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Fetal Mortality: United States, 2020

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Abstract

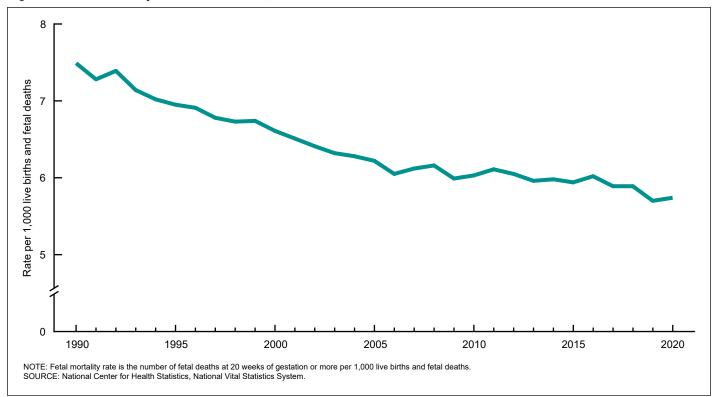
Objectives—This report presents 2020 fetal mortality data by maternal race and Hispanic origin, age, tobacco use during pregnancy, and state of residence, as well as by plurality, sex, gestational age, birthweight, and selected causes of death. Trends in fetal mortality are also examined.

Methods—Descriptive tabulations of data are presented and interpreted for all fetal deaths reported for the United States for 2020 with a stated or presumed period of gestation of 20 weeks or more. Cause-of-fetal-death data only are restricted to

residents of the 43 states and the District of Columbia, where cause of death was based on the 2003 fetal death report revision and less than 50% of deaths were attributed to Fetal death of unspecified cause (P95).

Results—A total of 20,854 fetal deaths at 20 weeks of gestation or more were reported in the United States in 2020. The 2020 U.S. fetal mortality rate was 5.74 fetal deaths at 20 weeks of gestation or more per 1,000 live births and fetal deaths, which was not significantly different from the rate of 5.70 in 2019. The fetal mortality rate in 2020 for deaths occurring at 20–27 weeks of gestation was 2.97, essentially unchanged from 2019 (2.98).

Figure 1. Fetal mortality rate: United States, 1990-2020







For deaths occurring at 28 weeks of gestation or more, the rate in 2020 (2.78) was not significantly different from 2019 (2.73). In 2020, the fetal mortality rate was highest for non-Hispanic Native Hawaiian or Other Pacific Islander (10.59) and non-Hispanic Black (10.34) women and lowest for non-Hispanic Asian women (3.93). Fetal mortality rates were highest for females under 15 and aged 45 and over, for women who smoked during pregnancy, and for women with multiple gestation pregnancies. Five selected causes accounted for 89.6% of fetal deaths in the 43-state and District of Columbia reporting area.

Keywords: fetal death • stillbirth • pregnancy loss • National Vital Statistics System

Introduction

Fetal mortality—the intrauterine death of a fetus at any gestational age—is a major but often overlooked public health issue. Much of the public concern surrounding reproductive loss has focused on infant mortality, due in part to lesser knowledge of the incidence, etiology, and prevention strategies for fetal mortality. This report presents detailed data on numbers and rates of fetal deaths for the United States for 2020. Data are presented by maternal race and Hispanic origin, age, tobacco use during pregnancy, and state of residence, as well as by plurality, sex, gestational age at delivery, birthweight, and selected causes of death. Trends in fetal mortality are also examined.

In addition to the tabulations included in this report, more detailed analysis of fetal mortality is possible by using the annual fetal death public-use file. The data file may be downloaded from: https://www.cdc.gov/nchs/data_access/Vitalstatsonline.htm. The public-use file does not include geographic detail; a file with this information may be available upon special request (see the Division of Vital Statistics data release policy: https://www.cdc.gov/nchs/nvss/dvs_data_release.htm). Fetal death data may also be accessed via the Centers for Disease Control and Prevention's (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER). WONDER is a web-based data query system that makes CDC data available to public health professionals and the public (1).

Methods

Data sources

Data in this report are drawn from two National Center for Health Statistics (NCHS) vital statistics data files: the 2020 fetal death data set (for fetal deaths) and the 2020 birth data set (for births). The 2020 fetal death data set contains information from all reports of fetal death filed in the 50 states, the District of Columbia, Guam, and Puerto Rico (American Samoa did not report data for 2020, and data for the Northern Marianas and U.S. Virgin Islands were excluded to protect confidentiality due to the small number of events reported) (2). The 2020 birth data set contains information from all Certificates of Live Birth filed in the 50 states, the District of Columbia, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands (American Samoa

did not report data for 2020). Tables showing data by jurisdiction also provide separate information for Guam and Puerto Rico; however, these data are not included in U.S. totals.

Fetal mortality

Fetal death refers to the intrauterine death of a fetus prior to delivery (Technical Notes). Fetal mortality is generally divided into three periods based on gestational age: less than 20 completed weeks of gestation, 20-27 weeks of gestation (early fetal deaths), and 28 weeks of gestation or more (late fetal deaths). Although the vast majority of fetal deaths occur early in pregnancy, most states in the United States only require the reporting of fetal deaths at 20 weeks of gestation or more (2). and fetal mortality data from the National Vital Statistics System are usually presented for fetal deaths at 20 weeks of gestation or more. Therefore, only fetal deaths reported at 20 weeks of gestation or more are included in this report. Numbers and rates for early and late fetal deaths are shown separately for selected variables. Statistics on fetal death exclude data for induced terminations of pregnancy. Fetal mortality rates in this report 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 (Technical Notes).

Data limitations

Variation exists among states in reporting requirements and possibly in completeness of reporting of fetal death data, and these variations can have implications for data quality and completeness (Technical Notes). Correct interpretation of fetal death data should include an evaluation of the completeness of reporting of fetal deaths, as well as an evaluation of the completeness of reporting for the specific variables of interest (3–5). The percentage of not-stated responses for fetal death data varies markedly among variables and states; see "User Guide to the 2020 Fetal Death Public Use File"(2).

2003 revision of U.S. Standard Report of Fetal Death

Starting in 2018, all 50 states, the District of Columbia, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands reported data based on the 2003 U.S. Standard Report of Fetal Death.

With the implementation of the 2003 revision, two worksheets, the Patient's Worksheet (6) and the Facility Worksheet (7), were developed to encourage collection of data from the best sources. For the Patient's Worksheet, data are directly obtained from the mother and include items such as mother's date of birth, race, Hispanic origin, level of education, tobacco use during pregnancy, and place of residence. For the Facility Worksheet, data are obtained from the medical records of the mother for items such as prenatal care, medical risk factors, maternal morbidity, plurality, sex of fetus, gestational age, birthweight, and cause of death. Detailed definitions for data items that are collected from the Facility Worksheet are in the "Guide to the Facility Worksheet" (8).

This report uses the latest fetal death data to present information on fetal deaths and fetal death rates by race and Hispanic origin, maternal age, tobacco use during pregnancy, plurality, sex of fetus, gestational age, birthweight, state of residence, and selected causes of death.

Race and Hispanic origin

The 2003 revision of the U.S. Standard Report of Fetal Death allows the reporting of more than one race (multiple races) for the mother (9) in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997 (10). Starting in 2018, all 50 states and the District of Columbia, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands reported race data in accordance with these 1997 OMB standards, which require the reporting of a minimum of five race categories and allow for reporting of race by either single race (reported alone) or in combination (more than one race or multiple races) (10). The race and Hispanic-origin groups shown in this report follow the 1997 standards and differ from the bridged-race categories shown in previous reports (11). The new categories are non-Hispanic single-race White, non-Hispanic single-race Black or African American, non-Hispanic single-race American Indian or Alaska Native (AIAN), non-Hispanic single-race Asian, non-Hispanic single-race Native Hawaiian or Other Pacific Islander (NHOPI), and Hispanic (for brevity in text, references to the race groups omit "single race").

Race and Hispanic origin are reported independently on the report of fetal death. Most tables in this report show data for the categories of non-Hispanic White, non-Hispanic Black, and Hispanic. Selected tables also include data for the categories non-Hispanic AIAN, non-Hispanic Asian, and non-Hispanic NHOPI. Data are also presented in some tables for Hispanic subgroups: Mexican, Puerto Rican, Cuban, Central and South American, Dominican, and Other and unknown Hispanic. Data were presented separately for Dominican women for the first time beginning with the 2018 data year. Data for this subgroup had previously been included in the category Other and unknown Hispanic.

Fetal deaths by state

Comparisons of fetal mortality rates by state can be affected by differences in reporting requirements for fetal deaths among registration areas, particularly for fetal deaths occurring at gestational ages early in the reporting period (Technical Notes). Additionally, the small numbers of fetal deaths in some states by year can result in lack of reliability for state-specific fetal mortality rates. To try to address these issues, in addition to showing fetal mortality rates at 20 weeks or more by state for 2020, this report also presents fetal deaths and fetal mortality rates by state for fetal deaths at 24 weeks of gestation or more for the latest combined 3-year period (2018–2020).

Cause of death

NCHS codes the cause of fetal death reported by the certifier using the *International Classification of Diseases*, *10th Revision* (ICD–10) (12). In this report, the 5 most frequently reported causes of death shown, including unspecified cause, are drawn from 45 causes in the List of 124 Selected Causes of Fetal Death as defined in Instruction manual, part 9 (13) and ranked according to the number of fetal deaths.

Data on the five causes of death are included for the 43 states and the District of Columbia that reported cause of death based on the 2003 revision of the U.S. Standard Report of Fetal Death and met the reporting requirement of having less than 50% of records assigned to unspecified cause (P95). This reporting area includes 15,740 fetal deaths, representing 75.5% of all fetal deaths in 2020. These statistics based on a subnational area are not generalizable to the entire United States. In tables and figures, the five selected causes are shown in descending order according to the number of deaths assigned to each cause.

Statistical significance

Statements in this report have been tested for statistical significance. A statement that a given mortality rate is higher or lower than another rate indicates that the rates are significantly different unless otherwise noted. For information on the methods used to test for statistical significance, as well as more detailed information on the collection, interpretation, and availability of fetal death data, see the 2020 User Guide (2).

Results

Trends in fetal mortality

- In 2020, 20,854 fetal deaths occurring at 20 weeks of gestation or more were reported in the United States, a decline of 3% from 2019 (21,478) (Table 1, Figure 1).
- The fetal mortality rate was 5.74 fetal deaths at 20 weeks of gestation or more per 1,000 live births and fetal deaths in 2020, which was not significantly different from the 2019 rate of 5.70. With minor fluctuations, the total U.S. fetal mortality rate has declined 23% since 1990 (7.49).
- The early fetal mortality rate (20–27 weeks of gestation) was essentially unchanged from 2019 (2.98) to 2020 (2.97). This rate declined 6% from 2014 (3.16) to 2020.
- The late fetal mortality rate (28 weeks of gestation or more) was 2.78 in 2020, which was not significantly different from the 2019 rate of 2.73. The late fetal mortality rate has been essentially unchanged since 2014 (2.83).

Race and Hispanic origin

• From 2019 to 2020, no significant changes in fetal mortality rates were observed for non-Hispanic White (4.71 to 4.73), non-Hispanic Black (10.41 to 10.34), non-Hispanic AIAN (7.47 to 7.84), non-Hispanic Asian (4.02 to 3.93),

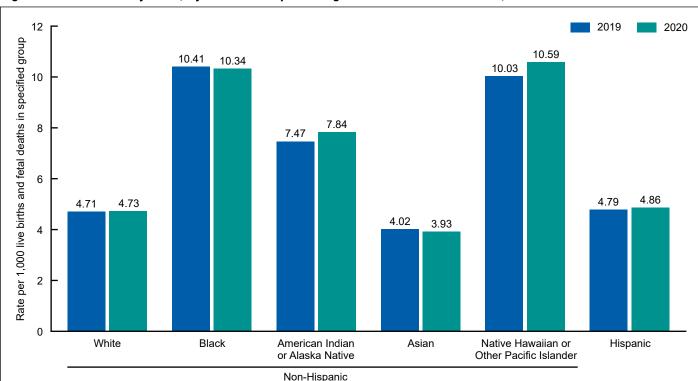


Figure 2. Fetal mortality rates, by race and Hispanic origin of mother: United States, 2019 and 2020

non-Hispanic NHOPI (10.03 to 10.59), and Hispanic (4.79 to 4.86) women (Table 2, Figure 2).

SOURCE: National Center for Health Statistics, National Vital Statistics System

- Among Hispanic-origin subgroups from 2019 to 2020, no significant changes in fetal mortality rates were seen for Mexican (4.86 to 4.79), Puerto Rican (5.17 to 4.98), Cuban (4.71 to 5.23), Dominican (4.75 to 4.41), Central and South American (4.12 to 4.49), and Other and unknown Hispanic (5.29 to 5.87) women (Table 3).
- In 2020, fetal mortality rates continued to vary by race and Hispanic origin; rates were highest for non-Hispanic NHOPI (10.59) and non-Hispanic Black (10.34) women, followed by non-Hispanic AIAN (7.84) women.
- The rate was lowest for non-Hispanic Asian women (3.93), followed by non-Hispanic White (4.73) and Hispanic (4.86) women.
- Among Hispanic-origin subgroups in 2020, rates ranged from 4.41 for Dominican women to 5.87 for Other and unknown Hispanic women; however, differences among the groups were generally not significant.

Maternal age

- In 2020, fetal mortality rates varied by maternal age. Rates were highest for females under age 15 (13.42) and aged 45 and over (12.20) and lowest for women aged 25–29 (5.29) and 30–34 (5.12) (Table 4, Figure 3).
- The fetal mortality rate for teenagers aged 15–17 (7.61) was 44%–49% higher and the rate for teenagers aged 18–19

- (7.02) was 33%–37% higher than the rates for women aged 25–29 (5.29) and 30–34 (5.12).
- Age-specific rates for non-Hispanic Black women were higher than those for non-Hispanic White women for those aged 15 and over. Rates for non-Hispanic Black women were higher than those for Hispanic women for those aged 15–44; rates for women aged 45 and over in both groups were not significantly different. The number of events was too small (fewer than 20 events in the numerator) to calculate reliable rates for females under age 15 for all three race and Hispanic-origin groups.

Tobacco use during pregnancy

- The fetal mortality rate for women who smoked during pregnancy (8.71) was more than one and one-half times higher than that for women who did not smoke during pregnancy (5.10) (Table 5).
- The pattern was similar for the three largest race and Hispanic-origin groups. The fetal mortality rate for women who smoked during pregnancy compared with those who did not was more than one and one-half times higher for non-Hispanic White women (7.65 and 4.12, respectively) and non-Hispanic Black women (14.68 and 9.40), and more than twice as high for Hispanic women (9.50 and 4.50). See Table 5 for fetal mortality rates by tobacco use during pregnancy by age.

Plurality

 The fetal mortality rate for twins (12.12) was more than twice that for singletons (5.51) (Table A). The rate for triplet or higher-order deliveries (28.72) was more than five times that for singletons. • The pattern was similar for the three largest race and Hispanic-origin groups. For example, the fetal mortality rate for twins compared with singletons was more than twice as high for non-Hispanic White (10.02 and 4.53, respectively) and Hispanic (12.73 and 4.65) women, and more than one and one-half times as high for non-Hispanic Black (16.34 and 10.06) women.

Figure 3. Fetal mortality rates, by age of mother: United States, 2020

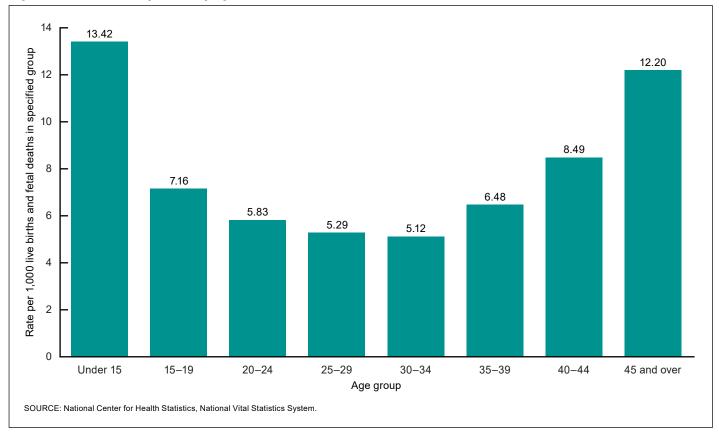


Table A. Fetal mortality rates, by selected characteristics and race and Hispanic origin of mother: United States, 2020

		Fetal mort	ality rates ¹			Fetal	deaths			Live b	irths	
			spanic, race ²				ispanic, e race ²			Non-His single		
Characteristic	All races ³	White	Black	Hispanic ⁴	All races ³	White	Black	Hispanic ⁴	All races ³	White	Black	Hispanic ⁴
Plurality	5.74	4.73	10.34	4.86	20,854	8,753	5,536	4,231	3,613,647	1,843,432	529,811	866,713
Single	5.51	4.53	10.06	4.65	19,389	8,101	5,158	3,947	3,498,335	1,781,686	507,736	845,516
Twin	12.12	10.02	16.34	12.73	1,380	608	358	267	112,437	60,082	21,554	20,709
Triplet or higher	28.72	25.76	36.97	*	85	44	20	17	2,875	1,664	521	488
Sex of fetus	5.74	4.73	10.34	4.86	20,854	8,753	5,536	4,231	3,613,647	1,843,432	529,811	866,713
Male	5.88	4.83	10.79	4.94	10,936	4,589	2,939	2,190	1,848,092	945,464	269,341	441,401
Female	5.59	4.62	9.87	4.78	9,918	4,164	2,597	2,041	1,765,555	897,968	260,470	425,312
Male–female ratio	1.05	1.05	1.09	1.03								

^{*} Estimate does not meet National Center for Health Statistics standards of reliability or precision; based on fewer than 20 fetal deaths in the numerator.

^{..} Category not applicable.

¹Rate per 1,000 live births and fetal deaths in specified group.

²Race and Hispanic origin are reported separately on the report of fetal death; people 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 Technical Notes in this report. Single race is defined as only one race reported on the report of fetal death.

³Includes fetal deaths to race and Hispanic-origin groups not shown separately.

⁴Includes all people of Hispanic origin of any race; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

Sex of fetus

- In 2020, the fetal mortality rate for male fetuses was 5.88, which was 5% higher than for female fetuses (5.59) (Table A).
- The fetal mortality rate for male fetuses compared with female fetuses was 5% higher for non-Hispanic White (4.83 and 4.62, respectively) and 9% higher for non-Hispanic Black (10.79 and 9.87) women. No significant difference was seen for Hispanic women (4.94 and 4.78).

Period of gestation

- In 2020, just over one-half (51.6%) of all fetal deaths at 20 weeks of gestation or more occurred at 20–27 weeks (early fetal deaths) and 48.4% occurred at 28 weeks of gestation or more (late fetal deaths) (Table 6).
- The fetal mortality rate was highest at 20–23 weeks of gestation (540.18), declined to a low at 39–40 (0.60) and 41 weeks of gestation (0.66), and then increased to 4.38 at 42 weeks of gestation or more.

Birthweight

- In 2020, more than one-third (35.6%) of fetal deaths at 20 weeks of gestation or more weighed less than 500 grams (1 lb. 1 oz.) at delivery, and nearly one-half (47.0%) weighed less than 750 grams (1 lb. 12 oz.) (Table 6).
- The fetal mortality rate was highest for fetuses weighing less than 500 grams (590.00) and decreased with increasing birthweight to a low of 0.58 for fetuses weighing 3,500–3,999 grams. Fetal mortality rates then increased slightly for fetuses weighing 4,000 grams or more (1.30).

Fetal mortality rates by state

- For combined years 2018–2020, the U.S. fetal mortality rate for fetal deaths at 24 weeks or more was 3.67 fetal deaths at 24 weeks of gestation or more per 1,000 live births and fetal deaths (Table B).
- For combined years 2018–2020, fetal mortality rates were highest (above 5.00) in the District of Columbia (5.05), Arkansas (5.23), Alabama (5.37), and Mississippi (6.57),

Table B. Fetal deaths at 24 weeks of gestation or more and fetal mortality rates, by state or territory: United States, 2018–2020

Area	Fetal deaths	Fetal mortality rate ¹	Area	Fetal deaths	Fetal mortality rate ¹
Total	41,041	3.67	New Jersey	1,118	3.73
Alabama	939	5.37	New Mexico	168	2.47
Alaska	109	3.70	New York	2,439	3.70
Arizona	955	4.01	North Carolina	1,499	4.21
Arkansas	572	5.23	North Dakota	123	3.93
California	4,282	3.23	Ohio	1,644	4.11
Colorado	597	3.18	Oklahoma	587	3.99
Connecticut	271	2.64	Oregon	405	3.26
Delaware	140	4.41	Pennsylvania	1,481	3.68
District of Columbia	138	5.05	Rhode Island	110	3.56
Florida	2,734	4.18	South Carolina	754	4.43
Georgia	1,777	4.72	South Dakota	118	3.43
Hawaii	185	3.72	Tennessee	1,036	4.30
Idaho	224	3.43	Texas	3,157	2.80
Illinois	1,447	3.45	Utah	515	3.67
Indiana	912	3.77	Vermont	50	3.13
lowa	333	2.98	Virginia	956	3.26
Kansas	369	3.47	Washington	817	3.21
Kentucky	614	3.86	West Virginia	199	3.69
Louisiana	615	3.48	Wisconsin	660	3.50
Maine	120	3.36	Wyoming	67	3.47
Maryland	857	4.07	American Samoa		
Massachusetts	604	2.94	Guam	105	11.36
Michigan	1,218	3.77	Northern Marianas		
Minnesota	673	3.41	Puerto Rico	344	5.63
Mississippi	722	6.57	Virgin Islands		
Missouri	836	3.88			
Montana	107	3.19			
Nebraska	231	3.09			
Nevada	448	4.27			
New Hampshire	111	3.11			

⁻⁻⁻ Data not available.

NOTES: Fetal deaths with not-stated period of gestation are proportionally distributed to less than 24 weeks and 24 weeks or more; see Technical Notes in this report. Numbers may not add to totals due to rounding.

¹Rate per 1,000 live births and specified fetal deaths.

- and lowest (below 3.00) in New Mexico (2.47), Connecticut (2.64), Texas (2.80), Massachusetts (2.94), and Iowa (2.98).
- See Table 7 for fetal deaths at 20 weeks of gestation or more by state and territory for 2020.

Selected causes of fetal death

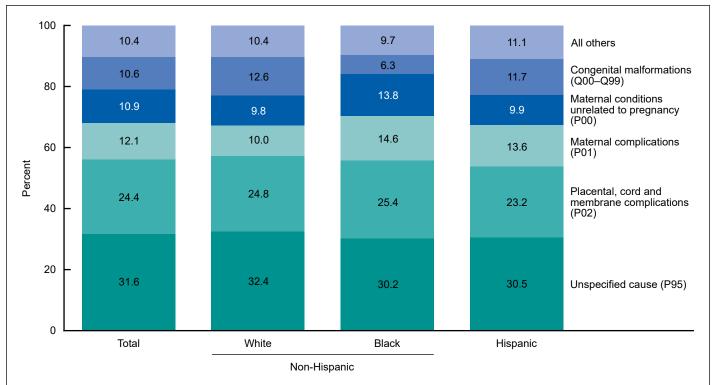
- The five most common selected causes of fetal death accounted for 89.6% of fetal deaths in the 43-state and District of Columbia reporting area (Table 8, Figure 4). By order of frequency, these were: 1) Fetal death of unspecified cause (unspecified cause); 2) Fetus affected by complications of placenta, cord and membranes (placental, cord and membrane complications); 3) Fetus affected by maternal complications of pregnancy (maternal complications); 4) Fetus affected by maternal conditions that may be unrelated to present pregnancy (maternal conditions unrelated to pregnancy); and 5) Congenital malformations, deformations and chromosomal abnormalities (congenital malformations).
- The five most common selected causes of fetal death and the top two causes were the same for non-Hispanic White, non-Hispanic Black, and Hispanic women, while the ranking of the other causes differed (Table 8, Figure 4).
 - Unspecified cause and placental, cord and membrane complications were the two most common of the selected causes for all three groups.

- Congenital malformations was the third most common cause for fetal deaths to non-Hispanic White women, followed by maternal complications and maternal conditions unrelated to pregnancy.
- Among non-Hispanic Black women, maternal complications was the third most common cause of fetal death, maternal conditions unrelated to pregnancy was fourth, and congenital malformations was fifth.
- Among Hispanic women, maternal complications was the third most common cause of fetal death, congenital malformations was fourth, and maternal conditions unrelated to pregnancy was fifth.

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Figure 4. Percent distribution of fetal deaths, by selected causes of death and race and Hispanic origin of mother: 43 states and the District of Columbia, 2020



NOTE: Codes in parentheses are cause-of-death codes as classified by the International Statistical Classification of Diseases and Related Health Problems, 10th Revision SOURCE: National Center for Health Statistics, National Vital Statistics System.

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Table 1. Number of fetal deaths and births and fetal mortality rates for 1990–2020 and early and late fetal deaths and fetal mortality rates for 2014-2020: United States

		Fetal deaths				Fetal mortality rate	1
Year —	Total ²	20–27 weeks ³	28 weeks or more ³	Live births	Total ²	20–27 weeks ³	28 weeks or more ³
2020	20,854	10,764	10,090	3,613,647	5.74	2.97	2.78
2019	21,478	11,216	10,262	3,747,540	5.70	2.98	2.73
2018	22,459	11,844	10,615	3,791,712	5.89	3.11	2.79
2017	22,827	11,861	10,966	3,855,500	5.89	3.07	2.84
2016	23,880	12,486	11,394	3,945,875	6.02	3.15	2.88
2015	23,776	12,407	11,369	3,978,497	5.94	3.11	2.85
2014 ⁴	23,980	12,652	11,328	3,988,076	5.98	3.16	2.83
2013	23,595			3,932,181	5.96		
2012	24,073			3,952,841	6.05		
2011	24,289			3,953,590	6.11		
2010	24,258			3,999,386	6.03		
2009	24,872			4,130,665	5.99		
2008	26,335			4,247,726	6.16		
2007	26,593			4,316,233	6.12		
2006	25,972			4,265,593	6.05		
2005	25,894			4,138,573	6.22		
2004	26,001			4,112,055	6.28		
2003	26,004			4,090,007	6.32		
2002	25,943			4,021,825	6.41		
2001	26,373			4,026,036	6.51		
2000	27,003			4,058,882	6.61		
1995	27,294			3,899,589	6.95		
1990	31,386			4,158,445	7.49		

⁻⁻⁻ Data not available.

⁻⁻⁻ Data not available.

1 Number of fetal deaths in specified group per 1,000 live births and fetal deaths.

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

3 Not stated gestational age proportionally distributed.

4 Beginning with the 2014 data year, the obstetric estimate of gestation at delivery replaced the measure based on the date of last normal menses as the standard for measuring gestational age; see Technical Notes in this report.

Table 2. Fetal deaths and mortality rates, by race and Hispanic origin of mother: United States, 2018–2020

				Non-Hispanic, single race ¹			
Year	All races and origins ²	White	Black	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Hispanic ³
				Rate ⁴			
2020	5.74	4.73	10.34	7.84	3.93	10.59	4.86
2019	5.70	4.71	10.41	7.47	4.02	10.03	4.79
2018	5.89	4.89	10.64	6.25	4.26	9.93	5.06
				Number of deaths			
2020	20,854	8,753	5,536	212	864	103	4,231
2019	21,478	9,067	5,766	214	963	99	4,264
2018	22,459	9,621	5,938	183	1,029	95	4,510

¹Race and Hispanic origin are reported separately on reports of fetal death; people 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. Single race is defined as only one race reported on the report of fetal death.

²Includes fetal deaths to race and Hispanic-origin groups not shown separately.

³Includes all people of Hispanic origin of any race.

4Number of fetal deaths in specified group per 1,000 live births and fetal deaths.

Table 3. Fetal deaths and mortality rates, by Hispanic origin of mother: United States, 2018–2020

Year	Total	Mexican	Puerto Rican	Cuban	Dominican	Central and South American	Other and unknown Hispanic
				Rate ¹			
2020	4.86	4.79	4.98	5.23	4.41	4.49	5.87
2019	4.79	4.86	5.17	4.71	4.75	4.12	5.29
2018	5.06	5.19	5.07	4.16	5.09	4.90	4.90
				Number of deaths	3		
2020	4,231	2,312	349	122	140	766	542
2019	4,264	2,427	369	112	155	683	518
2018	4,510	2,587	365	98	164	726	570

 $^{^1\}mbox{Number}$ of fetal deaths in specified group per 1,000 live births and fetal deaths.

NOTE: In this table, Hispanic women are classified only by place of origin; non-Hispanic women are not shown.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

Table 4. Total, early, and late fetal deaths and mortality rates, by age and race and Hispanic origin of mother: United States,

Race and Hispanic origin —		Fetal deaths		Fetal mortality rate ¹					
and age of mother	Total	20–27 weeks ²	28 weeks or more ²	Total	20–27 weeks ²	28 weeks or more			
All races ³	20,854	10,764	10,090	5.74	2.97	2.78			
Under 15	24	18	6	13.42	*	*			
15–19	1,140	607	533	7.16	3.83	3.36			
15–17	296	178	118	7.61	4.59	3.05			
18–19	844	429	415	7.02	3.58	3.46			
20–24	3,905	1,980	1,925	5.83	2.97	2.88			
25–29	5,450	2,738	2,712	5.29	2.67	2.64			
	,	,	,						
30–34	5,511	2,831	2,680	5.12	2.64	2.50			
35–39	3,677	2,002	1,675	6.48	3.54	2.96			
40–44	1,033	539	494	8.49	4.45	4.08			
45 and over	114	49	65	12.20	5.28	6.99			
Non-Hispanic, single race ⁴ :									
White	8,753	4,295	4,458	4.73	2.32	2.41			
Under 15	3	2	1	*	*	*			
15–19	363	185	178	6.63	3.39	3.26			
15–17	86	56	30	7.83	5.11	2.75			
18–19	277	129	148	6.32	2.95	3.39			
20–24	1,419	681	738	4.81	2.31	2.51			
25–29	2,340	1,104	1,236	4.42	2.09	2.34			
30–34	2,612	1,276	1,336	4.30	2.10	2.20			
35–39	1,565	811	754	5.16	2.68	2.49			
40–44	411	215	196	7.17	3.76	3.43			
45 and over	40	20	20	9.90	4.97	4.97			
Black	5,536	3.047	2,489	10.34	5.72	4.68			
Under 15	12	9	3	*	*	*			
15–19	381	206	175	11.03	6.00	5.10			
15–17	108	63	45	11.90	6.97	4.99			
18–19	273	143	130	10.73	5.65	5.14			
20–24	1,260	685	575	9.99	5.46	4.58			
25–29	1,504	807	697	9.51	5.13	4.43			
30–34	1,255	689	566	9.80	5.40	4.44			
35–39	847	508	339	12.28	7.40	4.95			
40–44	247	133	114	14.18	7.69	6.59			
45 and over	30	10	20	20.28	*	13.61			
Hispanic ⁵	4,231	2,165	2,066	4.86	2.49	2.38			
Under 15	6	4	2	*	*	*			
15–19	284	153	131	4.81	2.60	2.22			
15–17	81	45	36	5.04	2.81	2.25			
18–19	203	108	95	4.72	2.52	2.22			
20–24	890	432	458	4.45	2.16	2.29			
25–29	1,026	512	514	4.08	2.04	2.05			
30–34	989	527	462	4.70	2.51	2.20			
35–39	751	398	353	6.38	3.39	3.01			
40–44	255	125	130	8.58	4.22	4.39			
	200	120	100	0.00	7.66	7.00			

^{*} Estimate does not meet National Center for Health Statistics standards of reliability or precision; based on fewer than 20 fetal deaths in the numerator.

¹Rate per 1,000 live births and fetal deaths in specified group.

²Fetal deaths with gestational age not stated were proportionally distributed; see Technical Notes in this report.

Includes fetal deaths to race and Hispanic-origin groups not shown separately.

Race and Hispanic origin are reported separately on reports of fetal death; people 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 Technical Notes in this report. Single race is defined as only one race reported on the report of fetal

⁵Includes all people of Hispanic origin of any race.

Table 5. Fetal mortality rates, by tobacco use during pregnancy, age, and race and Hispanic origin of mother: United States, 2020

Tobacco use during pregnancy and race and Hispanic origin of mother	Fetal deaths	All ages	Under 20	20–24	25–29	30–34	35–39	40–54	Not stated
All races and origins ¹	Number			Fe	tal mortality ra	te ²			Number
Total	20,854 1,753 17,440	5.74 8.71 5.10	7.23 7.63 6.62	5.83 6.73 5.33	5.29 8.00 4.66	5.12 9.71 4.52	6.48 12.30 5.68	8.76 12.99 7.87	1,661
Non-Hispanic, single race ³ White: Total	8,753 1,153 6,990 5,536 356	4.73 7.65 4.12 10.34 14.68	6.63 6.93 6.03	4.81 5.77 4.37 9.99 13.10	4.42 7.45 3.80 9.51 11.97	4.30 8.12 3.76 9.80 16.23	5.16 10.95 4.38 12.28 20.49	7.35 11.92 6.50 14.66	610 405
NoHispanic ⁴ TotalYesNo	4,775 4,231 118 3,854	9.40 4.86 9.50 4.50	10.34 4.85 * 4.53	9.19 4.45 7.89 4.12	8.70 4.08 7.63 3.77	8.71 4.70 12.67 4.32	11.03 6.38 * 5.98	9.00 * 8.39	259

[.] Category not applicable.

^{...} Category not applicable.

* Estimate does not meet National Center for Health Statistics standards of reliability or precision; based on fewer than 20 fetal deaths in the numerator.

Includes fetal deaths to race and Hispanic-origin groups not shown separately.

²Rate per 1,000 live births and fetal deaths in specified group.

³Race and Hispanic origin are reported separately on the report of fetal death; people 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 Technical Notes in this report. Single race is defined as only one race reported on the report of fetal death.

⁴Includes all people of Hispanic origin of any race; see Technical Notes in this report.

Table 6. Fetal deaths and mortality rates, by birthweight, gestational age, and race and Hispanic origin of mother: United States, 2020

Birthweight (grams) and race						Gestational	age (weeks)					- Fetal
and Hispanic origin of mother	Total	20–23	24–27	28–31	32–33	34–36	37–38	39–40	41	42 or more	Not stated	mortality rate ¹
All races ²	20,854	7,427	3,266	2,564	1,485	2,636	1,948	1,234	117	39	138	5.74
Less than 500	6,893	5,535	1,073	174	25	28	19	12	_	1	26	590.00
500–749	2,222	905	991	256	43	14	5	2	_	1	5	213.53
750–999	1,371	143	624	493	57	34	7	3	_	_	10	124.73
1,000–1,249	995	49	205	527	129	65	8	5	_	_	7	81.02
1,250–1,499	915	27	60	445	217	127	28	5	1	1	4	59.57
1,500–1,999	1,693	21	35	394	561	526	114	34	2	1	5	28.29
2,000–2,499	1,737	_	22	99	301	891	308	99	7	4	6	9.01
2,500–2,999	1,488	_	9	24	52	536	569	264	19	5	10	2.15
3,000–3,499	1,165	_	_	14	21	201	474	410	33	8	4	0.83
3,500–3,999	551	_	_	2	2	71	197	244	25	7	3	0.58
4,000 or more	353	_	_	_	1	49	146	120	26	8	3	1.30
Not stated	1,471	747	247	136	76	94	73	36	4	3	55	
Fetal mortality rate ¹	5.74	540.18	172.67	73.20	34.41	9.77	1.94	0.60	0.66	4.38		
Non-Hispanic, single race ³ :												
White	8,753	2,968	1,310	1,038	635	1,164	908	621	53	22	34	4.73
Less than 500	2,769	2,199	441	78	11	13	15	7	_	_	5	645.45
500–749	855	335	397	98	15	7	2	1	_	_	_	236.58
750–999	560	55	252	205	26	13	3	3	_	_	3	137.80
1,000–1,249	388	18	76	206	54	28	2	3	_	_	1	80.03
1,250–1,499	355	13	25	177	70	56	12	1	_	-	1	56.41
1,500–1,999	705	8	12	171	239	212	43	18	_	1	1	27.55
2,000–2,499	742	_	7	39	147	377	128	37	4	2	1	8.86
2,500–2,999	737	_	7	12	22	280	276	123	9	4	4	2.44
3,000–3,499	582	_	_	5	13	86	246	212	13	5	2	0.83
3,500–3,999	301	_	_	_	1	37	103	143	12	3	2	0.55
4,000 or more	144	_	_	_	_	23	47	54	13	6	1	0.85
Not stated	615	340	93	47	37	32	31	19	2	1	13	
Fetal mortality rate ¹	4.73	596.58	187.60	70.52	32.48	9.08	1.89	0.57	0.52	3.75		
Black	5,536	2,061	963	757	407	652	414	218	11	12	41	10.34
Less than 500	1,976	1,593	312	52	7	3	1	1	_	_	7	522.47
500–749	661	245	306	86	16	4	1	_	_	1	2	182.65
750–999	394	40	194	133	12	11	1	_	_	_	3	115.17
1,000–1,249	304	10	56	181	36	18	1	_	_	_	2	83.89
1,250–1,499	252	3	15	130	68	27	5	3	_	1	_	58.78
1,500–1,999	465	10	9	99	161	142	34	7	_	_	3	30.49
2,000–2,499	444	_	3	22	74	234	79	28	_	2	2	9.74
2,500–2,999	316	_	1	5	12	117	125	50	2	_	4	2.30
3,000–3,499	215	_	_	2	5	45	85	72	4	1	1	1.08
3,500–3,999	92	_	_	1	1	14	34	37	1	3	1	0.96
4,000 or more	67	_	_	_	_	10	34	17	3	2	1	3.02
Not stated	350	160	67	46	15	27	14	3	1	2	15	
Fetal mortality rate ¹	10.34	478.19	160.61	82.84	41.70	12.74	2.50	0.82	*	*		

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Table 6. Fetal deaths and mortality rates, by birthweight, gestational age, and race and Hispanic origin of mother: United States, 2020—Con.

Birthweight (grams) and race						Gestational	age (weeks)					Fetal
and Hispanic origin of mother	Total	20–23	24–27	28–31	32–33	34–36	37–38	39–40	41	42 or more	Not stated	mortality rate ¹
Hispanic ⁴	4,231	1,517	635	501	287	551	413	266	33	3	25	4.86
Less than 500	1,426	1,158	212	31	5	7	1	4	_	_	8	588.28
500–749	472	200	203	52	9	3	2	1	_	_	2	213.86
750–999	268	29	115	99	13	8	3	_	_	_	1	110.61
1,000–1,249	193	15	46	84	27	16	3	2	_	_	_	74.17
1,250–1,499	201	4	8	94	55	30	7	1	_	_	2	61.88
1,500–1,999	336	2	8	84	93	116	25	7	1	_	_	26.39
2,000-2,499	378	_	10	25	57	185	74	24	2	_	1	9.06
2,500–2,999	271	_	1	5	11	91	95	60	6	1	1	1.61
3,000-3,499	230	_	_	5	3	44	89	76	12	1	_	0.65
3,500-3,999	117	_	_	1	_	16	45	47	7	1	_	0.52
4,000 or more	108	_	_	_	1	14	50	37	5	_	1	1.82
Not stated	231	109	32	21	13	21	19	7	-	_	9	
Fetal mortality rate ¹	4.86	513.54	152.75	64.45	30.01	8.61	1.64	0.54	0.86	*		

⁻ Quantity zero.

^{...} Category not applicable.

^{*} Estimate does not meet National Center for Health Statistics standards of reliability or precision; based on fewer than 20 fetal deaths in the numerator.

¹Rate per 1.000 live births and fetal deaths in specified group.

²Includes fetal deaths to race and Hispanic-origin groups not shown separately.

³Race and Hispanic origin are reported separately on the report of fetal death; people 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 Technical Notes in this report. Single race is defined as only one race reported on the report of fetal death.

⁴Includes all people of Hispanic origin of any race; see Technical Notes in this report.

Table 7. Fetal deaths at 20 weeks of gestation or more and fetal mortality rates: United States and each state and territory, 2020

Area	Fetal deaths ¹	Fetal mortality rate ²
Total	20,854	5.74
Alabama	489	8.41
Alaska	54	5.67
Arizona	459	5.93
Arkansas	318	8.94
California	2,196	5.20
Colorado	327	5.29
Connecticut	149	4.43
Delaware	57	5.46
District of Columbia	70	7.83
Florida	1,458	6.91
Georgia	1,007	8.16
Hawaii	103	6.48
Idaho	117	5.40
Illinois	754	5.62
Indiana	476	6.02
Iowa	166	4.58
Kansas	168	4.86
Kentucky	327	6.29
Louisiana	322	5.59
Maine	74	6.37
Maryland	466	6.75
Massachusetts	278	4.17
Michigan	612	5.85
Minnesota	343	5.38
Mississippi	380	10.60
Missouri	431	6.18
Montana	44	4.06
Nebraska	104	4.26
Nevada	260	7.67
New Hampshire	54	4.56
New Jersey	658	6.67
New Mexico	77	3.50
New York	1,338	6.35
North Carolina	680	5.79
North Dakota	61	6.03
Ohio	746	5.74
Oklahoma	302	6.30
Oregon	205	5.12
Pennsylvania	668	5.09
Rhode Island	63	6.20

Area	Fetal deaths ¹	Fetal mortality rate ²
South Carolina	310	5.53
South Dakota ³	67	6.08
Tennessee	520	6.56
Texas	1,492	4.04
Utah	235	5.12
Vermont	27	5.23
Virginia	466	4.89
Washington	448	5.36
West Virginia	80	4.60
Wisconsin	317	5.20
Wyoming	31	5.03
American Samoa		
Guam	49	16.42
Northern Marianas		
Puerto Rico	217	11.33
Virgin Islands		

NOTES: American Samoa did not report data for 2020. Data for the Northern Marianas and the Virgin Islands were excluded due to small numbers.

⁻⁻⁻ Data not available.

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

²Number of fetal deaths per 1,000 live births and fetal deaths.

³State reports only fetal deaths of 500 grams or more.

Table 8. Fetal deaths and percentage of total deaths for the five selected causes, by race and Hispanic origin of mother: 43 states and the District of Columbia, 2020

Rank	Cause and race and Hispanic origin of mother	Deaths	Percent
	All races and origins ¹		
	All causes.	15,740	100.0
	Fetal death of unspecified cause (P95)	4,979	31.6
<u>)</u>	Fetus affected by complications of placenta, cord and membranes (P02)	3,848	24.4
	Fetus affected by maternal complications of pregnancy (P01)	1,899	12.1
	Fetus affected by maternal conditions that may be unrelated to present pregnancy (P00)	1,712	10.9
	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	1,661	10.6
	All other causes	1,641	10.4
	Non-Hispanic, single-race White ²		
	All causes.	7,207	100.0
	Fetal death of unspecified cause (P95)	2,332	32.4
	Fetus affected by complications of placenta, cord and membranes (P02)	1,790	24.8
	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	905	12.6
	Fetus affected by maternal complications of pregnancy (P01)	720	10.0
	Fetus affected by maternal conditions that may be unrelated to present pregnancy (P00)	708	9.8
	All other causes	752	10.4
	Non-Hispanic, single-race Black ²		
	All causes.	4,146	100.0
	Fetal death of unspecified cause (P95)	1,253	30.2
	Fetus affected by complications of placenta, cord and membranes (P02)	1,052	25.4
	Fetus affected by maternal complications of pregnancy (P01)	605	14.6
	Fetus affected by maternal conditions that may be unrelated to present pregnancy (P00)	571	13.8
	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	261	6.3
	All other causes	404	9.7
	Hispanic ³		
	All causes.	2,810	100.0
	Fetal death of unspecified cause (P95)	858	30.5
	Fetus affected by complications of placenta, cord and membranes (PO2)	652	23.2
	Fetus affected by maternal complications of pregnancy (P01)	381	13.6
	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	329	11.7
	Fetus affected by maternal conditions that may be unrelated to present pregnancy (P00)	277	9.9
	All other causes	313	11.1

^{..} Category not applicable.

NOTES: Findings exclude data for jurisdictions (Georgia, Hawaii, Michigan, Mississippi, New York City, North Dakota, and Vermont) for which the cause of death was unspecified (P95) for 50% of records or more. Findings also exclude data for California, which did not report cause of death based on the 2003 revision of the U.S. Standard Report of Fetal Death.

¹Includes fetal deaths to race and Hispanic-origin groups not shown separately.

²Race and Hispanic origin are reported separately on the report of fetal death; people 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 Technical Notes in this report. Single race is defined as only one race reported on the report of fetal death

³Includes all people of Hispanic origin of any race; see Technical Notes in this report.

Technical Notes

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 (14) has been adopted by the Centers for Disease Control and Prevention, 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 (15). Fetal deaths do not include induced terminations of pregnancy.

Reporting requirements for fetal death data

There is variation among states in reporting requirements (2) and possibly in completeness of reporting for fetal death data, which can have important implications for comparisons of fetal mortality rates by state. The majority of states require reporting of fetal deaths at 20 weeks of gestation or more, or a minimum birthweight of 350 grams (roughly equal to 20 weeks), or some combination of the two. However, six states, New York City, American Samoa, and the U.S. Virgin Islands require reporting of fetal deaths at all periods of gestation, two states require reporting beginning at 12 weeks of gestation, and one state requires reporting beginning at 16 weeks of gestation. At the other end of the spectrum, one state (South Dakota) requires reporting of fetal deaths with birthweights of 500 grams or more (roughly equal to 22 weeks of gestation). Areas that report fetal deaths at all periods of gestation appear to have a higher percentage of fetal deaths occurring at 20-27 weeks of gestation than those that begin reporting at later gestational ages. Table B presents fetal mortality rates for fetal deaths at 24 weeks of gestation or more for a combined 3-year period to better account for state differences in reporting requirements and improve on the reliability of rates based on smaller numbers. Aside from this exception, this report presents data on fetal deaths with a stated or presumed period of gestation of 20 weeks or more.

Percentage of unknown responses

In the tables in this report, unknown responses are shown in frequencies tables but are excluded from the computation of percent distributions and fetal mortality rates. As a result, rates published in this report by variables with a substantial percentage of unknown responses (such as birthweight) may understate the true rates of fetal mortality for that characteristic.

2003 revision of U.S. Standard Report of Fetal Death

Data for 2018–2020 presented in this report are based on the 2003 revision of the U.S. Standard Report of Fetal Death; data for earlier years are based on both the 1989 and the 2003 fetal death report revisions. The 2003 revision is described in detail elsewhere (16).

Computation of rates

Fetal mortality rates in this report 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. The denominators for all fetal mortality rates are live births plus fetal deaths in the specified gestational age group, thus representing the population at risk of the event.

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 (17) 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 deaths in the numerator.

Hispanic origin and race

Hispanic origin

Hispanic origin and race are reported separately on the report of fetal death. Data are presented in some tables for specific Hispanic subgroups: Mexican, Puerto Rican, Cuban, Central and South American, Dominican, and Other and unknown Hispanic. Data are presented separately for Dominican women beginning in 2018. Data for this subgroup had previously been included in the category Other and unknown Hispanic. In tabulations of fetal death data by race and Hispanic origin, data for people of Hispanic origin are not further classified by race because the vast majority of fetal deaths to Hispanic women are reported as White.

Race

This report presents data on race and Hispanic origin based on the 1997 Office of Management and Budget (OMB) standards (10). The 2003 revision of the U.S. Standard Report of Fetal Death requires the reporting of a minimum of five race categories and allows for the reporting of race either alone (single race) or in combination (more than one race or multiple races) for the mother (9), in accordance with OMB's 1997 revised standards

(10). The five categories for race specified in the revised standards are: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White.

Beginning in 2018, all states and the District of Columbia, in addition to Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands were reporting race on fetal death reports according to the 1997 revised OMB standards. In 2020, 2.0% of women in the United States reported more than one race. Before this time, the number of states that reported multiple-race information varied widely, increasing from 1 state in 2003 to all 50 states, the District of Columbia, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands in 2018.

Period of gestation

Beginning with the 2014 data year, NCHS began using the obstetric estimate of gestation at delivery (OE) as the primary measure for estimating gestational age (18). The OE data are edited for gestational ages that are clearly inconsistent with birthweight. If the OE is not reported or is inconsistent with birthweight, the last menstrual period (LMP)-based gestational age is used (0.6% of fetal death records and 0.1% of live birth records in 2020). These procedures are described in more detail elsewhere (19).

See the "User Guide to the 2017 Fetal Death Data File" for a more detailed description of the transition and Table 1 of the "User Guide to the 2018 Fetal Death Data File" for trends in total, early, and late fetal mortality based on both the OE- and LMP-based measures (20,21).

Gestational age not stated

Fetal deaths with not-stated gestational age are presumed to be 20 weeks of gestation or more if the state requires reporting of all fetal deaths at 20 weeks or more, or if the fetus weighed 350 grams or more in those states requiring reporting of all fetal deaths regardless of gestational age. In Tables 1 and 4, fetal deaths with not-stated gestational age are allocated to the 20-27 week and 28 weeks or more categories according to the proportion of fetal deaths with stated gestational age that fall into each category (proportional distribution). Similarly, for Table B, fetal deaths with not-stated gestational age are proportionally distributed into the 20-23 week and 24 weeks or more categories. Proportional distribution is not performed for data in tables that show more detailed gestational age categories (Table 6). The allocation of not-stated gestational age for fetal deaths is made individually for each maternal age, race and Hispanic-origin group, and state in the computation of fetal mortality rates.

Cause of death

Cause-of-death data are included for the 43 states and the District of Columbia that reported cause of death based on the 2003 revision of the U.S. Standard Report of Fetal Death and met the reporting requirement of having less than 50% of records assigned to unspecified cause (P95) (cause-of-death data did not

meet these requirements for California, Georgia, Hawaii, Michigan, Mississippi, New York City, North Dakota, and Vermont).

Random variation in fetal mortality

Please see the "User Guide to the 2020 Fetal Death Public Use File" (2) for more detailed information and formulas.

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