U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
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To: U.S. State and Territorial Epidemiologists

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Subject: 2022 Changes to the National Notifiable Diseases Surveillance System and other relevant updates.

This memorandum summarizes changes to the National Notifiable Diseases Surveillance System (NNDSS) based upon position statements approved by the Council of State and Territorial Epidemiologists (CSTE) in 2021 and other relevant updates.

Please share this information with surveillance and informatics staff in your jurisdictions responsible for collection or submission of NNDSS data to CDC.

CDC plans to post an update to the 2021 event code list, the new 2022 event code list, 2022 national surveillance case definitions, and the 2022 list of nationally notifiable conditions on the NNDSS website by December 31, 2021. The update to the 2021 event code list will include a statement in the "Notes" indicating CSTE approved a revision to the coronavirus disease 2019 (COVID-19) case definition in 2021 (see CDC memorandum dated August 24, 2021). The 2022 event code list will include 2021 CSTE position statement updates for acute flaccid myelitis, alpha-gal syndrome, COVID-19, *Chlamydia trachomatis* infection, Lyme disease, and viral hemorrhagic fever.

Section I, Part A: Revised national surveillance case definitions for four nationally notifiable conditions

1) **COVID-19 (event code 11065)**: Please refer to the CDC memorandum dated August 24, 2021, about the implementation of the new 2021 national surveillance case definition for COVID-19, based upon CSTE position statement 21-ID-01 titled "Update to the standardized surveillance case definition and national notification for 2019 novel coronavirus disease (COVID-19)."

   CDC has posted the new 2021 COVID-19 case definition to the NNDSS website. The new 2021 COVID-19 case definition:
   - updates clinical criteria indicative of infection;
   - refines and expands laboratory criteria to include genomic sequencing;
   - updates epidemiologic linkage criteria and the definition of close contact;

- acknowledges testing performed in non-traditional settings such as work sites, temporary testing sites, and homes;
- specifies criteria for enumerating new cases in persons previously classified as a probable or confirmed case (i.e., reinfections); and
- clarifies that a case meeting clinical criteria and epidemiologic linkage with no confirmatory or presumptive laboratory evidence for SARS-CoV-2 is classified as probable.

When CDC begins publishing COVID-19 case data in the NNDSS tables, CDC will publish confirmed and probable cases separately in the tables, along with a total case column.

2) ***Chlamydia trachomatis* (event code 10274):** Position Statement 21-ID-06 titled "Public Health Reporting and National Notification for Infection Caused by *Chlamydia trachomatis"* updates the case definition for *C. trachomatis* infection, or chlamydia. It adds new clinical and laboratory criteria to distinguish cases of chlamydia that are lymphogranuloma venereum (LGV) from chlamydia cases that are not LGV. Allowing for the distinction between LGV and non-LGV in *C. trachomatis* infection case report data will provide the ability to evaluate at least the minimum burden of LGV disease in the United States.

   A repeating group for clinical complications has already been incorporated into the Sexually Transmitted Disease (STD) Message Mapping Guide (MMG) v1.1.1 to distinguish between LGV and non-LGV infections in *C. trachomatis* infection case notifications; however, the value set for the repeating group does not perfectly align with the position statement. A revision to the STD MMG (v1.2) is planned which will update the value set to align with changes to the *Chlamydia trachomatis* case definition.

   C. trachomatis is routinely notifiable to CDC. Only confirmed cases of *C. trachomatis* infection will be published in the weekly and annual 2022 tables.

3) **Lyme disease (event code 11080)**: Position Statement 21-ID-05 titled "Modification of Lyme Disease Case Definition*"* updates the case definition for Lyme disease. It a) defines and standardizes different approaches to public health surveillance for high-incidence and low-incidence jurisdictions in accordance with differing objectives, and b) updates laboratory evidence of infection. This position statement:
   - Modifies the Lyme disease surveillance case definition to meet the needs of all jurisdictions by differentiating case classification criteria for jurisdictions based on incidence.
   - Increases the specificity within the probable case classification used by low-incidence states by removing "other physician diagnoses."

- Acknowledges the lack of specificity of the single-tier IgG immunoblot, a frequently reported test for Lyme disease, and recategorizes it as a presumptive laboratory test, given that it is not, by itself, recommended for laboratory diagnosis.
- Updates and expands laboratory criteria for evidence of infection by updating serologic testing criteria and adding polymerase chain reaction and direct detection of *Borrelia burgdorferi (B. burgdorferi)* in tissue as acceptable laboratory evidence.

CSTE defines high-incidence jurisdictions as those that have had an average Lyme disease incidence of ≥10 confirmed cases per 100,000 population for a period of three consecutive years. All others are considered low-incidence jurisdictions. Once ≥10 confirmed cases per 100,000 population have been observed for three consecutive years, a low-incidence jurisdiction is considered a high-incidence jurisdiction for surveillance purposes and should use the case notification criteria for a high-incidence jurisdiction. Confirmed cases are reported only from low-incidence jurisdictions; however, probable cases are reported from both high- and low-incidence jurisdictions. There is also a suspect case classification for high- and low-incidence jurisdictions.

Lyme disease is routinely notifiable to CDC. Data for Lyme disease will continue to be excluded from the weekly NNDSS tables and displayed in the annual NNDSS tables as confirmed, probable, and the total of confirmed and probable cases.

4) **Viral hemorrhagic fever (the event codes for this category of conditions are virus specific)**: Position Statement 21-ID-04 titled "Update to Public Health Reporting and National Notification of Viral Hemorrhagic Fever (VHF) caused by Ebola or Marburg viruses, Old World arenaviruses (Lassa and Lujo viruses), New World arenaviruses (Guanarito, Machupo, Junin, Sabia, and Chapare viruses), or Crimean-Congo hemorrhagic fever virus" makes the following three key updates:
   - Modifies the definition of fever from >40ºC to ≥ 38ºC/100.4ºF.
   - Adds Chapare virus, a re-emerging New World arenavirus, to those reportable under this position statement.
   - Amends the epidemiologic linkage criteria for exposure within the past 3 weeks to semen from a confirmed acute or clinically recovered case of viral hemorrhagic fever to remove the stipulated time period of exposure within 10 weeks of the viral hemorrhagic fever case's onset of illness.

   CSTE recommends immediate (extremely urgent) notification for suspected or confirmed cases of viral hemorrhagic fever when an intentional release is suspected as

the cause of infection and immediate (urgent) notification for all other suspected and confirmed cases.

The new event code for viral hemorrhagic fever due to exposure to Chapare virus is 11649. Confirmed and suspect cases of viral hemorrhagic fever will be published in the 2022 weekly and annual NNDSS tables.

Section I, Part B: Revised and new national surveillance case definitions for two conditions placed under standardized surveillance, but not designated nationally notifiable

1) **Acute flaccid myelitis (AFM) (event code 11120)**: Position Statement 21-ID-02 titled "Revision to the Standardized Case Definition, Case Classification, and Public Health Reporting for Acute Flaccid Myelitis" improves case ascertainment and reporting consistency across jurisdictions and includes the following updates:
    - The suspect case classification criteria have been modified to include supportive laboratory/imaging criteria.
    - Additional criteria have been added under case ascertainment to allow for reporting of suspect AFM cases identified post-mortem.
    - The confirmed case classification is revised to include persons who died and did not have an MRI performed but have evidence of myelitis on autopsy.

    The CDC National Center for Immunization and Respiratory Diseases (NCIRD) is interested in continuing to receive AFM data. The preferred method for sending data on AFM cases to NCIRD is through the CDC AFM REDCap project, the secure file transfer portal, secure email, or fax. Jurisdictions may also send notifications of AFM cases using the Generic version 2 MMG but should send AFM-specific data through the currently established reporting mechanisms.

2) **Alpha-gal syndrome (event code 50269)**: Position Statement 21-ID-07 titled "Standardized Case Definition for Alpha-Gal Syndrome" creates a standardized case definition for surveillance of alpha-gal (galactose-alpha-1,3-galactose) syndrome, also known as red meat allergy or alpha-gal allergy.

    This position statement establishes a standardized, alpha-gal syndrome surveillance case definition for states that wish to include this condition in their list of reportable conditions or conduct pilot studies or targeted surveillance for this emerging syndrome. Though this case definition is not intended for clinical use, public health officials could use the data to help inform clinicians about the estimated burden and trends of alpha-

gal syndrome in their regions. The case definition includes a description of confirmed, probable, and suspect cases.

CDC's National Center for Emerging and Zoonotic Infectious Diseases is interested in receiving data for this condition using the Generic v2 HL7 case notifications and legacy mechanisms (NETSS, NBS Master Message, and Generic v1). CDC is in the process of seeking Office of Management and Budget Paperwork Reduction Act approval for this condition and will notify you when approval is obtained for jurisdictions to send data to CDC. Until then, use the event code to capture data in your surveillance information systems.

Section II: Update about the MMG development and jurisdiction implementation process

1) Despite the ongoing COVID-19 public health emergency, CDC has made progress in developing and updating MMGs, and jurisdictions continue implementation and onboarding efforts, including with the COVID-19 MMG. Twenty-eight jurisdictions are sending COVID-19 data using the Generic v2 MMG, four are sending the full COVID-19 MMG, and one is sending COVID-19 Lite. Thirty-three jurisdictions are in production with at least two MMGs, and six jurisdictions are in production with five or more guides. The highest number of MMGs in production for a single jurisdiction is nine. Case Surveillance News includes the most current information on the number of jurisdictions implementing final MMGs and a State Implementation Status Map that displays the status of each jurisdiction based on the MMG selected.

2) During 2021, the STD, Congenital Syphilis, and COVID-19 programs released guide updates that included new data elements. Additionally, five guides were opened for general onboarding: babesiosis, malaria, trichinellosis, Lyme and tickborne rickettsial diseases, and tuberculosis and latent TB infection. General onboarding for the healthcare associated infections (HAI) MMG should be opened before the end of the year. Other guides had value set updates released throughout the year. Moving into 2022, we anticipate piloting four new guides and one update: brucellosis, carbon monoxide poisoning, Hansen's disease, leptospirosis, and hepatitis version 2.0. Foodborne diarrheal diseases (FDD) will release a new guide (v1.2) that adds data elements and better aligns within FDD and across MMGs. STDs will also release an updated guide (v1.2) that changes the "Type of Complications Indicator" value set from "PHVS_YesNoUnknown_CDC" to "PHVS_LateClinicalManifestation_STD" to align with changes to the *Chlamydia trachomatis* case definition. For the most current information

on MMG status, versions, and their associated value sets, visit the Message Mapping Guides page of the NNDSS website.

Section III: Update on NNDSS data processing redesign

This year brought many improvements to CDC processing of NNDSS case notifications and jurisdiction interactions with the data through the Message Validation, Processing, and Provisioning System (MVPS). Users are now able to see all case notification types (HL7, NETSS, and NBS master message) in the MVPS portal. All transactions for these case notifications are visible, allowing jurisdiction users to troubleshoot and identify issues with the data on an ongoing basis. Additional functionality allows users to delete a case or batch of cases through the user interface, provide verification for select low-incidence conditions, review case counts, and download line lists of data to streamline reconciliation.

The CDC NNDSS team is working to provide additional functionality for the 2021 annual data reconciliation process. In addition to the line list, reconciliation reports previously emailed to jurisdictions will be available on-demand through the MVPS portal. Once your jurisdiction determines that the data at CDC are correct for the year, authorized jurisdiction users will be able to "lock" their annual dataset as a step toward finalizing the data, which prevents inadvertent updates. New STD Manager and State Epidemiologist roles in MVPS will allow for sign-off on the locked data to finalize it for the year, replacing the process of emailing tables for signature. More information and training will be provided when we are closer to the 2021 annual data reconciliation.

Thank you very much for your reporting efforts throughout the year. Your input is essential as we continue to work together to prevent and control diseases.

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