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 17, 2020. Death counts are delayed and incomplete relative to the date of death because Vital Statistics Records are updated periodically. Additional information will be added to the site as available.

- **This page has daily updates of national provisional counts for deaths involving COVID-19 by state of residence. Data are by week, by sex, by place of death and by probable or confirmed COVID-19.**
- **For weekly state-specific updates by demographic and geographic characteristics, including sex and Hispanic origin, see Weekly Updates by Jurisdiction.**

The provisional counts for coronavirus disease (COVID-19) deaths are based on a current flow of mortality data received by the National Center for Health Statistics (NCHS) from jurisdictions occurring within the United States that have been received and coded to allow for production of the data specified. It is important to note that it can take several weeks for death records to be received and coded by the NCHS and for the data to be included in this dataset.

Therefore, the counts 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 updated and may increase or decrease as more death certificates for COVID-19 are received from the states by NCHS. COVID-19 death counts shown here may differ from other COVID-19 death counts reported by other agencies for the reasons described in the FAQs for COVID-19 Deaths.

The provisional data presented on this page include the weekly provisional counts 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 and coded to date of death expected based on data from previous years) for all deaths (excluding presumptive deaths involving influenza), presumptive deaths involving COVID-19, and deaths from pneumonia, influenza, or COVID-19 (PIC). Data are shown by week, by sex, by place of death, and by probable or confirmed COVID-19. Deaths in this release may include probable and confirmed COVID-19 deaths, demographic characteristics, additional causes of death (e.g., acute respiratory distress syndrome or other viral pneumonia), and demographic information that may be reporting delays to generate more accurate provisional counts.

Pneumonia and influenza deaths are included to provide context for understanding the seriousness of COVID-19 mortality data and related trends. Deaths from pneumonia, influenza, or COVID-19 may be misclassified as pneumonia or influenza deaths in the absence of positive test results, and these deaths may be coded to other causes of death in the absence of COVID-19 testing. Misclassification of influenza deaths may be an issue for deaths occurring in the beginning of the pandemic, additionally, of complexities for influenza or pneumonia deaths may provide context for understanding the lag in COVID-19 deaths, as it may take more time than usual to collect and report all cause of death data, including pneumonia, and influenza deaths. It is possible that emerging COVID-19 mortality may be slower or faster than other causes of death, and that the delay may change over time. Analyses to better understand and correctly interpret trends for COVID-19 deaths and related causes of death will continue. The list of causes provided in these tables may expand in future releases as more data are available and more analyses of data quality and completeness are developed.

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- Save Zip: gov.cdc.nchs.vsu.covid_19_sex_and_age_and_state.zip
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Table 1. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by week ending date, United States. Week ending 2/15/2020 to 4/11/2020.*

Data as of April 17, 2020

Week ending date	COVID-19 deaths (U07.1)	Deaths from all causes	Percent of expected deaths	Pneumonia deaths	Pneumonia and COVID-19 deaths	Influenza deaths (J09-J11)	Pneumonia, influenza, or COVID-19 deaths (PIC)
All ages	15,748	56,585	95	45,019	5,350	3,228	107,147,644
2/15/2020	0	54,591	92	44,661	0	3,227	107,147,644
2/22/2020	0	56,149	95	3,639	0	454	107,147,644
2/29/2020	0	56,149	95	3,639	0	454	107,147,644
3/7/2020	0	56,149	95	3,639	0	454	107,147,644
3/14/2020	0	56,149	95	3,639	0	454	107,147,644
3/21/2020	0	56,836	96	3,974	3	586	107,147,647
3/28/2020	0	56,836	96	3,974	3	586	107,147,647
4/4/2020	44	56,784	93	3,996	22	596	107,147,666
4/11/2020	15,704	56,585	95	45,019	5,350	3,228	107,147,644

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Table 2. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by age group, United States. Week ending 2/15/2020 to 4/11/2020.*

Data as of April 17, 2020

Age group	COVID-19 deaths (U07.1)	Deaths from all causes	Percent of expected deaths	Pneumonia deaths	Deaths with Pneumonia and COVID-19	Deaths with Pneumonia, COVID-19 and Influenza	Influenza deaths (J09-J11)	Pneumonia, Influenza, or COVID-19 deaths (PIC)
All ages	15,748	56,585	95	45,019	5,350	5,528	3,228	107,147,644
Under 25 years	13	1,264	104	1	0	13	5	42,979,845
25-34 years	42	2,164	93	2	0	42	7	42,979,884
35-44 years	206	3,966	93	19	0	206	36	42,979,968
45-54 years	1,175	7,674	94	164	0	1,175	146	42,980,907
55-64 years	2,919	14,642	93	5,459	0	2,919	1,110	43,982,579
65-74 years	3,276	14,148	95	11,420	0	3,276	1,611	46,985,875
75-84 years	3,693	10,766	94	14,991	0	3,693	1,091	52,963,503
85 years and over	4,411	15,951	93	13,932	0	4,411	1,567	59,107,000

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Influenza is based on ICD-10 underlying cause of death codes J09-J11.
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Source: National Center for Health Statistics - Mortality Surveillance System
Pneumonia deaths exclude deaths with COVID-19 listed as a cause of death.
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Source: National Center for Health Statistics - Mortality Surveillance System

Table 3. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by sex, United States. Week ending 2/15/2020 to 4/11/2020.*

Data as of April 17, 2020

Sex	COVID-19 deaths (U07.1)	Deaths from all causes	Percent of expected deaths	Pneumonia deaths	Deaths with Pneumonia and COVID-19	Influenza deaths (J09-J11)	Pneumonia, Influenza, or COVID-19 deaths (PIC)
Total	15,748	56,585	95	45,019	5,350	3,228	107,147,644
Male	7,923	30,021	23.0%	23,896	2,691	1,691	57,000,000
Female	7,825	26,564	21.0%	21,123	2,659	1,537	50,000,000
Unknown	0	20	0	0	0	0	147,644

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Source: National Center for Health Statistics - Mortality Surveillance System

Table 4. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by place of death, United States. Week ending 2/15/2020 to 4/11/2020.*

Data as of April 17, 2020

Place of death	COVID-19 deaths (U07.1)	Deaths from all causes	Percent of expected deaths	Pneumonia deaths	Deaths with Pneumonia and COVID-19	Influenza deaths (J09-J11)
Total	15,748	56,585	95	45,019	5,350	3,228
Healthcare setting, inpatient	9,365	34,008	93.46	34,570	3,730	2,411
Healthcare setting, outpatient or emergency room	786	34,970	1.73%	151	47	141
Decedent's home	4,798	16,252	99	7,192	1,000	598
Decedent's home	1,148	18,207	100	2,169	1,118	779
Hospice facility	148	10,445	2.34%	76	75	269
Nursing/rehabilitating/assisted living facility	1,146	20,254	2.34%	1,149	1,146	1,000
Other	187	16,424	115	23	37	67
Place of death unknown	1	14	0	0	0	0

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Source: National Center for Health Statistics - Mortality Surveillance System

Table 5. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by jurisdiction of occurrence, United States. Week ending 2/15/2020 to 4/11/2020.*

Data as of April 17, 2020

Jurisdiction of occurrence	COVID-19 deaths (U07.1)	Deaths from all causes	Percent of expected deaths	Pneumonia deaths	Deaths with Pneumonia and COVID-19	Influenza deaths (J09-J11)
United States*	15,748	56,585	95	45,019	5,350	3,228
Alabama	47	15,266	89	615	15	15
Alaska	0	252	99	32	0	0
Arizona	92	17,091	93	1,170	24	15
Arkansas	0	9,976	90	492	0	0
California	852	50,607	96	6,790	206	97
Colorado	75	14,075	92	1,275	15	15
Connecticut	0	3	0	0	0	0
Delaware	0	2,966	97	0	0	0
District of Columbia	21	1,116	90	119	0	0
Florida	483	46,241	90	3,030	209	209
Georgia	0	31,000	91	2,000	0	0
Hawaii	5	2,404	95	125	0	0
Idaho	0	3,089	90	0	0	0
Illinois	246	23,861	90	1,794	146	147
Indiana	0	15,965	90	1,000	0	0
Iowa	26	6,327	90	449	5	5
Kansas	0	5,015	90	0	0	0
Kentucky	0	8,985	90	719	0	0
Louisiana	0	15,768	90	1,000	0	0
Maine	14	3,259	90	277	0	0
Maryland	0	19,000	90	1,000	0	0
Massachusetts	849	13,615	101	1,281	116	116
Michigan	1,000	21,491	90	1,000	0	0
Minnesota	16	5,931	90	671	0	0
Mississippi	0	9,000	90	1,000	0	0
Missouri	19	12,717	90	792	0	0
Montana	0	2,000	90	0	0	0
Nebraska	7	3,393	90	259	0	0
Nevada	0	7,000	90	0	0	0
New Hampshire	0	2,784	90	0	0	0
New Jersey	6,010	17,991	90	1,431	107	107
New Mexico	0	3,000	90	0	0	0
New York*	5,795	49,000	115	3,147	1,132	1,132
New York City	2,237	21,000	90	1,000	0	0
North Carolina	0	9,007	90	0	0	0
North Dakota	0	1,000	90	0	0	0
Ohio	0	14,000	90	1,000	0	0
Oklahoma	0	7,000	90	0	0	0
Oregon	50	7,000	87	375	18	18
Pennsylvania	0	22,000	90	2,000	0	0
Rhode Island	7	1,905	90	92	4	4
South Carolina	0	10,000	90	1,000	0	0
South Dakota	5	1,000	90	120	3	3
Tennessee	0	12,000	90	1,000	0	0
Texas	106	60,607	91	2,008	49	41
Utah	0	4,000	90	0	0	0
Vermont	22	1,307	102	47	8	8
Virginia	0	12,000	90	1,000	0	0
Washington	427	12,000	77	1,041	70	70
West Virginia	0	4,000	90	0	0	0
Wisconsin	60	11,774	90	1,000	51	51
Wyoming	0	552	90	0	0	0
Puerto Rico	34	4,170	33	331	19	19

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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, are coded to the underlying cause of death according to the ICD-10 rules and coded cause of death may be calculated by hot (electronic) and cold (manual) methods. Death records may also be classified or defined differently in various reporting and surveillance systems. Death counts in this report are based on the date the death is coded, not the date the death occurred or was reported. This includes deaths identified as COVID-19 based on a presumed or suspected cause, based on state and state health departments only report laboratory-confirmed COVID deaths. This may partly account for the difference between counts in this report and other sources. Death counts in this report are provisional and are expected to increase over time as more death certificates are received. It takes several weeks for complete death counts 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. Data are received from the jurisdictions in electronic files submitted through the Vital Statistics Rapid Release Program. Provisional data are based on death records that have certain data quality criteria at the time of analysis and may not include all deaths that occurred during the specified time period. Provisional death counts are continually updated and may increase or decrease as more death certificates are received and processed.

Cause- of- death classification and definition of deaths

Mortality statistics are compiled in accordance with World Health Organization (WHO) regulations unless otherwise specified. Starting with 2020 data, NCHS is using the 10th revision of the International Classification of Diseases and Related Health Problems (ICD). ICD provides the basis guidance used in virtually all countries to code and classify causes of death. It provides not only a list of diseases and conditions, but also the rules and guidelines for selecting the underlying cause of death for statistical purposes. For the several diagnoses that may be recorded on a death certificate, as well as definitions, tabulation lists, the format of the death certificate, and regulations on use of the classification, a number of books are required. Detailed information on the ICD and its predecessors can be found at the website of the World Health Organization (WHO).

Deaths occurring among persons who have COVID-19 are assigned to underlying cause of death U071 when ascertaining whether or not COVID-19 is reported as a cause that contributed to the underlying death certificate. These can include laboratory-confirmed cases, as well as cases without laboratory confirmation. If the underlying COVID-19 is modified, for example, to pneumonia, the pneumonia were compelling either a reasonable degree of certainty, they can report COVID-19 as "probable" or "presumed" or "suspected" on the death certificate.

Provisional deaths are classified according cause of death codes from the ICD-10 rules. For example, ICD-10 codes U071-U072 including deaths that number influenza (J9-J11). Influenza deaths are identified from the ICD-10 codes J09-J11, and 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, demographic age, and cause of death. Data for the calendar year are finalized, typically in December of the following year, completeness of provisional data cannot be determined. However, completeness of provisional data for the most recent weeks can be estimated using a weekly monitoring of provisional mortality data, such as CDC's Pulse Interactive monthly surveillance (1), estimates completeness by comparing the count of deaths in a given week of the current year to the average number across 2017 and 2018 for the same week, adjusted for the number of weekdays in the week, for specific causes of death, jurisdictions, and age groups, and reports it as a weekly delay factor. 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 data from previous years. The expected deaths provided in this data release are based on the total count of deaths for the most recent week of data, and do not account for the delay in receipt of death certificates. Because of the delay in receipt of death certificates, these estimates of completeness underestimate the true extent of mortality 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 are occurring, the delay in receipt of death certificates may be longer than in previous years. Work continues to further improve the timeliness of mortality data, and new methods are being developed in prior years due to a severe flu season, for example, estimated completeness in the most recent 4 weeks of data, based on the 2017 and 2018 data, may underestimate the completeness of single week of or longer period, and estimates of completeness included in this release are based on the average counts in a given week across 3 prior years (e.g., the 2019 week of 2017, 2018, and 2019).

Percent of expected deaths provided in this release are based on the average number of deaths occurring in provisional counts of COVID-19 deaths and deaths due to related causes. Where estimated values are used, the percent of expected deaths may be higher than 100%, even if the number of deaths is lower than that of prior years. Without estimates of completeness and bias, the number of deaths from all causes may be 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 death counts are based on the information received 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) completes the death certificate and this certificate is filed with the jurisdiction in charge of issuing death certificates. Jurisdictions vary in the length of time they need to complete their processes before they can transmit death certificate data to the National Center for Health Statistics (NCHS). Once NCHS receives the death certificate data, it is processed and coded within seconds, but 20% of deaths need to manually coded, or coded by a nosologist, before they can be included in the provisional counts. Nationally, about 80% of death certificates are coded by automated systems and are included in the provisional counts. The remaining manually coded Death certificates are typically manually coded within 7 days of receipt, although the time varies by cause of death. Deaths due to drug poisoning, for example, may take longer to ascertain and cause of death, and therefore, the delay for these deaths may be greater than average.

Previous analyses of provisional data comparisons from 2013 suggested that mortality data is approximately 70% complete in 2 weeks, 90% complete within 4 weeks, and 99% complete within 8 weeks of when the death occurred (2). Pneumonia deaths are 20% complete within 2 weeks, 50% complete within 4 weeks, and 90% complete within 8 weeks of when the death occurred. Completeness has improved in recent years, and current timeliness is likely higher than published rates.

Place of Death

Place of death coded on the death certificate is determined by where the death was pronounced and may be different than the place where the injury or illness that caused death occurred (for example, clinical, medical facilities, or other licensed institutions providing inpatient care, outpatient care, or care by medical staff. Decedent's home includes independent living units such as private homes, apartments, bungalows, cottages, housing units in retirement communities, residential care facilities, nursing homes or e.g., palliative and supportive care, the place of death, but not to hospice care that might be provided in a decedent's home. Hospice facility includes freestanding hospice facilities, and other facility that is not a hospital that provides palliative and supportive 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 other residential institutions, including residential care, assisted living, prison/jail, other, physician's office, nursing home/long-term care facility, outdoor area or trafficway, facilities offering housing and custodial care but not patient care (e.g., board and care homes, group homes, custodial care facilities).

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, jurisdictions differ in their practices regarding the use of "presumed" COVID-19 coronavirus disease, attack, which could affect deaths certificates reporting. Currently, only 14 of U.S. deaths are reported within 10 days of the date of death, but there is variation within states. Twenty states report fewer 75% of deaths within the first 10 days, while other states report more than 75% of deaths in 10 days.

Why are pneumonia and influenza deaths