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# Infant Mortality in the United States, 2021: Data From the Period Linked Birth/Infant Death File

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### **Abstract**

Objectives—This report presents 2021 infant mortality statistics by age at death, maternal race and Hispanic origin, maternal age, gestational age, leading causes of death, and maternal state of residence. Trends in infant mortality are also examined.

Methods—Descriptive tabulations of data are presented and interpreted for infant deaths and infant mortality rates using the 2021 period linked birth/infant death file. The linked birth/infant death file is based on birth and death certificates registered in all 50 states and the District of Columbia.

Results—A total of 19,928 infant deaths were reported in the United States in 2021, up 2% from 2020. The U.S. infant mortality rate was 5.44 infant deaths per 1,000 live births, essentially unchanged from the rate of 5.42 in 2020. The neonatal mortality rate was essentially unchanged from 3.56 in 2020 to 3.49 in 2021, but the postneonatal mortality rate increased from 1.86 to 1.95. The overall infant mortality rate increased for infants of Asian non-Hispanic women and declined for infants of Dominican women in 2021 compared with 2020: changes in rates for the other race and Hispanic-origin groups were not significant. Infants of Black non-Hispanic women had the highest mortality rate (10.55) in 2021, followed by infants of Native Hawaiian or Pacific Islander non-Hispanic and American Indian or Alaska Native non-Hispanic (7.76 and 7.46, respectively). Hispanic (4.79). White non-Hispanic (4.36), and Asian non-Hispanic (3.69) women. By gestational age, infants born very preterm (less than 28 weeks of gestation) had the highest mortality rate (353.76), 170 times as high as that for infants born at term (37-41 weeks of gestation) (2.08). The five leading causes of infant death in 2021 were the same as in 2020. Infant mortality rates by state for 2021 ranged from a low of 2.77 in North Dakota to a high of 9.39 in Mississippi.

**Keywords:** maternal and infant characteristics • vital statistics • National Vital Statistics System

### Introduction

This report presents infant mortality statistics based on data from the 2021 period linked birth/infant death file. Infant mortality and mortality rates are described by age at death. maternal race and Hispanic origin, maternal age, gestational age, leading causes of death, and maternal state of residence. Infant mortality trends are also presented by selected characteristics. In the linked file, information from the death certificate is linked to information from the birth certificate for each infant under age 1 year who died in the 50 states, District of Columbia, Puerto Rico, or Guam during 2021 (1). The purpose of the linkage is to use variables available from the birth certificate to conduct more detailed analyses of infant mortality patterns (2,3). The linked birth/infant death data set also is the preferred source for examining infant mortality by race and Hispanic origin. Infant mortality rates by race and Hispanic origin are more accurately measured from the birth certificate compared with the death certificate.

For 2021, linked birth/infant death data are not available for American Samoa, Commonwealth of the Northern Marianas, and U.S. Virgin Islands. Some rates calculated from the mortality file differ from those published using the linked file. More details can be found elsewhere (1).

### Methods

Data shown in this report are based on birth and infant death certificates registered in all states, the District of Columbia, Puerto Rico, and Guam. As part of the Vital Statistics Cooperative Program, each state provides matching birth and death certificate numbers for each infant under age 1 year who died during 2021 to the National Center for Health Statistics. Further discussion of the process of linking births and deaths occurring in different states and file production can be found in the Methodology section of the "User Guide to the 2021 Period/2020 Cohort Linked Birth/Infant Death Public Use File" (1).





The period linked file for 2017 marked the first data year for which the linked birth data for infant deaths for all 50 states and the District of Columbia. were based on the 2003 revision of the U.S. Standard Certificate of Live Birth (4) and, accordingly, the first year for which national data on race and Hispanic-origin categories based on 1997 Office of Management and Budget standards became available (5).

In 2021, 98.9% of all infant death records were successfully linked to their corresponding birth records. These records were weighted to adjust for the 1.1% of infant death records that were not linked to their corresponding birth certificates (1) (Technical Notes).

Information for age and race of mother is imputed if it is not reported on the birth certificate. In 2021, race of mother was imputed for 7.0% of births; mother's age was imputed for 0.01% of births (2,3).

All race and Hispanic-origin data are based on single-race reporting and are consistent with the 1997 Office of Management and Budget standards and differ from the bridged-race categories shown in previous reports (5). Maternal race and Hispanic-origin categories presented are American Indian or Alaska Native non-Hispanic (subsequently, American Indian or Alaska Native), Asian non-Hispanic (subsequently, Asian), Black non-Hispanic (subsequently, Black), Native Hawaiian or Other Pacific Islander non-Hispanic (subsequently, Native Hawaiian or Other Pacific Islander), White non-Hispanic (subsequently, White), and Hispanic. Race and Hispanic origin are reported separately on the birth certificate. Data are shown in most cases for five specified Hispanic groups: Central and South American, Cuban, Dominican, Mexican, and Puerto Rican. Additional details on Hispanic origin are available elsewhere (3). Comparisons between 2021 and 2020 by race and Hispanic origin are made in this report. The 2003 revision of the U.S. Standard Certificate of Live Birth allows the reporting of five race categories for each parent (6)—either alone, as in single race, or in combination, as in more than one race or multiple races—in accordance with the 1997 revised Office of Management and Budget standards (5). Further details on race reporting are available elsewhere (3).

Cause-of-death statistics are classified in accordance with the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision* (ICD–10) (7) (Technical Notes).

# Data by maternal and infant characteristics

This report presents descriptive tabulations of infant mortality data by a variety of maternal and infant characteristics. These tabulations are useful for understanding the basic relationships between risk factors and infant mortality, unadjusted for the possible effects of other variables. However, women with one risk factor often have other risk factors. For example, teen mothers are more likely to be unmarried and of a low-income status, while mothers who do not receive prenatal care are more likely to be of a low-income status and uninsured. The preferred method for disentangling the multiple interrelationships among risk factors is multivariate analysis; however, an understanding of the basic relationships between risk factors and infant mortality is the first step before more sophisticated types of analyses and may help identify high-risk subgroups for prevention efforts.

This report presents several key risk factors for infant mortality: age at death, maternal race and Hispanic origin, maternal age, gestational age, leading causes of infant death, and maternal state of residence. For brevity, additional selected risk factors (sex, birthweight, plurality, and nativity [mother's place of birth]) are presented in tables but not discussed in this report.

Race and Hispanic origin—Infant mortality rates are presented by race and Hispanic origin of the mother. The linked file is useful for computing accurate infant mortality rates by these characteristics because the race and Hispanic origin of the mother from the birth certificate are used in both the numerator and denominator of the infant mortality rate. In contrast, for rates based on the vital statistics mortality file, race information for the denominator is the race of the mother as reported on the birth certificate, while race information for the numerator is the race of the decedent as reported on the death certificate (2,3,8). More detail on the reliability of race and Hispanic-origin data from the linked file compared with the mortality file is available elsewhere (8).

Statistical significance—Statements in the text have been tested for statistical significance, and a statement that a given infant mortality rate is higher or lower than another rate indicates that the rates are significantly different using a two-tailed z test at the alpha level of 0.05. Comparisons between state rates and the U.S. rate take into account each state's contribution to the U.S. rate. As a result, each state rate is compared with a unique U.S. rate independent of the state's contribution to the total U.S. rate. Information on the methods used to test for statistical significance, as well as information on differences between period and cohort data, the weighting of the linked file, maternal age, period of gestation, birthweight, and cause-of-death classification, is also available (1) (Technical Notes).

### Results

# Trends in infant mortality and infant age at death

- In 2021, 19,928 infant deaths were reported in the United States, an increase of 2% from 2020 (19,578). The infant mortality rate was 5.44 deaths per 1,000 live births in 2021, essentially unchanged from the 2020 rate of 5.42 (Figure 1, Table 1).
- The U.S. infant mortality rate has generally trended downward since 1995 (the first year that the period linked birth/infant death file was available) and has declined 21% since 2005, the most recent high (6.86).
- The 2021 neonatal mortality rate (infant deaths at less than 28 days) of 3.49 was essentially unchanged from 2020 (3.56). The neonatal mortality rate has generally declined since 1995 and is down 23% since 2005 (4.54).
- The 2021 postneonatal mortality rate (infant deaths at 28 days or more) increased 5% to 1.95 from 1.86 in 2020. The postneonatal mortality rate has also generally declined since 1995 and is down 16% since 2005 (2.32).

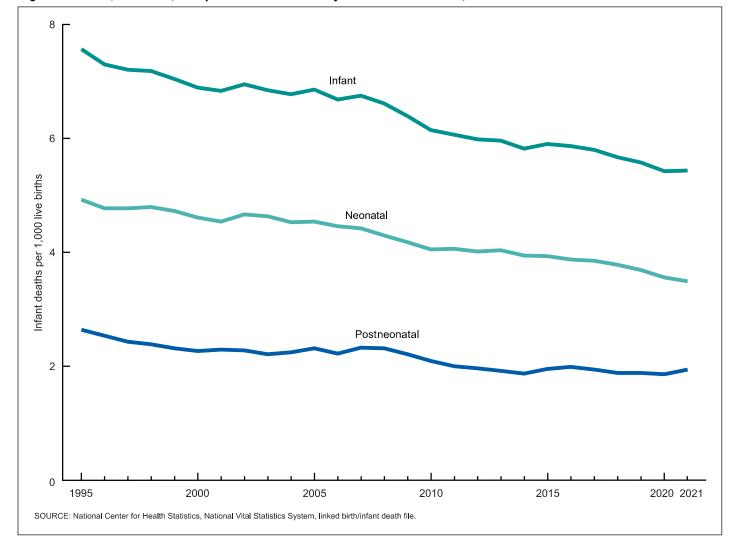


Figure 1. Infant, neonatal, and postneonatal mortality rates: United States, 1995–2021

# Race and Hispanic origin

- The mortality rate for infants of Asian women increased 17% from 2020 to 2021 (from 3.14 to 3.69 infant deaths per 1,000 births). Increases in rates for infants born to Black (10.38 to 10.55), Hispanic (4.69 to 4.79), and Native Hawaiian or Other Pacific Islander (7.17 to 7.76) women were not significant. Declines in rates for infants born to American Indian or Alaska Native (7.68 to 7.46) and White (4.40 to 4.36) women were not significant (Tables 1 and 2, Figure 2).
- Among Hispanic-origin subgroups, the mortality rate for infants of Dominican women decreased 28% from 2020 to 2021 (4.53 to 3.27); declines in mortality rates for infants of Cuban (4.23 to 3.56) and Puerto Rican (6.26 to 6.05) women were not significant. Increases in the mortality rates for infants of Central and South American (3.88 to 4.20) and Mexican (4.71 to 4.91) women from 2020 to 2021 were not significant.
- In 2021, infant mortality continued to vary by race: Infants
  of Black women had the highest mortality rate (10.55),
  followed by infants of Native Hawaiian or Other Pacific

- Islander and American Indian or Alaska Native (7.76 and 7.46, respectively), Hispanic (4.79), White (4.36), and Asian (3.69) women.
- Infants of Black women also had the highest neonatal mortality rate in 2021 (6.35) compared with infants of the other race and Hispanic-origin groups; the lowest mortality rate was for infants of Asian and White women (both 2.78).
- In 2021, postneonatal mortality rates were higher for infants of Black (4.19), American Indian or Alaska Native (3.67), and Native Hawaiian or Other Pacific Islander (3.36) women than for infants of White (1.58), Hispanic (1.52), and Asian (0.90) women.
- Among Hispanic-origin subgroups in 2021, the mortality rate for infants of Puerto Rican women (6.05) was higher than that for infants of Mexican (4.91), Central and South American (4.20), Cuban (3.56), and Dominican (3.27) women.

2020 2021 12 10.55 10.38 10 Infant deaths per 1,000 live births 8 7.76 7.68 7.46 7.17 6 4.79 4.69 4.40 4.36 4 3.69 3.14 2 0 White Hispanic<sup>1</sup> American Indian or Asian Black Native Hawaiian or Alaska Native Other Pacific Islander Non-Hispanic <sup>1</sup>People of Hispanic origin may be of any race. SOURCE: National Center for Health Statistics, National Vital Statistics System, linked birth/infant death file.

Figure 2. Infant mortality rate, by maternal race and Hispanic origin: United States, 2020 and 2021

# Maternal age

- Changes in infant mortality rates from 2020 to 2021 in each of the maternal age groups were not significant. Rates declined from 15.30 to 14.92 for infants of females under age 15, 5.29 to 5.15 for infants of women aged 25-29, and 4.50 to 4.48 for infants of women aged 30-34. Rates increased for infants of females aged 15–19 (8.57 to 9.15), women aged 20-24 (6.62 to 6.87), women aged 35-39 (4.79 to 4.92), and women aged 40 and over (6.65 to 6.74) (Figure 3, Table 2).
- In 2021, mortality rates were highest for infants of females under age 15 (14.92 infant deaths per 1,000 births), decreased to a low of 4.48 for infants of women aged 30–34, and then increased to 6.74 for infants of women aged 40 and over.

# Gestational age

The infant mortality rate for infants born at less than 32 weeks of gestation declined from 175.88 in 2020 to 167.39 in 2021. From 2020 to 2021, nonsignificant declines in

- the mortality rate for infants born at 32-33 weeks (20.11 to 19.35) and 42 weeks or more (4.17 to 3.79) were seen. Nonsignificant increases in the mortality rate for infants born at 34-36 weeks (7.92 to 8.11) and 37-41 weeks (2.04 to 2.08) were observed (Table, Table 2) (4).
- In 2021, 65% of infant deaths occurred among infants born preterm (less than 37 weeks of gestation), essentially unchanged from the 2020 level of 66%.

# Leading causes of infant death

- In 2021, the five leading causes of all infant deaths were the same as those in 2020: congenital malformations (20% of infant deaths), disorders related to short gestation and low birth weight (15%), sudden infant death syndrome (SIDS) (7%), unintentional injuries (7%), and maternal complications (6%) (Table 3).
- From 2020 to 2021, the infant mortality rate declined for disorders related to short gestation and low birth weight (87.2 to 80.7). Declines in rates for congenital malformations (112.0 to 108.9) and maternal complications (30.9 to 30.4)

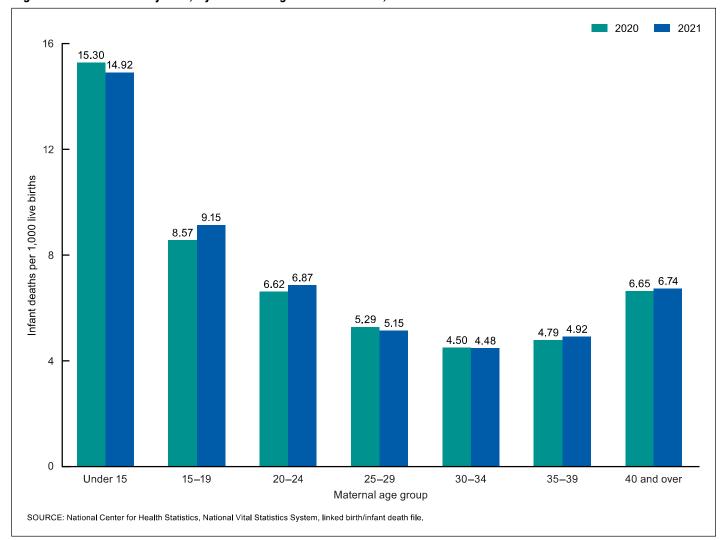


Figure 3. Infant mortality rate, by maternal age: United States, 2020 and 2021

Table. Infant mortality rate, by gestational age: United States, 2015–2021

Year	Less than 32 weeks	32–33 weeks	34–36 weeks	37–41 weeks	42 weeks or more
		Deaths	per 1,000 liv	e births	
2021	167.39	19.35	8.11	2.08	3.79
2020	175.88	20.11	7.92	2.04	4.17
2019	180.40	19.21	8.21	2.03	5.72
2018	185.79	21.95	8.21	2.05	5.39
2017	187.56	20.50	8.50	2.10	3.98
2016	190.15	20.12	8.65	2.19	4.31
2015	193.54	20.79	8.76	2.17	4.20

SOURCE: National Center for Health Statistics, National Vital Statistics System, linked birth/infant death file.

- and increases for SIDS (38.4 to 39.8) and unintentional injuries (33.0 to 35.5) were not significant (Table 4).
- Congenital malformations was the leading cause of death for infants born to American Indian or Alaska Native (134.0) and White (102.2) women in 2021 (Table 4).

• In 2021, disorders related to short gestation and low birth weight was the leading cause of death for infants of Asian (69.7) and Black (196.4) women.

# Infant mortality by state

- By state, infant mortality ranged from a low of 2.77 infant deaths per 1,000 births in North Dakota to a high of 9.39 in Mississippi (Figure 4, Table 5).
- Twelve states had infant mortality rates significantly lower than the national infant mortality rate: California, Connecticut, lowa, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, North Dakota, Oregon, Utah, and Washington.
- Seventeen states had infant mortality rates significantly higher than the U.S. infant mortality rate: Alabama, Alaska, Arkansas, Florida, Georgia, Indiana, Kentucky, Louisiana, Michigan, Mississippi, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Virginia, and West Virginia.

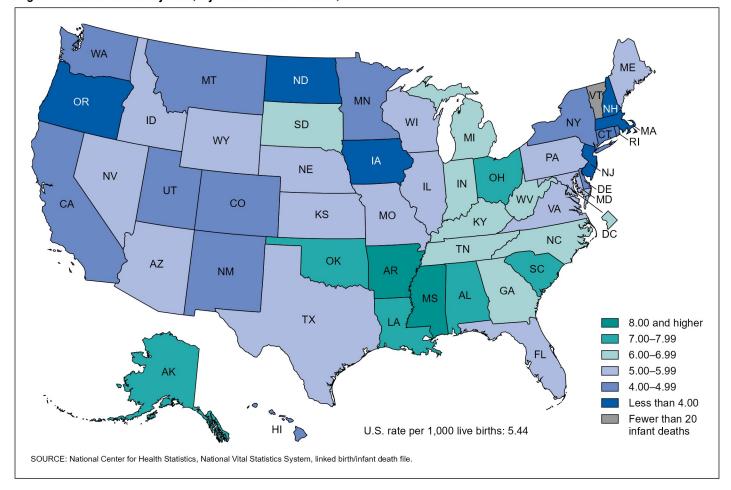


Figure 4. Infant mortality rate, by state: United States, 2021

### References

- National Center for Health Statistics. User guide to the 2021 period/2020 cohort linked birth/infant death public use file. 2023. Available from: https://ftp.cdc.gov/pub/Health\_ Statistics/NCHS/Dataset\_Documentation/DVS/periodcohort-linked/21PE20CO\_linkedUG.pdf.
- Osterman MJK, Hamilton BE, Martin JA, Driscoll AK, Valenzuela CP. Births: Final data for 2021. National Vital Statistics Reports; vol 72 no 1. Hyattsville, MD: National Center for Health Statistics. 2023. DOI: https://dx.doi. org/10.15620/cdc:122047.
- National Center for Health Statistics. User guide to the 2021 natality public use file. 2022. Available from: https://ftp.cdc. gov/pub/Health\_Statistics/NCHS/Dataset\_Documentation/ DVS/natality/UserGuide2021.pdf.
- Ely DM, Driscoll AK. Infant mortality in the United States, 2017: Data from the period linked birth/infant death file. National Vital Statistics Reports; vol 68 no 10. Hyattsville, MD: National Center for Health Statistics. 2019.
- 5. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. Fed Regist 62(210):58782–90. 1997.

- National Center for Health Statistics. 2003 revisions of the U.S. Standard Certificates and Reports. 2003. Available from: https://www.cdc.gov/nchs/nvss/vital\_certificate\_revisions. htm.
- 7. World Health Organization. International statistical classification of diseases and related health problems, 10th revision (ICD–10). 2nd ed. 2004.
- Kochanek KD, Murphy SL, Xu JQ, Arias E. Deaths: Final data for 2017. National Vital Statistics Reports; vol 68 no 9. Hyattsville, MD: National Center for Health Statistics. 2019. Available from: https://www.cdc.gov/nchs/data/nvsr/nvsr68/ nvsr68\_09-508.pdf.
- National Center for Health Statistics. U.S. Standard Certificate of Live Birth. 2003. Available from: https://www.cdc.gov/ nchs/data/dvs/birth11-03final-ACC.pdf.
- Centers for Disease Control and Prevention. CDC WONDER. About underlying cause of death, 2018–2021, single race. Data source: Multiple cause-of-death files, 2018–2021. Available from: https://wonder.cdc.gov/ucd-icd10-expanded.html.
- Martin JA, Osterman MJK, Kirmeyer SE, Gregory ECW. Measuring gestational age in vital statistics data: Transitioning to the obstetric estimate. National Vital Statistics Reports; vol 64 no 5. Hyattsville, MD: National Center for Health Statistics. 2015.

- 12. National Center for Health Statistics. Instructions for classifying the underlying cause of death, 2022. NCHS Instruction Manual, part 2a. 2022.
- 13. National Center for Health Statistics. Vital statistics ICD-10 ACME decision tables for classifying underlying causes of death, 2016. NCHS Instruction Manual, part 2c. 2016.
- 14. National Center for Health Statistics. Mortality multiple cause-of-death public use data file documentation (published annually). 2021.
- 15. World Health Organization. Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death: Based on the recommendations of the Ninth Revision Conference, 1975, and adopted by the Twenty-ninth World Health Assembly, 1975 revision. Geneva, Switzerland. 1977.
- 16. National Center for Health Statistics. ICD-10 cause-of-death lists for tabulating mortality statistics (updated September 2020 to include WHO updates to ICD-10 for data year 2020). NCHS Instruction Manual, part 9. 2020.

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Table 1. Live births, infant, neonatal, and postneonatal deaths, and mortality rates: United States, 1995–2021, and by maternal race and Hispanic origin, 2017–2021

		Nu	mber		Dea	iths per 1,000 live	births
Year and race and Hispanic origin	Live births	Infant deaths	Neonatal deaths	Postneonatal deaths	Infant	Neonatal	Postneonata
All race and Hispanic-origin groups							
.021	3,664,292	19,928	12,797	7,131	5.44	3.49	1.95
020	3,613,647	19,578	12,866	6,712	5.42	3.56	1.86
019	3,747,540	20,927	13,834	7,093	5.58	3.69	1.89
018	3,791,712	21,498	14,329	7,169	5.67	3.78	1.89
017	3,855,500	22,341	14,844	7,497	5.79	3.85	1.94
016	3,945,875	23,157	15,303	7,854	5.87	3.88	1.99
015	3,978,497	23,458	15,672	7,786	5.90	3.94	1.96
014	3,988,076	23,211	15,737	7,474	5.82	3.95	1.87
013	3,932,181	23,446	15,893	7,553	5.96	4.04	1.92
012	3,952,841	23,654	15,887	7,767	5.98	4.02	1.96
011	3,953,590	24,001	16,065	7,936	6.07	4.06	2.01
010	3,999,386	24,572	16,193	8,379	6.14	4.05	2.10
009	4,130,665	26,408	17,261	9,148	6.39	4.18	2.21
008	4,247,726	28,075	18,238	9,837	6.61	4.29	2.32
007	4,316,233	29,153	19,094	10,059	6.75	4.42	2.33
006	4,265,593	28,509	19,041	9,468	6.68	4.46	2.22
005	4,138,573	28,384	18,782	9,602	6.86	4.54	2.32
004	4,112,055	27,860	18,602	9,258	6.78	4.52	2.25
003	4,090,007	27,995	18,935	9,060	6.84	4.63	2.22
002	4,021,825	27,970	18,791	9,179	6.95	4,67	2.28
001	4,026,036	27,523	18,275	9,248	6.84	4.54	2.30
000	4,058,882	27,961	18,733	9,227	6.89	4.62	2.27
999	3,959,417	27,865	18,701	9,164	7.04	4.72	2.31
998	3,941,553	28,325	18,915	9,410	7.19	4.80	2.39
997	3,880,894	27,968	18,507	9,461	7.21	4.77	2.44
996	3,891,494	28,419	18,556	9,863	7.30	4.77	2.53
995	3,899,589	29,505	19,186	10,319	7.57	4.92	2.65
Non-Hispanic, single race	, ,	,	,	,			
American Indian or Alaska Native:							
2021	26,124	195	100	96	7.46	3.83	3.67
2020	26,813	206	102	104	7.68	3.80	3.88
2019	28,450	224	114	110	7.87	4.01	3.87
2018	29.092	237	120	117	8.15	4.12	4.02
2017	29,957	276	143	132	9.21	4.77	4.41
sian:	20,007	210	140	102	5.21	7.11	7.71
2021	213,813	788	594	193	3.69	2.78	0.90
2020	219,068	688	503	185	3.14	2.30	0.84
2019	238,769	806	602	204	3.38	2.52	0.85
2018	240,798	874	643	231	3.63	2.67	0.03
2017	249,250	943	675	268	3.78	2.71	1.08
lack:	249,230	343	073	200	3.70	2.7 1	1.00
2021	517,889	5,463	3,291	2,172	10.55	6.35	4.19
	529.811						
2020	,	5,501	3,472	2,028	10.38	6.55	3.83
	548,075	5,821	3,754	2,067	10.62	6.85	3.77
2018	552,029	5,933	3,897	2,037	10.75	7.06	3.69
2017	560,715	6,152	4,012	2,140	10.97	7.16	3.82
ative Hawaiian or Other Pacific Islander:							
2021	9,531	74	41	32	7.76	4.30	3.36
2020	9,626	69	41	27	7.70 7.17	4.26	2.80
2019	9,020	80	49	31	8.19	5.02	3.17
	9,770 9,476	89	51	38	9.39	5.38	3.17 4.01
2018	·						
2017/hito:	9,426	72	36	36	7.64	3.82	3.82
/hite:	1 007 656	0.006	E 0E1	2.004	4.06	2 70	1 50
2021	1,887,656	8,236	5,251 5,200	2,984	4.36	2.78	1.58
2020	1,843,432	8,115	5,290 5,500	2,825	4.40	2.87	1.53
2019	1,915,912	8,603	5,589	3,014	4.49	2.92	1.57
2018	1,956,413	9,059	5,873	3,186	4.63	3.00	1.63
2017	1,992,461	9,306	6,061	3,246	4.67	3.04	1.63

See footnotes at end of table.

Table 1. Live births, infant, neonatal, and postneonatal deaths, and mortality rates: United States, 1995–2021, and by maternal race and Hispanic origin, 2017–2021—Con.

		Nui	mber		Dea	ths per 1,000 live	births
Year and race and Hispanic origin	Live births	Infant deaths	Neonatal deaths	Postneonatal deaths	Infant	Neonatal	Postneonata
Hispanic <sup>1</sup>							
2021	885,916	4,246	2,899	1,347	4.79	3.27	1.52
2020	866,713	4,063	2,828	1,235	4.69	3.26	1.42
2019	886,467	4,462	3,091	1,371	5.03	3.49	1.55
2018	886,210	4,303	3,036	1,267	4.86	3.43	1.43
017	898,764	4,583	3,198	1,383	5.10	3.56	1.54
Central and South American:	,	.,	-,	.,			
2021	178.067	748	521	227	4.20	2.93	1.27
2020	169.811	659	470	189	3.88	2.77	1.11
2019	165,229	749	535	214	4.53	3.24	1.30
2018	147,430	592	438	154	4.02	2.97	1.04
2017	145,614	653	465	188	4.48	3.19	1.29
uban:	110,011	000	100	100	1.10	0.110	1120
2021	24,437	87	68	19	3.56	2.78	*
2020	23,188	98	63	34	4.23	2.72	1.47
2019	23,668	98	65	33	4.14	2.75	1.39
2018	23,471	90	64	26	3.83	2.73	1.11
2017	23,362	93	69	24	3.98	2.95	1.03
Oominican:	20,002	00	00		0.00	2.00	1,00
2021	33,373	109	68	41	3.27	2.04	1.23
2020	31.596	143	101	42	4.53	3.20	1.33
2019	32,483	153	111	42	4.71	3.42	1,29
Mexican:	32,403	133	111	42	4.71	0.42	1.23
2021	485,127	2.380	1,633	747	4.91	3.37	1.54
2020	480.531	2,360	1,586	678	4.71	3.30	1.41
2019	496,716	2,462	1,693	769	4.96	3.41	1.55
2018	495,831	2,402	1,690	709 736	4.89	3.41	1.48
2017	512.126	2,420	1,795	792	5.05	3.50	1,55
	312,120	2,300	1,790	192	5.05	3.30	1.55
uerto Rican:							
2021	70,729	428	278	151	6.05	3.93	2.13
2020	69,763	437	308	129	6.26	4.41	1.85
2019	70,950	438	294	144	6.17	4.14	2.03
2018	71,614	402	290	112	5.61	4.05	1.56
2017	70,813	459	307	151	6.48	4.34	2.13

<sup>\*</sup> Estimate does not meet National Center for Health Statistics standards of reliability.

NOTES: Infant deaths are weighted to adjust for the 1.1% of infant death records that were not linked to their corresponding birth certificates; the neonatal and postneonatal mortality rates combined may not exactly add to totals due to rounding. Data for infants of Dominican women are available starting with the 2019 period linked birth/infant death data files.

SOURCE: National Center for Health Statistics, National Vital Statistics System, linked birth/infant death file.

<sup>&</sup>lt;sup>1</sup>People of Hispanic origin may be of any race.

Table 2. Infant mortality rates, live births, and infant deaths, by selected characteristics and by maternal race and Hispanic origin: United States, 2021

Maska Native   Assist   Sanitar   Sanitar   Sanitar   Maska Native   Maska Nati	:		American Indian or		anic	Native Hawaiian or Other Pacific	,       	- - -	Central and	Hisp	Hispanic¹		-
7.48         3.69         10.55         7.76         4.36         4.79         4.29         3.56         3.27         4.91           2.38         2.78         6.36         4.79         4.29         3.56         3.27         4.91           2.56         2.17         6.39         2.76         4.39         3.36         2.18         2.69         2.78         2.04         3.37           1.22         0.517         1.37         0.00         0.57         0.39         1.69 </th <th></th> <th>Total /</th> <th>Alaska Native<sup>z</sup></th> <th>Asian</th> <th>Black</th> <th>Islander</th> <th>White</th> <th>Total</th> <th>South American</th> <th>Cuban</th> <th>Dominican</th> <th>Mexican</th> <th>Puerto Rican</th>		Total /	Alaska Native <sup>z</sup>	Asian	Black	Islander	White	Total	South American	Cuban	Dominican	Mexican	Puerto Rican
2.56         2.78         3.27         2.93         2.78         1.69         2.94         1.68         2.69         2.34         1.68         2.69         2.34         1.68         2.69         2.94         1.68         2.69         2.94         1.68         2.69         2.94         1.68         2.69         2.99         2.99         2.99         2.99         2.99         2.99         2.90         0.67 <td< td=""><td></td><td>5.44</td><td>7.46</td><td>3.69</td><td>10.55</td><td>Infant deaths 7.76</td><td>s per 1,000 live 4.36</td><td>births in spe 4.79</td><td>ecified group 4.20</td><td>3.56</td><td>3.27</td><td>4.91</td><td>6.05</td></td<>		5.44	7.46	3.69	10.55	Infant deaths 7.76	s per 1,000 live 4.36	births in spe 4.79	ecified group 4.20	3.56	3.27	4.91	6.05
2.56         2.78         4.30         2.78         2.78         2.78         2.79 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
2.26         2.17         4.99         3.36         4.19         5.36         4.19         5.36         1.18 <td< td=""><td></td><td>3.49</td><td>3.83</td><td>2.78</td><td>6.35</td><td>4.30</td><td>2.78</td><td>3.27</td><td>2.93</td><td>2.78</td><td>2.04</td><td>3.37</td><td>3.93</td></td<>		3.49	3.83	2.78	6.35	4.30	2.78	3.27	2.93	2.78	2.04	3.37	3.93
3.67         0.00         4.19         3.36         1.00         1.52         1.23         1.59         1.50         1.59         1.50 <th< td=""><td></td><td>2 / 5 0 74</td><td>2.50 1.22</td><td>7.17 0.61</td><td>4.99 1.37</td><td>3.30 *</td><td>2.18 0.60</td><td>7.6U 0.67</td><td>2,34</td><td>-,84 0.90</td><td>× *</td><td>2.69 0.67</td><td>3.12 0.81</td></th<>		2 / 5 0 74	2.50 1.22	7.17 0.61	4.99 1.37	3.30 *	2.18 0.60	7.6U 0.67	2,34	-,84 0.90	× *	2.69 0.67	3.12 0.81
7.57         4.02         11.55         8.83         4.66         5.11         4.68         3.95         3.40         5.06           7.43         3.23         3.53         2.86         3.74         3.77         3.07         3.07         4.75           81.05         101.99         124.37         106.51         89.69         100.83         91.25         83.58         66.54         105.21           290.12         334.17         34.32         34.17         35.25         34.23         34.53         36.53         20.30           4.12         14.59         3.74         36.00         4.32.1         38.40         36.54         105.27         40.28           4.12         1.46         1.57         1.70         1.33         1.70         1.73		1.95	3.67	06:0	4.19	3.36	1.58	1.52	1.27	*	1.23	1.54	2.13
7.57         4.02         11.55         8.83         4.66         5.11         4.68         3.95         3.40         5.06           7.43         3.33         9.51         6.44         4.05         4.47         3.71         3.07         4.75           81.05         101.39         124.37         106.51         89.68         100.03         91.25         83.58         65.64         106.21           290.12         384.17         382.55         34.37         3.65         3.09         3.07         4.75         3.09           13.78         4.41         10.99         7.77         7.18         7.79 <td></td>													
81.05         101.99         124.37         106.51         89.69         100.93         91.25         83.86         65.64         105.21           290.12         394.17         349.23         347.77         38.40         34.53         268.57         231.09         352.74           14.59         22.60         18.52         17.69         17.93         17.33         20.30           4.12         1.09         18.77         1.71         1.59         1.05         0.97         1.73           5.83         1.50         4.44         10.99         7.77         7.18         7.15         7.73         7.15         7.73         7.73         7.15         7.73		5.83 5.02	7.57 7.43	4.02 3.33	11.55 9.51	8.83 6.44	4.66 4.05	5.11 4.47	4.68 3.71	3.95 3.07	3.40 3.07	5.06 4.75	6.78 5.32
81.05         101.99         124.37         106.51         89.69         100.93         91.25         83.58         65.64         105.21           290.12         39.417         342.27         342.97         335.53         268.57         231.09         352.74           4.1         43.17         43.24         34.53         268.57         231.09         352.44           4.12         14.99         22.60         7.77         7.18         7.09         7.09         7.03           4.12         1.60         3.77         7.77         7.18         7.09         7.77         7.18           5.83         1.50         4.98         3.00         2.47         2.15         7.69         7.69           5.83         1.50         4.29         3.50         1.87         1.70         7.09         7.73           5.83         1.50         4.29         1.31         1.30         7.73         7.73           5.83         1.83         1.40         1.31         1.30         7.73         1.73           5.84         1.85         3.73         41.91         3.81         4.29         3.82         8.74         4.26           1.509         1.84 <td></td>													
290.12         384.77         382.55         382.87         385.85         208.57         231.09         382.74           13.78         441         10.99         *         7.77         7.18         7.09         *         7.69           412         1.66         37.7         7.77         7.18         7.09         *         7.69           412         1.66         3.77         1.70         1.59         1.05         0.97         7.75           5.83         1.50         4.96         3.00         2.47         2.15         0.97         7.75           5.83         1.50         4.90         4.20         1.40         1.31         1.30         *         7.69           2.95         0.85         3.00         4.20         1.40         1.31         1.30         *         1.31           1.86         1.89         1.40         1.31         1.30         *         1.31           2.95         0.86         4.49         37.39         41.91         38.16         2.52         2.52           1.50         1.60         1.49         *         1.77.82         1.56.62         1.77           1.50         1.60         1.89		103.08	81.05	101.99	124.37	106.51	89.69	100.93	91.25	83.58	65.64	105.21	106.20
14.59   22.60   18.52   17.69   17.30   17.39   17.30   17.3		353.76 41 14	290.12	394.17 33.06	349.23 43.17	341.77	352.55	342.97	335.53	268.57	231.09	352.74 40.28	341 <u>.</u> 89 32 59
13.78         4.41         10.99         *         7.77         7.18         7.09         *         7.69           4.12         1.06         3.74         3.50         1.87         1.70         1.59         1.05         1.73           4.12         1.06         3.74         3.50         1.87         1.70         1.59         1.05         1.73           2.98         1.06         4.20         1.40         1.31         1.30         *         7.73           1.86         2.88         -         1.28         1.49         *         *         1.70           1.86         2.88         -         1.28         1.49         *         *         1.70           1.86         2.88         -         1.28         1.49         *         *         1.70           1.86         2.89         3.73         41.91         38.16         35.28         26.76         44.26           1.69         3.52         184         1.59         1.67         1.65         1.65           4.67         0.99         3.52         3.70         1.84         1.59         1.47         0.97         1.05         1.65           4.6		19.35	*	14 59	22.60	*	18.52	17.69	17.93	*	*	20.20	) ; ; ;
4.12         1.06         3.74         3.50         1.87         1.70         1.59         1.05         0.97         1.73           5.83         1.50         4.98         3.00         4.24         1.31         2.15         2.52           5.85         3.00         4.20         1.34         1.31         3.0         2.15         1.70           3.860         2.88         3.00         4.49         37.39         41.91         38.16         35.28         26.76         44.26           16.67         189.55         183.59         18.23         17.39         17.37         17.07         <		8.11	13.78	4.41	10.99	*	7.77	7.18	7.09	*	*	7.69	6.54
5.83         1.50         4.98         *         3.00         2.47         2.15         *         2.52           2.95         0.85         3.00         4.20         1.31         1.30         *         1.31           *         *         2.88         -         -         1.28         1.49         *         *         1.31           16.67         189.55         193.98         182.93         178.07         189.75         177.82         155.62         113.50         201.35           16.67         189.55         193.98         182.93         178.07         189.75         177.82         155.62         113.50         201.35           15.09         6.03         14.35         *         178.07         189.75         177.82         155.62         113.50         201.35           15.09         14.35         *         18.4         1.59         1.47         0.97         1.05         1.66           4.66         0.99         3.53         3.70         1.84         1.59         *         1.66         1.47         0.97         1.05         1.66           *         *         *         *         1.84         1.59         * <t< td=""><td></td><td>2.08</td><td>4.12</td><td>1.06</td><td>3.74</td><td>3.50</td><td>1.87</td><td>1.70</td><td>1.59</td><td>1.05</td><td>0.97</td><td>1.73</td><td>2.23</td></t<>		2.08	4.12	1.06	3.74	3.50	1.87	1.70	1.59	1.05	0.97	1.73	2.23
2.95       0.85       3.00       4.20       1.40       1.31       1.30       1.70         3.960       29.80       50.60       44.99       37.39       41.91       38.16       35.28       28.76       44.26         168.67       189.55       193.98       182.93       178.07       189.75       177.82       155.62       113.50       201.35         15.09       6.03       14.35       3.70       184       1.59       12.97       3.70       1.05       1.05       1.05       1.05         4.67       0.99       3.53       3.70       1.84       1.59       1.46       0.94       1.06       1.65         *       1.82       3.32       9.54       6.78       3.99       3.99       4.50       3.99       4.50         *       1.825       33.31       *       16.20       20.47       18.06       *       *       20.75         *       1.825       33.31       *       16.20       20.47       18.06       *       *       *       *       *       *       *       *       *       *       *       *       *       *       *       *       *       *       *       <		3.14	5.83	1.50	4.98	* (	3.00	2.47	2.15	* 1	* 1	2.52	3.01
39.60         29.80         50.60         44.99         37.39         41.91         38.16         35.28         26.76         44.26           168.67         189.55         193.98         182.93         178.07         189.75         177.82         155.62         113.50         201.35           16.09         3.53         3.70         1.84         1.61         1.47         0.97         1.05         1.66           4.66         0.99         3.52         3.70         1.84         1.61         1.47         0.97         1.05         1.66           4.66         0.99         3.52         3.67         1.84         1.69         1.46         0.94         1.05         1.65           4.66         0.99         3.52         3.67         1.84         1.59         1.46         0.94         1.05         1.65           4.66         0.99         3.52         3.67         1.84         1.59         1.46         0.94         1.06         1.65           4.66         0.99         3.52         3.67         1.89         3.09         *         *         1.65           *         18.25         33.31         *         1.620         20.47		1.59	2.95 *	0.85 *	3.00 2.88	4.20	1.40	1.31	1.30	* *	k *	1.31	1.83
39.60         29.80         50.60         44.99         37.39         41.91         38.16         35.28         26.76         44.26           168.67         189.55         193.98         182.93         178.07         189.75         177.82         155.62         113.50         201.35           4.67         6.03         14.35         *         13.23         12.39         12.97         *         13.00           4.67         0.99         3.52         3.67         1.84         1.61         1.47         0.97         1.05         1.66           4.66         0.99         3.52         3.67         1.84         1.69         1.46         0.94         1.06         1.65           4.66         0.99         3.52         3.67         1.84         1.69         3.99         3.87         3.29         2.94         4.50           4.66         0.99         3.33         3.33         4.37         3.87         3.29         2.94         4.50           5.3         18.25         33.31         4.62         6.04         -         32.92         61.37         *         *         2.94         4.50           5.7         4.92         11.86		3.79	*	*		*	O *	*	*	1	ı	) * -	I
39.60         29.80         50.60         44.99         37.39         41.91         38.16         35.28         26.76         44.26           168.67         189.55         193.98         178.07         189.75         177.82         155.62         113.50         201.35           15.09         6.03         14.35         *         13.23         12.39         12.97         *         13.00           4.66         0.99         3.52         3.67         1.84         1.59         1.46         0.94         1.05         1.66           4.66         0.99         3.52         3.67         1.84         1.59         1.46         0.94         1.05         1.66           *         1.8.25         33.31         *         1.89         3.09         *         *         *         20.75           *         1.8.25         33.31         *         16.20         20.47         18.06         *         *         4.50           *         1.6.26         20.30         61.37         *         *         *         *         *         *         *           *         *         4.92         11.86         10.70         5.98         5.01													
168.67     189.55     193.98     182.93     178.07     189.75     177.82     155.62     113.50     201.35       15.09     6.03     14.35     *     13.23     12.39     12.97     *     13.00       4.67     0.99     3.52     3.70     1.84     1.61     1.47     0.97     1.05     1.66       4.66     0.99     3.52     3.67     1.84     1.59     1.46     0.94     1.06     1.65       5.3     3.32     3.67     1.84     1.59     1.46     0.94     1.06     1.65       *     1.82     3.34     4.37     3.87     3.29     2.94     4.50       *     1.82     3.31     *     1.620     20.47     18.06     *     *     20.75       *     1.825     33.31     *     1.620     20.47     18.06     *     *     *     *     20.75       *     6.03     -     -     *     *     *     *     *     *     *     *     *     *       *     1.297     *     -     -     *     *     *     *     *     *     *     *     *     *     *     *     *     *		41.78	39.60	29.80	20.60	44.99	37.39	41.91	38.16	35.28	26.76	44.26	44 19
6.93       3.52       3.70       1.84       1.61       1.47       0.97       1.05       1.66         4.66       0.99       3.52       3.67       1.84       1.59       1.46       0.94       1.06       1.66         4.66       0.99       3.52       3.67       1.84       1.59       1.46       0.94       1.06       1.66         6.93       3.32       9.54       6.78       3.94       4.37       3.87       3.29       2.94       4.50         7       18.25       33.31       *       16.20       20.47       18.06       *       *       20.75         8       18.25       33.31       *       16.20       20.47       18.06       *       *       20.75         9       18.25       61.37       *		187.90 12.97	168.67	189.55 6.03	193.98	182.93 *	1/8.0/	189.75	177.82	155.62	113.50 *	201.35	183.46
4.66       0.99       3.52       3.67       1.84       1.59       1.46       0.94       1.06       1.65         *       *       *       *       *       *       *       *       *       *       *         6.93       3.32       9.54       6.78       3.94       4.37       3.87       3.29       2.94       4.50         *       18.25       33.31       *       16.20       20.47       18.06       *       *       *       *       4.50       *       *       *       *       *       *       20.75       2       *		2.00	4.67	66 0	3.53	3.70	1.84	1.61	1.47	0.97	1.05	1 66	1 88
6.93 3.32 9.54 6.78 3.94 4.37 3.87 3.29 2.94 4.50  * 18.25 33.31		2.00 2.61	4.66	* 66.0	3.52	3.67	1.84	1.59 3.09	1.46	0.94	1.06	1.65	1.85
6.93 3.32 9.54 6.78 3.94 4.37 3.87 3.29 2.94 4.50 2.75 2.47 18.06													
10.20		4.92	6.93	3.32	9.54	6.78	3.94	4.37	3.87	3.29	2.94	4.50	5.42
-       -       *       *       *       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       *       6.66       -       -       *       6.66       -       -       *       6.66       -       -       6.66       -       -       6.66       -       -       -       6.66       -       -       -       -       6.66       -       -       -       -       -       -       6.66       - <td< td=""><td></td><td>45.01</td><td>I</td><td>C7'01</td><td>53.31 66.04</td><td>Ī</td><td>32.92</td><td>61.37</td><td>00<b>.</b>0</td><td>ı</td><td>1</td><td>* * * * * * * * * * * * * * * * * * *</td><td>* * *</td></td<>		45.01	I	C7'01	53.31 66.04	Ī	32.92	61.37	00 <b>.</b> 0	ı	1	* * * * * * * * * * * * * * * * * * *	* * *
-       -       *       *       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.66       *       *       6.07       *       8.21       4.96       4.07       *       4.07       *       4.07       *       4.07       *       4.07       *       4.58       *       4.58       *       4.58       *       4.58       *       8.21       9.89       *       4.58       *       5.36       *       5.36       *       4.14       *       4.59       *       4.58       *       4.58       *       *       4.58       *       *       4.58       *       *       4.58       *       *       4.58       *       *       4.58       * <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
5.76     4.92     11.86     10.70     5.98     5.01     4.59     *     3.61     4.96       7.83     3.45     10.12     *     4.25     4.08     3.16     3.77     3.45     4.07       8.52     3.38     9.46     10.49     3.53     4.24     3.70     2.35     *     4.58       8.71     3.91     9.89     *     3.83     5.17     4.67     6.06     *     5.36       8.71     4.37     1.41     *     5.03     8.18     7.09     *     9.11     9.11		14.92	*	*	* 1°	*	* 6	* C	* (	l *	*	* (	l 5
7.83 3.45 10.12 10.70 5.30 5.01 4.35 5.03 4.39 7.7 3.45 4.07 7.38 8.52 8.52 8.51 7.83 8.16 8.21 8.39 8.45 8.47 6.06 8.4 7.09 8.10 8.1 8.10 8.10 8.10 8.10 8.10 8.10		9.15 6.27	7 2	. CO F	12.97	10.70	9.30	0,/0	5.86 4.50	· *	9	0.00	0.9
8.52 3.38 9.46 10.49 3.53 4.24 3.70 2.35 * 4.58 8.21 3.91 9.89 * 3.83 5.17 4.67 6.06 * 5.36 * 5.36 * 4.37 11.41 * 5.03 8.18 7.09 * 6.06 * 6.11 7		5.15	7.83	3.45	10.12	> * -	4.25	4.08	3.16	3.77	3.45	4.07	5.60
8.21 3.91 9.89 * 3.83 5.17 4.67 6.06 * 5.36 * 4.67 4.67 * 4.37 11.41 * 5.03 8.18 7.09 *		4.48	8,52	3.38	9.46	10.49	3.53	4.24	3.70	2.35	* 1	4.58	5.09
		4.92 6.74	LZ:8	3.91 4.37	9.89	< *	3.83 7.03	5.17 81.8	4.67 7.09	90'9 *	· *	5.36 9.11	5.39 10.18

See footnotes at end of table.

Table 2. Infant mortality rates, live births, and infant deaths, by selected characteristics and by maternal race and Hispanic origin: United States, 2021—Con.

American Indian or flower Howing Total Alaska Nather Asian Path Record Total Alaska Nather Asian Path Record Indian or flower Howing Total Alaska Nather Asian Black Islander White Total Alaska Nather Asian Path Record Islander White Indian teaths per 1,000 five births in specified group—Con.         Central and Total Alaska Nather Dominican Mexican Path Record Islander Total Alaska Nather Asian Path Record Islander Total Alaska Nather Asia Path Record Islander Total Alaska Nather Asia Path Record Islander Total Alaska Nather Asia Path Record Islander Total Alaska Nath Record Islander Total Alaska Path Path Path Path Path Path Path Pat	American Indian or Alexa Native Havillan Indian or Alexa Native Asian         American American Cuba Indian or Islander White         Total South American Cuba Indian Matter Pacific Total South American Cuba Indian Or Asia South Indian Cuba Indian Or Asia South Indian					Non-Hispanic					Hisp	Hispanic <sup>1</sup>		
5.64         7.54         3.74         11.16         6.10         4.43         4.94         4.16         2.97         3.46         4.88           3.664,292         26,124         3.63         7.03         8.40         4.45         4.11         3.95         3.19         4.88           3.664,292         26,124         213.813         517.889         9.531         1.887.656         885.916         178.067         24.437         33.37         485.127           1.873.416         13.343         110.083         226,210         4,659         919.286         42.286         12.046         15.046         15.046         15.046         15.046         15.046         15.046         16.046	5.64         7.54         3.74         11.16         6.10         4.43         4.94         4.16         2.97         3.46         4.88           3.64.292         2.61.24         2.13.813         517.899         9.531         1.887.656         88.916         177.067         24,437         33.373         485.127           3.664.292         2.61.24         2.13.813         517.899         9.531         1.887.656         88.916         177.067         24,437         33.373         485.127           1.873.416         13.343         110.083         226.5710         4.872         968.370         450.867         17.067         24,437         33.373         485.127           1.03.74         13.74         11.03.730         256.5710         4.872         968.370         450.867         17.07.37         24,881         12.668           2.527         1.02         1.02         2.14         3.86         13.246         43.57         17.06         284.83         17.07         28.824         17.07         28.83         17.07         28.83         17.07         28.84         17.00         28.83         17.29         17.07         28.83         17.29         17.20         28.84         17.29         17.29		Total	American Indian or Alaska Native <sup>2</sup>	Asian	Black	Native Hawaiian or Other Pacific Islander	White	Total <sup>3</sup>	Central and South American	Cuban	Dominican	Mexican	Puerto Rican
5.64         7.54         3.74         11.16         6.10         4.43         4.94         4.16         2.97         3.46         4.88           4.47         **         3.63         7.03         8.40         3.04         4.57         4.16         3.96         3.19         4.89           3.664,292         26,124         213,813         517,889         9,531         1,887,666         88.516         178,067         24,437         33,373         485,127           1,873,416         13,343         110,083         282,679         4,872         988,370         450,807         90,488         12,392         17,073         246,881           1,790,876         12,781         103,730         256,210         4,659         91,286         47,509         12,045         12,302         17,073         246,881           23,327         162         1,063         7,445         79         4,257         8,223         5,534         91,286         17,044         4,99         3,546         1,073         1,075         1,044         2,045         3,445         1,082         3,145         1,082         3,146         3,146         3,146         3,146         3,146         3,146         3,146         3,146	5.64         7.54         3.74         11.16         6.10         4.43         4.94         4.16         2.97         3.46         4.88           3.64.29Z         2.61.24         3.63         3.64         4.57         4.57         3.95         3.96         4.89           3.664.29Z         2.61.24         2.13.813         517.889         9.531         1.887.656         885.916         178.067         24.437         33.373         485.127           1.873.416         13.343         110.083         222.679         4.872         968.370         450.807         24.437         33.373         485.127           1.770.076         2.62.71         4.872         968.370         450.807         90.468         1.707         24.88         2.88         1.687         1.707         24.88         2.88         1.687         1.707         24.88         2.88         1.687         1.707         2.88         2.89         1.698         1.69	oirth					Infant deaths po	er 1,000 live bir	ths in specifie	ed group—Con.				
Live births  Live	1873,416   13,343   110,083   2E2,679   4,872   988,370   490,887   12,392   17,073   246,881   178,087   12,781   10,3730   2E2,679   4,659   919,286   455,109   90,458   12,392   17,073   246,881   17,008		5.64	7.54	3.74 3.63	11.16 7.03	6.10 8.40	4.43 3.04	4.94 4.57	4.16 4.21	2.97 3.95	3.46 3.19	4.88 4.89	5.91 6.46
1873416         13,343         110,083         222,679         4,872         968,370         450,807         90,468         12,392         17,073         246,881         3           1,790,876         12,781         103,730         255,210         4,659         919,286         456,109         87,609         17,045         16,300         238,246         3           23,527         162         1,063         7,445         79         81,223         5,534         912         175         238         2,971           23,527         162         1,063         7,445         79         14,603         8021         175         238         2,971           280,975         2,394         1,684         50,693         869         113,19         1,756         2,455         36,156           280,975         2,394         1,97         86,093         10,027         264,132         52,465         36,156         36,156           206,295         8,203         66,074         14,738         50,693         869         11,477         21,45         36,156           20,46,786         1,356         1,206         2,864         1,006         2,865         1,001         2,246         36,146         <	187341         13.343         110,083         262,679         4,872         968,370         450,807         90,458         12,392         17,073         246,881         3           1,790,876         12,781         10,083         262,679         4,872         968,370         450,891         12,045         16,300         238,246         38           23,877         162         1,063         7,445         79         8,223         5,534         972         175         238,246         391           23,877         162         1,063         7,445         79         8,223         5,534         972         175         238         2,971           23,877         162         1,063         7,445         79         8,223         6,534         972         175         2384         43,96         1,062         1,062         1,062         1,063         1,062	:	3,664,292	26,124	213,813	517,889	9,531	Live b 1,887,656	irths 885,916	178,067	24,437	33,373	485,127	70,729
1,790,876         13,343         110,083         262,679         4,872         968,370         450,807         90,458         12,392         17,073         246,881         3           1,790,876         12,781         103,730         256,210         4,659         919,286         435,109         87,609         17,045         16,300         238,246         3           23,527         162         1,063         7,445         79         8,254         912         175         238         2,971           24,731         249         1,724         8,640         111         14,603         8,021         1,477         211         288         4,369           280,972         1,724         8,640         111         14,603         8,021         1,477         211         288         4,369           280,972         2,194         2,056         148         20,845         10,065         1,477         211         288         4,350           280,975         2,241         3,683         1,005         1,481         29,895         14,568         2,369         1,464         20,995         1,466         3,490         1,469         3,449         20,996         1,469         1,469         1,477	1,700,376         13,345         110,083         262,679         4,872         968,370         450,807         90,458         12,392         17,073         246,881         3           1,700,376         12,781         10,037         255,210         4,659         919,286         455,109         87,609         17,075         246,881         3           23,527         162         1,063         7,446         79         82,23         5,544         97         175         28         2,971           23,527         182         1,024         3,646         141         1,603         134         1,77         218         4,389         2,971           44,746         391         2,134         14,734         3,844         9,17         1,76         2,889         2,971           286,37         1,224         36,60         11         1,603         13,19         1,76         2,889         2,971           286,37         1,224         1,603         3,845         1,005         1,405         3,848         4,40         9,40         1,400         3,849         1,400         3,849         1,400         3,849         1,400         3,849         1,400         3,849         1,400													
103,004         802         4,981         25,641         338         43,671         23,620         4,285         670         975         12,660           23,527         162         1,063         7,445         79         8,223         5,534         912         175         238         2,971           4,746         391         2,194         9,566         148         20,845         10,065         1,896         284         449         5,320           280,975         2,394         14,738         5,6693         889         135,422         66         99,892         13,19         1,756         2455         36,10,891         28,455         6,784         449         5,320           2,046,786         13,581         120,663         889         135,422         56,485         6,784         9487         145,520         14,352         18,984         240,50         16,683         869         17,542         66,993         113,1984         27,455         170,293         28,156         6,784         9487         145,098         1,002,775         99,895         14,352         18,944         270,299         28,166         18,944         270,299         28,166         18,944         270,299         28,171	103.004         802         4,961         25,641         338         43,671         23,620         4,285         670         975         12,660           23,527         1,62         1,64         17         144,603         8,021         1,77         211         288         2,971           34,746         391         1,724         8,640         114         14,603         8,021         1,77         211         288         2,971           20,975         2,394         14,738         50,693         889         135,422         689         1,776         214         28         2,971           20,975         2,394         14,738         50,693         889         135,422         52,485         6,784         449         5,320           1,020,376         2,867         1,701,379         7,93,609         160,233         2,1984         49,87         145,69         36,11         7,86         84,99         1435,40         8,39         1,002         7,127         18,002         1,002         7,246         99,882         14,356         6,784         94,87         145,029         1,002         7,127         18,002         1,002         7,246         99,882         14,356         1,354		1,873,416 1,790,876	13,343 12,781	110,083 103,730	262,679 255,210	4,872 4,659	968,370 919,286	450,807 435,109	90,458 87,609	12,392 12,045	17,073 16,300	246,881 238,246	35,973 34,756
103,004         802         4,981         25,641         338         43,671         23,620         4,285         670         975         12,660           23,527         162         1,063         7,445         79         8,223         5,534         912         175         2,971           23,527         162         1,063         7,445         79         8,640         111         14,065         1,896         2,941         44,369           44,746         391         2,194         9,566         148         10,665         1,896         2,844         449         5,320           280,975         2,394         14,738         50,693         869         135,452         66,993         13,119         1,756         2,455         36,156         36,166	103,004         802         4,881         25,641         338         43,671         23,620         4,286         670         975         12,660           23,527         162         162         7,445         79         8,223         5,534         177         211         288         2,971           44,746         391         1,724         8,640         148         20,845         10,065         1,896         294         449         5,320           44,746         391         1,774         8,640         13,445         16,023         21,984         2495         36,156           280,326         1,283         1,605         1,896         2,485         1,602         23,486         6,784         449         5,320           1,002,365         8,230         160,233         21,984         2,948         5,35,400         5,320           1,002,365         1,386         1,395         1,092,775         492,466         99,882         14,357         145,940         2,0023           1,002,365         1,395         1,092,775         492,466         99,882         14,357         14,540         2,0023         3,440         4,44         2,0023           1,002,775         1,00	veeks)												
23.527         162         1,063         7,445         79         8,223         5,534         912         175         238         2,971           34,731         249         1,724         8,640         111         14,663         8,021         1,776         211         288         4,369           34,731         2,394         1,724         8,640         111         14,663         8,021         1,776         2145         36,156           280,975         2,394         14,728         50,693         869         185,452         66,993         13,119         1,756         2,455         36,156           3,268,342         22,813         193,884         40,0079         8,275         1,701,379         793,509         160,233         21,984         29,895         45,546         446,508         45,546         47,726         47,508         45,546         47,726         47,508         45,546         47,726         48,947         47,508         48,140         57,208         48,546         47,268         48,140         57,208         48,546         48,58         47,268         48,48         47,508         48,546         47,568         48,48         47,568         48,48         47,568         48,48         47	23,527         162         1,063         7,445         79         8,223         5,534         912         175         288         2,971           34,731         249         1,724         8,640         111         14,663         8,021         1,477         211         288         2,971           280,975         2,194         9,566         148         2,0845         66,993         13,119         1,756         2,455         36,156           280,975         2,394         14,738         50,693         869         13,619         1,756         2,455         36,156           3268,342         22,813         193,884         440,079         8,275         1,701,379         793,609         160,233         21,984         29,895         45,540           1,022,345         66,074         167,006         2,863         510,021         26,485         6,784         49,487         145,088         143,400         144,099         14,670         86,188         15,248         6,784         20,485         45,487         145,088         14,694         20,093         14,670         86,188         14,670         86,188         16,984         14,948         20,048         44,868         14,670         86,188		103,004	802	4,981	25,641	338	43,671	23,620	4,285	029	975	12,660	2,354
34,731         249         1,724         8,640         111         14,663         8,021         1,477         211         288         4,389           24,746         391         2,194         9,556         148         20,845         10,065         1,896         284         449         5,320           280,975         2,934         14,738         50,693         869         135,452         66,939         10,023         21,884         29,485         36,156           1,052,935         8,230         66,074         167,006         2,863         510,021         264,132         52,485         6,784         9,487         145,088         20,168         1,082         1,082         1,082         1,082         1,082         1,082         1,082         1,082         1,086         848         1,464         20,093         1,083         1,086         848         1,464         20,043         1,086         848         1,464         20,043         1,086         8,089         1,085         8,089         1,086         848         1,464         20,043         1,086         8,049         1,121         1,144         2,044         1,086         8,049         1,144         2,044         1,086         8,048         1,	34,731         249         1,724         8,640         111         14,663         8,021         1477         211         288         4,369           280,975         2,194         9,556         148         20,845         10,065         1,896         284         449         5,320           280,975         2,394         14,738         50,689         8,275         1,701,379         793,509         160,233         21,984         29,895         435,400         6           1,022,935         8,230         66,074         167,006         2,863         510,021         264,132         52,485         6,784         29,895         435,400         6           2,046,786         13,581         120,653         2,55,016         4,995         1,002,132         21,485         6,784         20,485         145,085         23,485         6,784         20,485         145,085         23,400         6         71,298         143,522         18,944         20,099         38         1,724         496         13,286         20,729         35         11,208         20,099         36,712         36,712         36,712         36,712         36,911         38,914         49,98         14,508         11,496         20,889		23,527	162	1,063	7,445	6/	8,223	5,534	912	175	238	2,971	623
44,746         391         2,194         9,556         148         20,845         10,065         1,896         284         449         5,320           280,975         2,394         14,738         50,693         869         12,452         66,993         13,194         1,756         2,455         36,156           3268,326         22,813         16,074         40,079         8275         1,001,37         26,485         6,784         9,487         145,088           1,052,935         8,230         66,074         167,006         2,863         510,021         264,132         52,485         6,784         9,487         145,088         20,043         166,093         16,093         16,284         9,487         145,088         20,043         166,093         16,092         16,092         16,093         16,1093         16,092         16,092	44.746         391         2,194         9,556         148         20,845         10,065         1,896         284         449         5,320           280,375         2,394         14,738         50,693         13,119         1,756         2,455         36,156           3,286,375         2,394         14,738         50,693         869         13,119         1,756         2,455         36,156           1,062,335         8,230         66,074         167,006         2,863         510,21         264,132         52,485         6,784         9,487         145,088         20,456         9,885         1,894         20,389         455,089         15,089         1,894         27,198         45,040         9,487         145,088         2,455         36,118         7,786         848         1,464         20,029         36,118         2,466         99,882         14,332         18,944         270,299         36,118         2,466         99,882         14,332         18,944         270,299         18,678         1,478         28,488         1,464         20,043         17,278         8,688         1,298         1,298         297         22         23         13         199         11,298         2,062         1	:	34,731	249	1,724	8,640	111	14,603	8,021	1,477	211	288	4,369	292
280,975         2,394         14,738         50,693         869         135,422         66,993         13,119         1,756         2,455         36,156           3,268,342         2,2,813         193,854         440,079         8,275         1,701,379         793,509         160,233         21,984         29,895         435,400         6           1,062,735         66,74         167,006         2,863         1,092,775         492,485         6,748         29,885         435,400         6           1,046,786         13,581         120,653         255,016         4,995         1,092,775         492,485         1,464         20,043         36,11         7,866         848         1,464         20,049         36,911         7,866         848         1,464         20,049         37,22         35         1,29         36,911         7,866         848         1,464         20,049         36,712         496         1,218         1,29         20,92         36,911         7,866         848         1,464         20,049         36,712         496         1,39         4,64         20,043         36,712         36,712         36,712         496         1,39         4,64         20,043         36,712         36,712	280,975         2,394         14,738         50,683         869         135,422         66,993         131,19         1,756         2,455         36,156         36,156         36,156         36,156         36,156         36,156         36,156         36,156         36,167         36,167         36,167         36,167         36,170         37,263,329         100,233         21,984         29,895         435,400         6           2,046,786         13,581         120,653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           2,046,786         13,681         120,653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           1,68 621         1,002         7,127         1,085         28         36,911         7,866         848         1,444         270,299         3         1,298         29,889         1,298         495,917         496         133         2         1,444         270,299         3         1,298         297         22         35         1,12         1,144         270,493         1,12         1,144         270,493		44,746	391	2,194	9,556	148	20,845	10,065	1,896	284	449	5,320	964
3.268,342         2.2,813         193,854         440,079         8.275         1,701,379         783,509         160,233         21,984         29,895         435,400         6           1,052,935         8,230         66,074         167,006         2,863         510,021         264,132         52,485         6,784         9,487         145,058         2,029         3         145,058         2,045,06         2,863         1,002         7,127         146,057         417         98,583         36,911         7,867         848         1,464         270,299         3         160,043         270,299         3         1,696         280,043         270,298         220,043         36,712         20,043         36,712         149,012         21,298         29,86         148         1,464         270,299         3         1,298         29,98         20,043         36,712         199         172         1,085         2,092         496         133         2         20,043         36,712         199         172         496         133         2         20,043         36,712         199         189         132,995         69,511         13,103         1,487         36,712         36,712         25,612         1,712         19	3.268,342         2.2813         193,884         440,079         8.275         1,701,379         793,509         160,233         21,984         29,885         435,400         6           1,065,2935         8,230         66,074         167,006         2,863         1,092,775         492,466         98,882         14,332         14,944         20,029         3           1,067,805         2,863         1,092,775         492,466         98,882         14,332         18,444         20,029         3           1,087         1,085         2,8         5,339         1,298         297         22         35         13         199           2,992         50         66         17,4         1,085         28         5,339         1,298         297         22         35         712           2,992         50         66         17,24         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           313,152         2,121         19,798         76,202         889         13,492         11,568<		280,975	2,394	14,738	50,693	869	135,452	66,993	13,119	1,756	2,455	36,156	5,812
1,052,935         8,230         66,074         167,006         2,863         510,021         264,132         52,485         6,784         9,487         145,058         2           2,046,786         13,581         120,653         255,016         4,995         1,092,466         99,882         14,352         18,944         270,299         3           1,046,786         13,581         120,653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           1,02         7,12         18,057         41         98,583         36,911         7,866         848         1,464         20,043         35         20,043         35         35         20,043         35         35         20,043         35         35         35         36         1,298         76,202         889         132,996         69,511         13,103         1,814         2,877         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712         36,712 <td< td=""><td>1,052,935         8,230         66,074         167,006         2,863         510,021         224,132         52,485         6,784         9,487         145,058         2,0043           2,046,786         13,581         120,0653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           1,046,786         1,127         1,085         289         1,298         29,885         1,395         1,298         20,043         35         11,215         11,215         496         1,33         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         199         199         133         18         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,11         11,11</td><td></td><td>3,268,342</td><td>22,813</td><td>193,854</td><td>440,079</td><td>8,275</td><td>1,701,379</td><td>793,509</td><td>160,233</td><td>21,984</td><td>29,895</td><td>435,400</td><td>62,423</td></td<>	1,052,935         8,230         66,074         167,006         2,863         510,021         224,132         52,485         6,784         9,487         145,058         2,0043           2,046,786         13,581         120,0653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           1,046,786         1,127         1,085         289         1,298         29,885         1,395         1,298         20,043         35         11,215         11,215         496         1,33         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         199         199         133         18         199         11,215         496         133         2         13         199         11,215         496         133         2         13         199         11,11         11,11		3,268,342	22,813	193,854	440,079	8,275	1,701,379	793,509	160,233	21,984	29,895	435,400	62,423
2,046,786         13,581         120,653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           1,686         1,102         7,127         18,057         417         98,583         36,911         7,866         848         1,464         20,043         3712           8,979         65         172         1,085         28         5,939         1,298         297         22         35         712           2,992         50         66         391         21         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,588         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,1101         1,467         2,867         36,18           31,4354         23,598         193,049         48,6384         1,754,370	2,046,786         13,581         120,653         255,016         4,995         1,092,775         492,466         99,882         14,352         18,944         270,299         3           1,68,621         1,002         7,127         18,057         417         98,583         36,911         7,866         848         1,464         20,043         3           2,992         65         174         1,085         28         132,995         69,511         1,313         1,814         2,877         36,712           313,152         2,121         19,728         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         17,543         11,101         1,467         2,877         36,712           261,575         332         2,564         15,378         164         1,754,370         816,228         10,002         347         511         6,094           261,575         339         193,049         438,687         8,453         1,732,099         808,466         164,901         22,222         30,489         448,384           3,561         401         332	:	1,052,935	8,230	66,074	167,006	2,863	510,021	264,132	52,485	6,784	9,487	145,058	21,233
168,621         1,002         7,127         18,057         417         98,583         36,911         7,866         848         1,464         20,043           8,979         65         174         1,085         28         5,939         1,298         297         22         35         712           2,992         50         66         391         21         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,866         30,618           3,14,354         23,598         193,049         441,561         8,640         1,754,370         816,282         164,901         22,622         30,489         448,384           35,601         401         934         2,874         187         22,271	168,621         1,002         7,127         18,057         417         98,583         36,911         7,866         848         1,464         20,043           8,979         65         174         1,085         28         5,939         1,298         297         22         35         712           2,992         50         66         391         21         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618         30,489         448,384         6           3,54,34,956         23,999         193,049         486,384         1,752,309         808,466         163,527         22,404         30,203         4,633         1           3,561         401         32,844		2,046,786	13,581	120,653	255,016	4,995	1,092,775	492,466	99,882	14,352	18,944	270,299	38,226
8,979         65         174         1,085         28         5,939         1,298         297         22         35         712           2,992         50         66         391         21         1,215         496         133         22         35         712           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,789         7,254         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,083         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384           3,540,435         23,68         193,049         448,584         1,772,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         2,874         187         22,271         7	8,979         65         174         1,085         28         5,939         1,298         297         22         35         712           2,992         50         66         391         21         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           51,575         33,49,965         23,694         17,54,370         816,228         164,901         22,622         30,489         448,384         6           3,344,354         23,598         193,443         1,732,099         808,466         163,527         22,404         30,203         448,3751         6           35,601         401         934         2,874         177         63         1,374         218         2,22		168,621	1,002	7,127	18,057	417	98,583	36,911	7,866	848	1,464	20,043	2,964
2,992         50         66         391         21         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,556         23,99         193,349         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         32         2,874         187         22,271         7,762         1,374         218         2,864         4,633           1,185         4         32 <td< td=""><td>2,992         50         66         391         21         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,083         441,561         8,640         1,754,370         816,228         164,901         22,627         30,489         448,384           3,349,955         23,999         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         446,3751         6           3,5601         401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           1,185         4         32         126</td><td></td><td>8,979</td><td>92</td><td>174</td><td>1,085</td><td>28</td><td>5,939</td><td>1,298</td><td>297</td><td>22</td><td>35</td><td>712</td><td>94</td></td<>	2,992         50         66         391         21         1,215         496         133         5         13         199           313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,083         441,561         8,640         1,754,370         816,228         164,901         22,627         30,489         448,384           3,349,955         23,999         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         446,3751         6           3,5601         401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           1,185         4         32         126		8,979	92	174	1,085	28	5,939	1,298	297	22	35	712	94
313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,314,354         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384           3,314,354         23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         4,633           1,185         4         32         26,408	313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         322         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,883         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384           3,314,354         23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         2,86         4,633           1,185         4         32         126         2         291         1,774         218         28         4,633           3,547,198         25,408         20,878         496,418 <t< td=""><td>:</td><td>2,992</td><td>20</td><td>99</td><td>391</td><td>21</td><td>1,215</td><td>496</td><td>133</td><td>2</td><td>13</td><td>199</td><td>46</td></t<>	:	2,992	20	99	391	21	1,215	496	133	2	13	199	46
313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,664         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         2,86         4,633           1,185         4         32         126         2         291         177         63         1         7         31           3,547,198         25,408         20,873	313,152         2,121         19,798         76,202         889         132,995         69,511         13,103         1,814         2,877         36,712           51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         1,87         22,271         7,762         1,374         218         4,633           1,185         4         32         126         2,271         7,762         1,374         218         4,633           1,185         4         32         1,824,456         863,961         174,117 <t< td=""><td>s)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	s)												
51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           1,185         4         32         126         2         291         177         63         1         7         31           3,547,198         25,408         20,808,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           3,547,198         7/3 </td <td>51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,98         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           1,185         4         32         126         2         291         177         63         1         7         31           3,547,198         25,408         20,8738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           114,161         713</td> <td></td> <td>313,152</td> <td>2,121</td> <td>19,798</td> <td>76,202</td> <td>889</td> <td>132,995</td> <td>69,511</td> <td>13,103</td> <td>1,814</td> <td>2,877</td> <td>36,712</td> <td>6,947</td>	51,575         332         2,564         15,378         164         19,492         11,568         2,002         347         511         6,094           261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,98         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           1,185         4         32         126         2         291         177         63         1         7         31           3,547,198         25,408         20,8738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           114,161         713		313,152	2,121	19,798	76,202	889	132,995	69,511	13,103	1,814	2,877	36,712	6,947
261,577         1,789         17,234         60,824         725         113,503         57,943         11,101         1,467         2,366         30,618           3,349,955         23,999         193,983         441,561         8,640         1,754,370         816,228         164,901         22,622         30,489         448,384         6           3,314,354         23,99         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           35,601         401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           1,185         4         32         126         2         291         177         63         1         7         31           3,547,198         25,408         208,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           3,547,198         25,408         20,807         23         21,047         238         61,438         21,401         3,877         707         990         11,230	261,577     1,789     17,234     60,824     725     113,503     57,943     11,101     1,467     2,366     30,618       3,349,955     23,999     193,983     441,561     8,640     1,754,370     816,228     164,901     22,622     30,489     448,384     6       3,314,354     23,989     193,049     438,687     8,453     1,732,099     808,466     163,527     22,404     30,203     443,751     6       35,601     401     934     2,874     187     22,271     7,762     1,374     218     286     4,633       1,185     4     32     126     2     291     177     63     1     7     31       3,547,198     25,408     208,738     496,418     9,293     1,824,456     863,961     174,117     23,703     32,344     473,586     6       114,161     713     4,985     21,047     238     61,438     21,401     3,877     707     990     11,230       2,933     3     90     424     -     1,762     554     73     27     39     311		51,575	332	2,564	15,378	164	19,492	11,568	2,002	347	511	6,094	1,270
3,349,955 23,999 193,983 441,561 8,640 1,754,370 816,228 164,901 22,622 30,489 448,384 6 6 3,314,354 23,598 193,049 438,687 8,453 1,732,099 808,466 163,527 22,404 30,203 443,751 6 35,601 401 934 2,874 187 22,271 7,762 1,374 218 286 4,633 4,633 1,185 4 32 126 2 291 177 63 1 7 31 2 31 31 4,185 25,408 208,738 496,418 9,293 1,824,456 863,961 174,117 23,703 32,344 473,586 6 114,161 713 4,985 21,047 238 61,438 21,401 3,877 707 990 11,230	3,349,955 23,999 193,983 441,561 8,640 1,754,370 816,228 164,901 22,622 30,489 448,384 6 6 3,314,354 23,598 193,049 438,687 8,453 1,732,099 808,466 163,527 22,404 30,203 443,751 6 4 35,601 401 934 2,874 187 22,271 7,762 1,374 218 286 4,633 4,633 1,185 4 32 126 2 291 177 63 1 7 374 218 286 4,633 3 3 3 3 4 473,586 6 114,161 713 4,985 21,047 238 61,438 21,401 3,877 707 990 11,230 3 11 1,230 2,933 3 99 424 473,586 5 11,762 554 73 27 39 311		261,577	1,789	17,234	60,824	725	113,503	57,943	11,101	1,467	2,366	30,618	2,677
23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           4         32         126         2         291         177         63         1         7         31           25,408         208,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           713         4,985         21,047         238         61,438         21,401         3,877         707         990         11,230	23,598         193,049         438,687         8,453         1,732,099         808,466         163,527         22,404         30,203         443,751         6           401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           4         32         126         2         291         177         63         1         7         31           25,408         208,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           713         4,985         21,047         238         61,438         21,401         3,877         707         990         11,230           3         424         -         1,762         554         73         27         39         311		3,349,955	23,999	193,983	441,561	8,640	1,754,370	816,228	164,901	22,622	30,489	448,384	63,767
401 934 2,874 187 22,271 7,762 1,374 218 286 4,633 4 32 126 2 291 177 63 1 7 31 25,408 208,738 496,418 9,293 1,824,456 863,961 174,117 23,703 32,344 473,586 6 7 31 77 63 61,438 21,401 3,877 707 990 11,230	401         934         2,874         187         22,271         7,762         1,374         218         286         4,633           4         32         126         2         291         177         63         1         7         31           25,408         208,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           713         4,985         21,047         238         61,438         21,401         3,877         707         990         11,230           3         424         -         1,762         554         73         27         39         311		3,314,354	23,598	193,049	438,687	8,453	1,732,099	808,466	163,527	22,404	30,203	443,751	63,297
4         32         126         2         291         177         63         1         7         31           25,408         208,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           713         4,985         21,047         238         61,438         21,401         3,877         707         990         11,230	4     32     126     2     291     177     63     1     7     31       25,408     208,738     496,418     9,293     1,824,456     863,961     174,117     23,703     32,344     473,586     6       713     4,985     21,047     238     61,438     21,401     3,877     707     990     11,230       3     90     424     -     1,762     554     73     27     39     311		35,601	401	934	2,874	187	22,271	7,762	1,374	218	286	4,633	470
25,408 208,738 496,418 9,293 1,824,456 863,961 174,117 23,703 32,344 473,586 6 713 4,985 21,047 238 61,438 21,401 3,877 707 990 11,230	25,408     208,738     496,418     9,293     1,824,456     863,961     174,117     23,703     32,344     473,586     6       713     4,985     21,047     238     61,438     21,401     3,877     707     990     11,230       3     90     424     -     1,762     554     73     27     39     311		1,185	4	32	126	2	291	177	63	-	7	31	15
25,408         208,738         496,418         9,293         1,824,456         863,961         174,117         23,703         32,344         473,586         6           713         4,985         21,047         238         61,438         21,401         3,877         707         990         11,230           11,230         11,230         11,230         11,230         11,230         11,230	25,408 208,738 496,418 9,293 1,824,456 863,961 174,117 23,703 32,344 473,586 6 713 4,985 21,047 238 61,438 21,401 3,877 707 990 11,230 3 90 424 – 1,762 554 73 27 39 311													
114,161 713 4,985 21,047 238 61,438 21,401 3,877 707 990 11,230	114,161 713 4,985 21,047 238 61,438 21,401 3,877 707 990 11,230 2,933 3 90 424 – 1,762 554 73 27 39 311	:	3,547,198	25,408	208,738	496,418	9,293	1,824,456	863,961	174,117	23,703	32,344	473,586	68,492
	2,933 3 90 424 - 1,762 554 73 27 39 311		114,161	713	4,985	21,047	238	61,438	21,401	3,877	707	066	11,230	2,188

Table 2. Infant mortality rates, live births, and infant deaths, by selected characteristics and by maternal race and Hispanic origin: United States, 2021—Con.

				Non-Hispanic					Hisp	Hispanic <sup>1</sup>		
		American Indian or		20	Native Hawaiian or Other Pacific			Central and				
Characteristic	Total	Alaska Native <sup>2</sup>	Asian	Black	Islander	White	Total <sup>3</sup>	South American	Cuban	Dominican	Mexican	Puerto Rican
Age of mother						Live births—Con.	ıs—Con.					
Under 15	1,877	26	12	506	5	449	770	239	9	6	373	44
15–19.	146,973	2,117	971	31,231	447	50,203	55,263	11,264	292	1,351	31,391	4,218
20–24	648,484	6,939	10,166	117,698	2,337	286,140	199,773	33,801	3,653	6,378	115,837	17,871
25–29.	1,023,989	7,537	42,848	148,309	2,810	532,001	256,844	46,490	6,623	9,855	145,546	21,081
30–34	1,115,055	2,987	88,988	130,788	2,383	633,212	220,530	47,794	8,495	9,479	114,584	17,285
35–39	592,179	2,925	57,569	70,073	1,218	321,036	120,329	29,736	4,290	4,925	61,159	8,168
40–54	135,735	593	13,259	19,284	331	64,615	32,407	8,743	805	1,376	16,237	2,062
Mother's place of birth												
Born in the 50 states or												
District of Columbia	2,876,302	25,732	51,007	431,805	3,444	1,764,989	493,747	37,716	10,758	10,692	312,594	50,799
Born elsewhere	780,007	362	162,126	84,213	5,953	119,903	390,938	140,176	13,668	22,599	172,082	19,653
Not stated	7,983	30	089	1,871	134	2,764	1,231	175	Ξ	82	451	277
						Infant deaths	leaths					
Total	19,928	195	788	5,463	74	8,236	4,246	748	87	109	2,380	428
Age at death												
Total neonatal.	12.797	100	594	3.291	41	5.251	2.899	521	89	99	1.633	278
Early neonatal (under 7 days)	10,082		463	2,583	32	4,111	2,303	416	45	26	1,305	221
Late neonatal (7–27 days)	2,715		131	208	6	1,140	296	105	22	12	327	22
Postneonatal	7,131		193	2,172	32	2,984	1,347	227	19	41	747	151
Sex												
Male	10.930	101	443	3 035	43	4 514	2 303	423	49	58	1 248	244
Female	8,998	95	345	2,428	30	3,722	1,943	325	37	20	1,132	185
Period of gestation (weeks)												
Less than 34	10,618	65	508	3,189	36	3,917	2,384	391	26	64	1,332	250
Less than 28	8,323	47	419	2,600	27	2,899	1,898	306	47	22	1,048	213
28–31	1,429	10	22	373	4	631	308	51	∞	က	176	25
32–33	998	8	32	216	5	386	178	34	-	9	108	12
34–36	2,278	33	65	222	4	1,052	481	93	9	16	278	38
37–41	6,812	94	205	1,648	29	3,189	1,352	254	23	59	754	139
37–38	3,310	48	66	831	8	1,531	652	113	12	15	365	64
39–40	3,248	40	103	764	21	1,533	645	130	9	12	355	70
41	254	5	က	52	1	126	55	Ξ.	-	2	34	4
42 or more	34	5	5	4	-	9	က	•	1	ı	7	1
Not stated	186	•	∞	64	က	09	25	∞	-	i	13	-

Table 2. Infant mortality rates, live births, and infant deaths, by selected characteristics and by maternal race and Hispanic origin: United States, 2021—Con.

			_	Non-Hispanic					Hisp	Hispanic <sup>1</sup>		
Characteristic	Total	American Indian or Alaska Native <sup>2</sup>	Asian	Black	Native Hawaiian or Other Pacific Islander	White	Total <sup>3</sup>	Central and South American	Cuban	Dominican	Mexican	Puerto Rican
Birthweight (grams)						Infant deaths—Con.	ns—Con.					
Less than 2,500	13,084	84	290	3,856	40	4,973	2,913	200	64	77	1,625	307
Less than 1,500	9,691	56	486	2,983	30	3,471	2,195	356	54	28	1,227	233
1,500–2,499	3,393	27	104	873	10	1,502	718	144	6	19	398	74
2,500 or more	6,710	112	192	1,558	32	3,226	1,312	242	22	32	744	120
2,500–4,499	6,617	110	191	1,542	31	3,184	1,288	238	21	32	732	117
4,500 or more	93	2	_	16	-	42	24	4	-	ı	12	က
Not stated	134	1	9	49	-	36	21	9	-	I	10	2
Plurality												
Single births	17,439	176	694	4,734	63	7,182	3,774	674	78	95	2,129	371
Twin births	2,356	19	91	701	10	966	438	20	œ	14	233	48
Triplet and higher-order births	132	I	က	28	Į	28	34	4	ı	ı	18	6
Age of mother												
Under 15	28	I	I	10	I	7	8	က	ı	I	4	I
15–19	1,345	13	9	405	2	467	370	99	2	6	209	46
20–24	4,455	40	20	1,396	25	1,711	1,000	155	우	23	574	#
25–29	5,275	59	148	1,501	12	2,263	1,047	147	22	34	592	118
30–34	4,999	51	301	1,237	25	2,235	934	177	20	19	525	88
35–39	2,911	24	225	693	7	1,228	622	139	56	16	328	44
40–54	915	7	28	220	2	325	265	62	က	7	148	21
Mother's place of birth												
Born in the 50 states or	7000		č	000	č	7 040	007	1	ç	70	4 607	C
District of Columbia	10,223	194	- 60 - 60 - 60 - 60 - 60 - 60 - 60 - 60	4,820	Z	7,818	7,438	15/	32	3/	1,52,1	300
Not otated	404,0	-	000	28C 60	) 2	504	1,70/	090	<b>5</b>	7/	140	121
Not stated	777	I	D)	00	7	SC	17	-	ı	I	=	-

<sup>\*</sup> Figure does not meet National Center for Health Statistics standards of reliability or precision; based on fewer than 20 deaths in the numerator.

 <sup>–</sup> Quantity zero.
 ¹People of Hispanic origin may be of any race.
 ²Includes Aleut and Eskimo infants.
 ³Includes other and unknown Hispanic origin not stated and not shown separately.

NOTES: Infant deaths are weighted so numbers may not add to totals due to rounding. Not-stated responses were included in totals but not distributed among groups for rate computations. Race and Hispanic origin are reported separately on birth certificates. Race categories are consistent with the 1997 Office of Management and Budget standards. People of Hispanic origin may be of any race. SOURCE: National Statistics, National Vital Statistics, National Vital Statistics System, linked birth/infant death file.

Table 3. Infant deaths, percentage of deaths, and infant mortality rates, by five leading causes of infant death: United States, 2010-2021

	Conge	Congenital malformations (Q00–Q99)	tions	Short gestation and not elsewhere cla	ion and low bii here classifiec	rth weight, d (P07)	Sud sy	sudden infant deatl syndrome (R95)	ıth	Accidents	ccidents (unintentional (V01–X59)	injuries)	Matern	aternal complications pregnancy (P01)	ıs of
Year	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
2021	3,990	20.0	108.9	2,957	14.8	80.7	1,458	7.3	39.8	1,300	6.5	35.5	1,113	5.6	30.4
2020	4,047	20.7	112.0	3,152	16.1	87.2	1,386	7.1	38.4	1,192	6.1	33.0	1,115	2.7	30.9
2019	4,313	20.6	115.1	3,460	16.5	92.3	1,251	0.9	33.4	1,264	0.9	33.7	1,250	0.9	33.4
2018	4,501	20.9	118.7	3,683	17.1	97.1	1,331	6.2	35.1	1,169	5.4	30.8	1,371	6.4	36.2
2017	4,596	20.6	119.2	3,757	16.8	97.4	1,360	6.1	35.3	1,313	5.9	34.1	1,436	6.4	37.2
2016	4,823	20.8	122.2	3,926	17.0	99.5	1,498	6.5	38.0	1,217	5.3	30.8	1,407	6.1	35.7
2015	4,847	20.7	121.8	4,087	17.4	102.7	1,567	2'9	39.4	1,289	5.5	32.4	1,527	6.5	38.4
2014	4,754	20.5	119.2	4,172	18.0	104.6	1,541	9.9	38.6	1,163	5.0	29.2	1,580	8.9	39.6
2013	4,778	20.4	121.5	4,213	18.0	107.1	1,561	2'9	39.7	1,150	4.9	29.2	1,597	8.9	40.6
2012	4,967	21.0	125.7	4,214	17.8	106.6	1,676	7.1	42.4	1,163	4.9	29.4	1,518	6.4	38.4
2011	5,016	20.9	126.9	4,115	17.1	104.1	1,905	7.9	48.2	1,167	4.9	29.5	1,598	6.7	40.4
2010	5,115	20.8	127.9	4,151	16.9	103.8	2,058	8.4	51.5	1,107	4.5	27.7	1,563	6.4	39.1

NOTES: The five leading causes of death were the same from 2010–2020, but ranking changed in 2020 compared with previous years. Rate is defined as infant deaths per 100,000 live births. SOURCE: National Center for Health Statistics, National Vital Statistics System, linked birth/infant death file.

Table 4. Infant deaths and mortality rates for the five leading causes of infant death, by maternal race and Hispanic origin: United States, 2021

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

									Non-Hispanic	spanic					
Cause of death		All races		Am( A	American Indian or Alaska Native <sup>1</sup>	ן or 1		Asian <sup>2</sup>			Black			White	
(based on <i>International Classification</i> of Diseases, 10th Revision)	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number		Rank	Number	Rate
All causes	:	19,928	543.8	:	195	746.4	:	788	368.5	:	5,463	1,054.9	:	8,236	436.3
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	-	3,990	108.9	-	35	134.0	5	146	68.3	5	710	137.1	-	1,929	102.2
Disoluer's related to silori gestation and low biful weight, not elsewhere classified (P07) Sludden infant death syndrome (R95)	2 6	2,957	39.8	4 0	12 28	* 107.2	۲ ۲	149	69.7	<b></b> €5	1,017	196.4	2 6	961	50.9
.)(۷0	4	1,300	35.5	၊က	20	9.92	. 9	22	10.3	4	408	78.8	4	595	31.5
Newborn affected by maternal complications of pregnancy(P01)	2	1,113	30.4	7	4	*	က	22	26.7	2	346	8.99	Ŋ	369	19.5
Cause of death		Total Hispanic <sup>3</sup>	3	Central a	Central and South American	merican		Mexican		_	Puerto Rican				
(baseu oli miernauonai crassincauon of Diseases, 10th Revision)	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate			
All causes	;	4,246	479.3	:	748	420.1	:	2,380	490.6	÷	428	605.1			
Congenital malformations, deformations and chromosomal abnormalities(Q00–Q99)	-	1,016	114.7	-	205	115.1	<del></del>	604	124.5	5	74	104.6			
weight, not elsewhere classified (P07)	0.4	637	71.9	2 5	107	60.1	2 4	352	72.6	<b>←</b> c	77	108.9			
Accidents (unintentional injuries) (V01–X59)	5 4	196	22.1	5 4	33 23	12.9	0.4	113	23.3	വ	30 20	28.3			
Newborn affected by maternal complications of pregnancy(P01)	က	255	28.8	က	41	23.0	က	141	29.1	4	27	38.2			

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

\* Figure does not meet Mational Center for Health Statistics standards of reliability or precision; based on fewer than 20 death, ord and membranes (P02) was the fifth leading cause of death, with six deaths.

\*For infants born to Asian non-Hispanic women, Newborn affected by complications of placenta, cord and membranes (P02) was the fourth leading cause of death, with 39 deaths and a rate of 18.2, and sepsis was the fifth leading cause of death, with 34 deaths and a rate of 15.9.

\*People of Hispanic origin may be of any race.

NOTES: Reliable cause-specific infant mortality rates cannot be computed for infants of Native Hawaiian or Other Pacific Islander non-Hispanic, Cuban, or Dominican women because of the small number of infant deaths. Race and Hispanic origin are reported separately on birth certificates. Race categories are consistent with the 1997 Office of Management and Budget standards. People of Hispanic origin may be of any race.

SOURCE: National Center for Health Statistics, National Vital Statistics System, linked birth/infant death file.

Table 5. Infant mortality rate: United States and each state, 2021 [By place of residence]

[By place of residence]			
Area	Rate <sup>1</sup>	Infant deaths	Live births
United States <sup>2</sup>	5.44	19,928	3,664,292
Alabama	7.56	439	58,054
Alaska	7.37	69	9,367
Arizona	5.47	426	77,916
Arkansas	8.59	309	35,965
California	4.07	1,713	420,608
	4.07	314	62,949
Colorado			· ·
Connecticut	4.65	166	35,670
Delaware	4.77	50	10,482
District of Columbia	6.81	59	8,660
Florida	5.90	1,275	216,260
Georgia	6.25	776	124,073
Hawaii	4.67	73	15,620
Idaho	5.13	115	22,427
Illinois	5.62	743	132,189
Indiana	6.75	540	79,946
Iowa	3.99	147	36,835
Kansas	5.30	184	34,705
Kentucky	6.15	321	52,214
Louisiana	7.24	416	57,437
Maine	5.00	60	12,006
Maryland	5.99	409	68,285
Massachusetts	3.23	223	69,137
Michigan	6.22	653	104,980
Minnesota	4.83	311	64,425
Mississippi	9.39	330	35,156
Missouri	5.85	406	69,453
Montana	4.90	55	11,231
Nebraska	5.49	135	24,609
Nevada	5.76	194	33,686
New Hampshire	3.76	50	12,625
New Jersey	3.57	362	101,497
New Mexico	4.77	102	21,391
New York	4.16	876	210,742
North Carolina	6.72	809	120,466
North Dakota	2.77	28	10,112
Ohio	7.06	916	129,791
Oklahoma	7.13	345	48,410
Oregon	3.79	155	40,914
Pennsylvania	5.37	712	132,622
Rhode Island	4.30	45	10,464
South Carolina	7.26	415	57,185
South Dakota	6.07	69	11,369
Tennessee	6.18	505	81,717
Texas	5.29	1,977	373,594
Utah	4.58	214	46,712
Vermont	*	17	5,384
Virginia	5.96	571	95,825
Washington	4.36	366	83,911
West Virginia	6.80	117	17,198
Wisconsin	5.36	331	61,781
Wyoming	5.45	34	6,237
			,
Puerto Rico	6.94	134	19,304
Guam	15.64	41	2,622

<sup>\*</sup> Estimate does not meet National Center for Health Statistics standards of reliability. 
¹Defined as infant deaths per 1,000 live births. 
²Does not include Puerto Rico or Guam.

 $SOURCE: National\ Center\ for\ Health\ Statistics,\ National\ Vital\ Statistics\ System,\ linked\ birth/infant\ death\ file.$ 

### **Technical Notes**

### Data source and 2003 revision

Information on the data source for the linked birth/infant death file is available elsewhere (1). Additionally, further information on the 2003 revision of the birth certificate is available (3); see also the U.S. Standard Certificate of Live Birth (9).

# Weighting

In 2021, a record weight was added to the U.S. linked file to compensate for the 1.1% of infant death records that could not be linked to their corresponding birth certificates. The percentage of records linked varied by registration area, ranging from 95.4% through 100.0% (Table). The number of infant deaths in the linked file for the 50 states and District of Columbia was weighted to equal the sum of the linked plus unlinked infant deaths by state of occurrence of birth and age at death (under 7 days, 7–27 days, and 28 days to under 1 year). The addition of the weight reduced the potential for bias in comparing infant mortality rates by maternal and infant characteristics.

The 2021 linked file initially included 19,944 infant death records. Of these records, 19,728 were linked; 216 were unlinked because corresponding birth certificates could not be identified. The 19,944 linked and unlinked records contained 16 records of infants whose mothers' usual place of residence was outside of the United States; these records were excluded from linked file analyses for a weighted total of 19,928 infant deaths by place of residence for 2021.

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

The overall infant mortality rate of 5.44 from the 2021 period linked file is the same as that from the 2021 vital statistics mortality file (5.44) (10). The number of infant deaths in the linked file (19,728) differs slightly from the number in the mortality file (19,920) (10). Differences in numbers of infant deaths between the two data sources are primarily due to geographic coverage differences. For the vital statistics mortality file, all deaths occurring in the 50 states and the District of Columbia are included regardless of the place of birth of the infant. In contrast, to be included in the U.S. linked file, both the birth and death must occur in the 50 states or the District of Columbia (the territory linked file is a separate file). Weighting of the linked file also may contribute to small differences in numbers and rates by specific variables between these two data sets.

# Period of gestation

Beginning with the 2014 data year, the National Center for Health Statistics (NCHS) transitioned to a new standard for estimating the gestational age of the newborn. The new measure—the obstetric estimate of gestation at delivery—replaces the measure based on the date of the last normal menses (11). Accordingly, gestational age data shown in this report are based on the obstetric estimate of gestation at delivery. National

Table. Percentage of infant deaths linked to their corresponding birth records, by state of occurrence of death: United States and each state, 2021

Area	Percent linked by state of occurrence of death
Jnited States <sup>1</sup>	98,9
Alabama	100.0
Alaska	100.0
Arizona	99.3
Arkansas	99.7
California	97.9
Colorado	99.4
Connecticut	100.0
Delaware	95.6
District of Columbia	98.4
Florida	99.9
Georgia	100.0
Hawaii.	98.6
Idaho	100.0
Illinois.	99.9
Indiana	98.0
lowa	100.0
Kansas	100.0
Kentucky	98.4
Louisiana	100.0
Maine	100.0
Maryland	100.0
Massachusetts	99.6
Michigan	99.8
Minnesota	100.0
Mississippi	100.0
Missouri	99.2
Montana	100.0
Nebraska	98.6
Nevada	98.9
New Hampshire	100.0
New Jersey	98.0
New Mexico	97.7
New York	98.9
New York City	99.5
North Carolina	98.8
North Dakota	100.0
Ohio	99.5
Oklahoma	100.0
Oregon	98.8
Pennsylvania	98.1
Rhode Island	100.0
South Carolina	00.7
	99.7
South Dakota	100.0
Tennessee	100.0
Texas	95.4
Utah	100.0
Vermont	100.0
Virginia	98.9
Washington	100.0
West Virginia	97.4
18/:	99.7
Wisconsin	100.0

<sup>1</sup>Excludes data for Puerto Rico, U.S. Virgin Islands, and Guam.

SOURCE: National Center for Health Statistics, National Vital Statistics System, linked birth/infant death file.

data based on obstetric estimate of gestation at delivery data are available only from data year 2007 forward. Information on and discussion of the reasons for the change, as well as a detailed comparison of the two measures, are presented elsewhere (11).

## Sex, birthweight, plurality, and nativity

Detailed definitions and more information on sex, birthweight, plurality, and nativity are available elsewhere (1,3).

### Cause-of-death classification

The mortality statistics presented in this report were compiled in accordance with World Health Organization regulations, which specify that member nations classify and code causes of death according to the current revision of the *International Statistical Classification of Diseases* (ICD). ICD provides the basic guidance to code and classify causes of death, details disease classification, and supplies definitions, tabulation lists, the format of the death certificate, and the rules for coding cause of death. Cause-of-death data presented in this report were coded by procedures outlined in annual issues of the *NCHS Instruction Manual* (12,13).

In this report, tabulations of cause-of-death statistics are based solely on the underlying cause of death. Generally, more medical information is reported on death certificates than is directly reflected in the underlying cause of death. This is captured in NCHS multiple cause-of-death statistics (14,15).

# Tabulation lists and cause-of-death ranking

The cause-of-death rankings for ICD–10 are based on the "List of 130 Selected Causes of Infant Death." The tabulation lists and rules for ranking leading causes of death are published in the NCHS Instruction Manual, Part 9, ICD–10 Cause-of-death Lists for Tabulating Mortality Statistics (16).

# **Computation of rates**

Information on and discussion of computation of rates (1) is also available from the "User Guide to the 2010 Natality Public Use File" at: https://ftp.cdc.gov/pub/Health\_Statistics/NCHS/Dataset\_Documentation/DVS/natality/UserGuide2010.pdf.

# Random variation in infant mortality rates

For information and discussion on random variation and significance testing for linked data (1), see also the "User Guide to the 2010 Natality Public Use File" at: https://ftp.cdc.gov/pub/Health\_Statistics/NCHS/Dataset\_Documentation/DVS/natality/UserGuide2010.pdf.

# Availability of linked file

Linked file data are available for download from the Vital Statistics Online Data Portal: https://www.cdc.gov/nchs/data\_access/vitalstatsonline.htm. Linked period file data may also be accessed via the Centers for Disease Control and Prevention's WONDER database, available from: https://wonder.cdc.gov/lbd.

html. Beginning with 2005, the public-use file no longer includes geographic detail; such files are available upon special request (see the NCHS Division of Vital Statistics data release policy at: https://www.cdc.gov/nchs/nvss/nvss-restricted-data.htm). Data are also available in issues of *Vital and Health Statistics, Series 20; National Vital Statistics Reports*; and *NCHS Data Briefs* from the NCHS website: https://www.cdc.gov/nchs/products/index.htm.

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