3
By residence	1
To foreign residents	2

## 2018 LIST OF DATA ELEMENTS AND LOCATIONS

<u>Data Items</u>	<u>Locations</u>
1. General	
a) Tabulation flags (gestational age)	10
b) Data year	11-14
c) Resident status	131
2. Prenatal Care	
a) Month began	202-203
3. Fetus	
a) Sex	316
b) Plurality	301
c) Weight at delivery	349-355
d) Gestational age	340-344(NCHS Standard item), 331-335
e) Month/year of delivery	11-16
f) Time of delivery	21-24
g) Day of week of delivery	25
4. Mother	
a) Age	86-90
b) Race	132-137
c) Education	145
d) Hispanic origin	139-144
5. Pregnancy History	
a) Live birth order	187
b) Birth interval	197-201
6. Father	
a) Age	177-180
7. Other Items	
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b) Place of delivery	34, 52
c) WIC receipt	229
8. Medical and Health Data	
a) Method of delivery	274-277, 280
b) Medical risk factors	257-267
c) Other risk factors	
i. Tobacco	230-238
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d) Maternal morbidity	281-282
9. Residence reporting flags	372-440

**2018 Fetal Death  
Public Use Record Layout**

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
1-6	6	FILLER					
7	1	VERSION	<b>Version</b>		A,S	A S	State used the 2003 version of the US Standard Report of Fetal Death (Revised) State used the 1989 version of the US Standard Report of Fetal Death (Unrevised)
8-9	2	FILLER					
10	1	OE_TABFLG	<b>Obstetric Estimate Tabulation Flag</b> (Use with NCHS Standard item)		A,S	1 2	Under 20 weeks (exclude) 20 weeks or more (include)
11-14	4	DOD_YY	<b>Delivery Year</b>		A,S	2014	Year of delivery
15-16	2	DOD_MM	<b>Delivery Month</b>		A,S	01 02 03 04 05 06 07 08 09 10 11 12	January February March April May June July August September October November December
17-20	4	FILLER					
21-24	4	DOD_TT	<b>Delivery Time</b>	c409	A	0000-2359 9999	Time of Birth Not Stated
25	1	DOD_WK	<b>Weekday</b>		A,S	1 2 3	Sunday Monday Tuesday

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A 2003 Version of US Standard Birth Certificate

S 1989 Version of US Standard Birth Certificate

s 1989 Version of US Standard Birth Certificate but this element conforms to the 2003 standards

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						4	Wednesday
						5	Thursday
						6	Friday
						7	Saturday
26-27	2	OSTATE	<b>Territory of Occurrence</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		A,S		
			<u>Territories</u>			AS	American Samoa
						GU	Guam
						MP	Northern Marianas
						PR	Puerto Rico
						VI	Virgin Islands
28-29	2	FILLER					
30-32	3	OCNTYFIPS	<b>Occurrence FIPS County</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file) Data are suppressed if population &lt; 100,000</i>		A,S		
						000	No county level geography
						001-998	County of Occurrence (See Geographic Table)
						999	County of less than 100,000
33	1	OCNTYPOP	<b>Occurrence Territory County Population</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		A,S		
						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

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						9	County less than 100,000
34	1	BFACIL	<b>Delivery Place (Revised)</b>	409	A	1 2 3 4 5 6 7 9	Hospital Freestanding Birth Center Home (intended) Home (not intended) Home (unknown if intended) Clinic/Doctor's Office Other Unknown
35-51	17	FILLER					
52	1	BFACIL3	<b>Delivery Place Recode</b>		A,S	1 2 3	In Hospital Not in Hospital Unknown/not stated
53-83	31	FILLER					
84	1	MAGE_IMPFLG	<b>Mother's Age Imputed</b>		A,S	Blank 1	Age not imputed Age imputed
85	1	MAGE_REPFLG	<b>Reported Age of Mother Flag</b>		A,S	Blank 1	Reported age not used Reported age used
86-87	2	MAGER	<b>Mother's Single Year of Age</b>	432	A,S	12 13 14 15 16	12 years and under 13 years 14 years 15 years 16 years

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						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
88-89	2	MAGER14	<b>Mother's Age Recode 14</b>	432	A,S	01	Under 15 Years
						03	15 years
						04	16 years
						05	17 years
						06	18 years
						07	19 years

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						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
90	1	MAGER9	<b>Mother's Age Recode 9</b>	432	A,S	1	Under 15 years
						2	15-19 years
						3	20-24 years
						4	25-29 years
						5	30-34 years
						6	35-39 years
						7	40-44 years
						8	45-49 years
						9	50-54 years
91-92	2	MBCNTRY	<b>Mother's Birth Country</b> c409 <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		A	AA-ZZ	See Geographic Documentation
93-96	4	FILLER					
97	1	MBSTATE_REC	<b>Mother's Birth State Recode</b> c409		A	1	Native born (50 U.S. States)
						2	Foreign born (includes territories)
						3	Unknown or Not Stated
98-101	4	FILLER					
102-103	2	MRSTATEPSTL	<b>Mother's Residence Postal State</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		A,S		
			<u>United States</u>			AK	Alaska
						AL	Alabama
						AR	Arkansas

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						AZ	Arizona
						CA	California
						CO	Colorado
						CT	Connecticut
						DE	Delaware
						DC	District of Columbia
						FL	Florida
						GA	Georgia
						HI	Hawaii
						ID	Idaho
						IL	Illinois
						IN	Indiana
						IA	Iowa
						KS	Kansas
						KY	Kentucky
						LA	Louisiana
						MA	Massachusetts
						MD	Maryland
						ME	Maine
						MI	Michigan
						MN	Minnesota
						MO	Missouri
						MS	Mississippi
						MT	Montana
						NC	North Carolina
						ND	North Dakota
						NE	Nebraska
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NV	Nevada
						NY	New York
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						UT	Utah
						VA	Virginia
						VT	Vermont
						WA	Washington
						WI	Wisconsin
						WV	West Virginia
						WY	Wyoming
			<u>Territories</u>			AS	American Samoa
						GU	Guam
						MP	Northern Marianas
						PR	Puerto Rico
						VI	Virgin Islands
			<u>Canadian Provinces</u>			AB	Alberta
						BC	British Columbia
						MB	Manitoba
						NB	New Brunswick
						NL	Newfoundland and Labrador
						NT	Northwest Territories
						NS	Nova Scotia
						NU	Nunavut
						ON	Ontario
						PE	Prince Edward Island
						QC	Quebec
						SK	Saskatchewan
						YT	Yukon Territory
			<u>Foreign</u>			XX	Foreign (Rest of world)
						ZZ	Not Classifiable
104-106	3	MRCNTYFIPS	<b>Mother's FIPS County of Residence</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file) Data are suppressed if population &lt; 100,000</i>	A,s		000	No county level geography
						001-998	County of residence (See Geographic Table)

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						999	County of less than 100,000
107-111	5	FILLER					
112	1	RCNTY_POP	<b>Population of Residence County</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		A,S	0 1 2 3 9 Z	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County of 100,000 to 250,000 County less than 100,000 Foreign resident
113-129	17	FILLER					
130	1	RECTYPE	<b>Record Type</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		A,S	1 2	RESIDENT: State and county of occurrence and residence are the same. NONRESIDENT: State and county of occurrence and residence are different.
131	1	RESTATUS	<b>Residence Status</b> <u>United States</u>		A,S	1 2 3 4	RESIDENT: State and county of occurrence and residence are the same. INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different. INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia. FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
			<u>Territories</u>			1	RESIDENT: State and county of occurrence and residence

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
							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.
						3	INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories.
						4	FOREIGN RESIDENT: The residence is not a US Territory.
132-133	2	FILLER					
134	1	MRACE6	<b>Mother's Race Recode 6</b>	425	A		
						1	White (alone)
						2	Black (alone)
						3	AIAN (alone)
						4	Asian (alone)
						5	NHOPI (alone)
						6	More than one race
135-136	2	MRACE15	<b>Mother's Race Recode 15</b>	425	A		
						01	White (alone)
						02	Black (alone)
						03	AIAN (alone)
						04	Asian Indian (alone)
						05	Chinese (alone)
						06	Filipino (alone)
						07	Japanese (alone)
						08	Korean (alone)
						09	Vietnamese (alone)
						10	Other Asian (alone)
						11	Hawaiian (alone)
						12	Guamanian (alone)
						13	Samoan (alone)
						14	Other Pacific Islander (alone)
						15	More than one race
137	1	MRACEREC	<b>Mother's Bridged Race Recode</b> <u>United States and non-Puerto Rican Territories</u>	439	A,S		
						1	White
						2	Black

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						3	American Indian or Alaskan Native
						4	Asian or Pacific Islander
138	1	MRACEIMP	<b>Mother's Race Imputed</b>		A,S	Blank 1 2	Mother's race not imputed Unknown race imputed All other races, formerly coded 09, imputed.
139-141	3	FILLER					
142	1	UMHISP	<b>Mother's Hispanic Origin</b>	424	A,S	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Origin unknown or not stated
143	1	MRACEHISP	<b>Mother's Bridged Race/Hispanic Origin</b>	424	A,S	1 2 3 4 5 6 7 8 9	Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic Other Races Origin unknown or not stated
144	1	SR_MRACEHISP	<b>Mother's Race/Hispanic Origin</b>	c425	A	1 2 3 4 5 6 7	Non-Hispanic White (alone) Non-Hispanic Black (alone) Non-Hispanic AIAN (alone) Non-Hispanic Asian (alone) Non-Hispanic NHOPI (alone) Non-Hispanic more than one race Hispanic

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						8	Origin unknown or not stated
145	1	MEDUC	<b>Mother's Educ-Revised</b>	372	A	1 2 3 4 5 6 7 8 9	8 <sup>th</sup> grade or less 9 <sup>th</sup> through 12 <sup>th</sup> 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
146-171	26	FILLER					
172	1	FAGERPT_FLG	<b>Father's Reported Age Used</b>		A,S	Blank 1	Father's reported age not used Father's reported age used
173-176	4	FILLER					
177-178	2	FAGECOMB	<b>Father's Combined Age</b>	426	A,S	09-98 99	Father's combined age in years Unknown or not stated
179-180	2	FAGEREC11	<b>Father's Age Recode 11</b>	426	A,S	01 02 03 04 05 06 07 08 09 10 11	Under 15 years 15-19 years 20-24 years 25-29 years 30-34 years 35-39 years 40-44 years 45-49 years 50-54 years 55-98 years Not stated

\* For the Version column (Vers) the following codes apply:

A 2003 Version of US Standard Birth Certificate

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
181-182	2	PRIORLIVE	<b>Prior Births Now Living</b>	440	A,S	00-30 99	Number of children still living from previous live births. Unknown or not stated
183-184	2	PRIORDEAD	<b>Prior Births Now Dead</b>	440	A,S	00-30 99	Number of children dead from previous live births. Unknown or not stated
185-186	2	FILLER					
187	1	LBO_REC	<b>Live Birth Order Recode</b>	440	A,S	0-7 8 9	Number of live birth order. 8 or more live births Unknown or not stated
188-196	9	FILLER					
197-199	3	ILLB_R	<b>Interval Since Last Live Birth Recode</b>	427	A	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable Unknown or not stated
200-201	2	ILLB_R11	<b>Interval Since Last Live Birth Recode 11</b>	427	A	00 01 02 03 04 05 06 07 08 88 99	Zero to 3 months (plural delivery) 4 to 11 months 12 to 17 months 18 to 23 months 24 to 35 months 36 to 47 months 48 to 59 months 60 to 71 months 72 months and over Not applicable Unknown or not stated

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
202-203	2	PRECARE	<b>Month Prenatal Care Began (Revised)</b>	403	A	00 01-10 99	No prenatal care Month prenatal care began Unknown or not stated
204	1	PRECARE_REC	<b>Month Prenatal Care Began Recode (Revised)</b>	403	A	1 2 3 4 5	1 <sup>st</sup> to 3 <sup>rd</sup> month 4 <sup>th</sup> to 6 <sup>th</sup> month 7 <sup>th</sup> to final month No prenatal care Unknown or not stated
205-228	24	FILLER					
229	1	WIC	<b>WIC</b>	377	A	Y N U	Yes No Unknown or not stated
230-231	2	CIG_0	<b>Cigarettes Before Pregnancy</b>	405	A	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
232-233	2	CIG_1	<b>Cigarettes 1<sup>st</sup> Trimester</b>	406	A	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
234-235	2	CIG_2	<b>Cigarettes 2<sup>nd</sup> Trimester</b>	407	A	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
236-237	2	CIG_3	<b>Cigarettes 3<sup>rd</sup> Trimester</b>	408	A	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
238	1	CIG_REC	<b>Cigarette Recode (Revised)</b>	374	A	Y N	Yes No

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						U	Unknown or not stated
239-242	4	FILLER					
243-244	2	M_Ht_In	<b>Mother's Height in Inches</b>	375	A	30-78 99	Height in inches Unknown or not stated
245-248	4	BMI	<b>BMI (prepregnancy)</b>	375	A	13.0-69.9 99.9	Body Mass Index Unknown or not stated
249	1	BMI_R	<b>Body Mass Index Recode (prepregnancy)</b>	375	A	1 2 3 4 5 6 9	Underweight <18.5 Normal 18.5-24.9 Overweight 25.0-29.9 Obesity I 30.0-34.9 Obesity II 35.0-39.9 Extreme Obesity III ≥ 40.0 Unknown or not stated
250-252	3	FILLER					
253-255	3	PWgt_R	<b>Prepregnancy Weight Recode</b>	376	A	075-375 999	Weight in pounds Unknown or not stated
256	1	FILLER					
257-262	6	<b><u>Risk Factors (Revised)</u></b>			A		
			The checkbox items indented below follow this code structure:				Y Yes N No U Unknown or not stated
257	1	RF_DIAB	<b>Prepregnancy Diabetes</b>	378			
258	1	RF_GEST	<b>Gestational Diabetes</b>	379			
259	1	RF_PHYP	<b>Prepregnancy Hypertension</b>	380			
260	1	RF_GHYP	<b>Gestational Hypertension</b>	381			
261	1	RF_ECLAM	<b>Hypertension Eclampsia</b>	382			
262	1	RF_INFTR	<b>Infertility Treatment</b>	383			

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
263	1	RF_FEDRG	<b>Fertility Enhancing Drugs</b>	384	A	Y N X U	Yes No Not applicable Unknown or not stated
264	1	RF_ARTEC	<b>Asst. Reproductive Technology</b>	385	A	Y N X U	Yes No Not applicable Unknown
265	1	RF_CESAR	<b>Previous Cesareans</b>	386	A	Y N U	Yes No Unknown or not stated
266-267	2	RF_CESARN	<b>Previous Cesareans Num</b>	387	A	00 01-30 99	None Number of previous cesareans Unknown or not stated
268-273	6	FILLER					
274-277	6	<b><u>Method of Delivery (Revised)</u></b>					
274	1	ME_PRES	<b>Fetal Presentation</b>	388	A	1 2 3 9	Cephalic Breech Other Unknown or not stated
275	1	ME_ROUT	<b>Route &amp; Method of Delivery</b>	389	A	1 2 3 4 9	Spontaneous Forceps Vacuum Cesarean Unknown or not stated
276	1	ME_TRIAL	<b>Trial of Labor Attempted</b>	390	A	Y N X U	Yes No Not applicable Unknown or not stated

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
277	1	RDMETH_REC	<b>Delivery Method Recode (Revised)</b>	c386	A	1 2 3 4 5 6 9	Vaginal (excludes vaginal after previous C section) Vaginal after previous c-section Primary C-section Repeat C-section Vaginal (unknown if previous c-section) (2003 Standard only) C-section (unknown if previous c-section) (2003 Standard only) Not stated
278-279	2	FILLER					
280	1	DMETH_REC	<b>Delivery Method Recode</b>	410	A,S	1 2 9	Vaginal C-section Not stated
281-282	2		<b><u>Maternal Morbidity</u></b> The checkbox items indented below follow this structure:		A	Y N U	Yes No Unknown or not stated
281	1	MM_RUPT	<b>Ruptured Uterus</b>	391			
282	1	MM_ICU	<b>Admit to Intensive Care</b>	392			
283	1	ATTEND	<b>Attendant</b>	433	A,S	1 2 3 4 5 9	Doctor of Medicine (MD) Doctor of Osteopathy (DO) Certified Nurse Midwife (CNM) Other Midwife Other Unknown or not stated
284-300	17	FILLER					

\* For the Version column (Vers) the following codes apply:

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
301	1	DPLURAL	<b>Plurality Recode</b>		A,S	1 2 3 4 5	Single Twin Triplet Quadruplet Quintuplet or higher
302	1	FILLER					
303	1	IMP_PLUR	<b>Plurality Imputed</b>		A,S	Blank 1	Plurality is not imputed Plurality is imputed
304-315	12	FILLER					
316	1	SEX	<b>Sex of Infant</b>		A,S	M F	Male Female
317	1	IMP_SEX	<b>Sex Imputed</b> Only where gestation is stated or presumed to be 20 weeks or more		A,S	Blank 1	Infant Sex not Imputed Infant Sex is Imputed
			<b><u>Gestation</u></b>				
318-319	2	DLMP_MM	<b>Last Normal Menses Month</b>	429	A,S	01 02 03 04 05 06 07 08 09 10 11 12 99	January February March April May June July August September October November December Unknown or not stated
320-321	2	FILLER					

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
322-325	4	DLMP_YY	<b>Last Normal Menses Year</b>	431	A,S	nnnn 9999	Year of last normal menses Unknown or not stated
326-328	3	FILLER					
329	1	GEST_IMP	<b>Gestation Imputed Flag</b>		A,S	Blank 1	Gestation is not imputed Gestation is imputed
330	1	OBGEST_FLG	<b>Obstetric Estimate of Gestation Used Flag</b>		A,S	Blank 1	Obstetric Estimate is not used Obstetric Estimate is used
331-332	2	COMBGEST	<b>Gestation – Detail in Weeks</b>	404	A,S	02-47 99	2 <sup>nd</sup> through 47 <sup>th</sup> week of Gestation Unknown
333-334	2	GESTREC12	<b>Gestation Recode 12</b>	404	A,S	01 02 03 04 05 06 07 08 09 10 11 12	Under 16 weeks 16-19 weeks 20-23 weeks 24-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 39-40 weeks 41 weeks 42 weeks and over Unknown
335	1	GESTREC5	<b>Gestation Recode 5</b>	404	A,S	1 2 3 4 5	Under 20 weeks 20-23 weeks 24-27 weeks 28 weeks and over Unknown
336-337	2	OEGest_Unedt	<b>Obstetric Gestation</b> 373	A,S		0-98 02-47 99	Range of obstetric estimate of gestation - revised Range of clinical estimate of gestation - unrevised Unknown or not stated
338	1	FILLER					

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
339	1	COMBGEST_USED	<b>Combined Gestation Used Flag</b>		A,S	blank 1	Combined gestation not used Combined gestation used
340-341	2	OEGest_Comb	<b>Obstetric Estimate Edited</b> (NCHS Standard item)	373	A,S	02-47 99	Weeks of gestation Not stated
342-343	2	OEGest_R12	<b>Obstetric Estimate Recode12</b> (NCHS Standard item)	373	A,S	01 02 03 04 05 06 07 08 09 10 11 12	Under 16 weeks 16-19 weeks 20-23 weeks 24-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 39-40 weeks 41 weeks 42 weeks and over Unknown
344	1	OEGest_R5	<b>Obstetric Estimate Recode 5</b> (NCHS Standard item)	373	A,S	1 2 3 4 5	Under 20 weeks 20-23 weeks 24-27 weeks 28 weeks and over Unknown
345-348	4	FILLER					
349-352	4	DBWT	<b>Birth Weight – Detail in Grams</b>		A,S	0001-8165 9999	Number of grams Not stated birth weight
353-354	2	BWTR14	<b>Birth Weight Recode 14</b>		A,S	01 02	0249 grams or less 0250 – 0349 grams

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						03	0350 – 0499 grams
						04	0500 – 0999 grams
						05	1000 – 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	Unknown or Not Stated
355	1	BWTR4	<b>Birth Weight Recode 4</b>		A,S	1	1499 grams or less
						2	1500 – 2499 grams
						3	2500 - 8165 grams
						4	Unknown or not stated
356	1	FILLER					
357	1	ESTOFD	<b>Estimated Time of Fetal Death</b> 435		A	N	At assessment, no labor
						L	At assessment, labor
						A	Labor, no assessment
						U	Unknown
358	1	AUTOPSY	<b>Was Autopsy Performed?</b> 436		A	Y	Yes
						N	No
						P	Planned
359	1	HISTOPF	<b>Was Histological Placental Exam Performed?</b> 437		A	Y	Yes
						N	No
						P	Planned
360	1	AUTOPF	<b>Was Autop/Hist results used in cause?</b> 438		A	Y	Yes
						N	No
						X	Not applicable

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
361-371	11	FILLER					
372-438		<b><u>Flag File for Reporting Flags</u></b>					
		The reporting flags indented below follow this coding structure:				0	Not reporting
						1	Reporting
372	1	F_MEDUC	Education of Mother		A		
373	1	F_CLINEST	Obstetric Estimate of Gestation		A,S		
374	1	F_TOBACO	Tobacco Use		A		
375	1	F_M_HT	Mother's Height		A		
376	1	F_PWGT	Prepregnancy Weight		A		
377	1	F_WIC	WIC		A		
378	1	F_RF_PDIAB	Prepregnancy Diabetes		A		
379	1	F_RF_GDIAB	Gestational Diabetes		A		
380	1	F_RF_PHYPER	Prepregnancy Hypertension		A		
381	1	F_RF_GHYPER	Gestational Hypertension		A		
382	1	F_RF_ECLAMP	Hypertension Eclampsia		A		
383	1	F_RF_INFT	Infertility Treatment		A		
384	1	F_RF_INFT_DRG	Fertility Enhance Drug		A		
385	1	F_RF_INFT_ART	Reproductive Technology		A		
386	1	F_RF_CESAR	Previous Cesarean		A		
387	1	F_RF_NCESAR	Number of Previous Cesareans		A		
388	1	F_MD_PRESENT	Fetal Presentation		A		
389	1	F_MD_ROUTE	Final Route and Method of Delivery		A		
390	1	F_MD_TRIAL	Trial of Labor Attempted		A		
391	1	F_MM_RUPTUR	Ruptured Uterus		A		
392	1	F_MM_ICU	Admission to Intensive Care		A		
393-402	10	FILLER					
403	1	F_MPCB	Month Prenatal Care Began		A		
404	1	F_CMBGST	Combined Gestation		A,S		
405	1	F_CIGS_0	Cigarettes Before Pregnancy		A		
406	1	F_CIGS_1	Cigarettes 1 <sup>st</sup> Trimester		A		
407	1	F_CIGS_2	Cigarettes 2 <sup>nd</sup> Trimester		A		
408	1	F_CIGS_3	Cigarettes 3 <sup>rd</sup> Trimester		A		
409	1	F_FACILITY	Facility		A		
410	1	DelMethRecF	Delivery Method Recode Flag		A,S		
411-423	13	FILLER					
424	1	F_MORIGIN	Mother's Hispanic origin		A,S		
425	1	F_MRACE_R	Mother's Race (Revised)		A		
426	1	F_FAGE_u	Father's Age		A,S		
427	1	F_DLLB_MM	Last Live Birth Month (Revised)		A		
428	1	FILLER					

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
429	1	F_DLMP_MM	Last normal menses month		A,S		
430	1	FILLER					
431	1	F_DLMP_YY	Last normal menses year		A,S		
432	1	F_MAGE	Mother's Age		A,S		
433	1	F_ATTENDANT	Attendant		A,S		
434	1	FILLER					
435	1	F_ESTOFD	Estimated Time of Fetal Death (Revised)		A		
436	1	F_AUTOPSY	Autopsy (Revised)		A		
437	1	F_HISTOPF	Histological Placental Exam (Revised)		A		
438	1	F_AUTOPF	Autopsy/Histological Exam Used in Cause		A		
439	1	F_MRACEREC	Mother's Bridged Race Recode		A,S		
440	1	F_PLB	Number of previous live births		A,S		
441-2602	2164	FILLER					
2603-2642	40		<b><u>Coded Causes &amp; Conditions</u></b> The fields indented below follow this structure:			A ICD10 Blank	Code Coded Value None reported
2603-2607	5	IICOD	Initiating Cause or Condition Code		2651		
2608-2642	35	FILLER					
2643-2645	3	IC_124_Fetal	Initiating Fetal Recode 124	2651		A	001-124
2646-2650	5	FILLER					
2651			<b><u>Flag File for Reporting Flags</u></b> The reporting flags indented below follow this coding structure:			0 1	Not reporting Reporting
2651	1	F_ICOD	Init Cause or condition		A		
2652-3150	499	FILLER					
<b>3150</b>		<b>END OF RECORD</b>					

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Table 1. Number of fetal deaths and fetal mortality rates: United States, 1985, 1990, and 1995-2018

	Fetal deaths			Fetal mortality rate <sup>\1</sup>		
	Total <sup>\2</sup>	20-27 weeks <sup>\3</sup>	28 weeks or more <sup>\3</sup>	Total <sup>\2</sup>	20-27 weeks <sup>\3</sup>	28 weeks or more <sup>\3</sup>
Obstetric estimate of gestation						
2018	22,459	11,844	10,615	5.89	3.11	2.79
2017	22,827	11,861	10,966	5.89	3.07	2.84
2016	23,880	12,486	11,394	6.02	3.15	2.88
2015	23,776	12,407	11,369	5.94	3.11	2.85
2014 <sup>\4</sup>	23,980	12,652	11,328	5.98	3.16	2.83
LMP-based gestation						
2018 <sup>\5</sup>	22,543	11,229	11,314	5.91	2.95	2.97
2017 <sup>\5</sup>	22,998	11,300	11,698	5.93	2.92	3.02
2016 <sup>\5</sup>	23,945	11,864	12,081	6.03	3.00	3.05
2015 <sup>\5</sup>	23,813	11,741	12,072	5.95	2.94	3.03
2014 <sup>\5</sup>	23,999	11,948	12,051	5.98	2.99	3.01
2013 <sup>\5</sup>	23,595	11,874	11,721	5.96	3.01	2.97
2012 <sup>\5</sup>	24,073	12,334	11,739	6.05	3.11	2.96
2011 <sup>\5</sup>	24,289	12,432	11,857	6.11	3.13	2.99
2010 <sup>\5</sup>	24,258	12,388	11,870	6.03	3.09	2.96
2009 <sup>\5</sup>	24,872	12,813	12,059	5.99	3.09	2.91
2008 <sup>\5</sup>	26,335	13,347	12,988	6.16	3.13	3.05
2007 <sup>\5</sup>	26,593	13,822	12,771	6.12	3.19	2.95
2006 <sup>\5</sup>	25,972	13,270	12,702	6.05	3.10	2.97
2005 <sup>\5</sup>	25,894	13,327	12,567	6.22	3.21	3.03
2004 <sup>\5,6</sup>	26,001	13,068	12,933	6.28	3.17	3.14
2003 <sup>\5,6</sup>	26,004	13,348	12,656	6.32	3.25	3.08
2002 <sup>\5</sup>	25,943	13,072	12,871	6.41	3.24	3.19
2001 <sup>\5</sup>	26,373	13,122	13,251	6.51	3.25	3.28
2000 <sup>\5</sup>	27,003	13,497	13,506	6.61	3.31	3.32
1999 <sup>\5</sup>	26,884	13,457	13,427	6.74	3.39	3.38
1998 <sup>\5</sup>	26,702	13,229	13,473	6.73	3.35	3.41
1997 <sup>\5</sup>	26,486	12,800	13,686	6.78	3.29	3.51
1996 <sup>\5</sup>	27,069	12,990	14,079	6.91	3.33	3.60
1995 <sup>\5</sup>	27,294	13,043	14,251	6.95	3.33	3.64
1990 <sup>\5</sup>	31,386	13,427	17,959	7.49	3.22	4.30
1985 <sup>\5</sup>	29,661	10,958	18,703	7.83	2.91	4.95

<sup>\1</sup>Rate is number of fetal deaths in specified group per 1,000 live births and fetal deaths.

<sup>\2</sup>Fetal deaths with stated or presumed period of gestation of 20 weeks or more.

<sup>\3</sup>Not stated gestational age proportionally distributed.

<sup>\4</sup>Beginning with the 2014 data year, the obstetric estimate of gestation at delivery replaces the measure based on the date of last normal menses as the standard for measuring gestational age.

<sup>\5</sup>Date of last normal menses was used for measuring gestational age.

<sup>\6</sup>Rates have been revised from those published previously; see Technical notes.

NOTE: LMP refers to the date of the mother's last normal menses.

SOURCE: NCHS/CDC/National Vital Statistics System.

Table 2. Fetal Deaths by Period of Gestation and Mother's Residence: United States, Each State and Territory, 2018

[Nonresidents of the United States are excluded]

State/territory of residence	Fetal Deaths with Stated or Presumed Gestation of 20 weeks or More			
	Total	20-27 Weeks	28 Weeks and Over	Not stated
United States <sup>1</sup>	22,459	11,782	10,559	118
Alabama	497	287	208	2
Alaska	46	20	26	-
Arizona	475	222	251	2
Arkansas	262	128	131	3
California	2,278	1,156	1,108	14
Colorado	338	184	154	-
Connecticut	173	82	91	-
Delaware	60	21	39	-
District of Columbia	74	47	27	-
Florida	1,515	846	633	36
Georgia	976	554	417	5
Hawaii	120	68	51	1
Idaho	113	50	62	1
Illinois	890	545	345	-
Indiana	498	268	228	2
Iowa	150	74	76	-
Kansas	204	114	90	-
Kentucky	311	153	158	-
Louisiana	325	171	154	-
Maine	71	42	29	-
Maryland	497	300	197	-
Massachusetts	316	155	160	1
Michigan	655	327	325	3
Minnesota	394	208	183	3
Mississippi	391	203	186	2
Missouri	400	202	198	-
Montana	46	19	27	-
Nebraska	105	55	50	-
Nevada	252	145	106	1
New Hampshire	55	28	27	-
New Jersey	701	408	292	1
New Mexico	84	35	49	-
New York	637	311	323	3
New York City	826	461	365	-
North Carolina	802	390	412	-
North Dakota	60	31	29	-
Ohio	893	447	444	2
Oklahoma	286	140	145	1
Oregon	200	96	104	-
Pennsylvania	823	435	386	2
Rhode Island	59	31	28	-

South Carolina	342	133	205	4
South Dakota	51	25	26	-
Tennessee	586	305	274	7
Texas	1,745	876	861	8
Utah	317	158	159	-
Vermont	16	5	11	-
Virginia	573	296	270	7
Washington	488	294	189	5
West Virginia	113	43	69	1
Wisconsin	330	165	164	1
Wyoming	40	23	17	-

American Samoa	---	---	---	---
Guam	52	18	33	1
Northern Marianas	10	3	6	1
Puerto Rico	239	148	87	4
Virgin Islands	---	---	---	---

- Quantity zero.

--- Data unavailable.

1 Excludes data for the territories.

Table 3. Fetal Deaths by Period of Gestation and State/Territory of Occurrence: United States, 2018

State / territory	All Fetal Deaths			
	Total	Under 20 Weeks	20 Weeks and Over	Not stated
United States <sup>1</sup>	47,676	23,660	22,419	1,597
Alabama	490	-	488	2
Alaska	43	2	41	-
Arizona	483	5	476	2
Arkansas	528	282	241	5
California	2,285	1	2,268	16
Colorado	356	-	356	-
Connecticut	182	-	182	-
Delaware	63	1	62	-
District of Columbia	105	4	101	-
Florida	1,542	3	1,503	36
Georgia	8,617	7,083	988	546
Hawaii	664	497	119	48
Idaho	143	39	103	1
Illinois	857	-	857	-
Indiana	500	-	498	2
Iowa	144	-	144	-
Kansas	208	-	208	-
Kentucky	304	1	303	-
Louisiana	370	48	322	-
Maine	73	-	73	-
Maryland	486	-	486	-
Massachusetts	317	1	315	1
Michigan	644	1	640	3
Minnesota	406	23	380	3
Mississippi	381	9	370	2
Missouri	427	8	419	-
Montana	43	-	43	-
Nebraska	112	-	112	-
Nevada	261	2	258	1
New Hampshire	50	-	50	-
New Jersey	767	85	681	1
New Mexico	77	4	73	-
New York	5,042	3,876	590	576
New York City	7,662	6,782	872	8
North Carolina	813	-	813	-
North Dakota	75	-	75	-
Ohio	888	-	886	2
Oklahoma	280	-	278	2
Oregon	259	52	207	-
Pennsylvania	1,196	372	822	2
Rhode Island	709	605	62	42

South Carolina	320	7	310	3
South Dakota	66	4	62	-
Tennessee	653	8	639	6
Texas	2,015	232	1,774	9
Utah	327	-	327	-
Vermont	16	-	16	-
Virginia	4,439	3,609	559	271
Washington	510	8	497	5
West Virginia	119	4	114	1
Wisconsin	324	2	321	1
Wyoming	35	-	35	-

American Samoa	---	---	---	---
Guam	52	0	51	1
Northern Marianas	12	2	9	1
Puerto Rico	243	1	238	4
Virgin Islands	---	---	---	---

- Quantity zero.

--- Data unavailable.

1 Excludes data for the territories.



Fetal Death Documentation Table 4A

Fetal deaths by month of delivery: United States and each reporting area, 2018

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Number												
Total	1,923	1,786	1,985	1,766	1,937	1,924	1,885	2,062	1,847	1,916	1,732	1,696	22,459
Alabama	53	40	45	33	41	35	37	52	43	36	47	35	497
Alaska	3	4	5	5	3	5	3	8	2	5	2	1	46
Arizona	39	38	49	41	41	39	43	39	41	33	36	36	475
Arkansas	26	22	18	21	16	23	28	26	19	16	30	17	262
California	214	184	185	182	191	185	188	208	188	212	147	194	2,278
Colorado	27	36	29	29	27	30	26	18	32	29	31	24	338
Connecticut	18	13	19	7	11	15	14	16	15	16	13	16	173
Delaware	4	10	5	4	11	3	3	6	5	6	1	2	60
District of Columbia	5	5	7	8	7	5	9	5	4	3	8	8	74
Florida	135	107	128	123	129	141	135	132	130	133	106	116	1,515
Georgia	64	78	83	85	103	76	78	91	78	90	79	71	976
Hawaii	11	11	7	9	4	10	17	10	10	9	9	13	120
Idaho	9	7	10	18	8	13	10	14	10	6	5	3	113
Illinois	82	67	95	63	81	86	59	93	76	74	62	52	890
Indiana	47	38	47	38	41	44	44	49	38	38	37	37	498
Iowa	11	10	11	15	11	9	10	14	18	14	14	13	150
Kansas	18	13	21	9	17	16	22	19	22	14	15	18	204
Kentucky	22	25	24	24	22	29	34	27	20	28	29	27	311
Louisiana	24	30	24	31	30	36	33	27	24	19	23	24	325
Maine	6	8	4	5	9	6	3	11	4	4	5	6	71
Maryland	44	36	56	41	45	43	36	41	37	47	25	46	497
Massachusetts	24	32	24	29	18	29	25	29	25	27	28	26	316
Michigan	54	55	56	46	63	46	54	53	66	59	45	58	655
Minnesota	36	33	48	29	34	30	32	36	15	39	27	35	394
Mississippi	33	37	19	28	32	37	40	46	33	30	26	30	391
Missouri	30	28	29	24	39	40	25	37	41	35	36	36	400
Montana	6	4	4	4	2	5	6	5	2	1	3	4	46
Nebraska	14	7	12	6	10	9	6	7	10	10	9	5	105
Nevada	20	20	27	10	30	23	23	24	10	22	26	17	252
New Hampshire	7	4	10	5	5	4	4	5	-	7	2	2	55
New Jersey	57	44	61	49	62	67	62	63	44	48	79	65	701
New Mexico	9	8	5	5	7	6	9	7	7	9	7	5	84
New York	57	47	58	53	58	59	50	43	63	63	45	41	637
New York City	56	53	86	64	77	65	64	90	63	80	74	54	826
North Carolina	59	55	62	65	74	70	61	81	87	63	65	60	802
North Dakota	4	2	3	6	5	9	5	2	5	7	7	5	60
Ohio	75	75	82	72	64	85	73	76	71	93	65	62	893
Oklahoma	26	20	23	19	24	36	28	20	27	25	21	17	286
Oregon	25	16	16	14	14	15	13	19	17	21	19	11	200
Pennsylvania	77	67	73	55	62	73	64	76	50	76	82	68	823
Rhode Island	8	4	4	6	4	6	4	4	6	6	2	5	59
South Carolina	47	25	34	24	31	23	34	28	30	19	28	19	342
South Dakota	3	3	5	2	9	4	3	6	6	4	3	3	51
Tennessee	44	53	51	53	48	56	47	51	48	41	44	50	586
Texas	132	146	148	157	128	137	158	168	155	151	127	138	1,745
Utah	23	22	27	22	25	22	29	32	29	27	33	26	317
Vermont	3	-	1	2	2	1	1	2	1	1	2	-	16
Virginia	45	52	54	52	62	49	56	55	47	36	33	32	573
Washington	36	45	58	29	46	39	32	45	39	48	38	33	488
West Virginia	11	6	10	11	5	5	11	15	10	9	8	12	113
Wisconsin	37	36	20	30	46	21	32	29	22	23	20	14	330
Wyoming	3	5	3	4	3	4	2	2	2	4	4	4	40

- Quantity zero.

**Fetal Death Documentation Table 4B**

**Fetal deaths by month of delivery: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territory	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total	26	22	24	18	30	26	28	22	32	31	21	21	301
American	---	---	---	---	---	---	---	---	---	---	---	---	---
Guam	1	3	7	3	9	4	3	3	5	7	1	6	52
Northern	1	1	1	-	1	1	1	1	1	1	1	-	10
Puerto Rico	24	18	16	15	20	21	24	18	26	23	19	15	239
Virgin	---	---	---	---	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

**Fetal Death Documentation Table 5A**

**Fetal deaths by race of mother:**

**United States and each reporting area, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Single-race white	Single-race black	Single-race		Single-race		Multiple race	Total
			American Indian or Alaska Native	Single-race Asian	Native Hawaiian or Pacific Islander			
	Number							
Total	14,162	6,403	231	1,120	145	398	22,459	
Alabama	232	254	1	5	-	5	497	
Alaska	22	1	14	7	1	1	46	
Arizona	362	39	35	15	3	21	475	
Arkansas	152	94	2	4	5	5	262	
California	1,649	263	9	272	18	67	2,278	
Colorado	267	51	4	9	3	4	338	
Connecticut	102	57	-	11	-	3	173	
Delaware	29	28	-	1	-	2	60	
District of Columbia	17	55	-	2	-	-	74	
Florida	861	599	3	32	2	18	1,515	
Georgia	406	531	-	30	1	8	976	
Hawaii	33	5	2	30	33	17	120	
Idaho	101	1	5	2	1	3	113	
Illinois	523	313	4	42	-	8	890	
Indiana	381	94	-	17	3	3	498	
Iowa	115	29	1	1	-	4	150	
Kansas	168	22	-	5	1	8	204	
Kentucky	250	49	-	4	2	6	311	
Louisiana	141	177	-	5	-	2	325	
Maine	64	2	-	2	-	3	71	
Maryland	218	237	1	31	-	10	497	
Massachusetts	192	98	1	24	-	1	316	
Michigan	414	208	5	15	-	13	655	
Minnesota	263	77	13	29	1	11	394	
Mississippi	132	253	3	1	1	1	391	
Missouri	267	116	1	8	3	5	400	
Montana	37	2	6	1	-	-	46	
Nebraska	84	9	4	4	2	2	105	
Nevada	163	60	4	12	6	7	252	
New Hampshire	47	4	-	2	-	2	55	
New Jersey	385	231	-	78	3	4	701	
New Mexico	70	1	11	1	1	-	84	
New York	468	132	1	24	4	8	637	
New York City	357	346	-	117	2	4	826	
North Carolina	426	326	13	20	2	15	802	
North Dakota	44	8	6	-	1	1	60	
Ohio	571	271	4	24	1	22	893	
Oklahoma	198	42	28	2	2	14	286	
Oregon	161	7	4	13	5	10	200	
Pennsylvania	566	200	2	31	2	22	823	
Rhode Island	38	14	2	2	2	1	59	
South Carolina	161	172	-	-	3	6	342	
South Dakota	32	9	10	-	-	-	51	
Tennessee	364	213	-	3	1	5	586	
Texas	1,255	391	3	77	5	14	1,745	
Utah	281	10	5	10	6	5	317	
Vermont	15	-	-	-	-	1	16	
Virginia	341	192	4	30	1	5	573	
Washington	351	39	16	48	18	16	488	
West Virginia	100	9	-	1	-	3	113	
Wisconsin	248	62	2	16	-	2	330	
Wyoming	38	-	2	-	-	-	40	

- Quantity zero.

NOTE: Race categories are consistent with the 1997 Office of Management and Budget standards; see User Guide. Single race is defined as only one race reported on the report of fetal death.

**Fetal Death Documentation Table 5B**

**Fetal deaths by race of mother: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territory	Single-race white	Single-race black	Single-race American Indian or Alaska Native	Single-race Asian	Single-race Native Hawaiian or Pacific Islander	Multiple race	Total
Total	222	21	-	6	50	2	301
American Samoa	---	---	---	---	---	---	---
Guam	4	-	-	2	44	2	52
Northern Marianas	-	-	-	4	6	-	10
Puerto Rico	218	21	-	-	-	-	239
Virgin Islands	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

NOTE: Race categories are consistent with the 1997 Office of Management and Budget standards; see User Guide. Single race is defined as only one race reported on the report of fetal death.

Fetal Death Documentation Table 6A

Fetal deaths by race and Hispanic origin of mother: United States and each reporting area, 2018

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Non-Hispanic								Total
	Single-race white	Single-race black	Single-race American Indian or Alaska Native	Single-race Asian	Single-race Native Hawaiian or Pacific Islander	Multiple race	Hispanic <sup>1</sup>	Unknown	
	Number								
Total	9,621	5,938	183	1,029	95	340	4,510	743	22,459
Alabama	198	252	1	5	-	5	34	2	497
Alaska	21	1	14	7	1	1	-	1	46
Arizona	179	37	28	14	3	15	194	5	475
Arkansas	139	88	2	4	5	5	15	4	262
California	502	240	8	257	15	54	1,112	90	2,278
Colorado	194	48	3	9	2	4	78	-	338
Connecticut	72	44	-	11	-	3	41	2	173
Delaware	17	27	-	1	-	2	13	-	60
District of Columbia	10	55	-	2	-	-	7	-	74
Florida	493	527	1	31	2	17	379	65	1,515
Georgia	292	504	-	27	-	8	97	48	976
Hawaii	15	5	1	10	17	12	10	50	120
Idaho	84	1	5	2	1	3	14	3	113
Illinois	370	305	-	41	-	7	159	8	890
Indiana	344	92	-	16	1	3	40	2	498
Iowa	100	28	1	1	-	4	14	2	150
Kansas	121	19	-	5	1	6	40	12	204
Kentucky	229	49	-	4	2	6	20	1	311
Louisiana	126	174	-	5	-	1	19	-	325
Maine	54	2	-	2	-	2	1	10	71
Maryland	137	220	1	31	-	9	87	12	497
Massachusetts	117	64	1	23	-	1	64	46	316
Michigan	377	195	4	15	-	12	40	12	655
Minnesota	234	75	11	29	1	10	28	6	394
Mississippi	125	244	3	1	-	1	8	9	391
Missouri	253	107	1	8	1	5	19	6	400
Montana	35	2	6	1	-	-	2	-	46
Nebraska	68	9	4	4	2	1	17	-	105
Nevada	77	58	4	11	6	4	89	3	252
New Hampshire	45	4	-	2	-	2	2	-	55
New Jersey	229	214	-	73	1	3	169	12	701
New Mexico	37	1	11	1	1	-	28	5	84
New York	364	114	-	17	-	7	107	28	637
New York City	162	240	-	99	-	2	169	154	826
North Carolina	332	316	13	19	2	14	104	2	802
North Dakota	39	7	5	-	1	1	3	4	60
Ohio	537	260	3	24	1	18	37	13	893
Oklahoma	161	42	23	2	2	14	36	6	286
Oregon	114	7	3	10	2	8	39	17	200
Pennsylvania	489	192	1	30	-	17	93	1	823
Rhode Island	26	10	2	2	-	1	11	7	59
South Carolina	132	161	-	-	2	5	26	16	342
South Dakota	27	9	8	-	-	-	7	-	51
Tennessee	334	213	-	3	1	5	28	2	586
Texas	490	385	3	74	1	14	777	1	1,745
Utah	234	10	1	10	6	4	52	-	317
Vermont	14	-	-	-	-	1	1	-	16
Virginia	281	185	2	27	-	4	52	22	573
Washington	252	30	5	43	15	14	83	46	488
West Virginia	99	9	-	1	-	3	1	-	113
Wisconsin	210	57	2	15	-	2	38	6	330
Wyoming	30	-	2	-	-	-	6	2	40

- Quantity zero.

NOTE: Race and Hispanic origin are reported separately on birth certificates; persons of Hispanic origin may be of any race. In this table, non-Hispanic women are classified by race. Race categories are consistent with the 1997 Office of Management and Budget standards; see User Guide. Single race is defined as only one race reported on the report of fetal death.

<sup>1</sup> Includes all persons of Hispanic origin of any race; see User Guide.

**Fetal Death Documentation Table 6B**

**Fetal deaths by race and Hispanic origin of mother: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	Non-Hispanic						Hispanic <sup>1</sup>	Unknown	Total
	Single-race white	Single-race black	Single-race American Indian or Alaska Native	Single-race Asian	Single-race Native Hawaiian or Pacific Islander	Multiple race			
Total	6	-	-	6	48	2	238	1	301
American Samoa	---	---	---	---	---	---	---	---	---
Guam	4	-	-	2	42	2	1	1	52
Northern Marianas	-	-	-	4	6	-	-	-	10
Puerto Rico	2	-	-	-	-	-	237	-	239
Virgin Islands	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

NOTE: Race and Hispanic origin are reported separately on birth certificates; persons of Hispanic origin may be of any race. In this table, non-Hispanic women are classified by race. Race categories are consistent with the 1997 Office of Management and Budget standards; see User Guide. Single race is defined as only one race reported on the report of fetal death.

<sup>1</sup> Includes all persons of Hispanic origin of any race; see User Guide.

**Fetal Death Documentation Table 7A**

**Fetal deaths by Hispanic origin of mother: United States and each reporting area, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Non-Hispanic	Mexican	Puerto Rican	Cuban	Central or	Other and	Unknown	Total
					South American	Unknown Hispanic		
Number								
Total	17,206	2,587	365	98	726	734	743	22,459
Alabama	461	21	3	-	8	2	2	497
Alaska	45	-	-	-	-	-	1	46
Arizona	276	169	7	2	11	5	5	475
Arkansas	243	8	3	-	3	1	4	262
California	1,076	853	9	2	133	115	90	2,278
Colorado	260	56	5	-	6	11	-	338
Connecticut	130	1	17	1	8	14	2	173
Delaware	47	4	4	-	3	2	-	60
District of Columbia	67	-	-	-	3	4	-	74
Florida	1,071	65	88	73	106	47	65	1,515
Georgia	831	49	5	1	22	20	48	976
Hawaii	60	4	4	-	-	2	50	120
Idaho	96	11	1	-	1	1	3	113
Illinois	723	126	11	1	10	11	8	890
Indiana	456	27	1	-	9	3	2	498
Iowa	134	9	-	-	3	2	2	150
Kansas	152	23	3	1	9	4	12	204
Kentucky	290	14	1	1	4	-	1	311
Louisiana	306	5	2	-	9	3	-	325
Maine	60	-	1	-	-	-	10	71
Maryland	398	14	4	-	54	15	12	497
Massachusetts	206	3	22	-	14	25	46	316
Michigan	603	18	2	1	4	15	12	655
Minnesota	360	22	-	-	5	1	6	394
Mississippi	374	1	-	-	3	4	9	391
Missouri	375	11	1	1	-	6	6	400
Montana	44	2	-	-	-	-	-	46
Nebraska	88	9	-	-	5	3	-	105
Nevada	160	68	1	3	10	7	3	252
New Hampshire	53	-	-	-	-	2	-	55
New Jersey	520	25	38	1	57	48	12	701
New Mexico	51	17	-	1	1	9	5	84
New York	502	6	17	-	26	58	28	637
New York City	503	15	24	-	35	95	154	826
North Carolina	696	52	14	1	29	8	2	802
North Dakota	53	2	1	-	-	-	4	60
Ohio	843	13	11	1	4	8	13	893
Oklahoma	244	29	-	-	5	2	6	286
Oregon	144	36	1	-	1	1	17	200
Pennsylvania	729	17	29	1	7	39	1	823
Rhode Island	41	1	6	-	1	3	7	59
South Carolina	300	12	2	-	8	4	16	342
South Dakota	44	3	2	-	1	1	-	51
Tennessee	556	16	1	-	5	6	2	586
Texas	967	607	11	6	63	90	1	1,745
Utah	265	28	2	-	7	15	-	317
Vermont	15	1	-	-	-	-	-	16
Virginia	499	11	6	-	26	9	22	573
Washington	359	69	1	-	3	10	46	488
West Virginia	112	-	-	-	1	-	-	113
Wisconsin	286	30	4	-	2	2	6	330
Wyoming	32	4	-	-	1	1	2	40

- Quantity zero.

**Fetal Death Documentation Table 7B**

**Fetal deaths by Hispanic origin of mother: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	Non-Hispanic	Mexican	Puerto Rican	Cuban	Central or South American	Other and Unknown Hispanic	Unknown	Total
Total	62	1	231	-	-	6	1	301
American Samoa	---	---	---	---	---	---	---	---
Guam	50	1	-	-	-	-	1	52
Northern Marianas	10	-	-	-	-	-	-	10
Puerto Rico	2	-	231	-	-	6	-	239
Virgin Islands	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.



Fetal Death Documentation Table 8A

Fetal deaths by age of mother (in years): United States and each reporting area, 2018

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Number													Total
	<15	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	
Total	28	43	99	220	392	555	4,317	6,097	5,843	3,635	1,111	103	16	22,459
Alabama	2	1	2	5	16	14	141	130	98	68	19	1	-	497
Alaska	-	-	-	-	1	2	5	17	9	6	6	-	-	46
Arizona	-	2	3	3	6	11	86	137	127	75	22	3	-	475
Arkansas	2	2	1	2	6	10	57	89	52	30	11	-	-	262
California	1	5	8	27	37	50	359	586	650	405	134	15	1	2,278
Colorado	-	-	2	-	5	3	52	102	93	60	18	2	1	338
Connecticut	-	-	2	3	4	3	19	39	56	35	12	-	-	173
Delaware	-	-	-	-	1	2	8	21	20	6	2	-	-	60
District of Columbia	1	1	-	1	1	1	8	23	21	14	3	-	-	74
Florida	1	2	4	12	18	37	300	416	394	247	79	4	1	1,515
Georgia	2	2	7	4	16	30	208	257	237	157	48	8	-	976
Hawaii	-	-	1	1	-	2	23	27	43	19	4	-	-	120
Idaho	-	1	1	2	-	-	21	38	28	14	8	-	-	113
Illinois	2	-	5	10	13	25	180	224	243	134	49	5	-	890
Indiana	2	-	4	11	3	10	110	143	120	82	10	3	-	498
Iowa	-	1	2	-	2	3	40	42	34	22	4	-	-	150
Kansas	-	1	2	-	1	9	37	63	55	28	8	-	-	204
Kentucky	-	-	1	8	4	14	75	72	80	44	10	2	1	311
Louisiana	1	-	4	7	12	12	84	95	60	38	11	1	-	325
Maine	-	-	-	-	2	1	15	18	20	11	2	2	-	71
Maryland	-	1	3	3	9	9	73	146	128	95	24	4	2	497
Massachusetts	-	2	3	1	3	4	37	74	102	72	15	3	-	316
Michigan	-	2	3	6	13	17	126	191	168	96	29	3	1	655
Minnesota	-	-	1	3	2	4	70	113	110	66	23	2	-	394
Mississippi	1	1	1	4	10	8	119	111	79	42	15	-	-	391
Missouri	1	-	2	3	4	12	98	107	96	58	19	-	-	400
Montana	-	-	-	-	1	-	10	17	14	4	-	-	-	46
Nebraska	-	-	-	-	-	3	19	31	33	16	2	1	-	105
Nevada	-	1	-	3	4	8	45	68	65	46	12	-	-	252
New Hampshire	-	-	-	1	3	1	9	18	14	6	2	1	-	55
New Jersey	-	1	-	11	8	14	104	159	210	142	43	7	2	701
New Mexico	-	1	1	-	2	1	24	19	19	11	3	3	-	84
New York	1	-	4	6	8	24	111	145	168	127	36	5	2	637
New York	2	2	-	2	7	16	130	192	217	184	71	2	1	826
North Carolina	-	1	6	9	20	17	163	229	200	110	46	1	-	802
North Dakota	-	-	-	1	-	1	10	21	13	10	3	1	-	60
Ohio	2	1	3	10	17	22	177	283	228	119	29	1	1	893
Oklahoma	2	1	3	1	10	9	56	86	69	38	10	1	-	286
Oregon	-	1	-	1	6	5	41	44	52	40	10	-	-	200
Pennsylvania	3	3	4	13	18	26	141	222	224	128	38	3	-	823
Rhode Island	-	-	-	-	1	-	11	18	18	10	1	-	-	59
South Carolina	-	2	2	4	13	11	80	89	87	40	12	2	-	342
South Dakota	-	-	-	1	1	4	11	16	8	7	3	-	-	51
Tennessee	-	2	2	9	11	14	119	176	141	93	18	-	1	586
Texas	1	2	6	22	48	42	381	445	435	271	83	8	1	1,745
Utah	-	-	2	1	2	5	55	89	93	48	21	1	-	317
Vermont	-	-	-	1	1	-	2	4	4	4	-	-	-	16
Virginia	1	-	2	2	7	14	104	171	134	105	30	2	1	573
Washington	-	-	2	2	6	7	73	133	146	84	32	3	-	488
West Virginia	-	-	-	2	1	8	20	40	20	13	7	2	-	113
Wisconsin	-	1	-	2	8	9	63	83	99	50	14	1	-	330
Wyoming	-	-	-	-	-	1	7	18	9	5	-	-	-	40

- Quantity zero.

**Fetal Death Documentation Table 8B**  
**Fetal deaths by age of mother: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	<15	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	Total
Total	2	1	4	5	9	13	85	64	68	35	15	-	-	301
American Samoa	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Guam	-	-	1	2	2	1	8	11	17	9	1	-	-	52
Northern Marianas	-	-	-	-	-	-	2	2	2	2	2	-	-	10
Puerto Rico	2	1	3	3	7	12	75	51	49	24	12	-	-	239
Virgin Islands	---	---	---	---	---	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

**Fetal Death Documentation Table 9A**

**Fetal deaths by age of father (in years) : Total of 45 states and each reporting area, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-98	Unknown	Total
Total <sup>1</sup>	4	415	2,023	3,446	3,948	2,782	1,378	485	172	102	3,420	18,175
Alaska	-	3	-	12	6	7	4	2	1	-	11	46
Arizona	-	11	58	111	110	68	32	15	12	5	53	475
Arkansas	-	7	15	39	31	27	8	3	1	1	130	262
California	2	50	271	423	527	427	216	84	32	10	236	2,278
Colorado	-	9	28	75	92	53	33	9	2	2	35	338
Connecticut	-	2	14	22	43	33	17	6	5	3	28	173
Delaware	-	-	2	15	18	8	3	1	-	-	13	60
Florida	1	24	169	295	331	234	142	56	23	11	229	1,515
Hawaii	-	1	9	17	24	14	3	1	1	-	50	120
Idaho	-	5	12	20	30	15	11	2	1	1	16	113
Illinois	1	19	106	153	200	122	83	19	7	4	176	890
Indiana	-	17	67	108	116	76	38	11	3	3	59	498
Iowa	-	4	24	35	30	27	7	3	1	-	19	150
Kansas	-	5	30	33	54	37	19	1	1	-	24	204
Kentucky	-	4	18	40	45	31	18	4	-	2	149	311
Louisiana	-	10	43	72	53	46	16	3	1	1	80	325
Maine	-	2	10	12	18	7	4	3	-	2	13	71
Maryland	-	15	44	96	114	87	34	16	8	4	79	497
Massachuse	-	5	24	49	81	54	30	9	2	1	61	316
Michigan	-	17	64	123	137	108	46	19	3	6	132	655
Minnesota	-	4	38	73	115	70	39	9	5	5	36	394
Mississippi	-	4	43	70	48	32	22	4	4	-	164	391
Missouri	-	11	62	81	81	61	33	11	1	2	57	400
Montana	-	-	3	13	15	6	2	1	-	-	6	46
Nebraska	-	2	11	20	39	19	4	3	-	2	5	105
Nevada	-	4	31	50	53	42	18	8	-	1	45	252
New	-	2	7	14	10	8	3	1	1	2	7	55
New	-	2	7	15	20	10	3	2	-	1	24	84
North	-	10	63	126	135	90	53	13	2	5	305	802
North	-	-	2	16	8	13	3	2	1	-	15	60
Ohio	-	28	122	199	209	139	56	24	7	5	104	893
Oklahoma	-	16	38	58	76	36	11	7	2	-	42	286
Oregon	-	4	27	45	49	28	17	9	3	1	17	200
Pennsylvani	-	31	80	161	202	138	64	28	8	3	108	823
Rhode	-	1	6	3	14	12	1	1	-	-	21	59
South	-	5	44	59	58	40	21	5	1	1	108	342
South	-	-	8	15	6	6	4	3	-	-	9	51
Tennessee	-	7	45	83	75	56	30	10	2	2	276	586
Texas	-	55	261	368	392	289	111	51	23	11	184	1,745
Utah	-	5	33	76	78	64	28	5	1	1	26	317
Vermont	-	-	2	3	4	2	2	-	-	-	3	16
Washington	-	10	50	85	110	84	46	14	6	3	80	488
West	-	4	15	20	20	13	15	3	1	-	22	113
Wisconsin	-	-	11	36	53	40	26	4	-	1	159	330
Wyoming	-	-	6	7	18	3	2	-	-	-	4	40

- Quantity zero

<sup>1</sup> Father's age was not reported for Alabama, the District of Columbia, Georgia, New Jersey, New York (including New York City), and Virginia for 2018.

**Fetal Death Documentation Table 9B**

**Fetal deaths by age of father: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-98	Unknown	Total
Total <sup>1</sup>	-	10	41	40	24	22	21	7	2	1	81	249
American Samoa	---	---	---	---	---	---	---	---	---	---	---	---
Northern Marianas	-	-	2	2	-	1	3	-	-	-	2	10
Puerto Rico	-	10	39	38	24	21	18	7	2	1	79	239
Virgin Islands	---	---	---	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

<sup>1</sup> Guam did not report father's age for 2018.

**Fetal Death Documentation Table 10A**  
**Fetal deaths by live birth order: United States and each reporting area, 2018**  
[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	0	1	2	3	4	5	6	7	8+	Unknown	Total
	Number										
Total	8,455	5,086	3,594	2,086	1,071	522	280	115	163	1,087	22,459
Alabama	236	107	82	49	13	6	2	2	-	-	497
Alaska	17	9	6	4	7	-	1	-	1	1	46
Arizona	159	100	88	68	26	12	3	6	2	11	475
Arkansas	99	53	50	26	12	8	2	3	2	7	262
California	898	411	369	254	106	55	31	10	19	125	2,278
Colorado	100	91	55	25	18	9	8	2	2	28	338
Connecticut	83	39	23	12	4	2	-	-	1	9	173
Delaware	24	17	8	6	4	1	-	-	-	-	60
District of	24	18	17	7	4	1	2	-	1	-	74
Florida	539	328	267	149	87	44	25	7	11	58	1,515
Georgia	376	222	126	62	35	22	11	7	5	110	976
Hawaii	33	23	16	7	5	1	1	1	-	33	120
Idaho	42	24	19	14	7	1	2	2	1	1	113
Illinois	306	226	155	76	50	28	17	3	7	22	890
Indiana	181	148	84	37	22	5	2	4	6	9	498
Iowa	60	36	21	12	8	7	4	-	1	1	150
Kansas	76	53	34	23	9	8	1	-	-	-	204
Kentucky	125	71	53	30	21	8	-	-	3	-	311
Louisiana	136	74	56	28	19	5	4	2	-	1	325
Maine	29	6	9	2	3	3	-	-	-	19	71
Maryland	211	117	80	49	21	8	5	1	4	1	497
Massachuse	145	90	42	25	5	5	-	-	-	4	316
Michigan	237	137	97	70	36	21	4	8	5	40	655
Minnesota	148	103	55	35	13	15	5	4	6	10	394
Mississippi	159	93	66	42	17	6	2	2	2	2	391
Missouri	154	107	58	41	16	10	11	-	-	3	400
Montana	18	14	8	2	2	-	1	-	-	1	46
Nebraska	38	26	22	5	7	3	1	2	1	-	105
Nevada	96	70	46	19	7	1	6	3	1	3	252
New	27	7	13	2	-	1	-	-	-	5	55
New Jersey	315	182	103	57	14	10	2	5	6	7	701
New	30	26	14	3	5	2	2	-	-	2	84
New York	184	78	47	42	26	13	7	3	7	230	637
New York	341	153	98	54	35	12	11	3	4	115	826
North	329	206	121	74	39	15	8	3	4	3	802
North	15	13	12	8	6	3	1	1	-	1	60
Ohio	326	221	138	87	55	33	14	5	13	1	893
Oklahoma	116	54	51	22	9	5	4	2	1	22	286
Oregon	82	44	32	21	7	7	6	-	-	1	200
Pennsylvania	330	177	119	62	31	16	14	1	10	63	823
Rhode	22	7	6	4	3	-	1	-	1	15	59
South	148	73	59	28	17	7	5	2	2	1	342
South	16	11	8	6	6	1	1	-	1	1	51
Tennessee	195	161	94	65	42	12	10	5	1	1	586
Texas	542	401	362	203	108	51	26	10	15	27	1,745
Utah	103	76	55	40	20	11	4	1	6	1	317
Vermont	8	3	3	-	2	-	-	-	-	-	16
Virginia	231	157	94	45	22	8	8	3	5	-	573
Washington	184	100	52	36	15	8	3	2	2	86	488
West	37	28	27	10	6	3	-	-	-	2	113
Wisconsin	113	84	70	30	16	9	2	-	4	2	330
Wyoming	12	11	4	8	3	-	-	-	-	2	40

- Quantity zero

**Fetal Death Documentation Table 10B**

**Fetal deaths and percent distribution by live birth order: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	0	1	2	3	4	5	6	7	8+	Unknown	Total
Total	160	78	28	13	5	2	2	-	2	11	301
American Samoa	---	---	---	---	---	---	---	---	---	---	---
Guam	17	7	5	7	4	2	1	-	2	7	52
Northern Marianas	5	3	1	-	-	-	1	-	-	-	10
Puerto Rico	138	68	22	6	1	-	-	-	-	4	239
Virgin Islands	---	---	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

**Fetal Death Documentation Table 11A**

**Fetal deaths by sex of child and sex ratio: United States and each reporting area, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Male	Female	Ratio M/F	Total
Total	11,832	10,627	1,113.4	22,459
Alabama	267	230	1,160.9	497
Alaska	26	20	1,300.0	46
Arizona	249	226	1,101.8	475
Arkansas	146	116	1,258.6	262
California	1,197	1,081	1,107.3	2,278
Colorado	177	161	1,099.4	338
Connecticut	91	82	1,109.8	173
Delaware	36	24	1,500.0	60
District of	44	30	1,466.7	74
Florida	809	706	1,145.9	1,515
Georgia	520	456	1,140.4	976
Hawaii	63	57	1,105.3	120
Idaho	52	61	852.5	113
Illinois	468	422	1,109.0	890
Indiana	255	243	1,049.4	498
Iowa	90	60	1,500.0	150
Kansas	107	97	1,103.1	204
Kentucky	162	149	1,087.2	311
Louisiana	172	153	1,124.2	325
Maine	43	28	1,535.7	71
Maryland	255	242	1,053.7	497
Massachuse	139	177	785.3	316
Michigan	347	308	1,126.6	655
Minnesota	200	194	1,030.9	394
Mississippi	186	205	907.3	391
Missouri	199	201	990.0	400
Montana	27	19	1,421.1	46
Nebraska	55	50	1,100.0	105
Nevada	135	117	1,153.8	252
New	29	26	1,115.4	55
New Jersey	355	346	1,026.0	701
New	43	41	1,048.8	84
New York	341	296	1,152.0	637
New York	459	367	1,250.7	826
North	419	383	1,094.0	802
North	34	26	1,307.7	60
Ohio	472	421	1,121.1	893
Oklahoma	146	140	1,042.9	286
Oregon	115	85	1,352.9	200
Pennsylvani	462	361	1,279.8	823
Rhode	32	27	1,185.2	59
South	191	151	1,264.9	342
South	27	24	1,125.0	51
Tennessee	302	284	1,063.4	586
Texas	912	833	1,094.8	1,745
Utah	157	160	981.3	317
Vermont	8	8	1,000.0	16
Virginia	302	271	1,114.4	573
Washington	249	239	1,041.8	488
West	56	57	982.5	113
Wisconsin	181	149	1,214.8	330
Wyoming	23	17	1,352.9	40

- Quantity zero.

**Fetal Death Documentation Table 11B**

**Fetal deaths by sex of child and sex ratio: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	Male	Female	Ratio M/F	Total
Total	173	128	1,351.6	301
American Samoa	---	---	---	---
Guam	25	27	925.9	52
Northern Marianas	4	6	666.7	10
Puerto Rico	144	95	1,515.8	239
Virgin Islands	---	---	---	---

– Quantity zero.

--- Data unavailable.



**Fetal Death Documentation Table 12A**  
**Fetal deaths by plurality: United States and each reporting area, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Single	Twin	Triplet	Quadruplet	Quintuplet+	Total
Total	20,734	1,595	119	11	-	22,459
Alabama	459	35	3	-	-	497
Alaska	43	3	-	-	-	46
Arizona	443	31	1	-	-	475
Arkansas	235	23	4	-	-	262
California	2,119	150	9	-	-	2,278
Colorado	318	20	-	-	-	338
Connecticut	163	10	-	-	-	173
Delaware	60	-	-	-	-	60
District of	65	8	1	-	-	74
Florida	1,379	119	14	3	-	1,515
Georgia	885	91	-	-	-	976
Hawaii	113	6	1	-	-	120
Idaho	106	7	-	-	-	113
Illinois	811	71	7	1	-	890
Indiana	462	30	6	-	-	498
Iowa	143	7	-	-	-	150
Kansas	196	8	-	-	-	204
Kentucky	291	19	1	-	-	311
Louisiana	309	12	2	2	-	325
Maine	66	3	2	-	-	71
Maryland	455	35	7	-	-	497
Massachuset	287	29	-	-	-	316
Michigan	588	63	4	-	-	655
Minnesota	359	28	7	-	-	394
Mississippi	355	34	2	-	-	391
Missouri	379	21	-	-	-	400
Montana	41	5	-	-	-	46
Nebraska	103	2	-	-	-	105
Nevada	238	14	-	-	-	252
New	46	9	-	-	-	55
New Jersey	633	65	3	-	-	701
New	80	4	-	-	-	84
New York	593	40	2	2	-	637
New York	766	56	3	1	-	826
North	763	37	-	2	-	802
North	60	-	-	-	-	60
Ohio	818	67	8	-	-	893
Oklahoma	267	18	1	-	-	286
Oregon	187	12	1	-	-	200
Pennsylvani	739	74	10	-	-	823
Rhode	52	7	-	-	-	59
South	327	15	-	-	-	342
South	48	3	-	-	-	51
Tennessee	542	41	3	-	-	586
Texas	1,631	112	2	-	-	1,745
Utah	275	42	-	-	-	317
Vermont	13	3	-	-	-	16
Virginia	533	34	6	-	-	573
Washington	457	29	2	-	-	488
West	107	6	-	-	-	113
Wisconsin	288	37	5	-	-	330
Wyoming	38	-	2	-	-	40

- Quantity zero.

**Fetal Death Documentation Table 12B**  
**Fetal deaths by plurality: U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	Single	Twin	Triplet	Quadruplet	Quintuplet+	Total
Total	279	22	-	-	-	301
American Samoa	---	---	---	---	---	---
Guam	48	4	-	-	-	52
Northern Marianas	10	-	-	-	-	10
Puerto Rico	221	18	-	-	-	239
Virgin Islands	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

**Fetal Death Documentation Table 13A**

**Fetal deaths by period of gestation (in weeks): United States and each reporting area, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	20-27	28-31	32-33	34-36	37-38	39-40	41	42+	Unknown	Total
	Number									
Total	11,782	2,666	1,531	2,763	2,064	1,363	139	33	118	22,459
Alabama	287	63	23	57	45	19	1	-	2	497
Alaska	20	6	4	6	3	4	2	1	-	46
Arizona	222	56	27	74	63	28	3	-	2	475
Arkansas	128	32	25	36	21	14	2	1	3	262
California	1,156	271	158	280	210	172	14	3	14	2,278
Colorado	184	36	19	46	24	28	1	-	-	338
Connecticut	82	23	10	25	20	9	4	-	-	173
Delaware	21	10	7	14	6	2	-	-	-	60
District of Columbia	47	8	5	5	4	5	-	-	-	74
Florida	846	159	95	161	131	73	12	2	36	1,515
Georgia	554	124	61	110	62	56	3	1	5	976
Hawaii	68	9	5	19	9	8	-	1	1	120
Idaho	50	16	11	13	15	5	2	-	1	113
Illinois	545	93	55	88	57	47	5	-	-	890
Indiana	268	62	34	55	40	34	2	1	2	498
Iowa	74	15	11	22	12	15	1	-	-	150
Kansas	114	27	8	19	21	13	1	1	-	204
Kentucky	153	53	23	30	35	16	1	-	-	311
Louisiana	171	42	24	51	30	7	-	-	-	325
Maine	42	6	5	7	8	1	1	1	-	71
Maryland	300	52	28	51	34	28	4	-	-	497
Massachusetts	155	37	22	36	27	30	6	2	1	316
Michigan	327	80	43	91	56	51	4	-	3	655
Minnesota	208	44	27	34	39	32	7	-	3	394
Mississippi	203	66	28	42	42	8	-	-	2	391
Missouri	202	48	37	46	36	27	2	2	-	400
Montana	19	11	3	6	4	3	-	-	-	46
Nebraska	55	4	12	16	12	6	-	-	-	105
Nevada	145	29	13	30	18	13	3	-	1	252
New Hampshire	28	5	9	5	4	2	1	1	-	55
New Jersey	408	78	35	71	60	43	4	1	1	701
New Mexico	35	4	5	17	8	12	3	-	-	84
New York	311	65	50	87	73	44	3	1	3	637
New York	461	89	50	88	91	43	4	-	-	826
North Carolina	390	105	74	116	78	36	1	2	-	802
North Dakota	31	6	4	8	5	6	-	-	-	60
Ohio	447	120	60	121	83	52	5	3	2	893
Oklahoma	140	49	18	33	29	16	-	-	1	286
Oregon	96	27	16	25	19	13	3	1	-	200
Pennsylvania	435	104	55	98	65	58	5	1	2	823
Rhode Island	31	11	3	4	3	6	1	-	-	59
South Carolina	133	54	39	47	41	23	1	-	4	342
South Dakota	25	4	4	8	6	3	1	-	-	51
Tennessee	305	62	39	86	56	28	3	-	7	586
Texas	876	200	128	245	163	113	10	2	8	1,745
Utah	158	30	27	47	38	17	-	-	-	317
Vermont	5	1	1	2	3	4	-	-	-	16
Virginia	296	68	33	75	46	42	4	2	7	573
Washington	294	48	33	41	41	17	7	2	5	488
West Virginia	43	11	7	21	21	7	1	1	1	113
Wisconsin	165	35	16	47	42	23	1	-	1	330
Wyoming	23	8	2	1	5	1	-	-	-	40

- Quantity zero.

**Fetal Death Documentation Table 13B**

**Fetal deaths by period of gestation (in weeks): U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Territories	20-27	28-31	32-33	34-36	37-38	39-40	41	42+	Unknown	Total
Total	169	43	18	28	23	11	1	2	6	301
American Samoa	---	---	---	---	---	---	---	---	---	---
Guam	18	7	5	10	5	5	-	1	1	52
Northern Marianas	3	2	1	-	1	2	-	-	1	10
Puerto Rico	148	34	12	18	17	4	1	1	4	239
Virgin Islands	---	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

Fetal Death Documentation Table 14A

Fetal deaths by birthweight (in grams): United States and each reporting area, 2018

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

State	Number											Total	
	<500	0500 – 0999	1000 – 1499	1500 – 1999	2000 – 2499	2500 – 2999	3000 – 3499	3500 – 3999	4000 – 4499	4500 – 4999	5000 – 8165		Unknown
Total	7,643	3,925	1,963	1,792	1,744	1,637	1,227	615	206	86	48	1,573	22,459
Alabama	210	89	38	34	40	32	21	8	3	3	-	19	497
Alaska	11	5	6	7	4	3	3	4	-	-	-	3	46
Arizona	153	95	34	42	45	48	30	15	4	3	1	5	475
Arkansas	96	39	28	24	16	22	13	5	2	3	2	12	262
California	733	410	200	192	196	181	139	67	22	9	6	123	2,278
Colorado	106	36	28	24	23	19	15	15	2	-	-	70	338
Connecticut	48	27	13	22	16	16	13	5	-	-	-	13	173
Delaware	8	13	10	6	9	7	5	1	-	-	-	1	60
District of Columbia	34	15	6	5	6	1	4	3	-	-	-	-	74
Florida	575	279	119	105	99	91	69	41	14	8	3	112	1,515
Georgia	351	144	78	78	65	73	33	11	8	5	-	130	976
Hawaii	30	11	4	10	7	10	5	-	-	-	-	43	120
Idaho	38	12	19	4	12	12	8	2	1	-	-	5	113
Illinois	370	140	72	78	56	47	34	18	7	2	-	66	890
Indiana	201	76	51	35	35	23	26	19	5	2	2	23	498
Iowa	56	20	17	11	12	16	9	6	-	2	1	-	150
Kansas	75	43	16	20	11	13	9	9	4	-	1	3	204
Kentucky	104	66	34	29	19	24	19	8	-	1	-	7	311
Louisiana	109	62	33	31	36	20	9	8	3	-	-	14	325
Maine	24	11	4	1	9	4	3	-	2	-	-	13	71
Maryland	205	98	47	36	26	33	20	14	7	1	-	10	497
Massachusetts	105	51	21	31	27	24	28	9	3	-	-	17	316
Michigan	229	98	65	54	56	54	38	17	4	3	-	37	655
Minnesota	154	52	34	29	29	22	38	15	4	2	-	15	394
Mississippi	147	77	34	34	34	28	11	6	6	-	3	11	391
Missouri	140	70	42	29	30	34	25	9	4	2	1	14	400
Montana	13	7	4	5	5	4	3	1	1	-	-	3	46
Nebraska	38	17	5	9	7	11	8	5	1	-	-	4	105
Nevada	98	48	24	18	19	19	9	7	5	1	-	4	252
New Hampshire	19	9	6	5	5	6	2	-	1	-	-	2	55
New Jersey	286	127	61	56	41	41	50	19	5	-	-	15	701
New Mexico	23	9	6	10	7	11	8	3	3	-	1	3	84
New York	157	107	44	37	42	55	40	20	9	3	2	121	637
New York City	251	161	48	65	67	59	43	23	5	2	3	99	826
North Carolina	261	140	89	57	74	53	41	29	7	4	3	44	802
North Dakota	23	9	4	5	6	5	1	6	-	1	-	-	60
Ohio	314	159	87	74	91	60	48	19	7	5	4	25	893
Oklahoma	91	53	26	32	19	15	13	8	3	-	2	24	286
Oregon	57	42	17	18	18	17	10	10	3	-	1	7	200
Pennsylvania	273	147	75	60	57	47	47	20	10	1	-	86	823
Rhode Island	29	3	10	2	2	2	1	4	-	2	-	4	59
South Carolina	74	83	41	31	34	33	22	12	2	2	3	5	342
South Dakota	13	10	3	4	5	4	4	1	3	-	-	4	51
Tennessee	219	105	52	50	50	35	45	19	3	4	-	4	586
Texas	553	346	163	152	136	151	93	51	17	10	6	67	1,745
Utah	75	43	25	23	27	23	22	8	3	-	-	68	317
Vermont	2	3	-	1	1	3	4	1	-	-	-	1	16
Virginia	182	90	44	44	37	45	36	12	6	2	2	73	573
Washington	126	78	40	30	31	28	20	9	2	2	1	121	488
West Virginia	26	21	11	8	19	16	7	2	3	-	-	-	113
Wisconsin	111	58	24	23	25	34	21	10	2	1	-	21	330
Wyoming	17	11	1	2	1	3	2	1	-	-	-	2	40

- Quantity zero.

**Fetal Death Documentation Table 14B**

**Fetal deaths by birthweight (in grams): U.S. territories, 2018**

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

	<500	0500 – 0999	1000 – 1499	1500 – 1999	2000 – 2499	2500 – 2999	3000 – 3499	3500 – 3999	4000 – 4499	4500-4999	5000-8165	Unknown	Total
Total	107	69	30	23	19	22	11	10	1	-	-	9	301
American Samoa	---	---	---	---	---	---	---	---	---	---	---	---	---
Guam	14	9	5	4	5	5	4	4	1	-	-	1	52
Northern Marianas	1	4	1	-	-	3	-	-	-	-	-	1	10
Puerto Rico	92	56	24	19	14	14	7	6	-	-	-	7	239
Virgin Islands	---	---	---	---	---	---	---	---	---	---	---	---	---

- Quantity zero.

--- Data unavailable.

Table 15A. Deaths according to 124 selected causes of fetal death: 42 states and the District of Columbia, 2018  
 [By residence. Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Cause of death (based on ICD–10)	Number
All causes <sup>1</sup> .....	16,409
Certain infectious and parasitic diseases.....A00-B99	-
Congenital syphilis.....A50	-
Human immunodeficiency virus (HIV) disease.....B20-B24	-
Other viral diseases.....A80-B19,B25-B34	-
Other and unspecified infectious and parasitic diseases.....A00-A49,A51-A79,B35-B99	-
Malignant neoplasms.....C00-C97	1
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior.....D00-D48	109
Anemias.....D50-D64	1
Endocrine, nutritional and metabolic diseases.....E00-E88	2
Short stature, not elsewhere classified.....E34.3	1
Cystic fibrosis.....E84	-
Other endocrine, nutritional and metabolic diseases.....E00-E32,E34.0-E34.2,E34.4-E34.9,E40-E83,E85-E88	1
Meningitis.....G00,G03	-
Other diseases of nervous system and sense organs.....G04-H93	3
Umbilical hernia.....K42	-
Other hernia.....K40-K41,K43-K46	-
Other and unspecified diseases of digestive system.....K00-K38,K50-K92	2
All other diseases, excluding perinatal conditions, congenital anomalies, and symptoms, signs and ill-defined conditions.....D65-D89,I00-J9	11
Certain conditions originating in the perinatal period.....P00-P96	14,557
Fetus affected by maternal conditions that may be unrelated to present pregnancy...P00	1,644
Fetus affected by maternal hypertensive disorders.....P00.0	886
Fetus affected by maternal renal and urinary tract diseases.....P00.1	26
Fetus affected by maternal infectious and parasitic diseases.....P00.2	116
Fetus affected by other maternal circulatory and respiratory diseases.....P00.3	76
Fetus affected by maternal nutritional disorders.....P00.4	2
Fetus affected by maternal injury.....P00.5	81
Fetus affected by surgical procedure on mother.....P00.6	4
Fetus affected by other medical procedures and maternal conditions.....P00.7-P00.8	451
Fetus affected by unspecified maternal condition.....P00.9	2
Fetus affected by maternal complications of pregnancy.....P01	2,183
Fetus affected by incompetent cervix.....P01.0	311
Fetus affected by premature rupture of membranes.....P01.1	1,328
Fetus affected by oligohydramnios.....P01.2	102
Fetus affected by polyhydramnios.....P01.3	40
Fetus affected by ectopic pregnancy.....P01.4	4
Fetus affected by multiple pregnancy.....P01.5	298
Fetus affected by maternal death.....P01.6	23
Fetus affected by malpresentation before labor.....P01.7	9
Fetus affected by other and unspecified maternal complications of pregnancy.....P01.8-P01.9	68
Fetus affected by complications of placenta, cord and membranes.....P02	4,133
Fetus affected by placenta previa.....P02.0	32
Fetus affected by other forms of placental separation and hemorrhage.....P02.1	1,365
Fetus affected by other and unspecified morphological and functional abnormalities of placenta.....P02.2	754
Fetus affected by placental transfusion syndromes.....P02.3	125
Fetus affected by prolapsed cord.....P02.4	97
Fetus affected by other compression of umbilical cord.....P02.5	997
Fetus affected by other and unspecified conditions of umbilical cord.....P02.6	350
Fetus affected by chorioamnionitis.....P02.7	405
Fetus affected by other and unspecified abnormalities of membranes.....P02.8-P02.9	8
Fetus affected by other complications of labor and delivery.....P03	145
Fetus affected by breech delivery and extraction.....P03.0	6
Fetus affected by other malpresentation, malposition and disproportion during labor and delivery.....P03.1	5
Fetus affected by forceps delivery.....P03.2	-
Fetus affected by delivery by vacuum extractor (ventouse).....P03.3	-
Fetus affected by cesarean delivery.....P03.4	2
Fetus affected by precipitate delivery.....P03.5	1
Fetus affected by abnormal uterine contractions.....P03.6	2
Fetus affected by other and unspecified complications of labor and delivery.....P03.8-P03.9	129
Fetus affected by noxious influences transmitted via placenta.....P04	165
Slow fetal growth and fetal malnutrition.....P05	158
Disorders related to short gestation and low birth weight, not elsewhere classified.....P07	272
Extremely low birth weight or extreme immaturity.....P07.0,P07.2	136
Other low birth weight and preterm.....P07.1,P07.3	136
Disorders related to long gestation and high birth weight.....P08	5
Exceptionally large size and other heavy for gestational age fetus.....P08.0-P08.1	-
Post-term, not heavy for gestational age fetus.....P08.2	5
Birth trauma.....P10-P15	2
Intracranial laceration and hemorrhage due to birth injury and other injuries to central nervous system.....P10-P11	-

Other birth trauma.....	P12-P15	2
Intrauterine hypoxia and birth asphyxia.....	P20-P21	7
Intrauterine hypoxia first noted before onset of labor.....	P20.0	-
Intrauterine hypoxia first noted during labor and delivery.....	P20.1	-
Intrauterine hypoxia, unspecified.....	P20.9	7
Birth asphyxia.....	P21	-
Other respiratory conditions originating in the perinatal period....	P22.8-P22.9,P23-P28	8
Congenital pneumonia.....	P23	1
Aspiration syndromes.....	P24	2
Interstitial emphysema and related conditions originating in the perinatal period.....	P25	-
Atelectasis.....	P28.0-P28.1	1
Other respiratory system disorders.....	P22.8-P22.9,P26-P27,P28.2-P28.9	4
Infections specific to the perinatal period.....	P35-P39	10
Congenital rubella syndrome.....	P35.0	1
Congenital cytomegalovirus infection.....	P35.1	3
Congenital herpesviral (herpes simplex) infection.....	P35.2	1
Congenital viral hepatitis.....	P35.3	-
Bacterial sepsis.....	P36	1
Congenital tuberculosis.....	P37.0	-
Congenital toxoplasmosis.....	P37.1	-
Other infections specific to the perinatal period....	P35.8-P35.9,P37.2-P37.9,P38-P39	4
Fetal hemorrhage.....	P50-P54	20
Hemolytic disease of fetus.....	P55-P56	5
Rh isoimmunization of fetus.....	P55.0	5
ABO isoimmunization of fetus.....	P55.1	-
Other hemolytic disease of fetus.....	P55.8-P55.9	-
Hydrops fetalis due to hemolytic disease.....	P56	-
Perinatal jaundice.....	P57-P59	-
Hematological disorders.....	P60-P61	4
Transitory endocrine and metabolic disorders specific to fetus.....	P70-P74	445
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus....	P70.0-P70.2	445
Other transitory endocrine and metabolic disorders specific to fetus.....	P70.3-P70.9,P71-P74	-
Digestive system disorders of fetus.....	P76-P78	2
Other conditions originating in the perinatal period.....	P29,P80-P96	5,349
Hydrops fetalis not due to hemolytic disease.....	P83.2	204
Fetal death of unspecified cause.....	P95	5,103
Withdrawal symptoms from maternal use of drugs of addiction.....	P96.1	-
Termination of pregnancy.....	P96.4	-
Complications of intrauterine procedures, not elsewhere classified.....	P96.5	-
All other specified conditions originating in the perinatal period.....	P29,P83.0-P83.1,P83.3-P83.9,P91,P94,P96.0,P96.3,P96.8	42
Condition originating in the perinatal period, unspecified.....	P96.9	-
Congenital malformations, deformations and chromosomal abnormalities.....	Q00-Q99	1,693
Congenital malformations of nervous system.....	Q00-Q07	324
Anencephaly and similar malformations.....	Q00	133
Encephalocele.....	Q01	16
Microcephaly.....	Q02	4
Congenital hydrocephalus.....	Q03	65
Reduction deformities of brain.....	Q04.0-Q04.3	43
Other congenital malformations of brain.....	Q04.4-Q04.9	26
Spina bifida.....	Q05	19
Other congenital malformations of spinal cord and nervous system.....	Q06-Q07	18
Congenital malformations of eye, ear, face and neck.....	Q10-Q18	4
Congenital malformations of heart.....	Q20-Q24	192
Other congenital malformations of circulatory system.....	Q25-Q28	57
Congenital malformations of lung.....	Q33	6
Other congenital malformations of respiratory system.....	Q30-Q32,Q34	9
Congenital malformations of digestive system.....	Q35-Q45	24
Congenital malformations of genital organs.....	Q50-Q56	2
Congenital malformations of urinary system.....	Q60-Q64	114
Renal agenesis and other reduction defects of kidney.....	Q60	56
Cystic kidney disease.....	Q61	34
Other congenital malformations of urinary system.....	Q62-Q64	24
Congenital malformations and deformations of musculoskeletal system, limbs and integument.....	Q65-Q85	182
Other congenital malformations.....	Q86-Q89	125
Conjoined twins.....	Q89.4	4
Multiple congenital malformations, not elsewhere classified.....	Q89.7	55
All other congenital malformations.....	Q86-Q87,Q89.0-Q89.3,Q89.8-Q89.9	66
Chromosomal abnormalities, not elsewhere classified.....	Q90-Q99	654
Down's syndrome.....	Q90	120
Edward's syndrome.....	Q91.0-Q91.3	251
Patau's syndrome.....	Q91.4-Q91.7	67
Other chromosomal abnormalities, not elsewhere classified.....	Q92-Q99	216
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified.....	R00-R99	15



External causes of mortality.....	*U01,V01-Y84	15
Accidents (unintentional injuries).....	V01-X59	15
Assault (homicide).....	*U01,X85-Y09	-
Complications of medical and surgical care.....	Y40-Y84	-
Other external causes.....	Y10-Y36	-

– Quantity zero.

1 Excludes data for Alaska, California, Georgia, Michigan, Mississippi, North Carolina, North Dakota, Vermont, and New York City for 2018.

Table 15B. Deaths according to 124 selected causes of fetal death: 2 territories, 2018  
 [By residence. Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Cause of death (based on ICD-10)	Number
All causes <sup>1</sup> .....	249
Certain infectious and parasitic diseases.....A00-B99	-
Congenital syphilis.....A50	-
Human immunodeficiency virus (HIV) disease.....B20-B24	-
Other viral diseases.....A80-B19,B25-B34	-
Other and unspecified infectious and parasitic diseases.....A00-A49,A51-A79,B35-B99	-
Malignant neoplasms.....C00-C97	-
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior.....D00-D48	1
Anemias.....D50-D64	-
Endocrine, nutritional and metabolic diseases.....E00-E88	-
Short stature, not elsewhere classified.....E34.3	-
Cystic fibrosis.....E84	-
Other endocrine, nutritional and metabolic diseases.....E00-E32,E34.0-E34.2,E34.4-E34.9,E40-E83,E85-E88	-
Meningitis.....G00,G03	-
Other diseases of nervous system and sense organs.....G04-H93	-
Umbilical hernia.....K42	-
Other hernia.....K40-K41,K43-K46	-
Other and unspecified diseases of digestive system.....K00-K38,K50-K92	1
All other diseases, excluding perinatal conditions, congenital anomalies, and symptoms, signs and ill-defined conditions.....D65-D89,I00-J98,L00-N98,U04	-
Certain conditions originating in the perinatal period.....P00-P96	214
Fetus affected by maternal conditions that may be unrelated to present pregnancy...P00	43
Fetus affected by maternal hypertensive disorders.....P00.0	22
Fetus affected by maternal renal and urinary tract diseases.....P00.1	-
Fetus affected by maternal infectious and parasitic diseases.....P00.2	6
Fetus affected by other maternal circulatory and respiratory diseases.....P00.3	1
Fetus affected by maternal nutritional disorders.....P00.4	-
Fetus affected by maternal injury.....P00.5	1
Fetus affected by surgical procedure on mother.....P00.6	-
Fetus affected by other medical procedures and maternal conditions.....P00.7-P00.8	13
Fetus affected by unspecified maternal condition.....P00.9	-
Fetus affected by maternal complications of pregnancy.....P01	67
Fetus affected by incompetent cervix.....P01.0	23
Fetus affected by premature rupture of membranes.....P01.1	35
Fetus affected by oligohydramnios.....P01.2	4
Fetus affected by polyhydramnios.....P01.3	-
Fetus affected by ectopic pregnancy.....P01.4	-
Fetus affected by multiple pregnancy.....P01.5	4
Fetus affected by maternal death.....P01.6	-
Fetus affected by malpresentation before labor.....P01.7	-
Fetus affected by other and unspecified maternal complications of pregnancy.....P01.8-P01.9	1
Fetus affected by complications of placenta, cord and membranes.....P02	61
Fetus affected by placenta previa.....P02.0	-
Fetus affected by other forms of placental separation and hemorrhage.....P02.1	21
Fetus affected by other and unspecified morphological and functional abnormalities of placenta.....P02.2	9
Fetus affected by placental transfusion syndromes.....P02.3	-
Fetus affected by prolapsed cord.....P02.4	-
Fetus affected by other compression of umbilical cord.....P02.5	12
Fetus affected by other and unspecified conditions of umbilical cord.....P02.6	10
Fetus affected by chorioamnionitis.....P02.7	9
Fetus affected by other and unspecified abnormalities of membranes.....P02.8-P02.9	-
Fetus affected by other complications of labor and delivery.....P03	1
Fetus affected by breech delivery and extraction.....P03.0	-
Fetus affected by other malpresentation, malposition and disproportion during labor and delivery.....P03.1	-
Fetus affected by forceps delivery.....P03.2	-
Fetus affected by delivery by vacuum extractor (ventouse).....P03.3	-
Fetus affected by cesarean delivery.....P03.4	-
Fetus affected by precipitate delivery.....P03.5	-
Fetus affected by abnormal uterine contractions.....P03.6	-
Fetus affected by other and unspecified complications of labor and delivery.....P03.8-P03.9	1
Fetus affected by noxious influences transmitted via placenta.....P04	1
Slow fetal growth and fetal malnutrition.....P05	-
Disorders related to short gestation and low birth weight, not elsewhere classified.....P07	6
Extremely low birth weight or extreme immaturity.....P07.0,P07.2	2
Other low birth weight and preterm.....P07.1,P07.3	4
Disorders related to long gestation and high birth weight.....P08	-
Exceptionally large size and other heavy for gestational age fetus.....P08.0-P08.1	-
Post-term, not heavy for gestational age fetus.....P08.2	-
Birth trauma.....P10-P15	-
Intracranial laceration and hemorrhage due to birth injury and other injuries to central nervous system.....P10-P11	-
Other birth trauma.....P12-P15	-
Intrauterine hypoxia and birth asphyxia.....P20-P21	2
Intrauterine hypoxia first noted before onset of labor.....P20.0	1
Intrauterine hypoxia first noted during labor and delivery.....P20.1	-
Intrauterine hypoxia, unspecified.....P20.9	1
Birth asphyxia.....P21	-
Other respiratory conditions originating in the perinatal period...P22.8-P22.9,P23-P28	-
Congenital pneumonia.....P23	-
Aspiration syndromes.....P24	-

Interstitial emphysema and related conditions originating in the perinatal period.....	P25	-
Atelectasis.....	P28.0-P28.1	-
Other respiratory system disorders.....	P22.8-P22.9,P26-P27,P28.2-P28.9	-
Infections specific to the perinatal period.....	P35-P39	-
Congenital rubella syndrome.....	P35.0	-
Congenital cytomegalovirus infection.....	P35.1	-
Congenital herpesviral (herpes simplex) infection.....	P35.2	-
Congenital viral hepatitis.....	P35.3	-
Bacterial sepsis.....	P36	-
Congenital tuberculosis.....	P37.0	-
Congenital toxoplasmosis.....	P37.1	-
Other infections specific to the perinatal period.....	P35.8-P35.9,P37.2-P37.9,P38-P39	-
Fetal hemorrhage.....	P50-P54	-
Hemolytic disease of fetus.....	P55-P56	-
Rh isoimmunization of fetus.....	P55.0	-
ABO isoimmunization of fetus.....	P55.1	-
Other hemolytic disease of fetus.....	P55.8-P55.9	-
Hydrops fetalis due to hemolytic disease.....	P56	-
Perinatal jaundice.....	P57-P59	-
Hematological disorders.....	P60-P61	-
Transitory endocrine and metabolic disorders specific to fetus.....	P70-P74	6
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus....	P70.0-P70.2	6
Other transitory endocrine and metabolic disorders specific to fetus.....	P70.3-P70.9,P71-P74	-
Digestive system disorders of fetus.....	P76-P78	-
Other conditions originating in the perinatal period.....	P29,P80-P96	27
Hydrops fetalis not due to hemolytic disease.....	P83.2	4
Fetal death of unspecified cause.....	P95	22
Withdrawal symptoms from maternal use of drugs of addiction.....	P96.1	-
Termination of pregnancy.....	P96.4	-
Complications of intrauterine procedures, not elsewhere classified.....	P96.5	-
All other specified conditions originating in the perinatal period.....	P29,P83.0-P83.1,P83.3-P83.9,P91,P94,P96.0,P96.3,P96.8	1
Condition originating in the perinatal period, unspecified.....	P96.9	-
Congenital malformations, deformations and chromosomal abnormalities.....	Q00-Q99	33
Congenital malformations of nervous system.....	Q00-Q07	6
Anencephaly and similar malformations.....	Q00	-
Encephalocele.....	Q01	1
Microcephaly.....	Q02	1
Congenital hydrocephalus.....	Q03	1
Reduction deformities of brain.....	Q04.0-Q04.3	1
Other congenital malformations of brain.....	Q04.4-Q04.9	1
Spina bifida.....	Q05	1
Other congenital malformations of spinal cord and nervous system.....	Q06-Q07	-
Congenital malformations of eye, ear, face and neck.....	Q10-Q18	-
Congenital malformations of heart.....	Q20-Q24	2
Other congenital malformations of circulatory system.....	Q25-Q28	1
Congenital malformations of lung.....	Q33	-
Other congenital malformations of respiratory system.....	Q30-Q32,Q34	3
Congenital malformations of digestive system.....	Q35-Q45	1
Congenital malformations of genital organs.....	Q50-Q56	1
Congenital malformations of urinary system.....	Q60-Q64	6
Renal agenesis and other reduction defects of kidney.....	Q60	4
Cystic kidney disease.....	Q61	1
Other congenital malformations of urinary system.....	Q62-Q64	1
Congenital malformations and deformations of musculoskeletal system, limbs and integument.....	Q65-Q85	6
Other congenital malformations.....	Q86-Q89	2
Conjoined twins.....	Q89.4	-
Multiple congenital malformations, not elsewhere classified.....	Q89.7	1
All other congenital malformations.....	Q86-Q87,Q89.0-Q89.3,Q89.8-Q89.9	1
Chromosomal abnormalities, not elsewhere classified.....	Q90-Q99	5
Down's syndrome.....	Q90	1
Edward's syndrome.....	Q91.0-Q91.3	1
Patau's syndrome.....	Q91.4-Q91.7	-
Other chromosomal abnormalities, not elsewhere classified.....	Q92-Q99	3
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified.....	R00-R99	-
External causes of mortality.....	*U01,V01-Y84	-
Accidents (unintentional injuries).....	V01-X59	-
Assault (homicide).....	*U01,X85-Y09	-
Complications of medical and surgical care.....	Y40-Y84	-
Other external causes.....	Y10-Y36	-

- Quantity zero.

1 Excludes data for American Samoa, Guam, and the Virgin Islands for 2018.

MOTHER	1. NAME OF FETUS (optional-at the discretion of the parents )		2. TIME OF DELIVERY (24hr)	3. SEX (M/F/Unk)	4. DATE OF DELIVERY (Mo/Day/Yr)	
	5a. CITY, TOWN, OR LOCATION OF DELIVERY	7. PLACE WHERE DELIVERY OCCURRED (Check one)		8. FACILITY NAME (If not institution, give street and number)		
	5b. ZIP CODE OF DELIVERY	<input type="checkbox"/> Hospital <input type="checkbox"/> Freestanding birthing center				
	6. COUNTY OF DELIVERY	<input type="checkbox"/> Home Delivery: Planned to deliver at home? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Clinic/Doctor's office <input type="checkbox"/> Other (Specify) _____				
	10a. MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)				10b. DATE OF BIRTH (Mo/Day/Yr)	
	10c. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last, Suffix)			10d. BIRTHPLACE (State, Territory, or Foreign Country)		
	11a. RESIDENCE OF MOTHER-STATE	11b. COUNTY		11c. CITY, TOWN, OR LOCATION		
	11d. STREET AND NUMBER		11e. APT. NO.	11f. ZIP CODE	11g. INSIDE CITY LIMITS? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	12a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)		12b. DATE OF BIRTH (Mo/Day/Yr)	12c. BIRTHPLACE (State, Territory, or Foreign Country)		
	13. METHOD OF DISPOSITION: <input type="checkbox"/> Burial <input type="checkbox"/> Cremation <input type="checkbox"/> Hospital Disposition <input type="checkbox"/> Donation <input type="checkbox"/> Removal from State <input type="checkbox"/> Other (Specify) _____					
DISPOSITION	14. ATTENDANT'S NAME, TITLE, AND NPI NAME: _____ NPI: _____ TITLE: <input type="checkbox"/> MD <input type="checkbox"/> DO <input type="checkbox"/> CNM/CM <input type="checkbox"/> OTHER MIDWIFE <input type="checkbox"/> OTHER (Specify) _____					
	15. NAME AND TITLE OF PERSON COMPLETING REPORT Name _____ Title _____	16. DATE REPORT COMPLETED ____/____/____ MM DD YYYY	17. DATE RECEIVED BY REGISTRAR ____/____/____ MM DD YYYY			
ATTENDANT AND REGISTRATION INFORMATION	18. CAUSE/CONDITIONS CONTRIBUTING TO FETAL DEATH					
	18a. INITIATING CAUSE/CONDITION (AMONG THE CHOICES BELOW, PLEASE SELECT THE <u>ONE</u> WHICH MOST LIKELY BEGAN THE SEQUENCE OF EVENTS RESULTING IN THE DEATH OF THE FETUS) Maternal Conditions/Diseases (Specify) _____  Complications of Placenta, Cord, or Membranes <input type="checkbox"/> Rupture of membranes prior to onset of labor <input type="checkbox"/> Abruptio placenta <input type="checkbox"/> Placental insufficiency <input type="checkbox"/> Prolapsed cord <input type="checkbox"/> Chorioamnionitis <input type="checkbox"/> Other (Specify) _____ Other Obstetrical or Pregnancy Complications (Specify) _____ Fetal Anomaly (Specify) _____ Fetal Injury (Specify) _____ Fetal Infection (Specify) _____ Other Fetal Conditions/Disorders (Specify) _____ <input type="checkbox"/> Unknown	18b. OTHER SIGNIFICANT CAUSES OR CONDITIONS (SELECT OR SPECIFY ALL OTHER CONDITIONS CONTRIBUTING TO DEATH IN ITEM 18b) Maternal Conditions/Diseases (Specify) _____  Complications of Placenta, Cord, or Membranes <input type="checkbox"/> Rupture of membranes prior to onset of labor <input type="checkbox"/> Abruptio placenta <input type="checkbox"/> Placental insufficiency <input type="checkbox"/> Prolapsed cord <input type="checkbox"/> Chorioamnionitis <input type="checkbox"/> Other (Specify) _____ Other Obstetrical or Pregnancy Complications (Specify) _____ Fetal Anomaly (Specify) _____ Fetal Injury (Specify) _____ Fetal Infection (Specify) _____ Other Fetal Conditions/Disorders (Specify) _____ <input type="checkbox"/> Unknown				
CAUSE OF FETAL DEATH	18c. WEIGHT OF FETUS (grams preferred, specify unit) _____ <input type="checkbox"/> grams <input type="checkbox"/> lb/oz		18e. ESTIMATED TIME OF FETAL DEATH <input type="checkbox"/> Dead at time of first assessment, no labor ongoing <input type="checkbox"/> Dead at time of first assessment, labor ongoing <input type="checkbox"/> Died during labor, after first assessment <input type="checkbox"/> Unknown time of fetal death		18f. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Planned	
	18d. OBSTETRIC ESTIMATE OF GESTATION AT DELIVERY _____ (completed weeks)				18g. WAS A HISTOLOGICAL PLACENTAL EXAMINATION PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Planned	
					18h. WERE AUTOPSY OR HISTOLOGICAL PLACENTAL EXAMINATION RESULTS USED IN DETERMINING THE CAUSE OF FETAL DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No	

Mother's Name \_\_\_\_\_  
 Mother's Medical Record No. \_\_\_\_\_

# MOTHER

<b>19. MOTHER'S EDUCATION</b> (Check the box that best describes the highest degree or level of school completed at the time of delivery)		<b>20. MOTHER OF HISPANIC ORIGIN?</b> (Check the box that best describes whether the mother is Spanish/Hispanic/Latina. Check the "No" box if mother is not Spanish/Hispanic/Latina)		<b>21. MOTHER'S RACE</b> (Check one or more races to indicate what the mother considers herself to be)																					
<input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)		<input type="checkbox"/> No, not Spanish/Hispanic/Latina <input type="checkbox"/> Yes, Mexican, Mexican American, Chicana <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic/Latina (Specify) _____		<input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian (Specify) _____ <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander (Specify) _____ <input type="checkbox"/> Other (Specify) _____																					
<b>22. MOTHER MARRIED?</b> (At delivery, conception, or anytime between) <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>23a. DATE OF FIRST PRENATAL CARE VISIT</b> _____ / _____ / _____ <input type="checkbox"/> No Prenatal Care MM / DD / YYYY		<b>23b. DATE OF LAST PRENATAL CARE VISIT</b> _____ / _____ / _____ MM / DD / YYYY																					
<b>24. TOTAL NUMBER OF PRENATAL VISITS FOR THIS PREGNANCY</b> _____ (If none, enter "0".)		<b>25. MOTHER'S HEIGHT</b> _____ (feet/inches)		<b>26. MOTHER'S PREPREGNANCY WEIGHT</b> _____ (pounds)																					
<b>27. MOTHER'S WEIGHT AT DELIVERY</b> _____ (pounds)		<b>28. DID MOTHER GET WIC FOOD FOR HERSELF DURING THIS PREGNANCY?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No																							
<b>29. NUMBER OF PREVIOUS LIVE BIRTHS</b>		<b>30. NUMBER OF OTHER PREGNANCY OUTCOMES</b> (spontaneous or induced losses or ectopic pregnancies)		<b>31. CIGARETTE SMOKING BEFORE AND DURING PREGNANCY</b> For each time period, enter either the number of cigarettes or the number of packs of cigarettes smoked. IF NONE, ENTER "0".																					
29a. Now Living Number _____ <input type="checkbox"/> None		29b. Now Dead Number _____ <input type="checkbox"/> None		30a. Other Outcomes Number (Do not include this fetus) _____ <input type="checkbox"/> None																					
29c. DATE OF LAST LIVE BIRTH _____ / _____ MM / YYYY		30b. DATE OF LAST OTHER PREGNANCY OUTCOME _____ / _____ MM / YYYY		31. Average number of cigarettes or packs of cigarettes smoked per day. <table border="0"> <tr> <td></td> <td># of cigarettes</td> <td>OR</td> <td># of packs</td> </tr> <tr> <td>Three Months Before Pregnancy</td> <td>_____</td> <td>OR</td> <td>_____</td> </tr> <tr> <td>First Three Months of Pregnancy</td> <td>_____</td> <td>OR</td> <td>_____</td> </tr> <tr> <td>Second Three Months of Pregnancy</td> <td>_____</td> <td>OR</td> <td>_____</td> </tr> <tr> <td>Third Trimester of Pregnancy</td> <td>_____</td> <td>OR</td> <td>_____</td> </tr> </table>			# of cigarettes	OR	# of packs	Three Months Before Pregnancy	_____	OR	_____	First Three Months of Pregnancy	_____	OR	_____	Second Three Months of Pregnancy	_____	OR	_____	Third Trimester of Pregnancy	_____	OR	_____
	# of cigarettes	OR	# of packs																						
Three Months Before Pregnancy	_____	OR	_____																						
First Three Months of Pregnancy	_____	OR	_____																						
Second Three Months of Pregnancy	_____	OR	_____																						
Third Trimester of Pregnancy	_____	OR	_____																						
32. DATE LAST NORMAL MENSES BEGAN _____ / _____ / _____ MM / DD / YYYY		33. PLURALITY - Single, Twin, Triplet, etc. (Specify) _____		34. IF NOT SINGLE BIRTH- Born First, Second, Third, etc. (Specify) _____																					
<b>35. MOTHER TRANSFERRED FOR MATERNAL MEDICAL OR FETAL INDICATIONS FOR DELIVERY?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No IF YES, ENTER NAME OF FACILITY MOTHER TRANSFERRED FROM: _____																									

# MEDICAL AND HEALTH INFORMATION

<b>36. RISK FACTORS IN THIS PREGNANCY</b> (Check all that apply):		<b>37. INFECTIONS PRESENT AND/OR TREATED DURING THIS PREGNANCY</b> (Check all that apply)	
Diabetes <input type="checkbox"/> Prepregnancy (Diagnosis prior to this pregnancy) <input type="checkbox"/> Gestational (Diagnosis in this pregnancy)		<input type="checkbox"/> Gonorrhea <input type="checkbox"/> Syphilis <input type="checkbox"/> Chlamydia <input type="checkbox"/> Listeria <input type="checkbox"/> Group B Streptococcus <input type="checkbox"/> Cytomegalovirus <input type="checkbox"/> Parvovirus <input type="checkbox"/> Toxoplasmosis <input type="checkbox"/> None of the above <input type="checkbox"/> Other (Specify) _____	
Hypertension <input type="checkbox"/> Prepregnancy (Chronic) <input type="checkbox"/> Gestational (PIH, preeclampsia) <input type="checkbox"/> Eclampsia			
<input type="checkbox"/> Previous preterm birth <input type="checkbox"/> Other previous poor pregnancy outcome (Includes perinatal death, small-for-gestational age/intrauterine growth restricted birth)			
<input type="checkbox"/> Pregnancy resulted from infertility treatment-If yes, check all that apply: <input type="checkbox"/> Fertility-enhancing drugs, Artificial insemination or Intrauterine insemination <input type="checkbox"/> Assisted reproductive technology (e.g., in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT))			
<input type="checkbox"/> Mother had a previous cesarean delivery If yes, how many _____			
<input type="checkbox"/> None of the above			
<b>38. METHOD OF DELIVERY</b>		<b>39. MATERNAL MORBIDITY</b> (Check all that apply) (Complications associated with labor and delivery)	
A. Was delivery with forceps attempted but unsuccessful? <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Maternal transfusion	
B. Was delivery with vacuum extraction attempted but unsuccessful? <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Third or fourth degree perineal laceration	
C. Fetal presentation at delivery <input type="checkbox"/> Cephalic <input type="checkbox"/> Breech <input type="checkbox"/> Other		<input type="checkbox"/> Ruptured uterus	
D. Final route and method of delivery (Check one) <input type="checkbox"/> Vaginal/Spontaneous <input type="checkbox"/> Vaginal/Forceps <input type="checkbox"/> Vaginal/Vacuum <input type="checkbox"/> Cesarean If cesarean, was a trial of labor attempted? <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Unplanned hysterectomy	
		<input type="checkbox"/> Admission to intensive care unit	
		<input type="checkbox"/> Unplanned operating room procedure following delivery	
		<input type="checkbox"/> None of the above	
E. Hysterotomy/Hysterectomy <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>40. CONGENITAL ANOMALIES OF THE FETUS</b> (Check all that apply)	
		<input type="checkbox"/> Anencephaly <input type="checkbox"/> Meningocele/Spina bifida <input type="checkbox"/> Cyanotic congenital heart disease <input type="checkbox"/> Congenital diaphragmatic hernia <input type="checkbox"/> Omphalocele <input type="checkbox"/> Gastroschisis <input type="checkbox"/> Limb reduction defect (excluding congenital amputation and dwarfing syndromes) <input type="checkbox"/> Cleft Lip with or without Cleft Palate <input type="checkbox"/> Cleft Palate alone <input type="checkbox"/> Down Syndrome <input type="checkbox"/> Karyotype confirmed <input type="checkbox"/> Karyotype pending <input type="checkbox"/> Suspected chromosomal disorder <input type="checkbox"/> Karyotype confirmed <input type="checkbox"/> Karyotype pending <input type="checkbox"/> Hypospadias <input type="checkbox"/> None of the anomalies listed above	

**NOTE:** This recommended standard fetal death report is the result of an extensive evaluation process. Information on the process and resulting recommendations as well as plans for future activities is available on the Internet at: [http://www.cdc.gov/nchs/vital\\_certs\\_rev.htm](http://www.cdc.gov/nchs/vital_certs_rev.htm).

Table A. Period of gestation and weight minimums at which fetal death reporting is required, by reporting areas: United States, 2018

Area	All periods of gestation	12 weeks	16 weeks	20 weeks	20 weeks or 350 grams	20 weeks or 400 grams	20 weeks or 500 grams	350 grams	500grams
Alabama				X					
Alaska				X					
Arizona					X				
Arkansas		X							
California				X					
Colorado	X <sup>1</sup>								
Connecticut				X					
Delaware								<sup>2</sup> X	
District of Columbia							X		
Florida				X					
Georgia	X								
Hawaii	X								
Idaho					X				
Illinois				X					
Indiana				X					
Iowa				X					
Kansas				X					
Kentucky					X				
Louisiana					X				
Maine				X					
Maryland				X <sup>3</sup>					
Massachusetts					X				
Michigan						X			
Minnesota				X					
Mississippi					X				
Missouri					X				
Montana								X <sup>2</sup>	
Nebraska				X					
Nevada				X					
New Hampshire					X				
New Jersey				X					
New Mexico				X <sup>4</sup>					
New York	X								
New York (excluding New York City)	X								
New York City	X								
North Carolina				X					
North Dakota				X					
Ohio				X					
Oklahoma		X <sup>5</sup>							
Oregon				X					
Pennsylvania			X						
Rhode Island	X								
South Carolina					X				
South Dakota									X
Tennessee					X				
Texas				X					
Utah				X					
Vermont				X <sup>6</sup>					
Virginia	X								
Washington				X					
West Virginia				X					
Wisconsin					X				
Wyoming				X					
American Samoa	X								
Guam					X				
Northern Marianas								X <sup>2</sup>	
Puerto Rico					X				
Virgin Islands	X								

1 Although State law requires the reporting of fetal deaths of all periods of gestation, only data for fetal deaths of 20 weeks of gestation or more are provided to NCHS.

2 If weight is unknown, 20 completed weeks of gestation or more.

3 If gestational age is unknown, weight of 500 grams or more.

4 If gestational age is unknown, weight of 350 grams or more.

5 Although State law requires the reporting of fetal deaths at 12 weeks of gestation or more, only data for fetal deaths of 20 weeks of gestation or more are provided to NCHS.

6 If gestational age is unknown, weight of 400 grams or more, 15 ounces or more.

SOURCE: CDC/NCHS, National Vital Statistics System.

Table B. Number and percentage of fetal deaths, by race of mother, reported alone and bridged: United States, 2018

Race	Number of fetal deaths <sup>1</sup>	Percentage of fetal deaths
Non-Hispanic, race reported alone <sup>2</sup>		
White	9,621	42.8
Black	5,938	26.4
Non-Hispanic, bridged race <sup>3</sup>		
White	9,781	43.6
Black	6,058	27.0

1 Fetal deaths with stated or presumed period of gestation of 20 weeks or more.

2 "Race reported alone" means only one race is reported. Race categories are consistent with 1997 Office of Management and Budget (OMB) standards.

3 "Bridged race" means multiple-race data for the reporting states and District of Columbia were imputed or bridged to the single-race categories of 1977 OMB standards.

Table C. Percent of fetal death records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2018

[By place of residence]

[Fetal deaths include only those with stated or presumed period of gestation of 20 weeks or more.]

Reporting areas	Total Fetal deaths	Time of birth	Mother's birthplace	Education of mother <sup>2</sup>	Father's age <sup>3</sup>	Mother's Hispanic origin
Total of reporting areas <sup>1</sup>	22,459	1.5	5.9	11.8	18.8	3.3
Alabama	497	-	2.2	3.8	---	0.4
Alaska	46	-	4.3	4.3	23.9	2.2
Arizona	475	1.5	0.2	3.4	11.2	1.1
Arkansas	262	0.8	6.9	13.7	49.6	1.5
California	2,278	1.3	4.2	10.0	10.4	4.0
Colorado	338	-	18.6	23.7	10.4	-
Connecticut	173	5.8	3.5	31.2	16.2	1.2
Delaware	60	-	1.7	6.7	21.7	-
District of Columbia	74	2.7	28.4	39.2	---	-
Florida	1,515	2.0	7.8	8.2	15.1	4.3
Georgia	976	-	0.7	18.5	---	4.9
Hawaii	120	20.0	31.7	42.5	41.7	41.7
Idaho	113	0.9	2.7	3.5	14.2	2.7
Illinois	890	0.9	8.4	12.6	19.8	0.9
Indiana	498	0.2	2.6	3.8	11.8	0.4
Iowa	150	-	1.3	12.7	12.7	1.3
Kansas	204	0.5	-	4.4	11.8	5.9
Kentucky	311	0.3	1.9	3.2	47.9	0.3
Louisiana	325	-	0.3	6.2	24.6	-
Maine	71	-	11.3	18.3	18.3	14.1
Maryland	497	1.0	5.8	11.3	15.9	2.4
Massachusetts	316	1.6	10.1	26.9	19.3	14.6
Michigan	655	0.5	7.5	11.6	20.2	1.8
Minnesota	394	1.5	1.3	4.3	9.1	1.5
Mississippi	391	-	9.0	12.8	41.9	2.3
Missouri	400	0.3	4.3	6.0	14.3	1.5
Montana	46	2.2	-	4.3	13.0	-
Nebraska	105	-	-	28.6	4.8	-
Nevada	252	-	0.4	6.7	17.9	1.2
New Hampshire	55	-	1.8	7.3	12.7	-
New Jersey	701	-	1.0	4.7	---	1.7
New Mexico	84	-	14.3	2.4	28.6	6.0
New York (excluding New York City)	637	8.6	0.9	43.2	---	4.4
New York City	826	0.7	8.1	43.9	---	18.6
North Carolina	802	-	0.7	2.5	38.0	0.2
North Dakota	60	-	5.0	1.7	25.0	6.7
Ohio	893	1.3	2.4	2.0	11.6	1.5
Oklahoma	286	1.0	4.9	4.2	14.7	2.1
Oregon	200	-	-	2.5	8.5	8.5
Pennsylvania	823	2.2	4.3	14.1	13.1	0.1
Rhode Island	59	8.5	6.8	---	35.6	11.9
South Carolina	342	-	7.6	7.6	31.6	4.7
South Dakota	51	-	3.9	5.9	17.6	-
Tennessee	586	1.0	6.5	10.4	47.1	0.3
Texas	1,745	0.3	17.2	2.3	10.5	0.1
Utah	317	0.6	2.8	9.1	8.2	-
Vermont	16	-	-	6.3	18.8	-
Virginia	573	11.5	1.6	23.6	---	3.8
Washington	488	3.7	18.6	14.3	16.4	9.4
West Virginia	113	-	1.8	1.8	19.5	-
Wisconsin	330	-	1.5	10.0	48.2	1.8
Wyoming	40	2.5	-	7.5	10.0	5.0
American Samoa	---	---	---	---	---	---
Guam	52	-	1.9	7.7	---	1.9
Northern Marianas	10	20.0	-	10.0	20.0	-
Puerto Rico	239	0.4	-	3.3	33.1	-
Virgin Islands	---	---	---	---	---	---

See footnotes at end of table.



Table E. Percent of fetal death records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2018  
[By place of residence]

Reporting areas	Place of delivery	Attendant at delivery	Month prenatal care began <sup>3,4</sup>	Mother's height <sup>2</sup>	Mother's pre-pregnancy weight <sup>2</sup>	Did mother get WIC food for herself during this pregnancy <sup>2,5</sup>	Live-birth order
Total of reporting areas <sup>1</sup>	0.1	1.5	11.3	6.1	11.3	14.8	4.8
Alabama	-	-	4.6	3.0	7.2	6.6	-
Alaska	-	2.2	4.3	4.3	4.3	4.3	2.2
Arizona	0.2	0.4	1.7	1.7	3.6	6.5	2.3
Arkansas	-	-	6.9	2.3	9.2	11.5	2.7
California	0.0	0.0	10.7	6.1	11.5	18.8	5.5
Colorado	0.3	0.9	31.7	17.5	26.3	32.5	8.3
Connecticut	-	-	13.9	6.9	10.4	21.4	5.2
Delaware	-	-	3.3	8.3	13.3	11.7	-
District of Columbia	-	-	44.6	10.8	24.3	41.9	-
Florida	-	-	11.8	6.9	11.6	17.2	3.8
Georgia	0.2	0.2	20.1	4.5	11.5	24.4	11.3
Hawaii	1.7	-	40.0	31.7	40.8	45.8	27.5
Idaho	-	-	8.0	2.7	4.4	5.3	0.9
Illinois	1.0	3.6	12.9	5.2	17.2	7.0	2.5
Indiana	-	45.4	13.1	5.4	5.2	---	1.8
Iowa	-	-	1.3	-	4.7	36.7	0.7
Kansas	-	0.5	3.9	2.5	4.9	11.8	-
Kentucky	0.3	0.3	5.1	0.3	3.2	6.8	-
Louisiana	-	0.3	8.0	0.9	8.9	15.4	0.3
Maine	-	2.8	21.1	5.6	21.1	18.3	26.8
Maryland	-	0.2	11.1	3.8	6.6	14.7	0.2
Massachusetts	-	-	3.8	4.4	14.6	42.1	1.3
Michigan	-	0.3	10.7	3.8	10.2	14.4	6.1
Minnesota	0.3	1.3	2.8	1.0	7.1	4.6	2.5
Mississippi	-	1.0	10.0	2.0	7.2	14.1	0.5
Missouri	-	0.3	10.5	3.5	8.5	12.0	0.8
Montana	-	-	4.3	2.2	6.5	2.2	2.2
Nebraska	-	-	1.0	-	5.7	18.1	-
Nevada	-	-	9.9	0.4	8.7	7.1	1.2
New Hampshire	-	-	3.6	-	3.6	5.5	9.1
New Jersey	-	0.1	6.3	1.4	4.9	7.8	1.0
New Mexico	-	-	6.0	10.7	13.1	6.0	2.4
New York (excluding New York City)	0.6	-	31.9	26.7	33.9	49.1	36.1
New York City	-	-	20.7	5.4	14.0	---	13.9
North Carolina	-	0.2	1.4	1.0	5.4	2.6	0.4
North Dakota	-	-	20.0	-	5.0	5.0	1.7
Ohio	0.2	0.3	5.9	3.0	7.3	5.0	0.1
Oklahoma	-	-	10.8	6.6	11.2	9.4	7.7
Oregon	-	0.5	---	1.5	1.5	2.0	0.5
Pennsylvania	-	-	14.3	12.9	17.0	23.2	7.7
Rhode Island	-	-	---	---	---	---	25.4
South Carolina	-	0.3	4.1	3.8	6.1	13.7	0.3
South Dakota	-	-	2.0	2.0	3.9	5.9	2.0
Tennessee	-	0.3	13.7	3.1	9.4	19.5	0.2
Texas	-	-	7.4	8.0	9.3	3.2	1.5
Utah	-	0.6	2.2	0.3	4.4	-	0.3
Vermont	-	-	-	-	-	31.3	-
Virginia	1.4	1.4	---	15.2	25.0	23.9	-
Washington	-	6.1	29.9	17.4	25.2	20.9	17.6
West Virginia	0.9	-	4.4	-	2.7	6.2	1.8
Wisconsin	-	0.3	3.0	0.6	5.2	9.7	0.6
Wyoming	-	2.5	10.0	5.0	-	-	5.0
American Samoa	---	---	---	---	---	---	---
Guam	1.9	-	15.4	25.0	28.8	32.7	13.5
Northern Marianas	-	-	20.0	-	-	-	-
Puerto Rico	-	2.1	6.3	1.7	4.6	6.3	1.7
Virgin Islands	---	---	---	---	---	---	---

See footnotes at end of table.

Table E. Percent of fetal death records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2018  
[By place of residence]

Reporting areas	Birth interval <sup>6</sup>	Cigarette smoking before and during pregnancy	Risk Factors in this Pregnancy <sup>6,7</sup>	Method of Delivery	
				Fetal presentation	Final route and method of delivery
Total of reporting areas <sup>1</sup>	11.9	6.9	4.6	11.7	4.1
Alabama	2.4	2.4	-	4.0	0.4
Alaska	8.7	15.2	10.9	8.7	6.5
Arizona	3.4	3.2	-	8.4	1.1
Arkansas	16.0	7.3	0.8	1.1	-
California	10.3	9.2	13.3	34.2	10.1
Colorado	17.8	25.7	-	8.9	9.5
Connecticut	15.6	9.8	6.4	13.3	5.2
Delaware	8.3	1.7	-	1.7	-
District of Columbia	29.7	12.2	-	8.1	-
Florida	12.9	3.7	4.7	15.6	7.3
Georgia	18.4	9.5	9.9	17.5	5.5
Hawaii	31.7	36.7	18.3	37.5	35.0
Idaho	5.3	1.8	7.1	3.5	0.9
Illinois	13.9	4.6	0.4	9.8	2.1
Indiana	8.0	6.8	12.7	26.7	2.0
Iowa	4.0	2.0	-	-	-
Kansas	2.9	6.4	-	0.5	-
Kentucky	4.2	2.9	1.6	3.9	0.3
Louisiana	6.2	3.1	-	-	-
Maine	15.5	7.0	8.5	8.5	8.5
Maryland	5.0	0.8	0.6	1.6	-
Massachusetts	8.9	5.7	0.6	0.9	0.6
Michigan	8.4	8.2	5.5	6.3	0.3
Minnesota	4.3	2.0	1.3	3.6	0.8
Mississippi	4.3	3.3	4.9	4.6	1.0
Missouri	7.5	5.8	-	4.8	1.0
Montana	4.3	4.3	6.5	6.5	2.2
Nebraska	6.7	1.9	1.9	-	-
Nevada	4.8	2.8	-	-	-
New Hampshire	7.3	1.8	-	-	-
New Jersey	9.4	7.0	0.7	1.1	0.9
New Mexico	6.0	2.4	-	2.4	1.2
New York (excluding New York City)	38.0	27.0	5.3	30.1	20.3
New York City	34.4	14.3	22.4	18.6	5.9
North Carolina	2.7	0.4	0.2	0.2	-
North Dakota	5.0	3.3	-	3.3	-
Ohio	11.4	0.1	0.3	9.3	3.0
Oklahoma	12.2	9.1	6.3	-	-
Oregon	4.5	0.5	1.0	1.5	1.0
Pennsylvania	10.9	20.8	6.8	11.2	5.7
Rhode Island	37.3	37.3	22.0	18.6	11.9
South Carolina	8.5	4.1	0.9	5.0	1.2
South Dakota	7.8	2.0	-	2.0	-
Tennessee	12.5	-	0.2	2.7	0.7
Texas	15.0	0.1	0.2	3.2	1.1
Utah	3.2	0.9	-	-	-
Vermont	-	-	-	-	-
Virginia	10.6	8.4	-	24.3	-
Washington	---	15.6	---	25.4	16.0
West Virginia	6.2	6.2	4.4	3.5	-
Wisconsin	4.8	2.7	0.6	7.3	1.2
Wyoming	35.0	15.0	-	-	-
American Samoa	---	---	---	---	---
Guam	7.7	42.3	17.3	38.5	-
Northern Marianas	-	-	-	-	-
Puerto Rico	7.1	1.3	1.3	1.7	0.4
Virgin Islands	---	---	---	---	---

See footnotes at end of table.

**Table E. Percent of fetal death records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2017**  
[By place of residence]

Reporting areas	Maternal morbidity	Weight of fetus	Obstetric estimate of gestation	Cause of death
Total of reporting areas <sup>1</sup>	4.2	7.0	0.5	31.1
Alabama	-	3.8	0.4	45.1
Alaska	4.3	6.5	-	---
Arizona	5.1	1.1	0.4	46.5
Arkansas	1.9	4.6	1.1	38.9
California	20.5	5.4	0.6	---
Colorado	-	20.7	-	31.1
Connecticut	5.8	7.5	-	18.5
Delaware	-	1.7	-	21.7
District of Columbia	-	-	-	23.0
Florida	4.4	7.4	2.4	17.2
Georgia	7.0	13.3	0.5	---
Hawaii	16.7	35.8	0.8	44.2
Idaho	5.3	4.4	0.9	27.4
Illinois	1.0	7.4	-	23.0
Indiana	0.2	4.6	0.4	31.5
Iowa	-	-	-	20.0
Kansas	-	1.5	-	35.8
Kentucky	0.6	2.3	-	38.3
Louisiana	-	4.3	-	20.0
Maine	8.5	18.3	-	12.7
Maryland	0.2	2.0	-	31.0
Massachusetts	0.9	5.4	0.3	25.3
Michigan	5.2	5.6	0.5	---
Minnesota	0.8	3.8	0.8	40.9
Mississippi	5.4	2.8	0.5	---
Missouri	-	3.5	-	41.5
Montana	-	6.5	-	39.1
Nebraska	-	3.8	-	30.5
Nevada	-	1.6	0.4	39.7
New Hampshire	-	3.6	-	23.6
New Jersey	0.7	2.1	0.1	30.5
New Mexico	-	3.6	-	36.9
New York (excluding New York City)	0.8	19.0	0.5	43.8
New York City	-	12.0	-	---
North Carolina	-	5.5	-	---
North Dakota	-	-	-	---
Ohio	1.7	2.8	0.2	28.8
Oklahoma	6.3	8.4	0.3	24.1
Oregon	0.5	3.5	-	41.0
Pennsylvania	6.4	10.4	0.2	29.8
Rhode Island	30.5	6.8	-	39.0
South Carolina	2.0	1.5	1.2	32.2
South Dakota	-	7.8	-	25.5
Tennessee	0.2	0.7	1.2	42.2
Texas	0.1	3.8	0.5	23.7
Utah	-	21.5	-	32.8
Vermont	-	6.3	-	---
Virginia	-	12.7	1.2	49.6
Washington	12.7	24.8	1.0	20.7
West Virginia	3.5	-	0.9	25.7
Wisconsin	-	6.4	0.3	47.3
Wyoming	-	5.0	-	10.0
American Samoa	---	---	---	---
Guam	23.1	1.9	1.9	---
Northern Marianas	-	10.0	10.0	30.0
Puerto Rico	3.8	2.9	1.7	7.9
Virgin Islands	---	---	---	---

0.0 Quantity more than zero but less than 0.05.

--Data not available.

- Quantity zero.

<sup>1</sup> Excludes data for American Samoa, Guam, the Commonwealth of the Northern Marianas, Puerto Rico, and the Virgin Islands.

<sup>2</sup> For 2018, Rhode Island did not report a number of items. These include: mother's education, date of first prenatal care visit, mother's height, mother's pre-pregnancy weight, and WIC.

<sup>3</sup> Father's age is not reported by Alabama, the District of Columbia, Georgia, New Jersey, New York (including New York City), Virginia, and Guam for 2018.

<sup>4</sup> Date of first prenatal care visit is not reported by Oregon and Virginia for 2018.

<sup>5</sup> WIC is not reported by Indiana and New York City for 2018.

<sup>6</sup> Washington did not report birth interval or risk factors for 2018.

<sup>7</sup> Items included: Prepregnancy and gestational diabetes, prepregnancy hypertension, gestational hypertension, eclampsia, pregnancy resulted from infertility treatment, mother had a previous cesarean.

<sup>8</sup> Cause of death is not reported by Alaska, California, Georgia, Michigan, Mississippi, New York City, North Carolina, North Dakota, Vermont, and Guam for 2018.