Onboarding Guidance for Sexually Transmitted Diseases (STD) and

Congenital Syphilis (CS) Message Mapping Guides (MMGs)

Purpose Statement: The purpose of this document is to provide concise guidance and an overview of onboarding activities for the STD/CS MMGs. Please note that more detailed information to assist in your jurisdiction's preparation for onboarding is available at the NNDSS page HL7 Implementation & Onboarding, Technical Assistance (https://www.cdc.gov/nndss/trc/onboarding/index.html).

Before Pre-onboarding:

Please notify the NMI Onboarding team (edx@cdc.gov) of your interest to begin onboarding and also indicate if your jurisdiction is planning to implement a new local surveillance system in the near future.

Pre-Onboarding and General Onboarding for STD/CS MMGs

- Download the most recent version of the Generic/STD/CS MMGs
- Obtain STD and CS Reference Documents:
    - National Electronic Telecommunications System for Surveillance (NETSS) to MMG cross walks
    - Data prioritizations
- Completion of STD and CS Implementation Spreadsheet and Gap Analysis Mapping
    - Mapping from local variables and values to Health Level 7 (HL7) data elements and value sets must be provided. This information can be included in the implementation spreadsheet or sent separately (e.g., crosswalk file, data dictionary, export scripts).
- Complete Test Case Scenario Worksheet
- Complete State Reportable Conditions Checklist for STD and CS
- Send completed Implementation package to edx@cdc.gov and provide points of contacts (POCs) for the onboarding process
- Address any feedback or findings from mapping of data elements and/or mapping of value sets after program review
- Attend Onboarding Kickoff Call and send test messages to Public Health Information Network Messaging System (PHINMS) Service Action Pair (url: https://phinms.cdc.gov/phinms/receivefile)
- Address any feedback or findings from test messages after program review
- Send Limited Production Messages (LPM) for STD Program Review and Feedback
- Address any feedback or findings from LPM after program review
- Send year-to-date (YTD) file for STD Program Review and Feedback
- Address any feedback or findings from YTD messages after program review

Recommendations from the CDC STD Program

- It is extremely important that jurisdictions continue NETSS reporting until they are approved to go into production for the STD and CS MMGs.
- Jurisdictions that have not been fully onboarded and approved for production at least 30 days prior to STD data closeout will need to close out in NETSS.
- Jurisdictional STD program staff and information technology (IT)/health informatics lead for the health information system should work together to implement and onboard the MMG. This process may take 4-6 months to complete.

- CDC encourages requesting Technical Assistance (TA) (https://www.cdc.gov/nndss/trc/onboarding/technical-assistance.html) provided by our partners at the Association of Public Health Laboratories (APHL). Please email edx@cdc.gov to request TA.
- When reviewing the messages, the CDC STD Program is primarily concerned with the following:
    - Data elements that were provided in NETSS but are missing from HL7.
    - Data elements mapped incorrectly.
    - Value sets mapped incorrectly.
- Some data elements do not map directly from NETSS to HL7 (e.g., the eight individual drug use data elements in NETSS all map to two data elements in HL7: Drug Name and Drug Use Indicator). For further guidance on cross-mapping, please review the STD NETSS to MMG crosswalk and CS NETSS to MMG crosswalk spreadsheet files.
- For further guidance on data element prioritization, please refer to the STD MMG data prioritization and CS MMG data prioritization documents.
- Please maintain linkage between NETSS and HL7 Case IDs to allow for a smooth and accurate review of data during onboarding. This linkage can be provided in the HL7 message itself as the Local Record ID (INV168, OBR-3) or the Legacy Case Identifier (INV200, 77997-5), or provided in a separate cross-mapping document.

Lessons Learned during Piloting and Onboarding

- The Lab Interpretive Section is very important. Every lab should specify the organism that was tested, either through the Test Type (INV290) or the Organism Name (LAB278), as well as the result in the appropriate data element (INV291, STD123, or both LAB628 and LAB115) in order to be considered complete. These data are required for calculating Event Date, Specimen Collection Date, and Date of Initial Health Exam.
- High-priority data elements, must be mapped in order to be onboarded (please see the STD MMG data prioritization and CS MMG data prioritization documents).
- Many PHIN VADS value sets have similar names or code similar concepts. Please ensure that you are using the correct set, as listed in the MMGs, when creating your HL7 messages.
- As a friendly reminder, Public Health Information Network Vocabulary Access and Distribution System (PHIN VADS) value sets change over time. Please ensure that you are using the most current version of the value set when creating your HL7 messages.
- Unlike NETSS, HL7 does not require a value for every data element. If the information needed for the data element is not available in your system yet, please do not send a default “Unknown” value.
- PHIN VADS value sets will likely not capture every option in your data. If a value in your data does not map, please do not send default “Unknown” codes. Periodically review mapping of value sets. Otherwise, known values from your data could be misinterpreted.
- When sending an “Other” value from a PHIN VADS value set, be sure to specify the text value, where present, in OBX-5.9.
- Please specify units when relevant (e.g., age, quantitative test result) and convert values to any required unit (e.g., gestational age of congenital syphilis report must be in weeks).
- Data elements for CS are not structured in the same way as they were in NETSS. For example, the following are collected separately: the CSF WBC count and CSF protein levels, as well as case classification and stillbirth status.