

Colleagues,

Please find below the National Notifiable Diseases Surveillance System (NNDSS) Modernization Initiative (NMI) Technical Assistance (TA) Coordination Team Update for September 11, 2015. These e-mail updates are a collaboration among the Centers for Disease Control and Prevention (CDC), Council of State and Territorial Epidemiologists (CSTE), and the Association of Public Health Laboratories (APHL) and are sent biweekly in an effort to keep reporting jurisdictions and other partners and stakeholders updated on the progress of NMI.

For more information on NMI, please see the NMI FAQs at <http://www.cdc.gov/nmi/faq.html>. If you have questions not answered in the FAQs, please send them to [edx@cdc.gov](mailto:edx@cdc.gov).

## **NNDSS Modernization Initiative Biweekly Update**

### **September 11, 2015**

#### **NMI Overall Updates**

- The Department of Health and Human Services (HHS) selected the CDC Division of Health Informatics and Surveillance (DHIS) to participate in its HHS Entrepreneur-in-Residence program.
  - The program recruits external talent from the private sector with special skill sets to join internal project teams for 13-month employment experiences focused on new solutions for tough challenges. CDC/DHIS is recruiting a data integration architect and a software platforms architect to work with NMI.
  - These individuals will help assess MVPS strategies, identify opportunities for efficiency, and help to develop a roadmap based on state-of-the-art technology and approaches.
  - More information, including a project proposal and video describing the project, is on the HHS web site at <http://go.usa.gov/3MV94>.
- On Friday, 8/28/2015, the NMI team held an off-site meeting to discuss and prioritize NMI activities through the end of the calendar year. A follow-up meeting was held on Thursday, 9/10/15.
  - The team is using this time to focus efforts and to position ourselves well for when development resumes after the contract transition.
  - This time will provide an opportunity to test the Message Validation, Processing, and Provisioning System (MVPS) software that has been delivered, ensure consistency among message mapping guides (MMGs), refine plans for onboarding jurisdictions, and implement the processes that will ensure the continuity of *Morbidity and Mortality Weekly Report* data production. Development of additional MMGs will continue, and pilot jurisdictions will continue testing messages.
- The NMI Change Control Board finalized decisions about the last work to be completed by the current MVPS developer.
  - The goal of these prioritized changes was to make the Message Evaluation and Testing Service (METS) functional so that jurisdictions can test messages while the new MVPS developer prepares to finalize the provisioning functionality.
  - NMI delivered these requirements to the current MVPS developer on 9/2/15, and CDC received refinements from the developer on 9/9/15.

## Message Mapping Guide Development Updates

- The MMG development team has completed the update of the Generic v2, Hepatitis, STD, and Congenital Syphilis MMGs, Test Scenarios (TS), and Test Messages (TM) with the new Generic v2 LOINC codes. The team will post updated versions of all the MMGs and their associated artifacts to the Draft MMG Web Site as soon as possible.
- The team has updated the National Condition Reporting Case Notification Message Structure Specification/Profile Release 3.0 and expects to post it to the Draft MMG Web Site in September.
- The MMG team will use a new Vocabulary Review Board for complex issues related to vocabulary standards and value set creation. This review board draws on the knowledge of vocabulary experts from DHIS and other parts of CDC to support Vocabulary Access and Distribution System (VADS) users.
- The MMG development team is currently drafting frequently asked questions (FAQs) for MMG development that will be posted when finalized to the Draft MMG web site. The FAQs will provide answers to questions from public health partners and HL7 implementers.
- **MMG Status Updates:**
  - **Arboviral MMG (Requirements Analysis)**
    - Requirements analysis is approximately 95% complete.
    - The CDC Surveillance Operations Team (SOT) and Message and Vocabulary (M&V) team are seeking CDC program approval of the proposed data elements for inclusion in the draft Arboviral MMG.
  - **Varicella MMG (Message Design and Development)**
    - Requirements analysis is 100% complete.
    - The CDC program has reviewed the first section (of two proposed sections) of the draft MMG and provided feedback to SOT.
  - **Mumps and Pertussis MMGs ([Stage I—Draft Phase](#))**
    - The CDC program approved the pilot test-ready Mumps and Pertussis MMGs, TS, TM, and annotated case surveillance worksheets on 7/16/15.
    - All artifacts have been cleared internally and will be posted to the Draft MMG Web Site as pilot test-ready drafts when the data elements needed for linkage to the vaccine-preventable disease lab data are fully defined.
  - **Congenital Syphilis and STD MMGs ([Stage II—Pilot Test-ready Draft Phase](#))**
    - The MMG development team posted pilot test-ready versions of the STD and Congenital Syphilis MMGs and their artifacts to the Draft MMG Web Site.
  - **Generic v2 and Hepatitis MMGs ([Stage II—Pilot Test-ready Draft Phase](#))**
    - The MMG development team has updated the pilot test-ready versions of the Generic v2 and Hepatitis MMGs and their artifacts to incorporate new LOINC codes.
    - The revised MMGs and artifacts are expected to be posted to the Draft MMG Web Site in September.
  - No guides are in [Stage III—Final MMG Phase](#) at this time.

## Message Validation, Processing, and Provisioning System Updates

- The MVPS team has initiated the transition from the current MVPS developer to the new MVPS developer. The focus is on transitioning code and related artifacts and creating comprehensive documentation.

- The MVPS team held a kickoff with the new developer, SRA, on 9/1/15.
  - The new developer will need some time to understand the work that has been done on MVPS before they can begin new development work.
  - The new developer has identified key personnel and is ready to begin knowledge acquisition.
- On 9/14/15 to 9/16/15, MVPS leadership will be on-site with the current MVPS developer in Washington, DC, for more transition activities.
- The current MVPS developer will be on-site at CDC for the final transition on 9/21/15 to 9/23/15.
- The MVPS developer delivered defect resolutions for the MVPS dashboard as part of data provisioning builds delivered on 8/10/15 and 8/28/15. The developer delivered the final code delivery of enhancements and defect resolutions to CDC on 9/9/15.
  - The MVPS team loaded the 8/10/15 build to the development environment and began technical acceptance testing. The SQL Server Integration Services package for Generic v2 needed to support the MVPS code is expected to be completed this week.
  - The team will load the 8/28/15 build to the development environment this week for technical acceptance testing.
  - The team will load the 9/9/15 build to the development environment this week for technical acceptance testing to submit defects to the current MVPS developer for potential resolution prior to their contract end on 9/23/15.
  - The team will install the METS code delivered as part of these releases in the METS test environment and test it so that it can be moved independently to production for continued jurisdiction use.
- User acceptance testing (UAT) environment of the MVPS Dashboard and message processing functionality by the NMI pilot jurisdictions and CDC programs is underway.
  - CDC program UAT of the MVPS Dashboard functionality, user role setup, and user access controls is occurring from 9/1/15 to 9/15/15.
    - Jurisdiction UAT will begin when a CDC Secure Access Management Services (SAMS) forwarder issue has been resolved and jurisdictions can access the UAT environment.
- The MVPS team is working on the data provisioning requirements and developing the message processing guides for Congenital Syphilis, Mumps, and Pertussis.
- The MVPS team is supporting the development of the Arboviral and Varicella MMGs by participating in the MMG Lifecycle activities.

### **National Electronic Disease Surveillance System Base System Updates**

- The National Electronic Disease Surveillance System Base System (NBS) team provided the final version of NBS release 4.6 on 8/28/15. The release includes:
  - implementation of Generic v2, STD, and Hepatitis MMGs;
  - public health case report functionality that allows jurisdictions to share case reports by using CDA format and migrate STD data from STD\*MIS to NBS;
  - an enhanced co-infection feature; and
  - a number of enhancements and defect resolutions.

- The team implemented a feature that allows jurisdictions to implement the new Generic v2 and Hepatitis MMGs but generate and send case notifications in the legacy NBS Master Message format until MVPS is ready to accept the HL7 messages.
- For STD, the NBS team is developing a Rhapsody route to map the HL7 data to the National Electronic Telecommunications System for Surveillance format until MVPS is ready to accept the HL7 messages.
  - A beta version is expected to be available in early October for testing, and a final version is expected by the end of October.
  - The NBS team will work closely with the CDC Data Operations Team and the CDC STD program to ensure that data are mapped and transmitted accurately.

### Technical Assistance Updates

- APHL has begun providing limited technical assistance and reconnecting with NMI pilot sites to resume work.
- The NMI Technical Assistance Workgroup will develop the technical assistance plan for the next year during an intensive session onsite at CDC on 9/16/15 to 9/18/15.
- **Update on Jurisdiction Implementation:** Pilot site progress has been reduced by the limited technical assistance available. The NBS team provides technical assistance for NBS pilot jurisdictions, and the APHL TA team provides technical assistance for non-NBS pilot jurisdictions.
  - **Alabama:**
    - Alabama implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - Currently, the state is testing STD messages by using METS and migrating STD data.
  - **Arkansas:**
    - Arkansas implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - All of the state's Hepatitis test scenario notifications passed METS without errors after updating the test messages to account for METS known issues.
    - The state has completed message testing in METS and is ready to conduct end-to-end testing with CDC when MVPS is ready.
  - **California:**
    - The APHL TA team is currently customizing the Rhapsody route for California that will create HL7 messages based on their data extract for STD and Hepatitis.
  - **Florida:**
    - Florida has created initial HL7 test messages for Hepatitis and is currently developing STD test messages.
    - The APHL TA team will review and provide feedback on test messages as they are created.
  - **Idaho:**
    - Idaho implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - The state is currently testing STD messages by using the METS tool.
  - **Kentucky:**

- Kentucky implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - All of the state's Hepatitis test scenario notifications passed METS without errors after updating the test messages to account for METS known issues.
    - The state has completed message testing in METS and is ready to conduct end-to-end testing with CDC when MVPS is ready.
  - **Louisiana:**
    - Louisiana implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - All of the state's Hepatitis test scenario notifications passed METS without errors after updating the test messages to account for METS known issues.
    - The state has completed message testing in METS and is ready to conduct end-to-end testing with CDC when MVPS is ready.
  - **Michigan:**
    - Michigan attended an MVPS Dashboard and UAT training session on 8/3/15.
    - Michigan completed the full suite of test messages for Hepatitis and STD and is ready for independent validation.
  - **Minnesota:**
    - The APHL TA team is reviewing and providing feedback on the data extract for STD and Hepatitis that will be used to customize the Rhapsody route for Minnesota.
  - **New York State:**
    - APHL is coordinating with New York to review their development work on Generic v2.
  - **Oregon:**
    - Oregon attended an MVPS Dashboard and UAT training session on 8/3/15.
    - Oregon created HL7 test messages for Hepatitis and is building the full suite of messages for STD.
    - The APHL TA team will review and provide feedback on test messages as they are created.
  - **Tennessee:**
    - Tennessee implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - The state is testing the base Hepatitis page and porting the legacy data to the new template.
  - **Texas:**
    - Texas implemented the patch release for Beta 2 of the NBS 4.6 release that CDC provided on 7/27/15.
    - All of the state's Hepatitis test scenario notifications passed METS without errors after updating the test messages to account for METS known issues.
    - The state has completed message testing in METS and is ready to conduct end-to-end testing with CDC when MVPS is ready.
- CSTE will work with all of the pilot jurisdictions to evaluate the NMI TA efforts.
- Reminder about MMG status:
  - MMGs in Stages I and II are considered draft and may be revised until the time they are finalized.

- Those jurisdictions selected for pilot testing of the test-ready versions (Stage II) of the MMGs should wait until contacted by the NMI TA team before using the test-ready MMGs, before implementing surveillance information system changes, and before submitting test messages to CDC.
- All other jurisdictions should not plan to submit data to CDC or implement MMG-based updates to their surveillance information systems until the final MMGs (Stage III) have been posted.
- For more information about technical assistance:
  - Please see the NMI FAQs at <http://www.cdc.gov/nmi/faq.html>.
  - For pilot jurisdictions: If you have questions specific to NMI TA, please contact Laura Carlton, APHL, at [laura.carlton@aphl.org](mailto:laura.carlton@aphl.org).
  - For non-pilot jurisdictions: If you have questions or would like to request TA through the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Cooperative Agreement, please email [edx@cdc.gov](mailto:edx@cdc.gov).

*For more information on NMI, please see the NMI FAQs at <http://www.cdc.gov/nmi/faq.html>. If you have questions not answered in the FAQs, please send them to [edx@cdc.gov](mailto:edx@cdc.gov).*