Fall 2021 NHSN CDA Vendor Meeting

October 20, 2021

Welcome

- General NHSN Updates
- COVID-19 Module Updates
- Release 10.0 Updates
- Patient Safety Component – 10.1

- CDA HAI Vocabulary
- AUR Module Updates
- Miscellaneous Vendor Services
- Q&A

General NHSN Updates

Dan Pollock

NHSN Release Schedule

- Continuing one major release a year
  - Changes included:
    - Protocol changes
    - Transition to new CDA versions due to protocol changes
    - Effective January 1st of each year
- Non-major releases as needed
  - May include:
    - New Component
    - Minor change requests
    - Defect resolutions
    - Infrastructure maintenance and support
- NHSN COVID Updates
  - Occurring on a six-week basis as needed
  - Email notification sent out prior to deployment (message alert when logging into NHSN)

NHSN Release Schedule

- Release 10.1
  - Scheduled for December 11, 2021
  - Defect fixes will be effective post deployment
  - Change Requests (CRs) will be effective January 1, 2022

- Mid-Year Release 2022
  - TBD

COVID-19 Module Updates

Lea Jordan

COVID-19 Module Updates

- Long-Term Care & Dialysis facilities are using NHSN to report COVID-19 data

- COVID-19 Vaccination data is now being reported in the Healthcare Personnel Safety Component as well as the Long-Term Care Component

COVID-19 Module Long Term Care Facilities

- The following pathways are being reported into NHSN for LTCF:
    - Resident Impact and Facility Capacity
    - Staff and Personnel Impact
    - Supplies and Personal Protective Equipment
    - Therapeutics
    - Vaccinations
    - Point of Care (POC) Testing
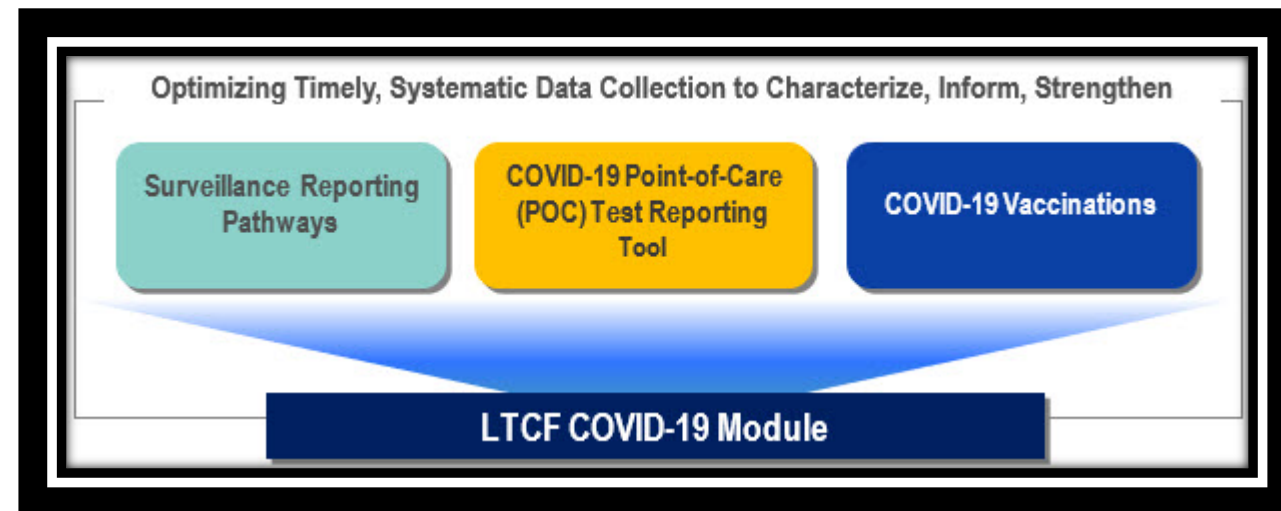
COVID-19 Module

- Direct CSV Submission is now available for LTC & Dial Pathways, POC Testing, and Vaccination uploads - for LTC, Dial, HPS Components

- The following are acceptable file formats:
  - CSV
  - HL7 2.5.1

- Instructions on how to sign up and use this method is available on the NHSN website: https://www.cdc.gov/nhsn/cdaportal/importingdata.html#DIRECTProtocol

Technical Guides

- Technical User Guide for DIRECT CDA Automation [PDF – 300 KB]
  This is a quick reference guide for CDA vendors or facility's IT technical staff.

- Admin User Guide for DIRECT CDA Automation [PDF – 150 KB]
  This is a quick reference guide for NHSN Admins who want to sign-up a facility to have the capability to send data to NHSN without logging into the NHSN application.

- COVID-19 CSV Guide for Long-term Care & Dialysis Facilities [PDF – 200 KB]
  This is a quick reference guide for LTC & Dialysis Facilities who want to submit their COVID-19 CSV File.

COVID-19 Module Dialysis

- Single data entry page with four sections:
  - Patient Impact
  - Staff and Personnel Impact
  - Supply and Personal Protective Equipment
  - Lab Testing

  - COVID-19 Vaccination status for patients and staff
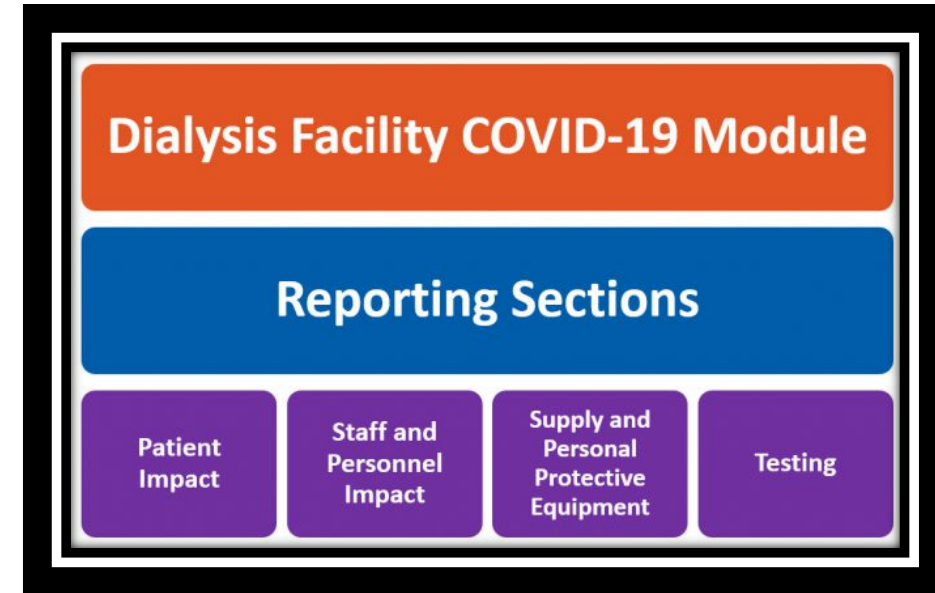
COVID-19 Module Training

- For both modules, training videos are available for each component
- Please visit the NHSN website to find current CSV templates and other information for both LTCF and Dialysis components
  - https://www.cdc.gov/nhsn/covid19/index.html
- Questions can be sent to: NHSN@CDC.GOV
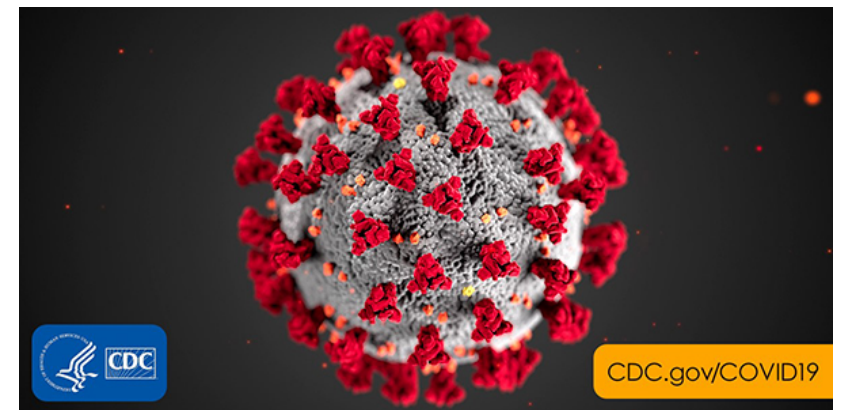
Release 10.0

Lea Jordan

Patient Safety – Release 10.0 Updates

- Defect 9913 – Pathogens not following corresponding AntiB drug susceptibility requirements; manual CDA & Direct impact – *resolved*

- Vendor IDM for 10.0 is included in the Release 9.5 – 10.0 Toolkit

LOS/MEN – Release 10.0 Updates

- Deployed on September 18, 2021

- Neonatal Component is now live with two event types: Late-Onset Sepsis and Meningitis

- There is no manual data entry for this component; CDA only

- LOS and MEN Event and Summary is available

- Please review the R3-D4 IG

  – Note: the documents for LOS/MEN can be found in the 9.5/10.0 toolkits

  – A&R will be available in the late October 2021 release

Patient Safety Component Release 10.1

Lea Jordan

Patient Safety – Release 10.1 Changes

- The following HAI Events will have the question added: COVID-19: Yes/No
  - Bloodstream Infection (BSI)
  - Surgical Site Infection (SSI)
  - Urinary Tract Infection (UTI)
  - Ventilator Associated Event (VAE)
    - Currently optional in the UI
    - It will be required starting January 1st, 2022
    - Please refer to the R4-D1 IG
- This question was updated, NHSN removed 'confirmed or suspected' if 'Yes' was selected

Vendor IDM

- The vendor IDM for Release 10.1 has been posted to the Toolkits Webpage as a **version 1**

- Few requirements are still being finalized – any tabs highlighted yellow may have a change in the finalized version

- We will notify vendors when the final version has been posted

CDA HAI Vocabulary

Lea Jordan

CDA HAI Vocabulary

- No Pathogen Code updates for the January 2022 10.1 release

- Reminder: value sets specified in CDA Implementation Guides that have been distributed in the spreadsheet hai_voc.xlsx are now available in VSAC (Value Set Authority Center) https://vsac.nlm.nih.gov/

- Value set inconsistencies between VSAC and content in the Vendor IDM - we are working on resolving discrepancies

AUR Module:
Change Requests for Releases 10.0 & 10.1

Laura Blum

AUR Change Requests for Release 10.0

- **Release 10.0 (September 2021)**
  - **CR 2143** - Add ability to report no AR Option Events in CDA (R3-D4 required)
  - **CR 2158** - Add ability to report AR Option summary data from outpatient locations (R3-D4 required)

AUR Change Requests for Release 10.1

- **Release 10.1 (December 2021)**
  - **CR 3219** - Update AR Option Specimen Codes
  - **CR 2422** - AR Event - Add field to assess patient admission status
  - **CR 3174** - Update DIRECT to accept AR Events using R3
  - **CR 2744** - Update AR Option Drug Panels
  - **CR 2835** - Update AU Option drugs for 2022

AUR Module:
Defects for Releases 10.0.1 & 10.1

Malissa Mojica

AUR Defects for Release 10.1

- **<u>Release 10.1 (December 2021)</u>**
  - **Defect 9922** – Add Alerts for AR Missing Event/Summary Alerts for outpatient locations

AUR Module: Protocol Updates

Laura Blum

AUR Protocol Updates

- Clarification: procedural areas
  - Previous version of AUR Protocol mentioned in Appendix H that only inpatient locations with an "overnight stay" should be included in facility-wide inpatient (FacWideIN) denominator data – this is incorrect
  - AUR Module supports data submission from <u>all NHSN-defined inpatient acute care locations (including procedural areas like operating rooms)</u>, FacWideIN, and select outpatient acute care settings (specifically, outpatient emergency department, pediatric emergency department, and 24-hour observation area) from which numerator and denominator data can be accurately captured
  - AUR Module does not support data submission from non-acute locations
- Updates to include information about outpatient encounters and reporting outpatient AR Option Summary data from emergency department (ED), pediatric ED, and 24-hour observation area

AUR Module:
Promoting Interoperability & Real World Testing

Wendy Wise

Defect 9855 - Promoting Interoperability (aka MU3) Report

- Monthly auto-generated report emailed twice with conflicting info
- Facility Administrators can access correct report at any time inside NHSN

Month/Year	Antimicrobial Use Summary	Antimicrobial Resistance Events	Antimicrobial Resistance Summary
01/2021	Yes	No	No
02/2021	Yes	No	No
2021	Yes	No	No
05/2021	Yes	No	No
06/2021	No	No	No
07/2021	No	No	No

CR 2804 – Track and record failed AU CDA submissions

- We already have info on successful AU submissions by vendor for 2021 due to requirement of SDS information

- Create a new process to track and save the number of failed AU CDA submission by month & vendor

- Vendors can use these AU metrics to support Real World Testing requirements within 21st Century Cures Act

- Metrics will be available upon request to NHSNCDA@cdc.gov

AUR Module: AR Synthetic Data Set

Wendy Wise

AR Synthetic Data Set (SDS) Validation Timeline

2023
Validation
Requirement

2022
Validation
Requirement
Phase-in

2021
Pilot

2019 – 2021
Development

2018
Envisioned
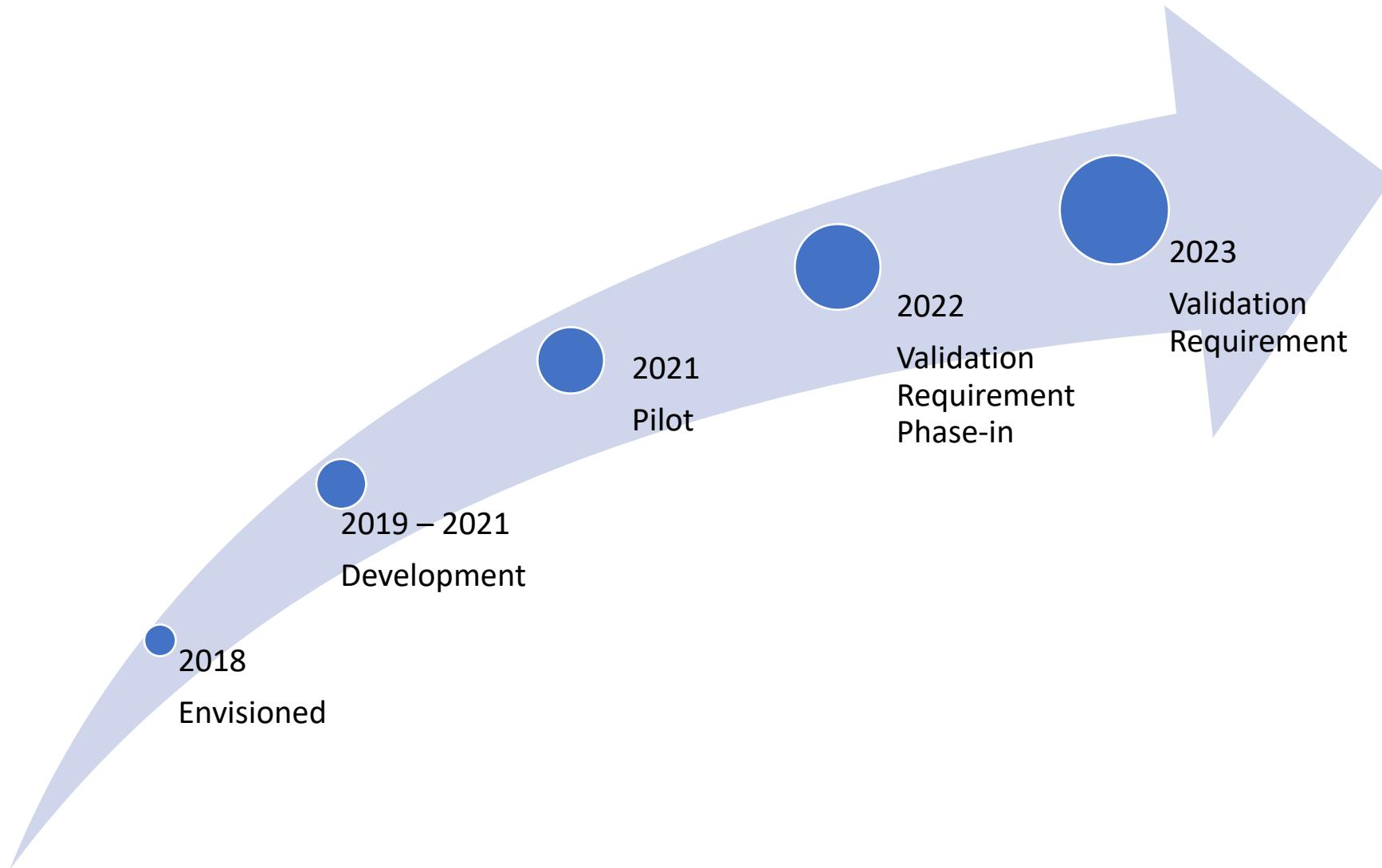
Miscellaneous Updates

Lea Jordan

Future CDAs

- **Adverse Drug Events**
  – Module or component is TBD
  – All FHIR
  – Two Events: hypoglycemia & hyperglycemia

- Long Term Care & Outpatient Procedure Components – TBD

Future Plans and Goals

"Gender" Field Update

Henrietta Smith

Background: Gender

Several users (facilities and vendors) have inquired how to report gender when sex at birth and gender identity are not the same.

Example of user inquiry:

Hello-I'd like to confirm that when a patient was previously reported as one gender (for example female) and they undergo gender reassignment, the only option is for them to later be identified as Other?

There's a case where we had a patient that was previously female that had data already in NHSN. The patient later underwent gender reassignment, and then subsequently had another event that needed to be reported. Since the patient's gender is now male in the demographics, that's how it was reported. But that caused an error because of the mismatch between the genders. I'm told the only way to resolve this is to report him as "other" which is not how he is identified in the medical record.

Background: Gender

The following guidance is currently provided:

For 'gender' field, the current options within the application are "Male", "Female", and "Other". **The intent of the 'gender' field is to capture "sex at birth"** *for procedures and HAIs where gender (sex at birth) maybe a risk factor [risk adjustment].*

Our guidance is to report the patient's current preferred/identified gender (the gender that is assigned in the current medical record). The following options are available:

- *If the gender has changed,* **a new patient profile can be entered** *with a new Patient ID with the current gender, for internal tracking purposes it could be helpful to include the prior Patient ID as a Secondary ID.*

- *Another option is to* **edit the patient's profile** *to reflect the current identified gender. However, editing the profile gender will retrospectively update the gender for all prior records.*

- *Reporting* **"Other" as gender** *is an option if the patient identifies as "Other". If "Other" is selected for the patient's sex the procedure will be excluded from the SIR calculation.*

The resolution is to create two new variable fields:

- **Sex at Birth**
- **Gender Identity**

The new variable fields will be placed in a different location within the CDA implementation guide.

The new response selections are based on HL7 standard terminology.

Sex at Birth - to capture the individual's birth sex

Must select from:
- Male
- Female
- Non-binary
- Other
- Unknown

Gender Identity – to capture the individual's gender which most closely matches how the patient self-identifies

Must select from:

- Male
- Female
- Female-to-male transexual
- Male-to-female transexual
- Identifies as non-conforming
- Other
- Asked but unknown

Timeline for Implementation

<u>Optional</u> reporting

- Jan 1, 2023
- New variable fields will be available in the application for manual entry

<u>Required</u> reporting

- Jan 1, 2024
- New variable fields will be added for <u>CDA upload</u>

Send questions and feedback regarding this topic to nhsn@cdc.gov

CDA Import Data Comparison:

Query Date Range	October, 2018 - September, 2019	January, 2019 - December, 2019	April, 2019 - March, 2020	July, 2019 - June, 2020	October, 2019 - September, 2020	January 2020- December 2020
Blood Stream Infection	43%	44%	47%	49%	51%	56%
Urinary Tract Infection	46%	46%	47%	47%	48%	45%
Surgical Site Infection	44%	45%	47%	49%	51%	42%
Laboratory Identified Event	66%	67%	68%	69%	70%	64%
Dialysis Event	75%	77%	77%	77%	76%	74%
Central Line Insertion Practices (CLIP)	25%	25%	26%	28%	30%	23%
Dialysis Central Line Insertion Practices (CLIP)	0%	0%	0%	0%	0%	0%
Ventilator-Associated Events (VAE)	4.0%	8%	12%	16%	22%	0%
Antimicrobial Resistance Event	100%	100%	100%	100%	100%	100%
Antimicrobial Use	100%	100%	100%	100%	100%	100%
Antimicrobial Resistance Summary	100%	100%	100%	100%	100%	100%
ICU/Other Summary	29%	30%	30%	30%	30%	27%
SCA/ONC Summary	36%	37%	38%	38%	39%	33%
NICU Summary	30%	32%	32%	32%	32%	28%
Surgical Procedure - via CDA	39%	42%	45%	47%	50%	34%
MDRO Summary	9%	9%	10%	10%	11%	8%
Dialysis Summary	59%	62%	62%	63%	66%	56%
Hemovigilance Summary	0%	0%	0%	0%	0%	0%
Surgical Procedure - via CSV	52%	50%	47%	46%	43%	56%

DIRECT CDA Automation Updates

- 59 vendors and >8,000 facilities sending via DIRECT
- DIRECT
  - Batch submission process
  - No immediate reply (please allow 24 hours)
  - Turn around time based on volume of messages in the queue
  - Processing faster
- New to implement DIRECT?
  - DIRECT toolkit on the NHSN website
  - Contact NHSNCDA@cdc.gov for any questions or to set up an onboarding discussion

CDA Version Support

- CDA support: https://www.cdc.gov/nhsn/cdaportal/index.html

- Toolkits: https://www.cdc.gov/nhsn/cdaportal/toolkits.html

- Guide to CDA versions: https://www.cdc.gov/nhsn/cdaportal/toolkits/guidetocdaversions.html

Guide to CDA Versions

For creating CDA files, please see the specific Implementation Guide (IG) and its associated reference materials.

The table below describes the specific Implementation Guide (IG) to be used for each component based on the event/insertion/procedure/specimen collection dates (as applicable) for each year.

Download the corresponding CDA Toolkits for the corresponding year.

Events or Denominators	2022	2021	2020	2019
CDA Toolkit Release	10.1	9.5 & 10.0	9.4	9.2 & 9.3
DIALYSIS				
Dialysis Event	R3-D4	R3-D4	R3-D1.1	R3-D1.1
Dialysis Denominator	R3-D3	R3-D3	R3-D3	R3-D1 or R3-D3
EVENTS				
Primary Bloodstream Infection (BSI)	R4-D1	R3-D3	R3-D3	R3-D2

CDA Version Support cont.

- Implementers can also use the HL7 GitHub website for latest IG Guides

- HL7 GitHub site also includes:

- XML

- Related files

- Schematron

- CDA Schema

- Samples

- Stylesheet

https://github.com/HL7/cda-hai

Helpful NHSN Resources

- NHSN Newsletter: https://www.cdc.gov/nhsn/newsletters/index.html

- Release Notes and Communication Updates: https://www.cdc.gov/nhsn/commup/index.html

- Issue List and Release Schedule http://www.cdc.gov/nhsn/releasemgt/index.html

NHSN Pre-Production Test Site (NPPT)

- Copy of the NHSN development environment

- Includes Analysis and Reporting (A&R) functionality

- Does not include DIRECT CDA Automation or Groups

- No SAMS credentials required

- To enroll – complete form found at
  https://www.cdc.gov/nhsn/cdaportal/datavalidation/toolsandtestsites.html

- Send completed form to the nhsncda@cdc.gov mailbox

NHSN Pre-Production Test Site (NPPT) cont.

- v10.0.0.5 is current environment
  - Reminder: Read "Important Message" at login
- Blast email will be sent out when NPPT is upgraded to new version
- Report any issues you find to the nhsncda@cdc.gov mailbox

NHSN Reminders

- Welcome feedback

- Make sure you are on the NHSN CDA email distribution list

- Visit the CDA Submission Support Portal (CSSP): https://www.cdc.gov/nhsn/cdaportal/index.html

CDA Submission Support Portal (CSSP)

Toolkits, FAQs, webinars and resources for testing and validation for CDA implementers.

Thank you!
Questions?

NHSNCDA@cdc.gov