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To: U.S. State and Territorial Epidemiologists

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Subject: 2014 Changes to the National Notifiable Diseases Surveillance System and Other Updates

This memo summarizes changes to the National Notifiable Diseases Surveillance System (NNDSS) based on the position statements approved by the Council of State and Territorial Epidemiologists (CSTE) at their annual meeting in June 2013, as well as other relevant updates. Please share this letter with the surveillance and informatics staff in your jurisdiction who are responsible for collection or submission of NNDSS data to CDC. The following list summarizes the topics covered in the seven sections of this memorandum:

- Section I includes a summary of revisions to national surveillance case definitions for selected nationally notifiable infectious conditions, based upon approved 2013 CSTE position statements. These case definitions should be used for reporting new 2014 cases to CDC's NNDSS beginning in January 2014. We expect to post these case definition revisions to the NNDSS web site (<http://www.cdc.gov/nndss/>) by the end of December 2013.
- Section II provides information about the creation of an optional binational variable, to be included in case notifications to the NNDSS, as per an approved 2013 CSTE position statement.
- Section III provides an update about the current Message Mapping Guide (MMG) development effort for case notifications to the NNDSS.
- Section IV introduces you to the "2014 Notifiable Events and Notification Mechanisms" document (attached), which provides information about which

MMGs and event codes to use for submission of case notifications to NNDSS and the 2014 Event Code list (attached) which includes current and retired event codes.

- Section V provides a national event code for reporting jurisdictions to use within their jurisdiction-specific surveillance information systems for surveillance of Middle East Respiratory Syndrome Coronavirus (MERS-CoV), although this condition is not nationally notifiable and case notifications should not be sent to CDC's NNDSS.
- Section VI includes an update about when NNDSS expects to make leptospirosis nationally notifiable, based upon the Office of Management and Budget (OMB) Paperwork Reduction Act (PRA) review.

Section I. Summary of the national surveillance case definition revisions for the NNDSS, based upon 2013 CSTE position statements:

1. Position statement 13-ID-03 titled *Update to Public Health Reporting and National Notification for Gonorrhea* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-03.pdf>) modifies the probable case definition to remove the criterion of a written morbidity report of gonorrhea submitted by a physician. This change in case definition is consistent with the chlamydia infection case definition which does not allow for provider reporting in the absence of laboratory confirmation.
2. Position statement 13-ID-04 titled *Update to Public Health Reporting and National Notification for Syphilis* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-04.pdf>) requests that the laboratory criteria for syphilis diagnosis be updated to reflect the addition of new diagnostic tests and the removal of tests not used. Surveillance case definitions for different stages of syphilis have been modified (i.e., laboratory criteria for some categories; clinical description for all categories). Additionally, the updated position statement eliminates (a) syphilis, latent, as a separate category (but continues to include syphilis, early latent and syphilis, late

latent); (b) neurosyphilis, and c) syphilis, latent, unknown duration, from its description of criteria to determine how a case should be classified. As such, the event codes for these three classifications will be retired December 31, 2013.

3. Position statement 13-ID-06 titled *Revised Surveillance Case Definition for Trichinellosis (Trichinosis) (Trichinella spp.)* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-06.pdf>) requests the addition of suspected and probable case classification categories to the case definition. This position statement implements revisions related to the following issues: a) classification of an asymptomatic person; b) classification of symptomatic persons with no laboratory confirmation of disease, and c) the identification of the parasite in food as a laboratory criterion for diagnosis.
4. To improve the completeness and accuracy of malaria surveillance, Position statement 13-ID-08 titled *Public Health Reporting and National Notification for Malaria* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-08.pdf>) requests revision to the case definition for malaria to include reporting requirements for malaria species and quantification of the parasitemia.
5. Position statement 13-ID-13 titled *Update to Arboviral Neuroinvasive and Non-neuroinvasive Diseases Case Definition* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-13.pdf>) requests revisions to the neuroinvasive disease definition including removal of fever as a required clinical criterion for case classification and revisions to the laboratory criteria. Revisions to the non-neuroinvasive disease definition include the substitution of subjective fever or chills in place of measured temperature in the clinical criteria.
6. Position statement 13-ID-14 titled *Public Health Reporting and National Notification for Novel Influenza A Virus Infection* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-14.pdf>) requests a change to laboratory criteria for diagnosis, the criteria for epidemiologic linkage, and to the probable case classification, compared to the 2010 case definition (which is based upon CSTE position statement 09-ID-43).

The novel influenza A virus infection surveillance case definition from CSTE's

2013 interim position statement for this condition is identical to the case definition published in position statement 13-ID-14.

7. Position Statement 13-ID-15 titled Revision of the pertussis surveillance case definition to more accurately capture the burden of disease among infants <1 year of age (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-ID-15.pdf>) acknowledges the current case definition does not adequately capture the burden of pertussis among infants < 1 year of age. The position statement modifies the current case definition as per the following: a) the addition of apnea to the list of case-defining clinical signs and symptoms for infants, and b) classification of PCR positive or epi-linked cases occurring among infants with cough of any duration and one other clinical symptom as "probable".

Section II. Inclusion of data about the binational variable in NNDSS data submissions.

Position Statement 13-SI-02 titled *Incorporating a Binational variable into the National Notifiable Diseases Surveillance System (NNDSS) Generic Variables* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/13-SI-02.pdf>) requests the addition of an optional binational variable to identify cases of binational interest (Canada and Mexico) to be collected on all infectious nationally notifiable diseases and to be transmitted in case notifications to CDC. This position statement also indicates that when possible and desired by individual jurisdictions, the binational case variable should be integrated with other relevant variables, such as but not limited to, country of exposure and country of usual residence.

Generic data element INV515 (a select all values that apply variable) and its value set (PHVS_BinationalReportingCriteria_CDC) have been created and is now stored in the Public Health Information Network Vocabulary Access and Distribution System (PHIN VADS) repository (<https://phinvas.cdc.gov/vads/SearchVocab.action>). INV515 has been incorporated into the draft Generic version 2 individual case notification MMG.

Section III. Update on the MMG Development Effort for HL7 NNDSS Case Notifications

CDC is currently developing the following three new MMGs for submission of individual case notifications to the NNDSS using HL7 format: Generic version 2, Hepatitis version 1, and Sexually Transmitted Diseases (STD) version 1 which excludes congenital syphilis. The development of a congenital syphilis MMG is our next new priority and we are expecting to receive at least four additional high-priority conditions for MMG development in 2014. The following provides a summary and status of the new MMGs in development in 2013:

- 1) The draft Generic version 2 individual case notification MMG includes generic variables needed for each nationally notifiable infectious condition and must be used with new disease-specific MMGs (e.g., Hepatitis, Sexually Transmitted Diseases, and congenital syphilis) to create a complete case notification. The Generic version 2 MMG includes new variables approved by CSTE, which have been vetted with CDC Subject Matter Experts and reporting jurisdictions. CDC is preparing the technical infrastructure to receive Generic version 2 case notification messages. On October 31, 2013, the draft Generic version 2 MMG was distributed externally to help reporting jurisdictions with their planning efforts related to future implementation of this MMG. As a draft MMG, it is subject to revision, based upon the input we receive from the pilot reporting jurisdictions. Currently, the pilot jurisdictions for this MMG include Florida, Michigan, New York State, and Oregon. We are working with the technical staff to identify a timeline for submissions of test messages from the pilot jurisdictions. Test scenarios and test messages have also been developed for the Generic v2 MMG and will be made available to reporting jurisdictions when we are prepared to implement the Guide.
- 2) New disease-specific MMGs: All newly developed disease-specific MMGs contain only disease-specific data and thus must be used with the Generic v2 MMG to create a complete case notification message. In the future, disease-

specific MMGs already published on the PHIN web site will need to be modified to remove generic variables and will need to be used with the new Generic version 2 Guide, in order to send a complete case notification to the NNDSS. We are preparing test scenarios and HL7 test messages for all new MMGs.

- a. The draft hepatitis MMG has been prepared and the technical infrastructure is being developed to receive hepatitis case notification messages. This MMG will cover the following conditions: acute hepatitis A, B, and C; perinatal hepatitis B, chronic hepatitis B and C; and acute hepatitis E (although this condition is not nationally notifiable). At this time, the pilot jurisdictions for this MMG include: Florida, Michigan, New York State, and Oregon. We will announce when this draft MMG, the test scenarios, and the HL7 test messages are ready to be distributed for jurisdictional planning purposes.

- b. The draft STD MMG, which excludes congenital syphilis, was provided recently to the technical implementation teams. Earlier this year, the draft STD MMG was distributed for external input and the Guide was revised to address the external comments received by the CDC STD and NNDSS programs. STD test scenarios and test messages are being developed. The STD MMG will be piloted when we are ready to receive test messages. We are in the process of identifying jurisdictions to pilot test the STD MMG. Based upon the results of the pilot, revisions to the MMG may be needed and then the finalized MMG will be distributed more widely for implementation. In addition, work on the new congenital syphilis MMG is being initiated.

In July 2013, CDC's Division of STD Prevention distributed version 4 of the STD NETSS record layout to all reporting jurisdictions, which included data elements for all nationally notifiable STD conditions. As of January 2014, the following STD conditions/codes will be retired:

- Granuloma inguinale (GI) (event code 10276)
- Lymphogranuloma venereum (LGV) (event code 10306)
- Nongonococcal urethritis (NGU) (event code 10307)
- Mucopurulent cervicitis (MPC) (event code 10308)
- Pelvic inflammatory disease (PID) (event code 10309)
- Syphilis, latent of unknown duration (event code 10315)
- Neurosyphilis (event code 10317)
- Syphilis, late with clinical manifestations other than neurosyphilis (event code 10318),

[Note: Neurosyphilis can occur at almost any stage; therefore, it is not considered a stage itself. If there is neurological involvement that meets the “Neurosyphilis” case definition, send case notifications to NNDSS coded to the appropriate stage of syphilis and then code the neurological involvement variable to reflect either “Yes, confirmed” or “Yes, probable”. In the STD NETSS STD record layout versions 2-4, use the “Neurological involvement” data element; while in version 1, use the variable “Neuro.”]

In addition, a new event code has been assigned to the following nationally notifiable condition:

- Syphilis, late with clinical manifestations (including late benign syphilis and cardiovascular syphilis) (event code 10319)

The NETSS STD record layout version 4 was distributed and made effective as of July 2013. Until CDC is ready to implement the STD and congenital syphilis MMGs, reporting jurisdictions should continue to send data in the most recent version of the STD NETSS, currently version 4 (effective July 2013). Please note that in early 2014, an update to the NETSS STD record layout version 4 format

will be distributed, which will reflect the modifications to event codes mentioned above in Section IIIb.

Section IV. Event Codes and Notification Mechanisms

The 2014 Event Code list (attached) includes current and retired codes for nationally notifiable diseases or other conditions of public health interest, for use in jurisdiction-specific surveillance information systems. In addition, the 2014 Event Code list includes additional information which you may find useful, such as notes about selected conditions and whether any verification procedures exist for the specified condition and/or what the print (publication) criteria are.

We have also created a new document, titled the “2014 Notifiable Events and Notification Mechanisms” document (attached), which provides information about which MMGs and event codes to use for submission of case notifications to NNDSS. This document represents a subset of event codes from the 2014 Event Code list. The “Introduction” worksheet provides important context for understanding how to use this document. In addition, please be sure to read the “NOTE” highlighted in yellow in row 4 of the “Event Codes” worksheet. On the “Event Codes” worksheet, there is a column for the “Preferred Mechanism” and “Alternate Mechanism” for sending case notifications to CDC. You can filter the “Preferred Mechanism” column to provide a list of those conditions which only use the “Generic Individual Case Notification v2 (HL7)” MMG. This column can also be filtered for other types of Guides. You can use the drop-down list in the column header row (row 5) to explore the responses for the Preferred Mechanism column.

Section V. Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

The 2014 Event Code list includes a new event code for MERS-CoV (event code 11064). The case definition for this condition is posted at <http://www.cdc.gov/coronavirus/mers/case-def.html>. This condition is not nationally notifiable and CDC’s NNDSS does not request that case notifications

be sent for this condition to the NNDSS. Instead, please refer to the Interim Guidance for State and Local Health departments for reporting patients under investigation for MERS-CoV infection to CDC (<http://www.cdc.gov/coronavirus/mers/guidance.html>).

Section VI. Update about When NNDSS expects to add Leptospirosis to the NNDSS

CSTE requested that CDC add leptospirosis to NNDSS, based upon a 2012 position statement titled *Public Health Reporting and National Notification for Leptospirosis* (<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/12-ID-02FINAL.pdf>). However, in order to make this condition nationally notifiable and to request data from reporting jurisdictions, CDC's NNDSS submitted an OMB PRA clearance package, consolidated across several CDC programs this year, which included leptospirosis. We anticipate receiving OMB PRA approval at the end of January 2014. We are adding leptospirosis to the 2014 list of nationally notifiable infectious diseases on the NNDSS web site (<http://www.cdc.gov/nndss/>) beginning January 2014, in anticipation of receiving OMB PRA approval in 2014. We will let you know when we can begin soliciting case notifications for this condition.

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 these diseases.

Attachments

2014 NNDSS Event Code List

2014 Notifiable Events and Notification Mechanisms

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