

Immunization

CSTE DSWG Data Element Specific Team
1/19/2024



Council of State and Territorial Epidemiologists

Please mute phone/ headset/ computer audio!

Agenda

- Welcome & Announcements
- Summary of Poll Results
- Immunization Discussion/Polling
- Next Steps
- Wrap-Up & Adjourn

Meeting ground rules



- Discussion Guidelines
 - "Raise" your hand
 - Use the chat to provide feedback and ask questions
 - When called, state your name and affiliation
 - Stay on point, be brief, and within the context of the discussion in progress
 - 80/20 consensus
 - Co-Chairs/moderators' prerogative to move the discussion forward as needed
 - [Post-meeting input form](#) is always available for additional comment
 - Be courteous and be open to new ideas

Active participation encouraged for all!

- Chats, voting, comments, etc.
- Includes STLT jurisdictions + CDC Programs + CSTE, etc.

Core Data: In Scope for DSWG



- Identify core data elements for surveillance **for transmission to CDC**
 - For situational awareness or routine, cross-condition case surveillance
 - For case-based surveillance (not syndromic, not aggregate reporting)
 - Within *selected* data classes (e.g., hospitalization, travel history) that are used for multiple conditions
- Identify common definitions, value sets/code sets, structure, and interpretation notes for those core data elements
- Recommend best practices for how selected data elements are collected, structured or populated within PHA surveillance systems, if/when that will affect the interpretation of the data transmitted to CDC

Core for CDC Transmission ≠ Required

Even if a data element or class is identified as appropriate for transmission to CDC, this does *not* mean we need to fill in or send an answer for every core element for every case!

- It is okay to leave the data field as blank or Unknown if the information is not available, not a priority, or not useful for particular conditions.

Data elements and data classes should be considered for core if they are relevant for many conditions

- There is no set number that defines "many".
- Would you rather see the element in (for example) a GenV3 MMG? or in the applicable disease-specific MMGs?

Between Meeting Poll Summary: Immunizations



Last meeting...



Vaccine History Repeating Group	Core Data Element?
Vaccine Type (CVX)	97% - Yes
Vaccine Administered Date	97% - Yes
Vaccine Dose Number	58% - ?
Vaccine Manufacturer (MVX)	87% - Yes
Vaccine Lot Number	58% - ?
Vaccine Expiration Date	39% - No
National Drug Code (NDC)	23% - No
Vaccination Record Identifier	29% - No
Vaccine Event Information Source	67% - ?

Poll Results



12 respondents, thank you!

	1 – Very Easy	2	3	4	5 – Very Hard	Average
Vaccine Type (CVX)	5	3	1	0	0	1.56
Vaccine Administered Date	8	1	0	0	0	1.11
Vaccine Dose Number	4	1	3	1	0	2.11
Vaccine Manufacturer (MVX)	5	4	0	0	0	1.44
Vaccine Lot Number	4	2	1	2	0	2.11
Vaccine Expiration Date	4	1	1	2	1	2.44
National Drug Code (NDC)	2	1	1	4	0	2.88
Vaccination Record Identifier	4	2	0	1	1	2.13
Vaccine Event Information Source	5	1	1	2	0	2.00
Ever Vaccinated	5	1	2	0	0	1.63
Vaccination Doses Prior to Illness Onset	2	1	5	0	1	2.67
Date of Last Dose Prior to Illness Onset	3	3	2	0	1	2.22
Vaccinated per ACIP Recommendations?	1	0	3	3	1	3.38
Reason Not Vaccinated	1	0	4	2	2	3.44
Vaccine History Comments	0	0	5	1	2	3.63

Discussion: Immunization



Interpretive Vaccine History (no repeat)

Did the subject ever receive a vaccine against this disease?

Vaccination Doses Prior to Illness Onset

Date of Last Dose Prior to Illness Onset

Vaccinated per ACIP Recommendations?

Reason Not Vaccinated Per
ACIP Recommendations

Vaccine History Comments

1

2

3

- Are these data elements core? Are there complications or issues with collecting any of these?

Data Element	Definition	Value Set
Did the subject ever receive a vaccine against this disease?	Did the subject ever receive a vaccine against this disease?	Yes/No/Unknown
Vaccination Doses Prior to Illness Onset	Number of vaccine doses against this disease prior to illness onset	Numeric
Date of Last Dose Prior to Illness Onset	Date of last vaccine dose against this disease prior to illness onset	Date

- Are these data elements core? Are there complications or issues with collecting any of these?

Data Element	Definition	Value Set
Vaccinated per ACIP Recommendations?	Was subject vaccinated as recommended by the Advisory Committee on Immunization Practices (ACIP)?	Yes/No/Unknown
Reason Not Vaccinated Per ACIP Recommendations	Reason subject not vaccinated as recommended by ACIP	PHVS VaccineNotGivenReasons_CDC

Reason Vaccine Not Given



Concept Code	Concept Name
PHC1313	Foreign Visitor
PHC1310	Immigrant
PHC82	Lab evidence of previous disease
PHC83	MD diagnosis of previous disease
397745006	Medical contraindication
PHC1311	Missed opportunity in medical setting
OTH	Other
PHC94	Parent/Patient forgot to vaccinate

Concept Code	Concept Name
PHC95	Parent/Patient refusal
PHC93	Parent/patient report of previous disease
PHC1314	Parent/Patient unaware of recommendation
PHC92	Philosophical objection
PHC96	Religious exemption
PHC1312	Too Young
UNK	unknown
C4698055	Vaccine not available
PHC1315	Vaccine record incomplete/unavailable

- Is this data element core? Are there complications or issues with collecting any of this?

Data Element	Definition	Value Set
Vaccine History Comments	Comments about the subject's vaccination history	Text

Polling process



- Poll questions will be shown first on a slide before poll opens
 - Opportunity for clarifications & questions
- Questions will be mostly "Select all that you think are core"
 - Feel free to abstain if you don't have a preference or don't feel strongly
 - There will be an option for "none" - use this if you do not believe any of the options are core
- Potential opportunity for additional discussion on questions with a big split.

Core for CDC Transmission $\neq$ Required

Even if a data element or class is identified as appropriate for transmission to CDC, this does *not* mean we need to fill in or send an answer for every core element for every case!

- It is okay to leave the data field as blank or Unknown if the information is not available, not a priority, or not useful for particular conditions.

Data elements and data classes should be considered for core if they are relevant for many conditions

- There is no set number that defines "many".
- Would you rather see the element in (for example) a GenV3 MMG? or in the applicable disease-specific MMGs?

Poll 1 - Interpretive Group



Select all of the data elements that should be considered core data elements.

Data Element	Definition	Value Set
Did the subject ever receive a vaccine against this disease?	Did the subject ever receive a vaccine against this disease?	Yes/No/Unknown
Vaccination Doses Prior to Illness Onset	Number of vaccine doses against this disease prior to illness onset	Numeric
Date of Last Dose Prior to Illness Onset	Date of last vaccine dose against this disease prior to illness onset	Date

Reminder:

Core data for surveillance = Data classes or elements used for situational awareness or routine, cross-condition case surveillance for transmission to CDC. These elements may remain empty for cases/conditions where not applicable or unavailable.

Poll 2 - Interpretive Group



Select all of the data elements that should be considered core data elements.

Data Element	Definition	Value Set
Vaccinated per ACIP Recommendations?	Was subject vaccinated as recommended by the Advisory Committee on Immunization Practices (ACIP)?	Yes/No/Unknown
Reason Not Vaccinated per ACIP Recommendations	Reason subject not vaccinated as recommended by ACIP	PHVS VaccineNotGivenReasons_CDC

Reminder:

Core data for surveillance = Data classes or elements used for situational awareness or routine, cross-condition case surveillance for transmission to CDC. These elements may remain empty for cases/conditions where not applicable or unavailable.

Poll 3 - Interpretive Group



Is Vaccine History Comments a core data element?

- Yes
- No

Data Element	Definition	Value Set
Vaccine History Comments	Comments about the subject's vaccination history	Text

Reminder:

Core data for surveillance = Data classes or elements used for situational awareness or routine, cross-condition case surveillance for transmission to CDC. These elements may remain empty for cases/conditions where not applicable or unavailable.

Remaining VHRG Elements



Vaccine Dose Number	58%
Vaccine Lot Number	58%
Vaccine Event Information Source	67%

- Summarize the thoughts from the poll, allow for additional discussion, then poll again
- Any data element between 50-80% will be included as core "with weak support" from the group, as previously done with some of the Hospitalization data elements

Vaccine Dose Number



Data Element	Definition	Value Set
Vaccine Dose Number	The dose number in a series	Numeric

- 2 Responded "Yes": Important to know if the person received all doses to confer full immunity.
- 8 "No" and 2 "Maybe":
 - Difficult to ascertain/interpret due to incomplete records or questionable/invalid doses
 - Incorrectly calculated/Not trustworthy
 - EHRs must send to IIS so not all IIS can calculate it
 - Can be calculated differently by different IIS forecaster engines
 - Can be calculated by CDC

Vaccine Lot Number



Data Element	Definition	Value Set
Vaccine Lot Number	The lot number for the vaccine administered	Text

- 7 Responded "Yes":
 - Can be used for identifying a problematic vaccine lot
 - QA to make sure lot number matches with CVX/MVX
 - Checking for cases related to recalls
 - Still limitations- data quality is hard to monitor, it is not always available
- 5 Responded "No":
 - Not consistently reported/Largely incomplete
 - Most of the time unnecessary for case investigation
 - Unrelated to an individual's vaccination status
 - Only needed for specific studies/outbreaks

Vaccine Event Information Source Value Set



Concept Code Concept Name

184225006	Computer record of patient (record artifact)
06	Historical information - from birth certificate
02	Historical information - from other provider
05	Historical information - from other registry
PHC1435	Historical information - from patient or parent's recall
PHC1436	Historical information - from patient or parent's written record
08	Historical information - from public agency
07	Historical information - from school record
01	Historical information - source unspecified
PHC1936	Immunization Information System
00	New immunization record
OTH	other
PP	Primary Care Provider
UNK	unknown

Vaccine Event Information Source



Data Element	Definition	Value Set
Vaccine Event Information Source	The information source for this vaccination record	PHVS_VaccineEventInformationSource_NND

- 5 Responded "Yes":
 - Understand the reliability of the data
 - Recognize more work needed as not all IIS collect and not all EHRs send with a consistent value set
- 6 Responded "No":
 - Not consistently reported/Largely incomplete/Varies between IIS
 - Jurisdictions should only be sending reliable data
 - Not tied to a public health outcome/intervention
 - Dose information is not accepted or rejected based on this, so not core

Poll 4 - VHRG Redo



Select all of the data elements that should be considered core data elements for cross-condition transmission to CDC.

Data Element	Definition	Value Set
Vaccine Dose Number	The dose number in a series	Numeric
Vaccine Lot Number	The lot number for the vaccine administered	Text
Vaccine Event Information Source	The information source for this vaccination record	PHVS_VaccineEventInformationSource_NND

Re-Poll?



Data Element	Definition	Value Set
Did the subject ever receive a vaccine against this disease?	Did the subject ever receive a vaccine against this disease?	Y/N/U
Vaccination Doses Prior to Illness Onset	Number of vaccine doses against this disease prior to illness onset	Numeric
Date of Last Dose Prior to Illness Onset	Date of last vaccine dose against this disease prior to illness onset	Date
Vaccinated per ACIP Recommendations?	Was subject vaccinated as recommended by the ACIP?	Y/N/U
Reason Not Vaccinated per ACIP Recommendations	Reason subject not vaccinated as recommended by ACIP	PHVS_VaccineNotGivenReasons_CDC
Vaccine History Comments	Comments about the subject's vaccination history	Text

Impromptu Poll 5?



Select all of the data elements that should be considered core data elements for cross-condition transmission to CDC.

Data Element	Definition	Value Set
??		

Potential data elements related to Immunization



- ~~Vaccine Type~~
- ~~Vaccine Administered Date~~
- ~~Vaccine Dose Number~~
- ~~Vaccine Manufacturer~~
- ~~Vaccine Lot Number~~
- ~~Vaccine Expiration Date~~
- ~~National Drug Code (NDC)~~
- ~~Vaccination Record Identifier~~
- ~~Vaccine Event Information Source~~
- Dose Validity
- Provider Organization Type
- ~~Did the subject ever receive a vaccine against this disease~~
- ~~Vaccinated Per ACIP Recommendations~~
- ~~Reasons Not Vaccinated Per ACIP Recommendations~~
- ~~Vaccination Doses Prior to Onset~~
- ~~Date of Last Dose Prior to Illness Onset~~
- ~~Vaccine History Comments~~
- Number of Doses received Before 1st Birthday
- Source of Mother's Vaccine Information
- Were Any of the Children Living in the Household Immunized With Rubella-Containing Vaccine

Poll 6 - Additional Immunizations Elements



Are there any other immunization related variables that need to be further discussed as recommendations for core data for surveillance?

- Yes
- No

Reminder:

Core data for surveillance = Data classes or elements used for situational awareness or routine, cross-condition case surveillance for transmission to CDC. These elements may remain empty for cases/conditions where not applicable or unavailable.

Next Steps



- Look out for next steps via email. (Draft document for review?)
- Upcoming team meetings:
 - 2/9 1-2pm ET– Exposure/Risk/Underlying Conditions
 - 2/16 1-2pm ET– Signs/Symptoms/Clinical Manifestations (or Immunizations?)
 - [Link to Sign Up](#)
- The next large DSWG call will be at the end of February.

If you feel you are not receiving emails or invitations that you should be receiving, please check your junk/spam folder to make sure the messages aren't being filtered by your agency, and if no luck email Laura Lane at LLane@jmichael-consulting.com to verify.