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To: U.S. State and Territorial Epidemiologists

From: Michelle Lin, PhD, MSPH; Public Health Data Transmission Branch; Detect and Monitor Division; Office of Public Health Data, Surveillance, and Technology

Subject: 2024 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 2023 and other relevant updates. Updates include: 1) one new nationally notifiable condition, 2) case definition revisions to seven existing nationally notifiable conditions, 3) establishment of case definitions for two conditions under standardized surveillance, that are not nationally notifiable, 4) update of case definition for one condition under standardized surveillance, that is not nationally notifiable, 5) summary of NNDSS event code changes, 6) case surveillance data standardization and harmonization efforts, and 7) the annual NNDSS data reconciliation process.

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 the 2024 [event code list](#), the 2024 updates to the national surveillance [case definitions](#), and the 2024 [list of nationally notifiable conditions](#) on the [NNDSS website](#) by the end of January 2024.

Section I: Surveillance for one new nationally notifiable condition

1) Invasive *Cronobacter* infection among infants (event code 13060)

CSTE position statement [23-ID-03](#), titled *Public Health Reporting and National Notification for Invasive Cronobacter Infection Among Infants*, creates a standardized surveillance case definition for invasive *Cronobacter* infection among infants (less than 12 months of age) and makes it an **immediately notifiable, urgent condition starting in 2024**.

A standardized case definition for invasive *Cronobacter* infection among infants will facilitate the estimation of incidence, identification of risk factors, prompt detection and tracing of outbreaks, and will be used to inform control and prevention measures. Invasive *Cronobacter* infection among infants was made nationally notifiable to facilitate heightened clinical awareness and support a coordinated response among federal agencies to an agent with the potential for multistate outbreaks. The case classification criteria include confirmed, probable, and suspect cases.

Invasive *Cronobacter* infection among infants will be verified with the jurisdiction and CDC program before publication in the [NNDSS tables on the CDC WONDER platform](#). Because invasive *Cronobacter* infection among infants has been designated a low-incidence condition requiring verification, provisional case reports will be verified with both the reporting jurisdiction and the National Center for Emerging and Zoonotic Infectious Diseases via the Low Incidence Verification module in the Message Validation, Processing, and Provisioning System (MVPS) portal. Verified cases meeting print criteria will be published in the NNDSS tables unless there is a reporting exception. Data displayed in the weekly and annual NNDSS tables will include case counts for confirmed, probable, and total confirmed and probable cases of *Cronobacter* invasive infection among infants. **If your jurisdiction is requesting a reporting exception for 2024 due to state law or regulation** or because you will be unable to send data to CDC and you have not already notified CDC, please contact us at edx@cdc.gov.

CDC is seeking Office of Management and Budget (OMB) Paperwork Reduction Act (PRA) approval to receive case notifications for this condition. When approved, if jurisdictions collect data for *Cronobacter* infection among infants, the CDC program would like to receive ongoing data submissions using HL7 case notifications with the Generic v2 Message Mapping Guide (MMG) (preferred), the National Electronic Disease Surveillance System (NEDSS) Base System (NBS) master message, or National Electronic Telecommunications System for Surveillance (NETSS) file format. MVPS will not accept the data on invasive *Cronobacter* infection among infants before OMB approval. Additional information will be collected in System for Enteric Disease Response, Investigation, and Coordination (SEDRIC) to respond to case and outbreak investigations.

Section II: Revised national surveillance case definitions for seven nationally notifiable conditions

1) Anaplasmosis (event code 11090)

CSTE position statement [23-ID-01](#), titled *Update to Public Health Reporting and National Notification for Anaplasmosis*, revises the standardized surveillance case definition for anaplasmosis to be distinct from ehrlichiosis and updates laboratory and clinical evidence. This allows for more flexibility if clinical or laboratory criteria need to be updated and will better describe the epidemiology of these infections. The position statement updates the laboratory criteria to remove diagnostic tests that are either no longer commonly available or are unreliable indicators of acute infection and introduces greater flexibility in the clinical criteria. **Event code 11091 (ehrlichiosis/anaplasmosis, undetermined) will be retired in 2024** and undetermined ehrlichiosis/anaplasmosis cases will no longer be reported to CDC. Confirmed and probable cases of *Anaplasma phagocytophilum* infection will only be published in the NNDSS **annual** tables on CDC WONDER, starting in 2024.

2) Ehrlichiosis (event codes 11088, 11089, 11092, 11093)

CSTE position statement [23-ID-04](#), titled *Update to Public Health Reporting and National Notification for Ehrlichiosis*, revises the standardized surveillance case definition for ehrlichiosis to be distinct from anaplasmosis and updates laboratory and clinical evidence. This allows for more flexibility if clinical or laboratory criteria need to be updated and will better describe the epidemiology of these infections. **Event code 11091 (ehrlichiosis/anaplasmosis, undetermined) will be retired in 2024** and undetermined ehrlichiosis/anaplasmosis cases will no longer be reported to CDC. The position statement also **adds an additional species-specific classification, “*Ehrlichia muris eauclairensis*,” and adds “*Ehrlichia*, other spp. or unspciated.”** CDC is seeking OMB PRA approval to receive case notifications for the two new event codes.

Confirmed cases of *Ehrlichia chaffeensis* infection; *Ehrlichia ewingii* infection; *Ehrlichia muris eauclairensis* infection; and confirmed and probable cases of *Ehrlichia* infection, other spp. or unspciated will only be published in the NNDSS **annual** tables on CDC WONDER, starting in 2024.

Starting in 2024, event codes for ehrlichiosis are as follows:

11088 – *Ehrlichia chaffeensis* infection – confirmed

11089 – *Ehrlichia ewingii* infection – confirmed

11092 – *Ehrlichia muris eauclairensis* infection – confirmed ***New**

11093 – *Ehrlichia* infection, other spp. or unspciated – confirmed or probable ***New**

3) Hepatitis B, acute (event code 10100) and hepatitis B, chronic (event code 10105)

CSTE Position Statement [23-ID-05](#), titled *Update to Public Health Reporting and National Notification for Acute and Chronic Hepatitis B Infections*, updates the standardized surveillance case definition for acute and chronic hepatitis B to:

- aggregate the acute and chronic hepatitis B position statements into a single document,
- improve the sensitivity and specificity of acute hepatitis B case classifications and the ability to confirm chronic cases,
- create a probable case classification for acute hepatitis B,
- modify the probable case classification for chronic hepatitis B, and
- clarify which cases should be reported via the perinatal hepatitis B virus position statement (16-ID-06).

The NNDSS weekly and annual tables on the CDC WONDER platform will include acute and chronic hepatitis B confirmed and probable cases. The change to publishing both acute and chronic hepatitis cases on CDC WONDER will also apply to hepatitis C.

4) Mumps (event code 10180)

CSTE position statement [23-ID-06](#), titled *Update to Public Health Reporting and National Notification for Mumps*, updates the previous case definition for mumps including the clinical, laboratory, and

epidemiologic linkage criteria. **Updates to the case classification include removal of a symptom requirement from the confirmed case classification**, requiring only confirmatory laboratory evidence. CDC weekly and annual tables will display the combined confirmed and probable cases; unknown case classification status will no longer be included in the NNDSS publication.

5) Poliomyelitis, paralytic (event code 10410)

CSTE position statement [23-ID-07](#), titled *Update to Public Health Reporting and National Notification for Paralytic Poliomyelitis and Nonparalytic Poliovirus Infection*, updates the standardized case definition for paralytic poliomyelitis to simplify reporting and clarify the difference between non-poliovirus-associated acute flaccid myelitis (AFM) and paralytic poliomyelitis by **adding a laboratory component for the confirmed classification**. The position statement includes only confirmed case classifications for paralytic poliomyelitis and nonparalytic poliovirus infection. No significant updates are made to nonparalytic poliovirus infection (event code 10405).

Paralytic poliomyelitis and nonparalytic poliovirus infection should remain as nationally notifiable conditions; however, the CDC notification timeframe has been updated from within 4 hours to within 24 hours.

6) Varicella (chickenpox) (event code 10030)

CSTE position statement [23-ID-09](#), titled *Update to Public Health Reporting and National Notification of Varicella*, accounts for changes in the epidemiology and clinical presentation of varicella in the era of high varicella vaccine population coverage. The position statement revises the clinical, laboratory, epidemiologic linkage criteria for case classification, and healthcare record criteria for case reporting. There are no changes to the publication criteria; confirmed and probable cases will be published in the weekly and annual NNDSS tables.

7) Zika virus disease, non-congenital (event code 50223) and Zika virus disease, congenital (event code 50224)

CSTE position statement [23-ID-10](#), titled *Update to Public Health Reporting and National Notification for Non-congenital and Congenital Zika Virus Disease*, updates the standardized surveillance case definition for non-congenital and congenital Zika virus disease to revise clinical, laboratory, and epidemiologic linkage criteria. Confirmed and probable cases of non-congenital disease will be published weekly and annually, while confirmed and probable cases of congenital disease will only be published annually. **The statement also removes non-congenital and congenital Zika virus infection (without disease) from the nationally notifiable conditions list.**

Starting in 2024, the following event codes will be **retired**:

- 50221 – Zika virus **infection**, non-congenital and
- 50222 – Zika virus **infection**, congenital.

Section III: New national surveillance case definitions for two conditions placed under standardized surveillance, but not designated nationally notifiable

1) Congenital cytomegalovirus infection (event code 13050) and congenital cytomegalovirus disease (event code 13051)

CSTE position statement [23-ID-02](#), titled *Standardized Surveillance Case Definition for Congenital Cytomegalovirus (cCMV) Infection and Disease*, establishes new standardized case definitions for cCMV infection and disease. Standardized case definitions for cCMV infection and disease are needed because multiple jurisdictions in the United States are conducting cCMV screening and surveillance activities but are using various methods and inclusion criteria for case ascertainment, reporting, and classification. As more jurisdictions pass legislation for newborn screening for cCMV, standardized surveillance practices for cCMV infection and disease can be used to understand the epidemiology of cCMV and compare trends across the United States.

Case classifications include confirmed cCMV infection and confirmed and probable cCMV disease. CDC is seeking OMB PRA approval to receive case notifications for this condition. When approved, if a jurisdiction collects data for cCMV, the CDC program would like to receive data using HL7 case notifications with the Generic v2 MMG (preferred), the NBS master message, or NETSS file format.

2) Toxoplasmosis (event code 13070) and congenital toxoplasmosis (event code 13071)

CSTE position statement [23-ID-08](#), titled *Standardized Surveillance Case Definition for Toxoplasma gondii Infection and Toxoplasmosis, including Congenital Toxoplasmosis*, **establishes new standardized surveillance case definitions for toxoplasmosis (event code 13070) and congenital toxoplasmosis (event code 13071)** to provide consistency across jurisdictions, improve understanding of the disease, and guide public health response and prevention efforts. The case classifications include confirmed, probable, and suspect cases.

Health departments that have the capacity and resources to conduct additional surveillance can further classify toxoplasmosis cases using three new sub-classifications:

- Toxoplasmosis, active primary infection (event code 13072) – confirmed, probable, suspect
- Toxoplasmosis, active reactivation disease (event code 13073) – confirmed, probable
- Toxoplasmosis, past infection/unable to classify (event code 13074) – confirmed

Jurisdictions that choose to classify and send case notifications to CDC using the sub-classifications should report toxoplasmosis cases using codes 13072, 13073, or 13074. Any cases able to be classified into event codes 13072, 13073, or 13074 should not also be reported via event code 13070 (i.e., no duplicate reporting). There are no sub-classifications for reporting congenital toxoplasmosis cases; all congenital toxoplasmosis cases can be reporting using event code 13071.

Starting in 2024, the event code **12020** (toxoplasmosis) will be retired, as it was used to report cases without a standard national case definition.

CDC toxoplasmosis surveillance program will work with reporting jurisdictions regarding any publication of summary data.

CDC is seeking OMB PRA approval to receive case notifications for this condition. When approved, data can be sent using the HL7 generic v2 MMG (preferred), the NBS master message, or NETSS file format.

Section IV: Update of case definition for one condition under standardized surveillance, that is not nationally notifiable

1) Neonatal abstinence syndrome (no event code established)

CSTE position statement [23-MCH-01](#), titled *Update to the Neonatal Abstinence Syndrome Standardized Case Definition*, includes a number of changes to the standardized surveillance case definition for clarity and ease of use. Notably, the probable case classification has been removed with criteria now included in the confirmed category. No event code has been established by NNDSS for neonatal abstinence syndrome because cases are not received through MVPS; NNDSS does not publish data on this condition under standardized surveillance.

Section V: Reminder about Carbapenemase-producing carbapenem-resistant *Enterobacteriaceae* (CP-CRE) event code retiring and summary of 2024 event code changes

Reminder: In 2024, jurisdictions will be required to use event codes, **50270 and 50271**, for [Carbapenemase-producing organisms \(CPOs\)](#). The previous code for CP-CRE, **50244**, will be retired. 2023 cases of CP-CRE can still be reported using 50244.

Starting with reported *MMWR* Year 2024:

- Confirmed cases of CPO, clinical (event=50270) and CPO, screening (event=50271), and CPO, total (event=50270 and 50271) counts will display in the NNDSS weekly tables under Cumulative YTD 2024.
- CP-CRE (event=50244) will be retired, and cases with this code will error for cases reported with *MMWR* Year 2024 and beyond; therefore, CP-CRE cases will no longer be included in the CPO total counts.

Summary of 2024 event code changes:

| New | | |
|---|-------|--|
| Invasive <i>Cronobacter</i> infection among infants | 13060 | |
| <i>Ehrlichia muris eauclairensis</i> infection | 11092 | |
| <i>Ehrlichia</i> infection, other spp. or unspciated | 11093 | |
| Congenital toxoplasmosis | 13071 | |
| Toxoplasmosis | 13070 | Do not use if sending sub-classifications 13072, 13073, and 13074 |
| Toxoplasmosis, active primary infection | 13072 | Use with 13073 and 13074 if able to sub-classify cases |
| Toxoplasmosis, active reactivation disease | 13073 | Use with 13072 and 13074 if able to sub-classify cases |
| Toxoplasmosis, past infection/unable to classify | 13074 | Use with 13072 and 13073 if able to sub-classify cases |
| Congenital cytomegalovirus, infection | 13050 | |
| Congenital cytomegalovirus, disease | 13051 | |
| Retired (will error for 2024 cases) | | |
| Ehrlichiosis/anaplasmosis, undetermined | 11091 | Use <i>Anaplasma phagocytophilum</i> infection (11090), <i>Ehrlichia chaffeensis</i> infection (11088), <i>Ehrlichia ewingii</i> infection (11089), <i>Ehrlichia muris eauclairensis</i> infection (11092) - new , or <i>Ehrlichia</i> infection, other spp. or unspciated (11093) - new |
| Zika virus infection , non-congenital | 50221 | Zika virus infection (without disease) is no longer notifiable; continue to use Zika virus disease, non-congenital (50223) for symptomatic cases |
| Zika virus infection , congenital | 50222 | Congenital Zika virus infection (without disease) is no longer notifiable; continue to use Zika virus disease, congenital (50224) for symptomatic cases |
| Toxoplasmosis | 12020 | Historical code used to report cases before there was a standard national case definition. Use new event codes above. |
| Carbapenemase-producing carbapenem-resistant <i>Enterobacteriaceae</i> (CP-CRE) | 50244 | Use carbapenemase-producing organism (CPO), clinical (50270) and CPO, screening (50271) |

Section VI: Case surveillance data standardization efforts

To standardize data elements used in case surveillance, the CSTE Data Standardization Workgroup is convening epidemiologists and informaticians across jurisdictions and CDC programs. The work will

recommend definitions and interpretations for 'core' surveillance data elements that are used across many conditions and are key for public health actions.

The group has already discussed hospitalization, travel history, pregnancy, industry and occupation, and sexual orientation and gender identity. Upcoming Data Element Specific Teams (DEST) will focus on the following data classes:

- Immunization history
- Exposure/risk/underlying conditions
- Death
- Signs/symptoms/clinical manifestations
- Identifiers (case/event-related/laboratory)
- Laboratory
- Medication/treatment
- Race/ethnicity/tribal affiliation
- Reporting source
- Disability
- Additional social determinants of health

We encourage all jurisdictions to participate in these discussions because the recommendations will impact future case notification content. To participate in the Data Element Specific Teams, sign up using this form: <https://app.smartsheet.com/b/form/3da89d48bda94fc7a33c4a8a505fe54a>.

Section VII: Annual NNDSS data reconciliation process

In support of ongoing data modernization efforts, CDC has endeavored to improve the annual NNDSS data reconciliation process by building an interactive suite of tools within the Message Validation, Processing, and Provisioning System (MVPS) portal to streamline the process and provide jurisdictions more transparency and autonomy in reconciling their data. The 2022 NNDSS data reconciliation process was conducted entirely within the MVPS portal for the first time, bringing together functionality piloted during 2020 and 2021 reconciliation and new features such as direct downloads of stratification reports. Feedback from jurisdictions on the new process was positive, with users reporting that conducting reconciliation functions within MVPS was much easier, more efficient, and saved time. CDC continues to gather feedback and suggested portal improvements while preparing to continue use of the MVPS portal for 2023 NNDSS data reconciliation.

We thank you for your patience and flexibility as we transition to this new way forward for the annual NNDSS data reconciliation process. We encourage all jurisdictions to use the tools within MVPS throughout the year to continuously monitor messages sent to CDC and correct discrepancies as they occur, to maintain data accuracy and alleviate demands during the annual reconciliation process.

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.