CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

All A-Z Topics

Search | All CDC

National Center for Health Statistics

CDC > NCHS > National Vital Statistics System > Vital Statistics Rapid Release > Surveillance Activities

- National Vital Statistics System
- Coronavirus Disease (COVID-19) Death Data and Reporting Guidance
- About NVSS
- What's New
- Newsletters
- Revisions of the U.S. Standard Certificates and Reports
- Training and Instructional Materials
- Birth Data
- Mortality Data
- Fetal Death Data
- Linked Birth and Infant Death Data
- Vital Statistics Rapid Release
  - Mortality – Quarterly Provisional Estimates
  - Natality – Quarterly Provisional Estimates
  - Infant Mortality – Quarterly Provisional Estimates
  - Reports
  - Surveillance Activities
    - Coronavirus 2019 (COVID-19) Surveillance
    - Provisional Drug Overdose Death Counts
    - FluView Interactive
  - State and National Provisional Control Counts
- Restricted-use Vital Statistics Data
- e-Vital Standards Initiative
- Bridged Race Categories
- Modernizing the National Vital Statistics System
- Marriages and Divorces
- National Maternal and Infant Health Survey
- National Mortality Followback Survey
- Publications and Information Products

Related Sites
- Surveys and Data Collection Systems
- Vital Statistics Online
- National Death Index

NVSS National Vital Statistics System

Provisional Death Counts for Coronavirus Disease (COVID-19)

Note: Provisional death counts are based on death certificate data received and coded by the National Center for Health Statistics as of April 28, 2020. Death counts are delayed and may differ from other published sources (see Technical Notes). Counts will be updated periodically. Additional information will be added to this site as available.

- **This page has daily updates of national provisional counts for deaths involving COVID-19 in the United States by week, by age, by sex, by place of death and by jurisdiction of residence.**
- **For weekly state-specific updates by demographic and geographic characteristics, including race and Hispanic origin, visit our Weekly Updates page.**

The provisional counts for coronavirus disease (COVID-19) deaths are based on a current flow of mortality data in the National Vital Statistics System. National provisional counts include deaths occurring within the 50 states and the District of Columbia that have been received and coded as of the date specified. It is important to note that it can take several weeks for death records to be submitted to National Center for Health Statistics (NCHS), processed, coded, and tabulated. Therefore, the data shown on this page may be incomplete, and will likely not include all deaths that occurred during a given time period, especially for the more recent time periods. Death counts for earlier weeks are continually revised and may increase or decrease as new and updated death certificate data are received from the states by NCHS. COVID-19 death counts shown here may differ from other published sources, as data currently are lagged by an average of 1–2 weeks.

The provisional data presented on this page include the weekly provisional count of deaths in the United States due to COVID-19, deaths from all causes and percent of expected deaths (i.e., number of deaths received over number of deaths expected based on data from previous years), pneumonia deaths (excluding pneumonia deaths involving influenza), pneumonia deaths involving COVID-19, influenza deaths, and deaths involving pneumonia, influenza, or COVID-19; (a) by week ending date, (b) by age at death, (c) by sex, (d) by place of death, and (e) by specific jurisdictions. Future updates to this release may include additional detail such as demographic characteristics, additional causes of death (e.g., acute respiratory distress syndrome or other comorbidities), or estimates based on models that account for reporting delays to generate more accurate predicted provisional counts.

Pneumonia and influenza deaths are included to provide context for understanding the completeness of COVID-19 mortality data and related trends. Deaths due to COVID-19 may be misclassified as pneumonia or influenza deaths in the absence of positive test results, and these conditions may appear on death certificates as a comorbid condition. Thus, increases in pneumonia or influenza deaths may be an indicator of excess COVID-19-related mortality. Additionally, estimates of completeness for influenza or pneumonia deaths may provide context for understanding the lag in reporting for COVID-19 deaths, as it is anticipated that these causes would have similar delays in reporting, processing, and coding. However, it is possible that reporting of COVID-19 mortality may be slower or faster than for other causes of death, and that the delay may change over time. Analyses to better understand and quantify reporting delays for COVID-19 deaths and related causes are underway. The list of causes provided in these tables may expand in future releases as more data are received, and other potentially comorbid conditions are determined.

Download Datasets

- CSV Format
- Data.CDC.gov (Export to CSV, JSON, XLS, XML)[7]

Table 1. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by week ending date, United States. Week ending 2/1/2020 to 4/25/2020.*

Data as of April 28, 2020

Week ending date in which the death occurred	COVID-19 Deaths (U07.1)[1]	Deaths from All Causes	Percent of Expected Deaths[2]	Pneumonia Deaths (J12.0–J18.9)[3]	Deaths with Pneumonia and COVID-19 (J12.0–J18.9 and U07.1)[1]	Influenza Deaths (J09–J11)[4]	Deaths with Pneumonia, Influenza, or COVID-19 (U07.1 or J09–J18.9)[5]
Total Deaths	31,587	693,128	94	60,340	14,124	5,748	82,800
2/1/2020	0	57,207	96	3,683	0	468	4,151
2/8/2020	0	57,380	96	3,651	0	493	4,145
2/15/2020	0	56,635	96	3,673	0	513	4,186
2/22/2020	0	56,574	97	3,547	0	534	4,081
2/29/2020	5	56,605	99	3,599	3	615	4,216
3/7/2020	25	56,119	97	3,711	14	583	4,304
3/14/2020	49	53,838	94	3,666	25	575	4,264
3/21/2020	484	53,751	95	4,124	224	495	4,873
3/28/2020	2,640	56,992	102	5,567	1,215	401	7,347
4/4/2020	7,793	63,231	113	8,537	3,759	424	12,786
4/11/2020	11,468	63,811	115	9,256	5,097	419	15,732
4/18/2020	8,045	47,227	88	6,091	3,339	201	10,841
4/25/2020	1,078	13,758	26	1,235	448	27	1,874

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period. The United States population, based on 2018 postcensal estimates from the U.S. Census Bureau, is 327,167,434 (9).

*Data during this period are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction, age, and cause of death.

[1] Deaths with confirmed or presumed COVID-19, coded to ICD–10 code U07.1

[2] Percent of expected deaths is the number of deaths for all causes for this week in 2020 compared to the average number across the same week in 2017–2019. Previous analyses of 2015–2016 provisional data completeness have found that completeness is lower in the first few weeks following the date of death (<25%), and then increases over time such that data are generally at least 75% complete within 8 weeks of when the death occurred (8).

[3] Pneumonia death counts exclude pneumonia deaths involving influenza.

[4] Influenza death counts include deaths with pneumonia or COVID-19 also listed as a cause of death.

[5] Deaths with confirmed or presumed COVID-19, Pneumonia, or Influenza, coded to ICD–10 codes U07.1 or J09–J18.9.

Table 2. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by age group, United States. Week ending 2/1/2020 to 4/25/2020.*

Data as of April 28, 2020

Age group	COVID-19 Deaths (U07.1)[1]	Deaths from All Causes	Pneumonia Deaths (J12.0–J18.9)[2]	Deaths with Pneumonia and COVID-19 (J12.0–J18.9 and U07.1)[2]	Influenza Deaths (J09–J11)[3]	Population[4]
All ages	31,587	693,128	60,340	14,124	5,748	327,167,434
Under 1 year	4	3,593	34	1	11	3,848,208
1–4 years	2	701	32	2	30	15,962,067
5–14 years	2	1,036	36	0	40	41,075,169
15–24 years	33	6,134	128	14	40	42,970,800
25–34 years	242	13,034	429	102	129	45,697,774
35–44 years	599	18,803	963	236	205	41,277,888
45–54 years	1,649	36,432	2,498	683	502	41,631,699
55–64 years	3,970	87,693	7,306	1,748	1,060	42,272,636
65–74 years	6,841	136,383	12,537	3,025	1,254	30,492,316
75–84 years	8,607	171,467	16,653	3,955	1,285	15,394,374
85 years and over	9,638	217,852	19,724	4,358	1,192	6,544,503

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period.

*Data during this period are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction, age, and cause of death.

[1] Deaths with confirmed or presumed COVID-19, coded to ICD–10 code U07.1.

[2] Pneumonia death counts exclude pneumonia deaths involving influenza.

[3] Influenza death counts include deaths with pneumonia or COVID-19 also listed as a cause of death.

[4] Population is based on 2018 postcensal estimates from the U.S. Census Bureau (9)

Table 3. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by sex, United States. Week ending 2/1/2020 to 4/25/2020.*

Data as of April 28, 2020

Sex	COVID-19 Deaths (U07.1)[1]	Deaths from All Causes	Pneumonia Deaths (J12.0–J18.9)[2]	Deaths with Pneumonia and COVID-19 (J12.0–J18.9 and U07.1)[1]	Influenza Deaths (J09–J11)[3]
Total deaths	31,587	693,128	60,340	14,124	5,748
Male	18,026	357,679	32,308	8,114	2,945
Female	13,560	335,426	28,031	6,009	2,803
Unknown	1	23	1	1	0

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period.

*Data during this period are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction, age, and cause of death.

[1] Deaths with confirmed or presumed COVID-19, coded to ICD–10 code U07.1.

[2] Pneumonia death counts exclude pneumonia deaths involving influenza.

[3] Influenza death counts include deaths with pneumonia or COVID-19 also listed as a cause of death.

Table 4. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by place of death, United States. Week ending 2/1/2020 to 4/25/2020.*

Data as of April 28, 2020

Place of death	COVID-19 Deaths (U07.1)[1]	Deaths from All Causes	Pneumonia Deaths (J12.0–J18.9)[2]	Deaths with Pneumonia and COVID-19 (J12.0–J18.9 and U07.1)[1]	Influenza Deaths (J09–J11)[3]
Total	31,587	693,128	60,340	14,124	5,748
Healthcare setting, inpatient	21,574	199,898	41,350	11,184	3,579
Healthcare setting, outpatient or emergency room	1,553	41,116	2,325	580	188
Healthcare setting, dead on arrival	41	1,844	48	11	11
Decedent's home	2,262	223,375	4,508	317	1,161
Hospice facility	395	48,786	2,995	190	287
Nursing home/long term care facility	5,428	134,705	8,151	1,749	442
Other	329	43,275	947	90	80
Place of death unknown	5	129	16	3	0

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period.

*Data during this period are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction, age, and cause of death.

[1] Deaths with confirmed or presumed COVID-19, coded to ICD–10 code U07.1.

[2] Pneumonia death counts exclude pneumonia deaths involving influenza.

[3] Influenza death counts include deaths with pneumonia or COVID-19 also listed as a cause of death.

Table 5. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by jurisdiction of occurrence, United States. Week ending 2/1/2020 to 4/25/2020.*

Data as of April 28, 2020

Jurisdiction of Occurrence	COVID-19 Deaths (U07.1)[1]	Deaths from All Causes	Percent of Expected Deaths[2]	Pneumonia Deaths (J12.0–J18.9)[3]	Deaths with Pneumonia and COVID-19 (J12.0–J18.9 and U07.1)[1]	Influenza Deaths (J09–J11)[4]
United States[5]	31,587	693,128	94	60,340	14,124	5,748
Alabama	146	12,017	88	746	41	83
Alaska	-	795	74	37	-	-
Arizona	193	15,507	99	1,096	101	104
Arkansas	26	7,587	92	508	-	67
California	1,014	67,372	95	5,751	580	548
Colorado	482	10,439	102	919	292	90
Connecticut	16	479	6	35	-	-
Delaware	28	1,958	81	109	14	14
District of Columbia	49	1,402	89	154	49	-
Florida	678	52,462	96	3,746	372	280
Georgia	383	18,875	87	1,228	185	92
Hawaii	-	2,766	92	183	-	18
Idaho	42	3,526	95	192	12	24
Illinois	974	27,879	101	2,483	555	169
Indiana	365	16,124	93	1,440	203	119
Iowa	68	7,246	92	511	16	80
Kansas	78	6,382	92	440	34	85
Kentucky	98	10,413	83	930	59	85
Louisiana	758	10,823	92	796	320	60
Maine	35	3,734	98	311	10	30
Maryland	549	13,261	102	1,181	238	109
Massachusetts	1,215	16,470	105	1,774	470	148
Michigan	1,601	25,857	102	2,436	761	219
Minnesota	135	11,021	97	805	51	112
Mississippi	164	7,841	96	709	81	51
Missouri	155	14,688	87	924	57	169
Montana	-	2,248	84	132	-	32
Nebraska	21	3,971	90	306	-	27
Nevada	124	6,234	93	515	98	35
New Hampshire	47	3,110	97	214	16	29
New Jersey	4,157	24,785	127	3,757	2,100	107
New Mexico	28	4,068	84	287	20	25
New York[6]	4,555	31,159	119	4,895	2,361	187
New York City	9,961	29,292	209	5,640	3,638	813
North Carolina	0	10,727	43	639	0	127
North Dakota	-	1,546	85	140	-	18
Ohio	171	26,464	82	1,502	74	225
Oklahoma	89	8,398	81	742	37	90
Oregon	66	8,107	86	433	30	58
Pennsylvania	1,388	28,073	78	2,164	553	176
Rhode Island	47	2,126	78	114	11	23
South Carolina	121	12,436	98	744	48	91
South Dakota	-	1,898	89	149	-	21
Tennessee	127	17,900	93	1,343	62	119
Texas	347	47,230	90	3,497	135	310
Utah	27	4,643	95	276	11	38
Vermont	36	1,521	100	105	-	14
Virginia	257	17,235	97	939	80	102
Washington	527	13,708	92	1,159	281	98
West Virginia	-	4,862	82	349	0	56
Wisconsin	198	13,357	98	770	32	144
Wyoming	-	1,106	96	85	0	-
Puerto Rico	57	4,956	66	701	28	28

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period. Data cells with counts greater than zero and less than 10 have been suppressed in accordance with NCHS confidentiality standards.

*Data during this period are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction, age, and cause of death.

[1] Deaths with confirmed or presumed COVID-19, coded to ICD–10 code U07.1.

[2] Percent of expected deaths is the number of deaths for all causes for this week in 2020 compared to the average number across the same week in 2017–2019.

[3] Pneumonia death counts exclude pneumonia deaths involving influenza.

[4] Influenza death counts include deaths with pneumonia or COVID-19 also listed as a cause of death.

[5] United States death count includes the 50 states, plus the District of Columbia and New York City.

[6] Excludes New York City.

Technical Notes

Comparing data in this report to other sources

Provisional death counts in this report will not match counts in other sources, such as media reports or numbers from county health departments. Death data, once received and processed by National Center for Health Statistics (NCHS), are tabulated by the state or jurisdiction in which the death occurred. Death counts are not tabulated by the decedent's state of residence. COVID-19 deaths may also be classified or defined differently in various reporting and surveillance systems. Death counts in this report include laboratory confirmed COVID-19 deaths and clinically confirmed COVID-19 deaths. This includes deaths where COVID-19 is listed as a "presumed" or "probable" cause. Some local and state health departments only report laboratory-confirmed COVID-19 deaths. This may partly account for differences between NCHS reported death counts and death counts reported in other sources. Provisional counts reported here track approximately 1–2 weeks behind other published data sources on the number of COVID-19 deaths in the U.S. (1,2,3).

Nature and sources of data

Provisional death counts are based on death records received and processed by NCHS as of a specified cutoff date. National provisional counts include deaths occurring within the 50 states and the District of Columbia. NCHS receives the death records from state vital registration offices through the Vital Statistics Cooperative Program. Provisional data are based on available records that meet certain data quality criteria at the time of analysis and may not include all deaths that occurred during a given time period especially for more recent periods. Estimates of completeness are provided. Therefore, they should not be considered comparable with final data and are subject to change.

Cause-of-death classification and definition of deaths

Mortality statistics are compiled in accordance with World Health Organization (WHO) regulations specifying that WHO member nations classify and code causes of death with the current revision of the International Statistical Classification of Diseases and Related Health Problems (ICD). ICD provides the basic guidance used in virtually all countries to code and classify causes of death. It provides not only disease, injury, and poisoning categories but also the rules used to select the single underlying cause of death for tabulation from the several diagnoses that may be reported on a single death certificate, as well as definitions, tabulation lists, the format of the death certificate, and regulations on use of the classification. Causes of death for data presented in this report were coded according to ICD guidelines described in annual issues of Part 2a of the NCHS Instruction Manual (4).

Coronavirus disease deaths are identified using the ICD–10 code U07.1. Deaths are coded to U07.1 when coronavirus disease 2019 or COVID-19 are reported as a cause that contributed to death on the death certificate. These can include laboratory confirmed cases, as well as cases without laboratory confirmation. If the certifier suspects COVID-19 or determines it was likely (e.g., the circumstances were compelling within a reasonable degree of certainty), they can report COVID-19 as "probable" or "presumed" on the death certificate (5, 6).

Pneumonia deaths are identified using underlying cause-of-death codes from the 10th Revision of ICD (ICD–10): J12–J18, excluding deaths that involve influenza (J09–J11). Influenza deaths are identified from the ICD–10 codes J09–J11, and include deaths with pneumonia or COVID-19 listed as a contributing cause of death.

Estimated completeness of data

Provisional data are incomplete, and the level of completeness varies by jurisdiction, week, decedent's age, and cause of death. Until data for a calendar year are finalized, typically in December of the following year, completeness of provisional data cannot be determined. However, completeness can be estimated in a variety of ways. Surveillance systems that rely on weekly monitoring of provisional mortality data, such as CDC's FluView Interactive mortality surveillance (7), estimate completeness by comparing the count of deaths in a given week of the current year to the average count of deaths in that same week of the previous 3 years. These estimates can be generated for specific causes of death, jurisdictions, and age groups, and updated on a weekly or daily basis. For the purposes of COVID-19 surveillance, completeness is approximated by comparing the provisional number of deaths received to the number of expected deaths based on prior years data. Percent of expected deaths provided in this data release are based on the total count of deaths in the most recent weeks of the current year, compared with an average across the same weeks of the three previous years (i.e., 2017–2019). These estimates of completeness are calculated by week, jurisdiction of occurrence, and age group.

It is important to note that the true levels of completeness are unknown, and the estimates provided here are only a proxy. In cases where mortality rates are increasing rapidly, particularly when excess deaths due to a novel cause are occurring, values for completeness for recent weeks may exceed 100% even when NCHS has yet to receive all available data. Conversely, if the number of deaths was elevated in prior years due to a severe flu season, for example, estimated completeness in the most recent weeks may be lower than the true value. To avoid relying too heavily on comparisons to a single week of a single prior year, estimates of completeness included in this release are based on the average counts in a given week across 3 prior years (e.g., the 12th week of 2017, 2018, and 2019).

Percent of expected deaths provided in this release are shown to provide context for interpreting provisional counts of COVID-19 deaths and deaths due to related causes. Where estimated values are high (e.g., greater than 100%), this suggests that mortality is higher in 2020 relative to the same weeks of prior years. Where estimated values of completeness are low, this could indicate that data are incomplete due to delayed reporting, or that mortality is lower in 2020 compared with prior years, or some combination of these factors.

Delays in reporting

Provisional counts of deaths are underestimated relative to final counts. This is due to the many steps involved in reporting death certificate data. When a death occurs, a certifier (e.g. physician, medical examiner or coroner) will complete the death certificate with the underlying cause of death and any contributing causes of death. In some cases, laboratory tests or autopsy results may be required to determine the cause of death. Completed death certificate are sent to the state vital records office and then to NCHS for cause of death coding. At NCHS, about 80% of deaths are automatically processed and coded within seconds, but 20% of deaths need to manually coded, or coded by a person. Deaths involving certain conditions such as influenza and pneumonia are more likely to require manual coding than other causes of death. Furthermore, all deaths with COVID-19 are manually coded. Death certificates are typically manually coded within 7 days of receipt, although the coding delay can grow if there is a large increase in the number of deaths. As a result, underestimation of the number of deaths may be greater for certain causes of death than others.

Previous analyses of provisional data completeness from 2015 suggested that mortality data is approximately 27% complete within 2 weeks, 54% complete within 4 weeks, and at least 75% complete within 8 weeks of when the death occurred (8). Pneumonia deaths are 26% complete within 2 weeks, 52% complete within 4 weeks, and 72% complete within 8 weeks (unpublished). Data timeliness has improved in recent years, and current timeliness is likely higher than published rates.

Place of Death

Place of death noted on the death certificate is determined by where the death was pronounced and on the physical location where the of the death occurred (10). Healthcare setting includes hospitals, clinics, medical facilities, or other licensed institutions providing diagnostic and therapeutic services by medical staff. Decedent's home includes independent living units such as private homes, apartments, bungalows, and cottages. Hospice facility refers to a licensed institution providing hospice care (e.g., palliative and supportive care for the dying), but not to hospice care that might be provided in other settings, such as a patient's home. Nursing home/long-term care facility refers to a facility that is not a hospital but provides patient care beyond custodial care, such as a nursing home, skilled nursing facility, a long-term care facility, convalescent care facility, intermediate care facility, or residential care facility. Other includes such locations as a licensed ambulatory/surgical center, birthing center, physician's office, prison ward, public building, worksite, outdoor area, orphanage, or facilities offering housing and custodial care but not patient care (e.g., board and care home, group home, custodial care facility, foster home).

Comparing deaths from different states

Death counts should not be compared across states. Data timeliness varies by state. Some states report deaths on a daily basis, while other states report deaths weekly or monthly. Furthermore, health departments and state vital record offices may be affected by COVID-19 related response activities, which could further delay death certificate reporting. Currently, 63% of U.S. deaths are reported within 10 days of the date of death, but there is variation within states. Twenty states report over 75% of deaths within the first 10 days, while three states report fewer than 1% of deaths within 10 days.

Why are pneumonia and influenza deaths included in this report?

Pneumonia and influenza deaths are included to provide context for understanding the completeness of COVID-19 mortality data and related trends. Deaths due to COVID-19 may be misclassified as pneumonia or influenza deaths in the absence of positive test results, and pneumonia or influenza may appear on death certificates as a comorbid condition. Additionally, COVID-19 symptoms can be similar to influenza-like illness, thus deaths may be misclassified as influenza. Thus, increases in pneumonia and influenza deaths may be an indicator of excess COVID-19-related mortality. Additionally, estimates of completeness for pneumonia and influenza deaths may provide context for understanding the lag in reporting for COVID-19 deaths, as it is anticipated that these causes would have similar delays in reporting, processing, and coding.

Source

NCHS, National Vital Statistics System. Estimates are based on provisional data.

References

1. Dong E, Du H, Gardner L. An interactive web-based dashboard to track COVID-19 in real time. Lancet Infect Dis. 2020. Available from: https://doi.org/10.1016/S1473-3099(20)30120-1.
2. Wu J, McCann A, Collins K, Harris R, Huang J, Almukhtar S. Coronavirus in the U.S.: Latest map and case count. New York Times. https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html.
3. National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases. Cases in the US. Centers for Disease Control and Prevention. 2020.
4. National Vital Statistics System. Instructions for classifying the underlying cause of death. In: NCHS instruction manual; Part 2a. Published annually.
5. National Center for Health Statistics. Guidance for certifying deaths due to COVID–19. Hyattsville, MD. 2020. Available from: https://www.cdc.gov/nchs/data/nvss/vsrg/vsrg03-508.pdf.
6. National Center for Health Statistics. New ICD code introduced for COVID-19 deaths. Hyattsville, MD. 2020. Available from: https://www.cdc.gov/nchs/data/nvss/coronavirus/Alert-2-New-ICD-code-introduced-for-COVID-19-deaths.pdf
7. National Center for Immunization and Respiratory Diseases (NCIRD). CDC's FluView Interactive. Centers for Disease Control and Prevention. Available from: https://www.cdc.gov/flu/weekly/index.htm.
8. Spencer MR, Ahmad F. Timeliness of death certificate data for mortality surveillance and provisional estimates. National Center for Health Statistics. 2016.
9. U.S. Census Bureau. Annual estimates of the resident population by single year of age and sex for the United States: April 1, 2010 to July 1, 2018. Available from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2018_PEPSYASEXN&prodType=table.
10. Centers for Disease Control and Prevention. Medical Examiners' and Coroners' handbook on death registration and Fetal death reporting. Hyattsville, Maryland: DHHS Publication; 2003. PHS2003-1110

Page last reviewed: April 28, 2020
Content source: National Center for Health Statistics