



**NNDSS**

National Notifiable Diseases  
Surveillance System

# NMI Notes



JUNE 2020

[Subscribe to NMI Notes so you don't miss a thing!](#)

## Table of Contents

[Overall Updates](#)

[Production HL7 Case Notification Messages](#)

[Developing HL7 Case Notification Messages](#)

[Resources](#)

[Upcoming Events](#)

### Overall Updates

#### COVID-19 Case Definition Posted on NNDSS Page

- The new Coronavirus Disease 2019 (COVID-19) case definition is now available on the NNDSS Surveillance Case Definitions [webpage](#).
- Please begin using the case definition immediately for all 2020 case notifications being sent to NNDSS.

#### Sending Case Notifications for Multisystem Inflammatory Syndrome Associated with COVID-19

- NNDSS can now receive basic information for multisystem inflammatory syndrome (MIS) associated with COVID-19 cases from state, local, and territorial public health jurisdictions, starting immediately under the Public Health Emergency Paperwork Reduction Act Waiver. The same methods that jurisdictions use to send NNDSS data for other conditions will be used for MIS, including file formats for National Electronic Telecommunications System for Surveillance (NETSS), NEDSS Base System (NBS), HL7 generic v.1 message mapping guide (MMG), and HL7 generic v.2 MMG.
- **CDC has assigned a new event code, 11066, for MIS associated with COVID-19** for use in case notifications through NNDSS. Jurisdictions should update their systems to include this condition and event code in the file used to send core or generic data elements to CDC. If a person meets the [COVID-19 case definition](#) and the [MIS associated with COVID-19 case definition](#), CDC should receive separate case notifications for each condition using different Local Record IDs or NETSS Case IDs for each.
- **Case notifications for MIS must be initiated in NNDSS.** The NNDSS data will then be populated into DCIPHER to allow jurisdictions to enter supplemental data that are not included in the generic/core NNDSS messages. The HL7 Local Record ID (OBR-3) or the NETSS Case ID will be used to identify the case in DCIPHER to append additional condition-specific information (e.g., clinical data, laboratory results). **It is important that the HL7 Local Record ID (OBR-3) or the NETSS Case ID be included with any additional data for case**

**information sent to CDC.** Jurisdictions can submit the completed case report forms or de-identified medical records by using one of the following methods:

- Use the MIS DCIPHER module via direct data entry or by uploading a CSV file.
- Upload the XML submission into REDCap specifically created for MIS.
- Send completed MIS case report forms or de-identified medical records via secure file transfer.
- Information regarding the epidemiology of COVID-19 and public health guidance can be found at <https://www.cdc.gov/coronavirus/2019-ncov>.
- Questions regarding NNDSS submissions can be sent to the CDC Electronic Data Exchange mailbox at [EDX@cdc.gov](mailto:EDX@cdc.gov).

### **COVID MMG Planned**

- The NNDSS team is developing a COVID-19 message mapping guide.
- It is based on the [COVID-19 case report form](#) (CRF), builds on the NNDSS generic v2 MMG, incorporates aspects of a draft emergency response MMG, and reuses items from other finalized guides where appropriate.
- The NNDSS team anticipates abbreviated development and onboarding processes to make the COVID-19 MMG available quickly to public health jurisdictions.
- Jurisdictions may use Coronavirus Aid, Relief, and Economic Security Act funding (Epidemiology and Laboratory Capacity supplement) if they need resources to implement the new guide when it is available.

### **NNDSS 2019 Data Reconciliation Process Postponed**

- The last day to transmit/update NNDSS 2019 final data is 9/30/20.
- The last day for State/Territorial Epidemiologists to sign-off is 10/30/20.

### **Target Date for Transition to New TB/LTBI Case Notification Message Extended**

- Given the current coronavirus situation, the Division of Tuberculosis Elimination (DTBE) has extended the deadline for cooperative agreement funding recipients to transition to the new tuberculosis (TB) and latent TB infection (LTBI) case notification message.
- Jurisdictions are now expected to complete the transition by the end of 2021 rather than the end of 2020.
- The TB Program remains ready to assist any jurisdiction that wants to work on the new TB/LTBI message at any time.

### **Additional Guides Expected to Open for Onboarding in 2020**

- CDC opened the sexually transmitted diseases (STD) and congenital syphilis (CS) MMGs for onboarding in January, starting with a few jurisdictions that had already completed preparation work. Watch for an email with additional information, including guidance from the STD program on implementation of these guides.
- CDC opened the malaria MMG for onboarding, beginning with the pilot states. When the demands of the COVID-19 response decrease, more information about the guide will be presented on an eSHARE call.
- CDC expects to open 10 additional guides for onboarding in 2020:
  - mumps
  - pertussis
  - varicella
  - TB and LTBI
  - babesiosis
  - trichinellosis
  - Lyme and tickborne rickettsial diseases (Lyme/TBRD)

- healthcare-associated infections multi-drug resistant organisms (HAI MDRO)
- foodborne and diarrheal diseases (FDD)
- respiratory invasive bacterial diseases (RIBD).
- Several NNDSS HL7 message mapping guides—generic v2, arboviral, hepatitis, and malaria—are currently open for general onboarding. Access them at the [NNDSS HL7 Case Notification Resource Center](#).

### NMI eSHARE Updates

- The next NMI eSHARE session is scheduled for Tuesday, 6/23/20, from 3:00 to 4:00 PM ET. Please note that CDC is limiting presentation time to the first 30 minutes with additional time for questions to be mindful of everyone's time during the response. The June session will present information on the new NNDSS HL7 COVID-19 case notification message.
- Access past eSHARE presentations and details about future events at the [NMI eSHARE website](#).

### Join a Cohort to Jumpstart Your MMG Implementations!

- The NMI APHL Technical Assistance team provides technical assistance to help groups, or *cohorts*, of public health agencies build and implement NNDSS HL7 case notification messages.
- Cohorts of 4–6 public health agencies focus on specific message mapping guides.
- APHL subject matter experts guide participants through planning, gap analysis, data extraction, HL7 message creation, and validation. At completion, public health agencies will be ready to begin onboarding.
- For those interested in joining a cohort, please email the CDC Electronic Data Exchange mailbox at [edx@cdc.gov](mailto:edx@cdc.gov).

## Production HL7 Case Notification Messages

### Arboviral v1.3

- CDC expects to post a new version of the arboviral guide (v1.3.1), which includes updated value sets for race and ethnicity, to the [NNDSS HL7 Case Notification Resource Center](#) in early June.
- There are 26 jurisdictions in production for arboviral. Louisiana is the latest jurisdiction in production. Congratulations, Louisiana!
- Massachusetts, New Jersey, South Carolina, and Washington are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.



### Babesiosis

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- Please use this guide to begin implementing your case notification messages in preparation for onboarding.
- Pilot jurisdictions Michigan and Wisconsin are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### Congenital Syphilis and STD

- MMGs and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).

- CDC expects to post new versions of the guides, which include new data elements and updated values sets, to the [NNDSS HL7 Case Notification Resource Center](#) in early June.
- Jurisdictions implementing current versions of the guides will be allowed to onboard with them.
- Jurisdiction users who have not yet implemented the current versions of the guides should wait until the new versions are released.
- Watch for an email with additional information, including guidance from the STD program on implementation of these guides.
- CDC opened the current versions of the guides for onboarding in January and is working with a set of states that have completed pre-onboarding work.
  - There are 4 pilot jurisdictions in production for STD and CS.
  - Alabama, Michigan, South Carolina, and Wisconsin are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### **Foodborne and Diarrheal Diseases**

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- Pilot jurisdictions Oregon and Michigan are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### **Generic v2**

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- There are 31 jurisdictions in production for generic v2.
- Guam, Indiana, New Hampshire, and West Virginia are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### **Healthcare-Associated Infections, Multi-Drug Resistant Organisms**

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#). Please use this guide to begin implementing your case notification messages in preparation for onboarding.
- Pilot jurisdictions Colorado and Michigan are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### **Hepatitis**

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- There are 21 jurisdictions in production for hepatitis.
- Guam, Nebraska, New Jersey, and Puerto Rico are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### **Lyme and Tickborne Rickettsial Diseases**

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- Pilot jurisdictions Idaho, Illinois, and Michigan are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### **Malaria**

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).

- Please use this guide to begin implementing your case notification messages in preparation for onboarding.
- There are 2 jurisdictions in production for malaria. Michigan is the latest jurisdiction in production. Congratulations, Michigan!
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### Mumps and Pertussis

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- There is 1 jurisdiction in production for mumps and pertussis. CDC anticipates opening onboarding to additional jurisdictions in 2020.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### Respiratory Invasive Bacterial Disease

- CDC posted the final guide and artifacts to the [NNDSS HL7 Case Notification Resource Center](#) on 4/14/20.

### Trichinellosis

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- Please use this guide to begin implementing your case notification messages in preparation for onboarding.
- Pilot jurisdictions Michigan and Wisconsin are engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### Tuberculosis and Latent Tuberculosis Infection

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
  - CDC expects to post minor updates to the MMG (v 3.0.2) and artifacts soon.
- Pilot jurisdiction Arizona is engaged in onboarding.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

### Varicella

- The MMG and artifacts are available on the [NNDSS HL7 Case Notification Resource Center](#).
- There is 1 jurisdiction in production for varicella.
- CDC anticipates opening onboarding to additional jurisdictions in 2020.
- Please see the chart below, [Jurisdiction Implementation of NNDSS HL7 Case Notification Messages](#), for more details.

## Developing HL7 Case Notification Messages

### Bacterial Special Pathogens (Requirements Analysis)

- CDC will submit an Office of Management and Budget (OMB) non-substantive change request for new data elements for brucellosis, anthrax, leptospirosis, and Hansen’s disease.
- COVID-19 support issues have delayed the external review comment period to gather jurisdiction feedback. CDC will provide more details as soon as they are available.

Valid Values	HL7 Message Context	HL7 Data Type
FIPS Codes Country codes for Provinces and States.	OBX segment with OBX-3=INV503 OBX-5=Value from value Set	CWE
	OBX segment with OBX-3=INV504 OBX-5=String (up to 199 characters)	ST RE

### Carbon Monoxide Poisoning (CO) (Stage II—Pilot Test-ready)

- CDC is conducting a final internal review of the pilot test-ready version of the MMG, test scenarios, and test messages.
- The CDC program has identified an additional data element for inclusion in an OMB non-substantive change request.

### **Coronavirus Disease 2019 (COVID-19) (Stage I—Draft)**

- A rapid development, piloting, and onboarding process is planned for the COVID-19 MMG.
- CDC anticipates a one-week external review comment period to gather jurisdiction feedback in June.

### **Lead Poisoning (Requirements Analysis)**

- No new updates at this time.

### **Listeriosis (Stage I—Draft)**

- No new updates at this time.

### **Measles (Stage III—Final MMG)**

- CDC anticipates posting the final guide and artifacts on the [NNDSS HL7 Case Notification Resource Center](#) this summer.

### **Rubella and Congenital Rubella Syndrome (Stage III—Final MMG)**

- CDC anticipates posting the final guides and artifacts on the [NNDSS HL7 Case Notification Resource Center](#) in June.

## **Resources**

- NMI Technical Assistance and Training Resource Center: <https://www.cdc.gov/nmi/ta-trc/>
- NNDSS HL7 Case Notification Resource Center: <https://wwwn.cdc.gov/nndss/case-notification/>
- NMI Notes Monthly News Update: <https://www.cdc.gov/nmi/news.html>
- NMI eSHARE Monthly Webinar: <https://www.cdc.gov/nmi/eshare.html>
- NMI Newsroom: <https://www.cdc.gov/nmi/newsroom.html>
- NMI Internet Site (includes NMI fact sheets and FAQs): <https://www.cdc.gov/nmi/>



## Jurisdiction Implementation of NNDSS HL7 Case Notification Messages

■ = Message in Production   
 ■ = Onboarding   
 ■ = Receiving TA   
 ■ = Pilot  
 = Finalized Guide   
 = In Pilot

Jurisdiction	Arboviral	GenV2	Hepatitis	Congenital Syphilis	STD	Mumps*	Pertussis*	Varicella*	Foodborne Diarrheal Disease*	Lyme/TBRD*	TB/ LTBI*	Malaria*	Trichinellosis*	Babesiosis*	HAI MDRO*	RIBD*	Rubella*	CRS*	Measles*
Alabama																			
Alaska																			
Arizona																			
Arkansas																			
California																			
Colorado																			
Connecticut																			
Delaware																			
Florida																			
Georgia																			
Hawaii																			
Idaho																			
Illinois																			
Indiana																			
Iowa																			
Kansas																			
Kentucky																			
Louisiana																			
Maine																			
Maryland																			
Massachusetts																			
Michigan																			
Minnesota																			
Mississippi																			
Montana																			
Nebraska																			
Nevada																			
New Hampshire																			
New Jersey																			
New York																			
New York City																			
North Carolina																			
North Dakota																			
Oregon																			
Pennsylvania																			
Rhode Island																			
South Carolina																			
South Dakota																			
Tennessee																			
Texas																			
Utah																			
Virginia																			
Washington																			
West Virginia																			
Wisconsin																			
Wyoming																			
U.S. Territories																			
Guam																			
Puerto Rico																			

\* These guides are not yet available to non-pilot jurisdictions for implementation.

This chart shows the status of state public health departments that are piloting, receiving technical assistance, onboarding, or in production for HL7 case notification messages developed as part of the NNDSS Modernization Initiative.

### Upcoming Events

- NMI eSHARE; 6/23/20, 3:00PM ET;  
<https://www.cdc.gov/nmi/eshare.html>

Have questions or feedback on NMI Notes? Email [edx@cdc.gov](mailto:edx@cdc.gov).



*NMI Notes* provides monthly news updates about the National Notifiable Diseases Surveillance System (NNDSS) Modernization Initiative (NMI). It is a collaboration by the Centers for Disease Control and Prevention (CDC), Council of State and Territorial Epidemiologists (CSTE), and Association of Public Health Laboratories (APHL).

If a colleague forwarded this issue to you, we encourage you to [subscribe at this link](#) to ensure that you receive future issues of *NMI Notes*.

***Centers for Disease Control and Prevention | Council of State and Territorial  
Epidemiologists | Association of Public Health Laboratories***

Write: [edx@cdc.gov](mailto:edx@cdc.gov) Visit: [www.cdc.gov/nmi](http://www.cdc.gov/nmi)

[www.cste.org](http://www.cste.org)