Readers' Guide: Understanding Weekly and Annual National Notifiable Diseases Surveillance System WONDER Tables
(rev. 04/21/2021)

Background Information

Surveillance background:

The CDC [National Notifiable Diseases Surveillance System](#) (NNDSS) enables all levels of public health (local, state, territorial, federal, and international) to share information on diseases and conditions that the Council of State and Territorial Epidemiologists (CSTE), in consultation with CDC, has designated as nationally notifiable. Public health professionals use the data from NNDSS to monitor, control, and prevent the occurrence and spread of disease. CDC administers NNDSS in collaboration with CSTE.

Initially, national notifiable disease data are collected locally as a result of state, territorial, and local legislation and regulations that require healthcare providers, medical laboratories, and other entities to submit data on reportable conditions to state and local public health departments. The reportable conditions vary depending upon each jurisdiction's health priorities. The reporting jurisdictions are the 50 U.S. states; New York City; Washington, DC; and five territories (American Samoa, Commonwealth of Northern Mariana Islands, Guam, Puerto Rico, and U.S. Virgin Islands). They voluntarily submit case notifications for national notifiable conditions to CDC. Figure I below shows the reporting flow for NNDSS data.

A list of current and historical notifiable conditions, along with their surveillance case definitions and classifications, is available at https://ndc.services.cdc.gov/conditions/. NNDSS uses national surveillance case definitions to help ensure that cases are identified, classified, and enumerated consistently across reporting jurisdictions for each condition. As new pathogens and conditions emerge and methods of disease detection and classification evolve, conditions are added to the national notifiable disease list and definitions and classifications for conditions are changed. Conditions are deleted from the list when surveillance is not found to be useful at a national level.

Figure I. Public Health Surveillance Data Flow for State Reportable and Nationally Notifiable Conditions
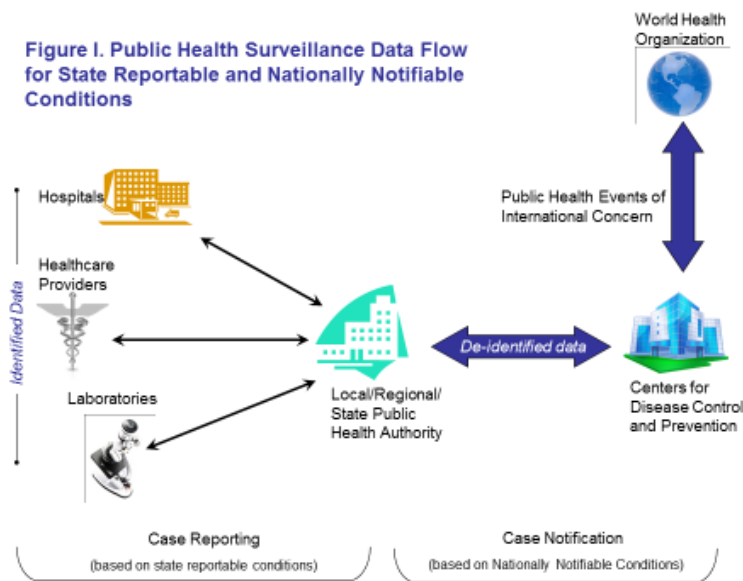
Print criteria:

From NNDSS data, CDC prepares various tables of infectious diseases and conditions and publishes them in CDC WONDER as weekly and cumulative counts and as finalized annual data. WONDER also includes links to noninfectious conditions and disease outbreak surveillance reports published by CDC programs.

There are two criteria for a case notification of a national notifiable infectious disease to be published in CDC WONDER:

- The reporting jurisdiction must have designated the disease or condition reportable in their state or territory for the year corresponding to the data year of report to CDC (see the "Reporting Exceptions for National Notifiable Diseases (NND)" spreadsheet under Event Codes and Other Surveillance Resources/Non-expiring on the following page: https://ndc.services.cdc.gov/event-codes-other-surveillance-resources/).
- The case must meet the required case classification criteria for the condition (see the "Print Criteria" column of the "Event (disease/condition) Code List" for the specified year, available at https://ndc.services.cdc.gov/event-codes-other-surveillance-resources/). These classifications are based on the NNDSS surveillance case definitions (see https://ndc.services.cdc.gov/).

Provisional and finalized data:

CDC considers NNDSS data provisional and subject to change until the data are reconciled and verified with the state and territorial data providers after the end of the calendar year. Cumulative counts of cases presented each week can increase or decrease as additional information becomes available and counts are updated. For most conditions, final case counts do not match the cumulative provisional case counts.

At this time, data are finalized approximately 10 months after the end of the year and are published as final annual data in CDC WONDER.

Limitations to data:

Completeness and timeliness of reporting to the jurisdictions and submission of notifications to CDC vary by condition and location. Detection and reporting of health conditions to jurisdictions may be influenced by the severity of the illness; patient and public awareness of conditions; patient access to health care; the availability of diagnostic facilities; interests, resources, and priorities of the clinicians, laboratories, hospitals, and others that report to the jurisdictions; jurisdiction reporting requirements and resources; emerging pathogens and conditions; and priorities of state and local health departments. Reporting delays occur for various reasons, including competing priorities such as outbreak response, technical problems, and changes in staffing levels. Moreover, data may be reported in batches during outbreaks and at other times, including at the end-of-year when surveillance staff are finalizing the data.

CDC does not adjust provisional data for variations in reporting procedures across different states or for delays in reporting. Because of variations among the jurisdictions in assignment of event dates (https://ndc.services-int.cdc.gov/wp-content/uploads/2021/02/MMWR_Week_overview.pdf), updates to case data, and variations in the timing of submission to CDC, weekly totals should not be added to

compute the cumulative count for a year. It is not uncommon that cases are reported after data has been published for the week, or that updates change whether the case meets the case definition or publication criteria. Less commonly, a case definition is modified or the criteria are clarified during the year, resulting in a reevaluation of previously reported cases.

These limitations should be considered when comparing counts and rates across conditions, among areas, or over time. Not all variations in the data reflect true changes in the incidence of disease.

Weekly provisional and annual final data:

Weekly provisional data: For the weekly provisional tables, data for the current week reflect disease reports received for that week. Updates for previous weeks are reflected in the cumulative totals.

Following is an explanation of the calculation of the cumulative totals presented weekly in Table 1.

	MMWR* Week 1	*MMWR* Week 2	*MMWR* Week 3	*MMWR* Week 4
Submitted Week 1	**10**			
Submitted Week 2	-2	**12**		
Submitted Week 3	4	2	**4**	
Submitted Week 4	1	0	1	**2**

**Morbidity and Mortality Weekly Report*

The calculations use the <u>cumulative number of cases</u> submitted for each *MMWR* week as of the date of publication.

<u>Current case count for each week</u>

> Cases in *MMWR* week 1 -- 10 cases
> Cases in *MMWR* week 2 -- 12 cases
> Cases in *MMWR* week 3 -- 4 cases
> Cases in *MMWR* week 4 – 2 cases

<u>Cumulative case count for each week</u>

> Total cases submitted by the end of *MMWR* week 1–10 cases
> Total cases submitted by the end of *MMWR* week 2–20 cases (10-2+12)
> Total cases submitted by the end of *MMWR* week 3–30 cases (10-2+12+4+2+4)
> Total cases submitted by the end of *MMWR* week 4–34 cases (10-2+12+4+2+4+1+0+1+2)

Annual finalized data: To create the final NNDSS data used in the annual tables, CDC works carefully with the reporting jurisdictions to reconcile the data received during the year until each state or territorial epidemiologist confirms that the data from their area are correct.

Data accessibility:

NNDSS data are accessible in various machine-readable formats:

Weekly
- NNDSS Data and Statistics web page: https://www.cdc.gov/nndss/data-statistics/index.html
- WONDER Weekly Tables of Infectious Diseases (1996 to present): https://wonder.cdc.gov/nndss/nndss_weekly_tables_menu.asp
- DATA.CDC.gov (2014 to present): https://data.cdc.gov/browse?category=NNDSS
- *MMWR* Weekly Tables of Infectious Diseases (1982-2017): https://www.cdc.gov/mmwr/mmwr_wk/wk_pvol.html
- CDC Stacks Collections of Weekly Infectious Disease Tables (2018 to present): https://stacks.cdc.gov/cbrowse?parentId=cdc:49375&pid=cdc:49375
  [Note: Once in CDC Stacks, go to left side of screen and click Genre/Weekly Tables; to select tables for one year select the 'Publisher Year' of interest, which selects the year the tables of interest were published.]

Annual

- NNDSS Data and Statistics web page: https://www.cdc.gov/nndss/data-statistics/index.html
- WONDER Annual Tables of Infectious Diseases (2016 to present): https://wonder.cdc.gov/nndss/nndss_annual_tables_menu.asp
- *MMWR* Annual Tables of Infectious Diseases (1993-2015): https://www.cdc.gov/mmwr/mmwr_nd/index.html
- CDC Stacks Collections of Annual Tables of Infectious Diseases and Conditions (1951 to present): https://stacks.cdc.gov/cbrowse?parentId=cdc:49375&pid=cdc:49375
  [Note: 1951-2015: Once in CDC Stacks, go to left side of screen and click Genre/Annual Reports; to select a report for a particular year, select the 'Publisher Year' of interest, which selects the year the annual report of interest was published; 2016-present: Once in CDC Stacks, go to left side of screen and select Genre/Annual Tables; to select all tables for one year, select the 'Publisher Year' of interest, which selects the year the tables of interest were published.]

Weekly Table

Figure I [Note: Beginning in week 1 of year 2020, Figure 1 has been discontinued.]

Figure I Title: Selected notifiable disease reports, United States, comparison of provisional 4-week totals with historical data.

Data set used: Weekly data set for Figure 1

Description: Conditions to be included in this graphic are agreed upon by the CDC programs and selected for inclusion by statisticians working on the methods. Cases reported from the U.S. territories or foreign residence (based on the country of usual residence) are not included in Figure I. The methodology used in Figure I is most appropriate for diseases that do not exhibit frequent changes in trend or level and that occur often enough so that a few case notifications during a current week would not indicate an aberration.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals October 10, 2015, with historical data
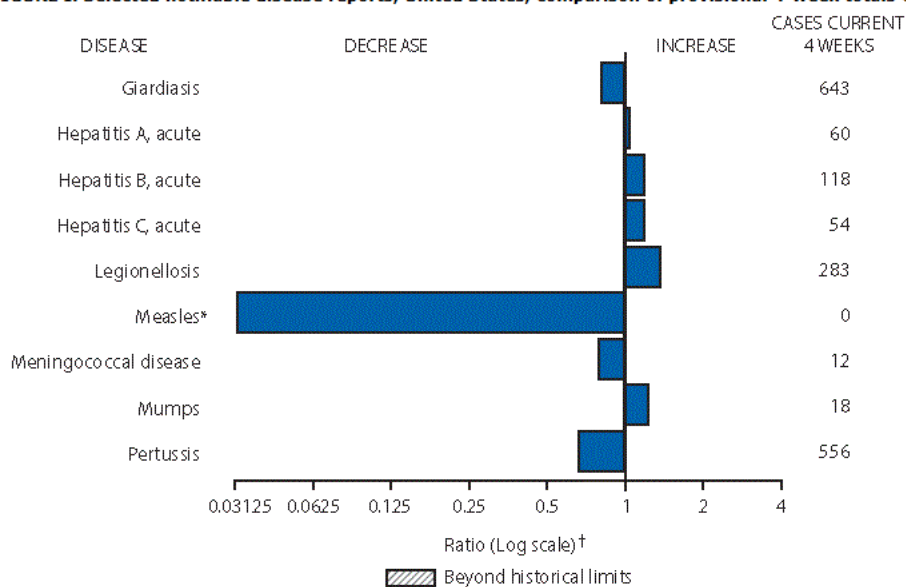
* No measles cases were reported for the current 4-week period yielding a ratio for week 40 of zero (0).

† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

Methods taken directly from:

Stroup DF, Wharton M, Kafadar K, and Dean AG. Evaluation of a method for detecting aberrations in public health surveillance data. American Journal of Epidemiology, Vol 137 (3), 373-380, 1993.

Current case count for each selected condition is the total number of provisional cases reported during the current 4-week period for the 50 states, excluding U.S. territories. To increase the historical sample size and to account for any seasonal effect, the baseline is the average number of cases for the preceding 4-week period, the corresponding 4-week period, and the following 4-week period, for the

previous 5 years. This yields 15 correlated observations, referred to as the historical observations or baseline (see graph below).

The choice of 4 weeks as the "current period" is based on evidence of weekly fluctuation in disease reporting that is usually due to irregular reporting rather than to disease incidence. The use of a 5-year history achieves the objective of applying the same model for all conditions depicted, which is particularly helpful because health events are made notifiable and added at different points in time. In addition, modeling of reported influenza incidence has shown that more accurate forecasts are based on more recent data.

This graphical method was initially introduced by CDC to display national notifiable disease data in the *MMWR* in April 1990. The method (also known as Figure I in CDC WONDER) was developed to detect unusual patterns for selected infectious diseases included in NNDSS. To support early identification of disease morbidity trends, this method plots unusually high or low numbers of reported cases in the bar graph for each disease by comparing the number of reported cases in the current 4-week period for a given health event with historical data on the same condition from the preceding 5 years.

Interpretation of the graphic:

Let X_0 be the number of cases of a given disease reported to CDC in the 4-week period ending with the current week. This method compares the current values with a baseline report consisting of 15 previous totals for the preceding 4-week period, the corresponding 4-week period, and the following 4-week period for the previous 5 years, denoted X_1, X_2,… X_{15}. The method assumes that X_1, $X_{2…}$ X_{15}, and X_0 are independent random variables with the same distribution function. A two-sided confidence interval for the "expected" number of cases for a 4-week period for a given disease is calculated and used, along with the "observed" current value X_0, to conclude whether the disease process is "out of range" for the current month. This method assumes that the reported data are normally distributed for each disease and each time period.

The historical limits of the ratio of current reports to the historical mean (X_0 / μ_h) are calculated as 1 plus or minus 2 times the standard deviation divided by the mean ($1 \pm 2 * (\sigma_h / \mu_h)$). X_0 is the current 4-week total, μ_h represents the mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years), and σ_h represents the standard deviation of historical baseline data.
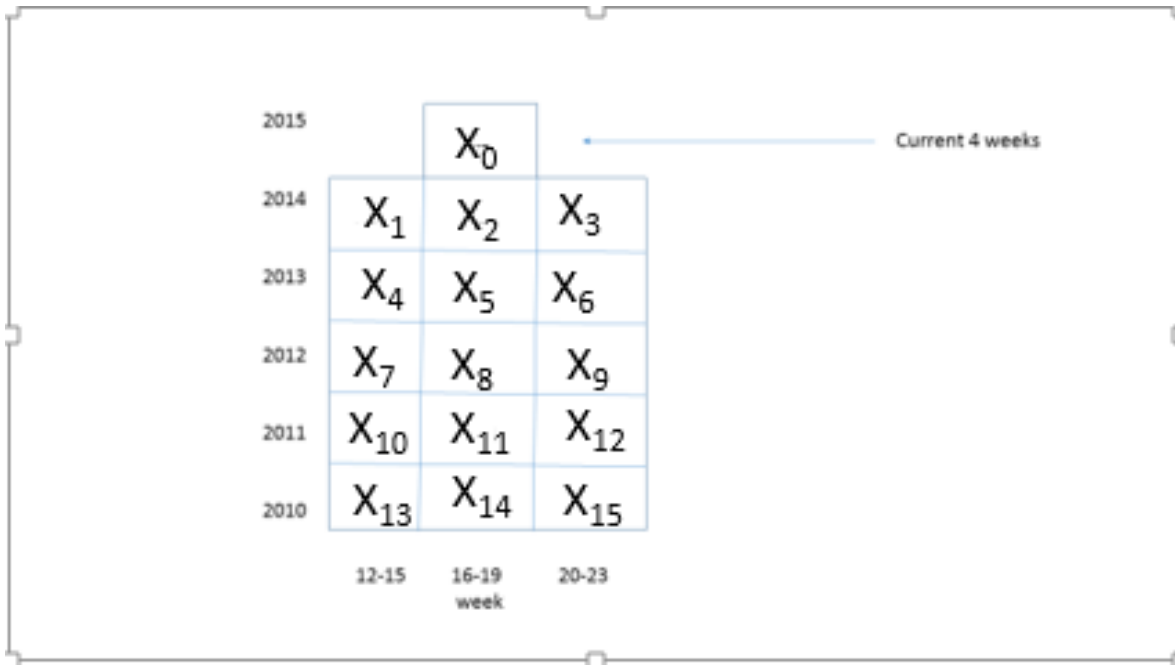
The number of cases in the current month are presented in the right-hand column in Figure I to facilitate interpretation of instability caused by small numbers. The ratio is plotted on a log scale so that no change from past patterns (a ratio of 1:1) produces a bar of zero length (i.e., centered at 1 on the log scale). A horizontal bar to the right represents increased incidence for the current 4-week total incidence, and a bar to the left of the vertical line (where log ratio equals 1) represents decreased incidence. The hatched area in any bar represents unusually high or low reported incidence where the current 4-week count is greater (right-sided) or less than (left-sided) two standard deviations from the mean of the historical observations.

Table 1

Table 1 Title: Weekly cases of notifiable diseases United States, U.S Territories, and Non-U.S. Residents - week ending XXX (Week X)

Description: This table contains provisional data on incident (new) reports of cases of national notifiable infectious diseases and conditions that are reportable to NNDSS for the given year. The data are reported weekly by the 50 states; New York City; Washington, DC; and five U.S. territories. The table is summarized by Region; U.S. Residents, excluding U.S. Territories; U.S. Territories; non-U.S. Residents; and Total. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is currently not reported by all jurisdictions or for all conditions.

The cumulative (year-to-date) incidence data from the previous year are presented in Table 1 as a crude method of identifying aberrations or discrepancies in the current year's data, whether because of disease incidence or reporting artifact.

Data used: weekly provisional data

| | Anthrax | | | | Arboviral diseases, neuroinvasive and non-neuroinvasive | | | | | | | |
| | | | | | Chikungunya virus disease | | | | Eastern equine encephalitis virus disease | | | |
Reporting Area	Current week	Previous 52 weeks Max †	Cum YTD 2019 †	Cum YTD 2018 †	Current week	Previous 52 weeks Max †	Cum YTD 2019 †	Cum YTD 2018 †	Current week	Previous 52 weeks Max †	Cum YTD 2019 †	Cum YTD 2018 †
U.S. Residents, excluding U.S. Territories	-	1	-	1	-	9	129	114	-	7	38	6
New England	-	0	-	-	-	1	4	4	-	5	19	-
Connecticut	-	0	-	-	-	0	-	-	-	2	4	-
Maine	-	0	-	-	-	0	-	1	-	0	-	-
Massachusetts	-	0	-	-	-	1	3	2	-	3	12	-
New Hampshire	-	0	-	-	-	0	-	1	-	0	-	-
Rhode Island	-	0	-	-	-	1	1	-	-	2	3	-
Vermont	-	0	-	-	-	0	-	-	-	0	-	-
Middle Atlantic	-	0	-	1	-	3	23	28	-	2	4	1
New Jersey	-	0	-	-	-	2	11	14	-	2	4	-
U.S. Territories	-	0	-	-	-	2	2	8	-	0	-	-
American Samoa	-	0	-	-	-	0	-	-	-	0	-	-
Commonwealth of Northern Mariana Islands	-	0	-	-	-	0	-	-	-	0	-	-
Guam	-	0	-	-	-	0	-	-	-	0	-	-
Puerto Rico	-	0	-	-	-	2	2	8	-	0	-	-
U.S. Virgin Islands	-	0	-	-	-	0	-	-	-	0	-	-
Non-U.S. Residents	-	NC	-	NP	-	NC	-	NP	-	NC	-	NP
Total	-	1	-	1	-	9	131	122	-	7	38	6

Contents of table (Columns):

- **Reporting area:** This column represents the U.S. Department of Health and Human Services Regions (HHS) and the jurisdictions (50 U.S. states; five U.S. territories; New York City; and Washington, DC) that submit case notifications to NNDSS. The non-U.S. residents' data represent illness that occurred in the United States in individuals whose country of usual residence is outside the United States or U.S. territories.

- **Week:** The week identified in this table refers to the variable "*MMWR* week," which represents the week of the epidemiologic year (*MMWR* year) for which the NNDSS disease report is

assigned by the local, county, or state health department for publication. Jurisdictions assign a case to an *MMWR* week for a variety of different purposes and the epidemiologic meaning of the *MMWR* week varies by jurisdiction and by condition. Refer to the *MMWR* fact sheet for more information about how *MMWR* weeks are defined (https://ndc.services-int.cdc.gov/wp-content/uploads/2021/02/MMWR_Week_overview.pdf). *MMWR* week calendars can be found by year under YYYY Resources: https://ndc.services.cdc.gov/event-codes-other-surveillance-resources/ .

- **Current Week:** For a case to be published in the table under current week, it must have been reported to CDC during that week and assigned by the jurisdiction to that *MMWR* week. Cases assigned by the jurisdiction to that *MMWR* week but reported later or cases reported in that week but assigned to a different *MMWR* week are published in the CDC WONDER weekly tables in the cumulative total column for that year, but are not published in any current week column. As a result, the cumulative sum of cases does not equal the sum of the number of cases published each week.

- **Previous 52 weeks Max:** To calculate the 52-week maximum, the maximum number of cases for that occurrence in any week in the past 52 weeks is identified. The previous 52-week maximum reflects cases deleted from the weekly total because the reporting jurisdiction determined that the cases did not meet criteria for reporting and publication and reflects newly reported cases from earlier *MMWR* weeks that were not reported in the relevant week due to delayed reporting. This calculation enables the reader to compare the current week case count and the cumulative year-to-date case count totals with the "Previous 52 weeks Max" column for monitoring purposes. Previous 52-week maximum is determined from periods of time when the condition was reportable in the jurisdiction (i.e., may be less than 52 weeks of data).

Condition A

Reporting areas	WK 1	WK2	WK3	MAX
Connecticut	3	1	1	3
Maine	4	0	0	4
Massachusetts	1	3	1	3
New Hampshire	0	1	2	2
Rhode Island	3	2	0	3
Vermont	1	3	6	6
New England	12	10	10	12

- **Cum YTD (current year):** The cumulative year-to-date count for the current year includes all cases reported to CDC for the current year that meet the case definition and publication criteria for the condition. The cumulative case count reflects cases deleted from the cumulative total because the reporting jurisdiction's case investigations found that the cases did not meet criteria for reporting and publication or newly reported cases from earlier *MMWR* weeks were not reported in the relevant week due to delayed reporting. As a result, the successive current weekly totals cannot be added to compute the cumulative count for the year. Cumulative year-to-date totals are determined for the period of time when the condition was reportable in the jurisdiction.

- **Cum YTD (previous year):** The cumulative year-to-date count for the previous year presents the cumulative number of cases through the same *MMWR* week for the previous year. It is

provided for comparison purposes. Cumulative year-to-date totals are determined for the periods of time when the condition was reportable in the jurisdiction.

Contents of table (Rows):

- **U.S. Residents, excluding U.S. Territories:** The sum of the case counts in the state-specific table cells (including the Washington, DC, and New York City table cells).
- **Individual regions:** The sum of the case counts by U.S. Department of Health and Human Services Regions.
- **Individual States:** Case counts for the U.S. states; Washington, DC; and New York City.
- **U.S. Territories:** The sum of the case counts in the territories.
- **Individual Territories:** Case counts for the U.S. territories.
- **Non-U.S. Residents:** The sum of the cases across all reporting jurisdictions (U.S. states; Washington, DC; New York City; and U.S. territories) where the "Country of Usual Residence" is outside the United States or U.S. territories. This case count represents reported cases occurring in non-U.S residents. These cases are not included in the U.S. Residents or U.S. Territories sections of the table.
- **Total:** The sum of cases among "U.S. Residents, excluding U.S. Territories," "U.S. Territories," and "Non-U.S. Residents."

Abbreviations and symbols used in table:

- **U**: Unavailable.
- **--:** No reported cases**.** NNDSS does not receive reports of zero cases and thus cannot distinguish whether no cases occurred or no cases are reported.
- **N:** Not reportable. The reporting jurisdiction did not add the condition to the list of reportable conditions in the specified jurisdiction. For data to appear in this table, the condition had to be reportable in the reporting jurisdiction for the specified national notifiable condition.
- **NN:** Not nationally notifiable.
- **NP:** Nationally notifiable but not published.
- **NC:** Not calculated.
- **Cum:** Cumulative year-to-date counts.
- **Max:** Maximum.

Table 2 [Note: Beginning in week 1 of year 2020, this table was discontinued and TB data are displayed weekly in Table 1.]

Table 2 Title: Quarterly tuberculosis cases, United States and U.S. Territories, quarter ending xxxx

Description: This table contains the total number of tuberculosis cases reported in the United States, by region and state. The data are reported by the 50 states, New York City, the District of Columbia, and the U.S. territories in aggregate form and are published quarterly. The counts presented for the United States do not include the case counts from the U.S. territories. Territory totals are listed separately at the bottom of the table.

Data used: quarterly provisional data (counts compiled quarterly)

TABLE 3. Quarterly tuberculosis cases*, United States and U.S. territories, quarter ending December 30, 2017

Reporting Area	Tuberculosis †				
	Current quarter	Previous 4 quarters		Cum 2017	Cum 2016
		Min	Max		
United States	1,613	1,613	2,213	7,831	9,224
New England	73	66	91	297	298
Connecticut	6	6	19	51	52
Maine	1	1	6	14	23
Massachusetts	58	43	58	200	190
New Hampshire	6	3	6	17	15
Rhode Island	1	1	6	12	12
Vermont	1	0	1	3	6
Middle Atlantic	315	264	331	1,222	1,220
New Jersey	81	35	81	254	294
New York (excluding New York City)	41	37	49	173	202
New York City	147	141	169	607	558
Pennsylvania	46	36	55	188	166
East North Central	146	146	208	659	751

Contents of table:

- **Reporting area:** This column represents the U.S. Department of Health and Human Services Regions and the jurisdictions (50 U.S. states; five U.S. territories; New York City; and Washington, DC) that submit case notifications to NNDSS.

- *MMWR* **Quarter:** This column represents the quarter of the epidemiologic year for which the NNDSS disease report is assigned by the local, county, or state health department for the purposes of disease incidence reporting or publishing. The *MMWR* quarter is based on the *MMWR* week. For tuberculosis, *MMWR* week represents the date CDC surveillance staff verified that the case met the criteria in the national surveillance case definition. *MMWR* week calendars can be found by year under YYYY Resources: https://ndc.services.cdc.gov/event-codes-other-surveillance-resources/ .

  The MMWR Quarter Schedule is shown below.

  1st QTR: *MMWR* Week 1–Week 13
  2nd QTR: *MMWR* Week 14–Week 26
  3rd QTR: *MMWR* Week 27–Week 39
  4th QTR: *MMWR* Week 40–Week 52 (or 53, if applicable)

- **Current quarter:** This column represents the total number of provisional cases reported in the current *MMWR* quarter. *MMWR* quarter is based on *MMWR* week. If a case belonging in the

current quarter is reported in a subsequent quarter, the case will appear in the cumulative total for the year but not the current quarter column. As a result, the sum of the number of cases published each quarter under current quarter does not necessarily equal the cumulative sum of cases for that year published each quarter. Territories are not included in this calculation.

- **Previous 4 quarters (Min):** To calculate the national minimum, the data are first aggregated to the national level for each quarter, and then the minimum number of cases in a quarter is identified across the 4 quarters. Likewise, to calculate the minimum for a region, the data are first aggregated across the states included in the region for each quarter, and then the minimum is identified across the 4 quarters. At the state level, the data are aggregated by quarter, and then the minimum is identified across the 4 quarters. This calculation enables the reader to compare the current quarter case count and the previous 4-quarter minimum for monitoring purposes.

- **Previous 4 quarters (Max):** To calculate the national maximum, the data are first aggregated to the national level for each quarter, and then the maximum number of cases in a quarter is identified across the 4 quarters. Likewise, to calculate the maximum for a region, the data are first aggregated across the states included in the region for each quarter, and then the maximum is identified across the 4 quarters. At the state level, the data are aggregated by quarter, and then the maximum is identified across the 4 quarters. This calculation enables the reader to compare the current quarter case count and the previous 4-quarter maximum for monitoring purposes.

- **Cum (for the current year):** This column represents the cumulative year-to-date provisional counts for the specified condition. This column includes cases reported in the current quarter but also cases not previously reported because some cases were reported after the quarter ending date. The cumulative case count column includes the outcome of adjustments made for provisional cases added or deleted, based upon the outcome of case investigations, which may not have been represented in the "Current quarter" column. Therefore, the successive current quarterly totals cannot be added to compute the cumulative count in a year, for a specified condition. The cumulative total does not include the territories.

- **Cum (for the previous year):** The Cumulative previous year count presents the cumulative number of cases up to the same quarter last year for comparison purposes.

Abbreviations and symbols used in table:

- **U:** Unavailable.
- **--:** No reported cases. NNDSS does not receive reports of zero cases and thus cannot distinguish whether no cases occurred or no cases are reported.
- **N:** Not reportable (The reporting jurisdiction did not add the condition to the list of reportable conditions in the specified jurisdiction. For data to appear in this table, the condition had to be reportable in the reporting jurisdiction for the specified national notifiable condition.)
- **NN:** Not nationally notifiable.
- **NP:** Nationally notifiable but not published.
- **Cum:** Cumulative year-to-date counts.
- **Min:** Minimum.
- **Max:** Maximum.

Annual Tables

Table 1

Table 1 Title: Annual reported cases of notifiable diseases and rates per 100,000, United States, excluding U.S. Territories and Non-U.S. Residents, YYYY

Description: This table contains finalized data on incident (new) cases of national notifiable infectious diseases and conditions reported to CDC when counts were finalized for the year. The data were reported to CDC by the 50 states; New York City; and Washington, DC. Cases reported for U.S. territories and non-U.S. residents are excluded. See Table 8 below to learn more about the census data used to calculate rates. NOTE: The "Country of usual residence" data element, used to define non-U.S. residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Disease	Case Count	Rate
Anthrax	1	0.00
Arboviral diseases		
Chikungunya virus disease	117	0.04
Eastern equine encephalitis virus disease		
Neuroinvasive	6	0.00
Non-neuroinvasive	—	—
Jamestown Canyon virus disease		
Neuroinvasive	25	0.01
Non-neuroinvasive	16	0.00
La Crosse virus disease		
Neuroinvasive	83	0.03
Non-neuroinvasive	3	0.00
Powassan virus disease		
Neuroinvasive	21	0.01

Table 2 [Note: The 2019 annual tables exclude cases of national notifiable conditions and diseases among non-U.S. residents. As a result, data in Table 2 do not include a "Non-U.S. Resident" or "Total" row. Table 2 for the 2019 data only includes data for "U.S. Residents, excluding U.S. Territories" and "U.S. Territories." Beginning with 2020 annual data, Table 2 is stratified by U.S. Residents, excluding U.S. Territories; U.S. Territories; Non-U.S. Residents; and Total.]

Table 2 Title (2019 only): Annual reported cases of notifiable diseases, by region and reporting area, United States and U.S. Territories, excluding Non-U.S. Residents, YYYY

Description: This table contains finalized data on incident (new) cases of national notifiable infectious diseases and conditions that are reportable to NNDSS when counts were finalized for the year. The data are reported by the 50 states; New York City; Washington, DC; and five U.S. territories. The table presents the data by region and reporting area. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Reporting Area	Anthrax	Chikungunya virus disease	Arboviral diseases			
			Eastern equine encephalitis virus disease		Jamestown Canyon virus disease	
			Neuroinvasive	Non-neuroinvasive	Neuroinvasive	Non-neuroinvasive
U.S. Residents, excluding U.S. Territories	—	—	—	—	—	—
New England	—	—	—	—	—	—
Connecticut	—	—	—	—	—	—
Maine	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—
Vermont	—	—	—	—	—	—
Middle Atlantic	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—
U.S. Territories	—	—	—	—	—	—
American Samoa	—	—	—	—	—	—
Commonwealth of Northern Mariana Islands	—	—	—	—	—	—
Guam	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—
U.S. Virgin Islands	—	—	—	—	—	—

Table 2 Title (post-2019): Annual reported cases of notifiable diseases, by region and reporting area, United States, U.S. Territories, and Non-U.S. Residents, YYYY

Description: This table contains finalized data on incident (new) cases of national notifiable infectious diseases and conditions that are reportable to NNDSS when counts were finalized for the year. The data are reported by the 50 states; New York City; Washington, DC; and five U.S. territories. The table presents the data by region and residence. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Reporting Area	Anthrax	Chikungunya virus disease
U.S. Residents, excluding U.S. Territories		
New England		
Connecticut		
Maine		
Massachusetts		
U.S. Territories		
Guam		
Puerto Rico		
Non-U.S. Residents		
Total		

Table 3

Table 3 Title: Annual reported cases of notifiable diseases, by month, United States, excluding U.S. Territories and Non-U.S. Residents, YYYY

Description: This table contains finalized data on incident (new) cases of national notifiable infectious diseases and conditions reported to CDC when counts were finalized for the year. The data are reported by the 50 states; New York City; and Washington, DC, and presented by disease and *MMWR* month. *MMWR* month is computed from *MMWR* week. Cases reported from the U.S. territories and non-U.S. residents are excluded. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Disease	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Unknown	Total
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arboviral diseases														
Chikungunya virus disease	6	2	5	7	11	17	19	14	29	17	9	20	—	156
Eastern equine encephalitis virus disease														
Neuroinvasive	—	—	—	—	—	—	—	—	1	3	—	1	—	5
Non-neuroinvasive	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jamestown Canyon virus disease														
Neuroinvasive	1	—	—	3	2	12	14	10	12	2	2	—	—	58
Non-neuroinvasive	—	—	—	—	1	4	3	5	4	—	—	—	—	17
La Crosse virus disease														
Neuroinvasive	—	—	1	—	—	2	16	28	9	5	2	—	—	63
Non-neuroinvasive	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Powassan virus disease														

Table 4

Table 4 Title: Annual reported cases of notifiable diseases and rates, by age group, United States, excluding U.S. Territories and Non-U.S. Residents, YYYY

Description: This table contains finalized data on incident (new) cases of national notifiable infectious diseases and conditions reported to CDC when counts were finalized for the year. The table presents data from 50 states; New York City; and Washington, DC, by disease and age group (<1 year, 1–4 years, 5–14 years, 15–24 years, 25–39 years, 40–64 years, 65+ years, and age not stated). Cases in territories and non-U.S. residents are excluded. See Table 8 below to learn about the census data used to calculate rates. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Disease	<1 yr No.	<1 yr Rate	1-4 yrs No.	1-4 yrs Rate	5-14 yrs No.	5-14 yrs Rate	15-24 yrs No.	15-24 yrs Rate	25-39 yrs No.	25-39 yrs Rate	40-64 yrs No.	40-64 yrs Rate	≥65 yrs No.	≥65 yrs Rate	Age not stated No.	Total No.
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arboviral diseases																
Chikungunya virus disease	—	—	—	—	6	0.01	13	0.03	37	0.06	83	0.08	17	0.03	—	156
Eastern equine encephalitis virus disease																
Neuroinvasive	—	—	—	—	—	—	1	0.00	1	0.00	3	0.00	—	—	—	5
Non-neuroinvasive	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jamestown Canyon virus disease																
Neuroinvasive	—	—	—	—	3	0.01	4	0.01	6	0.01	26	0.02	19	0.04	—	58
Non-neuroinvasive	—	—	—	—	—	—	1	0.00	3	0.00	7	0.01	6	0.01	—	17
La Crosse virus disease																
Neuroinvasive	3	0.08	7	0.04	41	0.10	5	0.01	3	0.00	1	0.00	3	0.01	—	63

Table 5

Table 5 Title: Annual reported cases of notifiable diseases and rates, by sex, United States, excluding U.S. Territories and Non-U.S. Residents, YYYY

Description: This table contains data on incident (new) cases of national notifiable infectious diseases and conditions reported to CDC when counts were finalized for the year. The table contains data from 50 states; New York City; and Washington, DC, presented by disease and sex (male, female, and sex not stated). Cases reported from the U.S. territories and non-U.S. residents are not included. See Table 8 below to learn about the census data used to calculate rates. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Disease	Female		Male		Sex not stated	Total
	No.	Rate	No.	Rate	No.	No.
Anthrax	—	—	—	—	—	—
Arboviral diseases						
Chikungunya virus disease	80	0.05	76	0.05	—	156
Eastern equine encephalitis virus disease						
Neuroinvasive	3	0.00	2	0.00	—	5
Non-neuroinvasive	—	—	—	—	—	—
Jamestown Canyon virus disease						
Neuroinvasive	25	0.02	33	0.02	—	58
Non-neuroinvasive	4	0.00	13	0.01	—	17
La Crosse virus disease						
Neuroinvasive	29	0.02	34	0.02	—	63
Non-neuroinvasive	—	—	—	—	—	—
Powassan virus disease						
Neuroinvasive	5	0.00	28	0.02	—	33
Non-neuroinvasive	1	0.00	—	—	—	1
St. Louis encephalitis virus disease						

Table 6

Table 6 Title: Annual reported cases of notifiable diseases and rates, by race, United States, excluding U.S. Territories and Non-U.S. Residents, YYYY

Description: This table contains data on incident (new) cases of national notifiable infectious diseases and conditions reported to CDC when counts were finalized for the year. Diseases or conditions with less than 25 incident (new) cases nationally are not included in this table. The table presents data from 50 states; New York City; and Washington, DC, by disease and race (American Indian or Alaska Native, Asian or Pacific Islander, Black, White, Other, Race not stated). Cases reported from the U.S. territories and non-U.S. residents are excluded. See Table 8 below to learn about the census data used to calculate rates. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Disease	American Indian or Alaska Native		Asian or Pacific Islander		Black		White		Other Race	Race not stated	Total
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	No.	No.
Anthrax	—	—	—	—	—	—	—	—	—	—	—
Arboviral diseases											
Chikungunya virus disease	1	0.02	78	0.37	3	0.01	21	0.01	11	42	156
Eastern equine encephalitis virus disease											
Neuroinvasive	S	S	S	S	S	S	S	S	S	S	5
Non-neuroinvasive	—	—	—	—	—	—	—	—	—	—	—
Jamestown Canyon virus disease											
Neuroinvasive	1	0.02	—	—	—	—	38	0.01	3	16	58
Non-neuroinvasive	S	S	S	S	S	S	S	S	S	S	17
La Crosse virus disease											
Neuroinvasive	—	—	1	0.00	—	—	56	0.02	1	5	63
Non-neuroinvasive	—	—	—	—	—	—	—	—	—	—	—

Table 7

Table 7 Title: Annual reported cases of notifiable diseases and rates, by ethnicity, United States, excluding U.S. Territories and Non-U.S. Residents, YYYY

Description: This table contains data on incident (new) cases of national notifiable infectious diseases and conditions reported to CDC when counts were finalized for the year. Diseases or conditions with less than 25 incident (new) cases nationally are not included in this table. The table presents data from 50 states; New York City; and Washington, DC, by disease and ethnicity (Hispanic, Non-Hispanic, Ethnicity not stated). Cases reported from the U.S. territories and non-U.S. residents are excluded. See Table 8 below to learn about the census data used to calculate rates. NOTE: The "Country of usual residence" data element, used to define non-U.S. Residents, is not currently reported by all jurisdictions or for all conditions.

Data used: Annual finalized data

Disease	Hispanic		Non-Hispanic		Ethnicity not stated	Total
	No.	Rate	No.	Rate	No.	No.
Anthrax	—	—	—	—	—	—
Arboviral diseases						
Chikungunya virus disease	11	0.02	95	0.04	50	156
Eastern equine encephalitis virus disease						
Neuroinvasive	S	S	S	S	S	5
Non-neuroinvasive	—	—	—	—	—	—
Jamestown Canyon virus disease						
Neuroinvasive	—	—	38	0.01	20	58
Non-neuroinvasive	S	S	S	S	S	17
La Crosse virus disease						
Neuroinvasive	3	0.01	52	0.02	8	63
Non-neuroinvasive	—	—	—	—	—	—
Powassan virus disease						

Table 8 [NOTE: This table will become available starting with 2019 annual data.]

Table 8 Title: Population Denominators for Rate Calculations, United States and U.S. Territories, YYYY

Description: This table contains population estimates by U. S. state, U.S. territory, and age group. The data were obtained from the National Center for Health Statistics postcensal estimates of the resident population of the United States, by year, county, single year of age (range: 0 to >=85 years), bridged-race (white; black or African American; American Indian or Alaska Native, Asian, or Pacific Islander), Hispanic ethnicity (not Hispanic or Latino, Hispanic or Latino), and sex, prepared under a collaborative arrangement with the U.S. Census Bureau. Population estimates for states are available at https://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm. Population estimates for territories are available from the U.S. Census Bureau International Data Base at https://www.census.gov/programs-surveys/international-programs/about/idb.html. The choice of population denominators is based on the availability of census population data at the time of the publication of CDC WONDER tables.

Reporting Area	Total Resident Population	US Resident Population, by Age Subgroup					Live Births in Year XXXX
		Population (Age <1 year)	Population (Age < 24 months)	Population (Age < 36 months)	Population (Age <5 years)	Population (Age <18 years)	
United States							
New England							
Connecticut							
Maine							
Massachusetts							
Territories							
American Samoa							
Guam							

Abbreviations and symbols used in tables

- **---:** No reported cases. NNDSS does not receive reports of zero cases and thus cannot distinguish whether no cases occurred or no cases are reported.
- **N:** Not reportable (i.e., report of disease is not required in that jurisdiction).
- **U:** Unavailable.
- **S:** Suppressed.