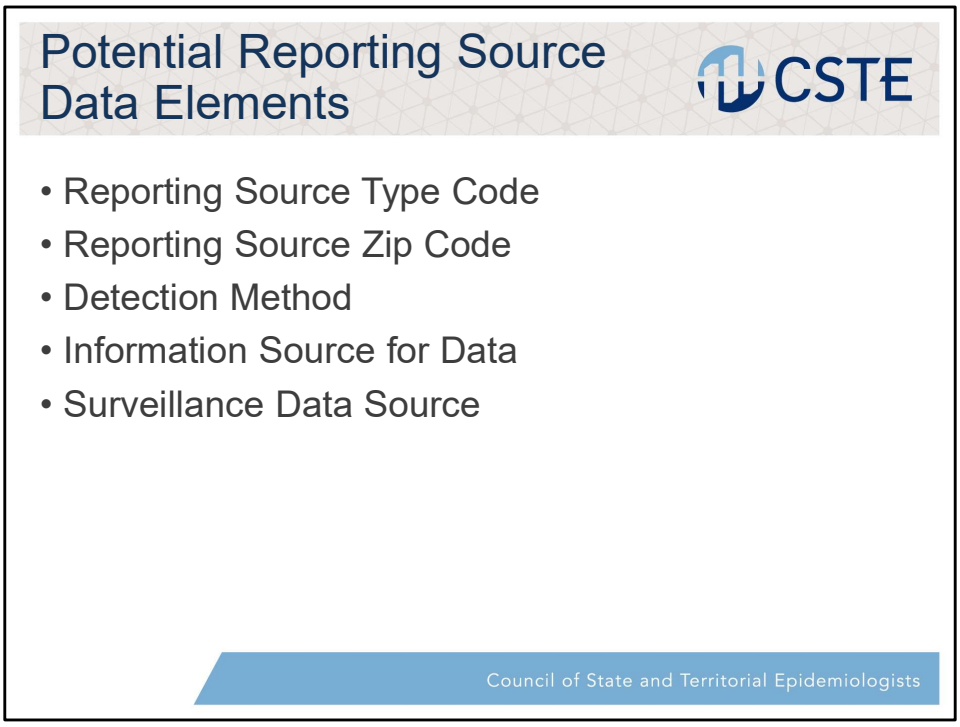
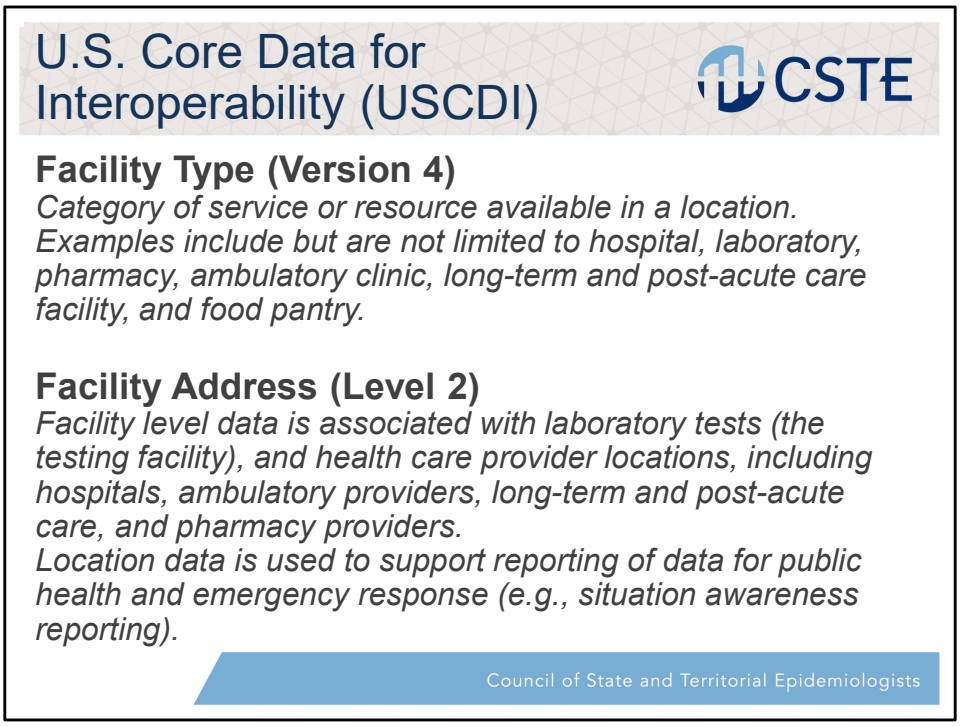
Reporting Source



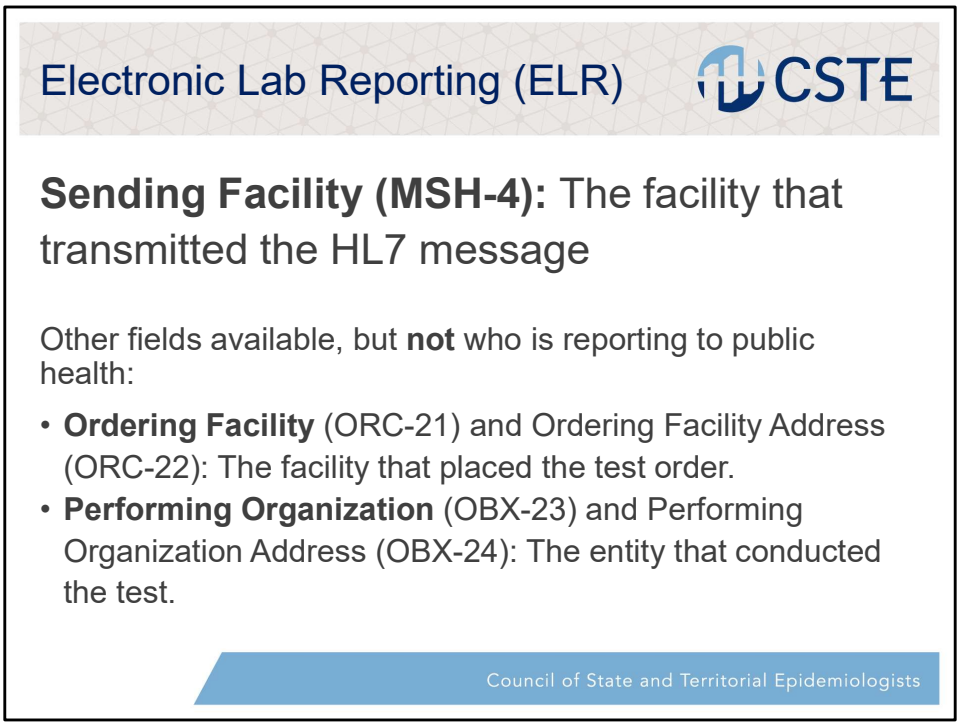
Listed here are a few data elements and concepts related to the reporting source in current Message Mapping Guides (MMGs).

CDC programs are interested in identifying who is initially reporting cases to public health. This information helps CDC programs understand where cases are being identified and is often included in annual surveillance reports. The Reporting Source data element in the Generic v2 MMG asks for the "Type of facility or provider associated with the source of information sent to Public Health." Some MMGs also request the detection method to understand how the case was identified. This may include responses such as autopsy, self-report, or routine surveillance.



As a data class, Facility Information was first included in the USCDI v4. Relevant to reporting source, the Facility Information data class provides standards for both facility type and facility address.

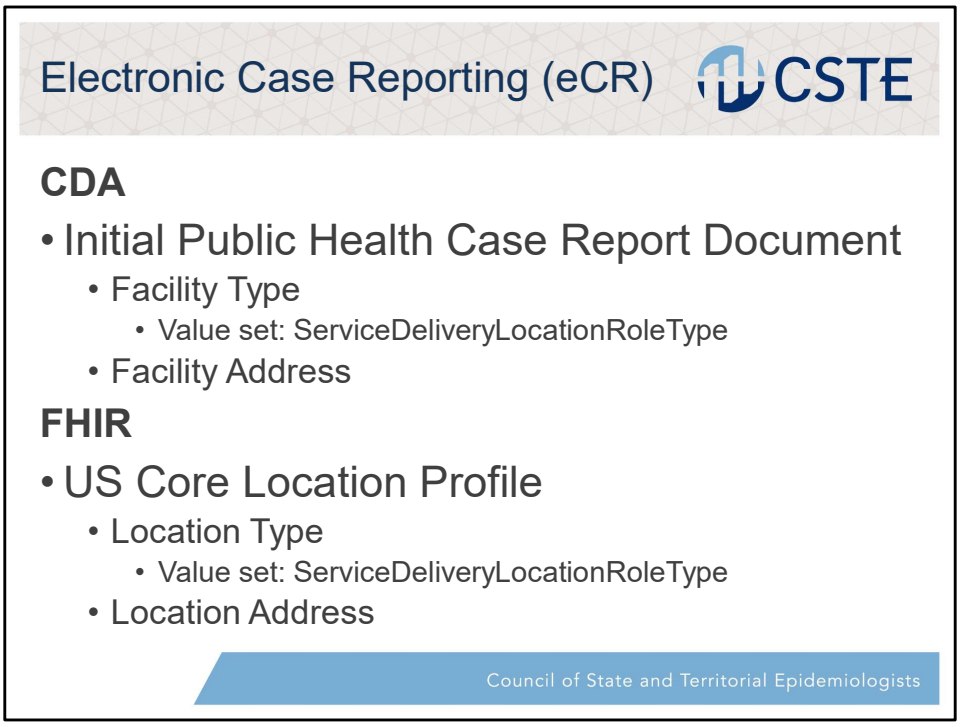
Facility Type is in USCDI Version 4 and describes the facility based on the category of service or resource available. Examples include but are not limited to hospital, laboratory, pharmacy, ambulatory clinic, long-term and post-acute care facility, and food pantry. **Facility Address is Level 2 in USCDI**, meaning it is not part of a USCDI standard yet but has relevant referenced standards and evidence of widespread adoption. It is the physical address for the facility, which includes the zip code.



In Electronic Laboratory Reporting (ELR), using HL7 version 2.5.1, the main field that captures information on who is reporting is the Sending Facility information sent in MSH-4. The Sending Facility identifies the facility that transmitted the HL7 message and establishes the data's origin.

There are other fields that collect information about facilities, but they should not be used as the facility who is reporting to public health.

- **Ordering Facility Name (ORC-21)** and **Ordering Facility Address (ORC-22)**: These provide the name and full address of the facility that placed the test order.
- **Performing Organization (OBX-23)** and **Performing Organization Address (OBX-24)**: These identify the name and address of the entity that conducted the test.



Information about the facility providing care is included in the electronic case report (eCR) in both the CDA and FHIR formats. When a patient's encounter triggers an eCR, it includes details such as the facility's name, type, and address to show who initiated the report.

In CDA, facility information is found in the Initial Public Health Case Report Document. Two important data elements are:

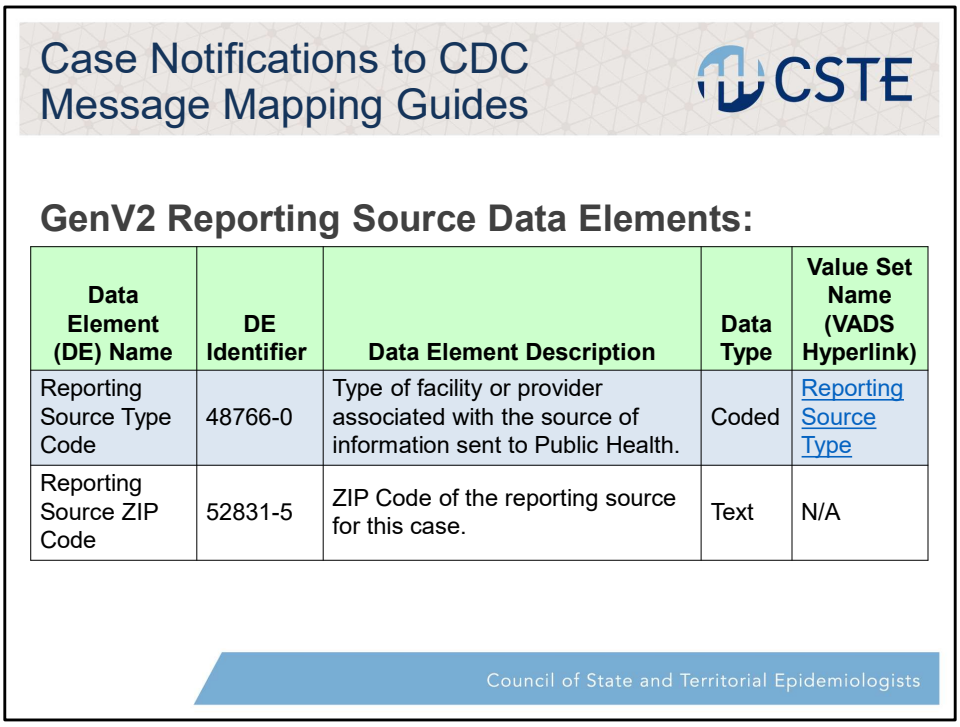
Facility Type is described as the type of facility where the patient received healthcare for the reportable condition (e.g., hospital, ambulatory, urgent care, etc.). This is a required data element in the eICR and cannot be NULL or unknown.

Facility Address provides the mailing address for the facility where the patient received care for the reportable condition. It must include street address, city/town, county, state, and zip code.

There is another element that collects information about the Provider Facility/Office Address, which can be used when there is a need to follow-up with the provider, but should not be used as the address for the facility who is reporting to public health.

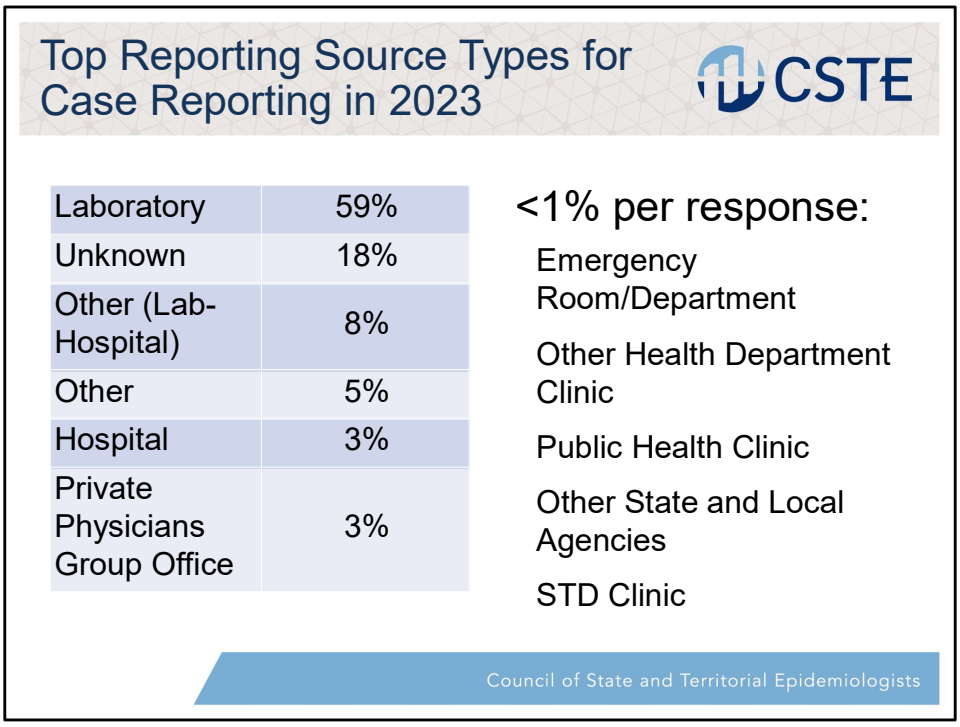
For eCR using FHIR, location information is captured in the US Core Location Profile and

includes location.type and location.address.

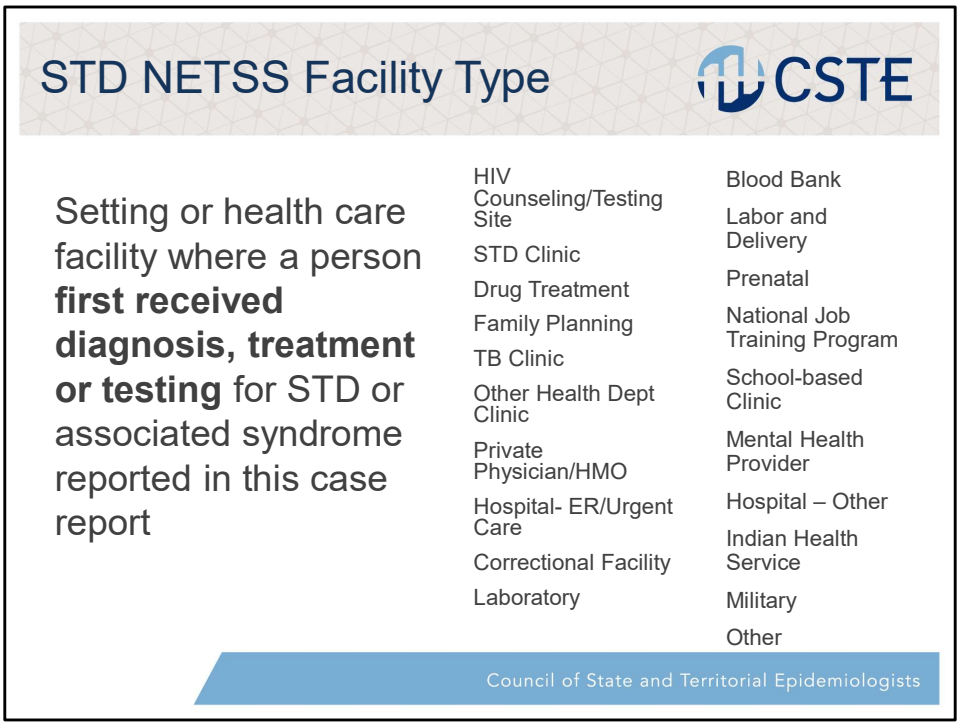


The generic v2 MMG has two related reporting source data elements. The first, “Reporting Source Type Code”, is described as the “Type of facility or provider associated with the source of information sent to Public Health”. The value set has 35 concepts including hospitals, emergency departments, and laboratory. The second data element, “Reporting Source ZIP Code” is used to capture the zip code of the reporting source.

It is useful to consider how often these fields are populated. In 2023, Reported Source was populated 42% of the time and Reporting Source zip code was populated 15% of the time. CDC programs are not using reporting source zip code as it is rarely populated, and that variable is not one we're going to discuss as a potential core data element.

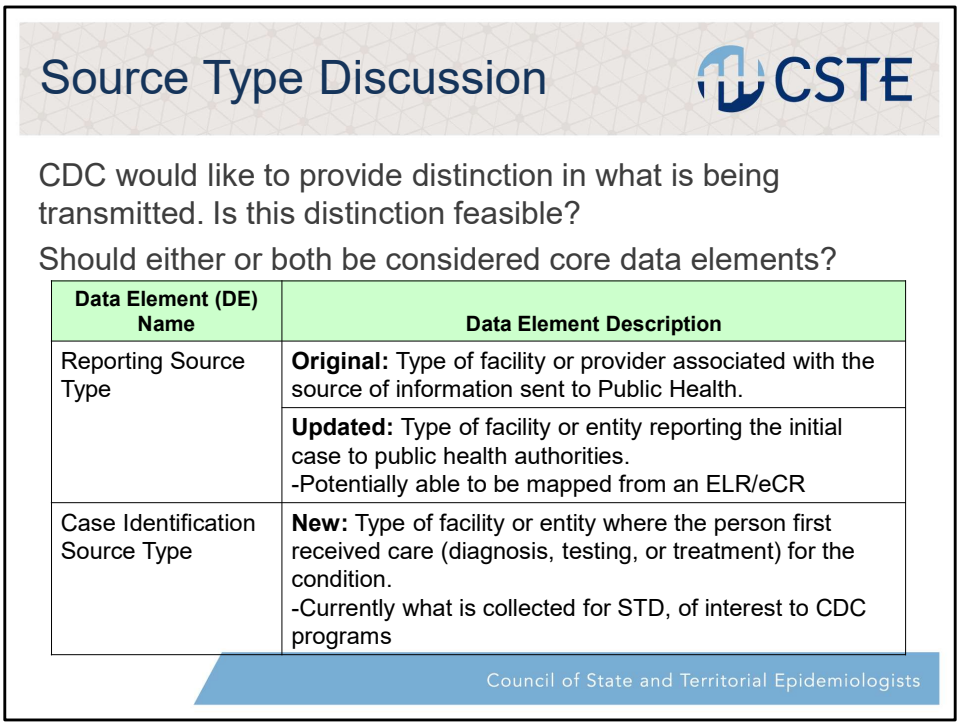


Here is a summary of the top responses received for Reporting Source Type in 2023. Laboratory and Unknown make up ¾ of the responses, with hospital lab, other, hospital, and private physician's group office being the next group of most frequent responses. On the right side of the slide you can see some other selections that occurred in less than 1% of cases each.



STD is one of the main programs at CDC using these data. They analyze it to understand where patients are being seen and who is reporting, which helps guide prevention activities, such as screening recommendations. The NETSS Implementation Plan used by STD provides a data element description of: “Setting or health care facility where a person first received diagnosis, treatment or testing for STD or associated syndrome reported in this case report.” This focuses on the setting where the individual was diagnosed, which differs from the Generic v2 MMG’s focus on the facility that submitted the report. This distinction is important as the reporting source and the diagnosing facility can be the same but may also differ.

Other CDC programs are not as often utilizing the information in reporting source, but have indicated during CDC's background research that it would be of more interest of them to know where a case is first being diagnosed or tested, as that information is more valuable for prevention activities.

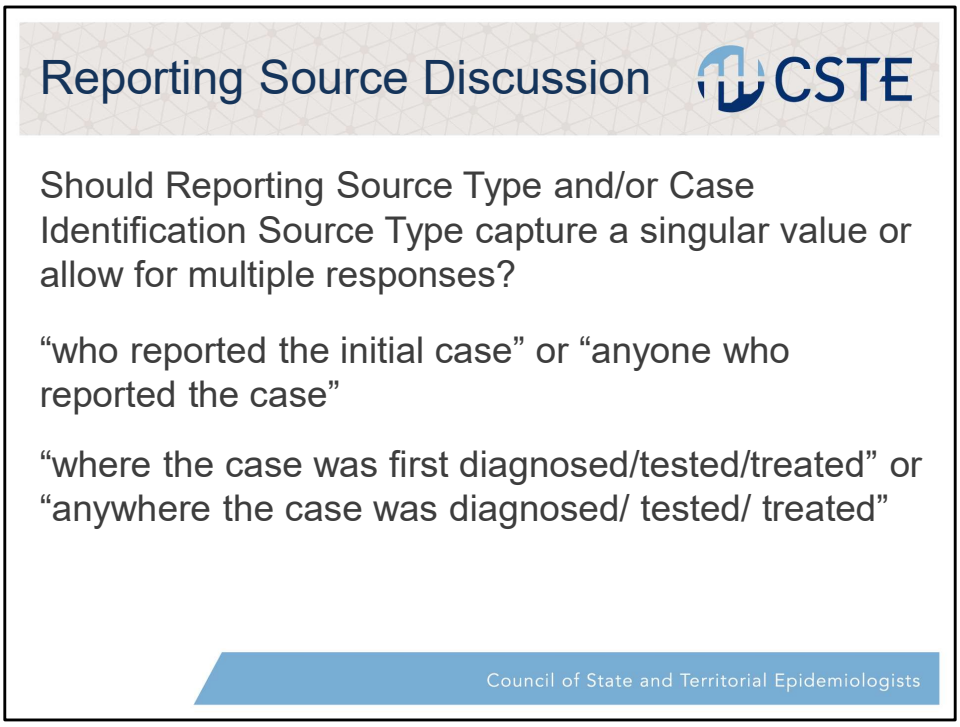


On our call we will discuss the definition of the reporting source data element. The original definition asks for the type of facility associated with the source of information sent to public health, which could mean the reporting facility as it is often interpreted, but is also being used to collect the diagnosing facility as used by STD.

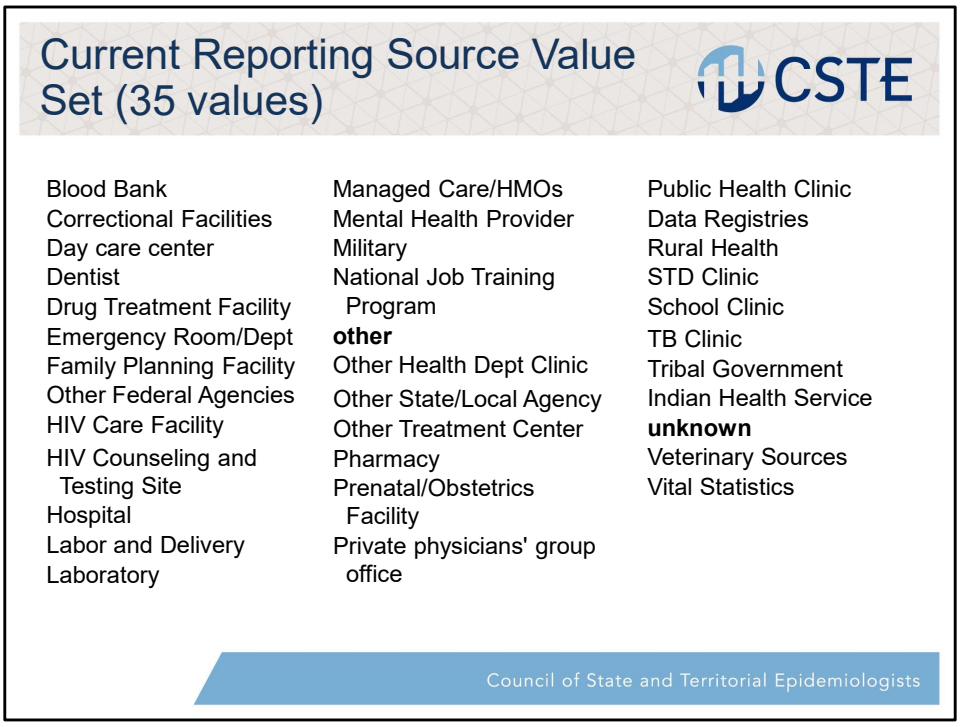
Adding more specificity to reporting source, like "Type of facility or entity reporting the initial case to public health authorities", will standardize interpretation of this data element and still allow the potential for mapping from the previously mentioned ELR or eCR fields.

However, to collect information on where the person first received diagnosis/testing/treatment, which is what is of interest to CDC programs, a separate data element would need to be used. Here we have created a proposed data element of "Case Identification Source Type" with a definition of the type of facility or entity where the person first received care (meaning diagnosis or testing or treatment) for the condition.

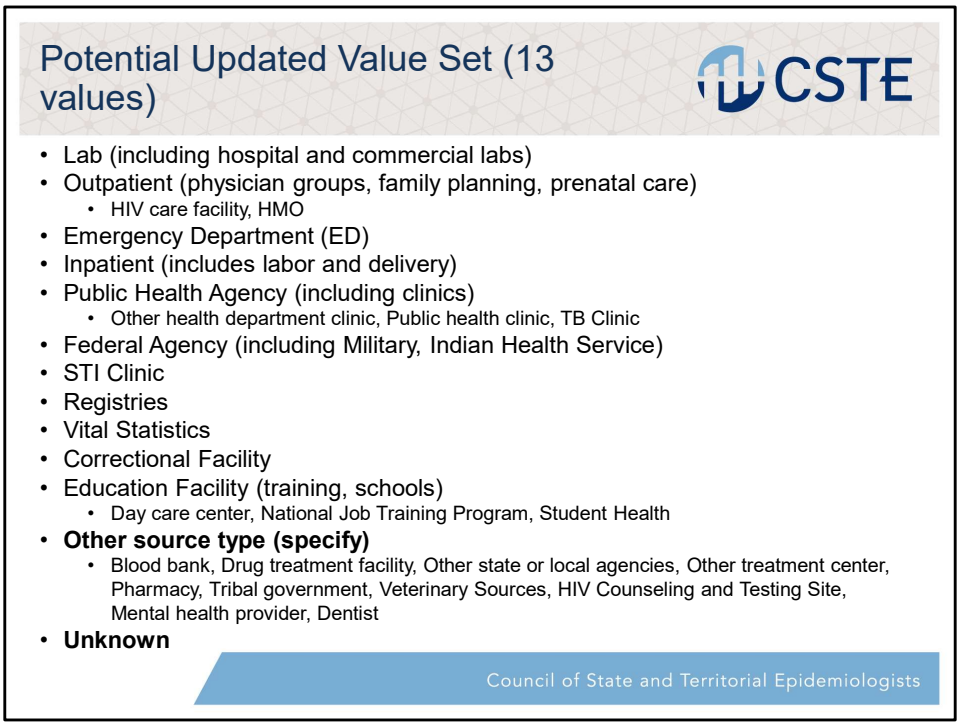
On our call we will discuss if either of these data elements should be considered core data elements for transmission to CDC.



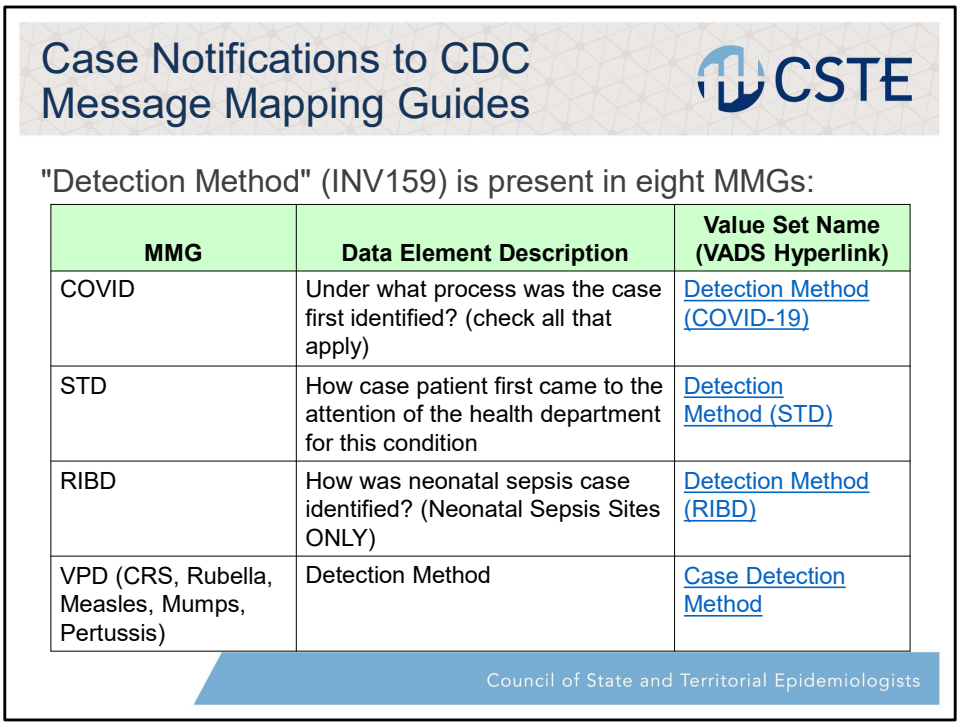
We will also discuss if the responses should allow for a singular value or multiple values. For Reporting Source this would be a distinction between transmitting who reported the initial case versus anyone who reported the case. For Case Identification Source this would be a distinction between where the case first received care versus anywhere the case received care.



Finally, we will discuss the value set for Reporting Source or Case Identification Source. The current value set for Reporting Source is shown on this slide and encompasses 35 values.



The proposed consolidated value set is comprised of 13 values. The sub-bullets on this slide intend to show where some of the values from the previous value set that are missing may be categorized. On our call we will not be working to agree upon what this value set is exactly, but we will poll on if there is a preference for a larger, more granular value set like what currently exists versus a simplified version such as what's shown on this slide.



Case Notifications to CDC Message Mapping Guides

CSTE

"Detection Method" (INV159) is present in eight MMGs:

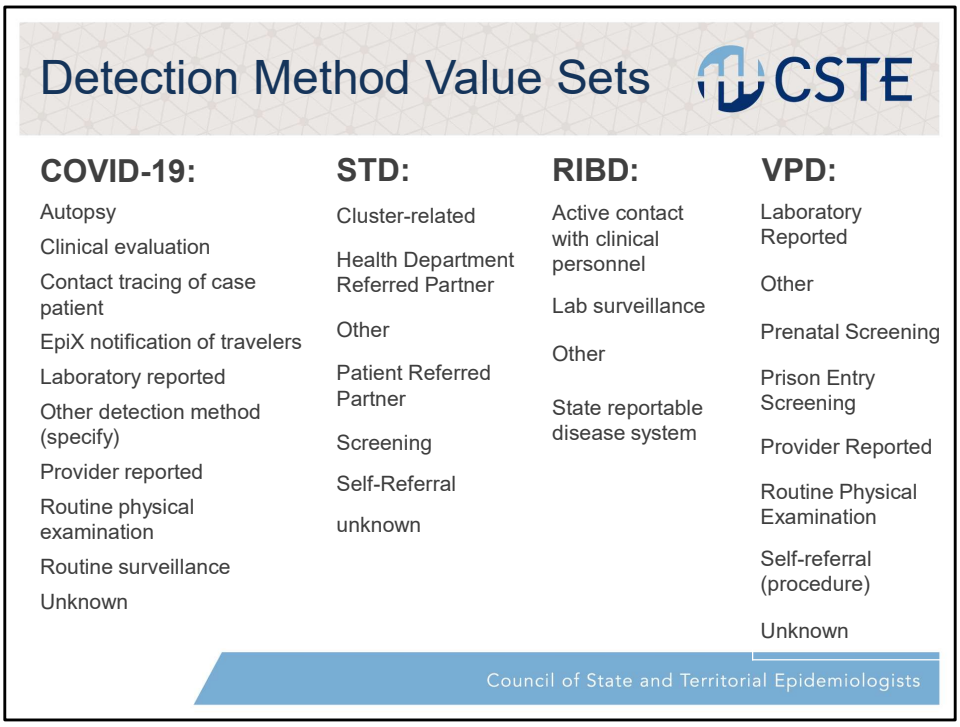
MMG	Data Element Description	Value Set Name (VADS Hyperlink)
COVID	Under what process was the case first identified? (check all that apply)	Detection Method (COVID-19)
STD	How case patient first came to the attention of the health department for this condition	Detection Method (STD)
RIBD	How was neonatal sepsis case identified? (Neonatal Sepsis Sites ONLY)	Detection Method (RIBD)
VPD (CRS, Rubella, Measles, Mumps, Pertussis)	Detection Method	Case Detection Method

Council of State and Territorial Epidemiologists

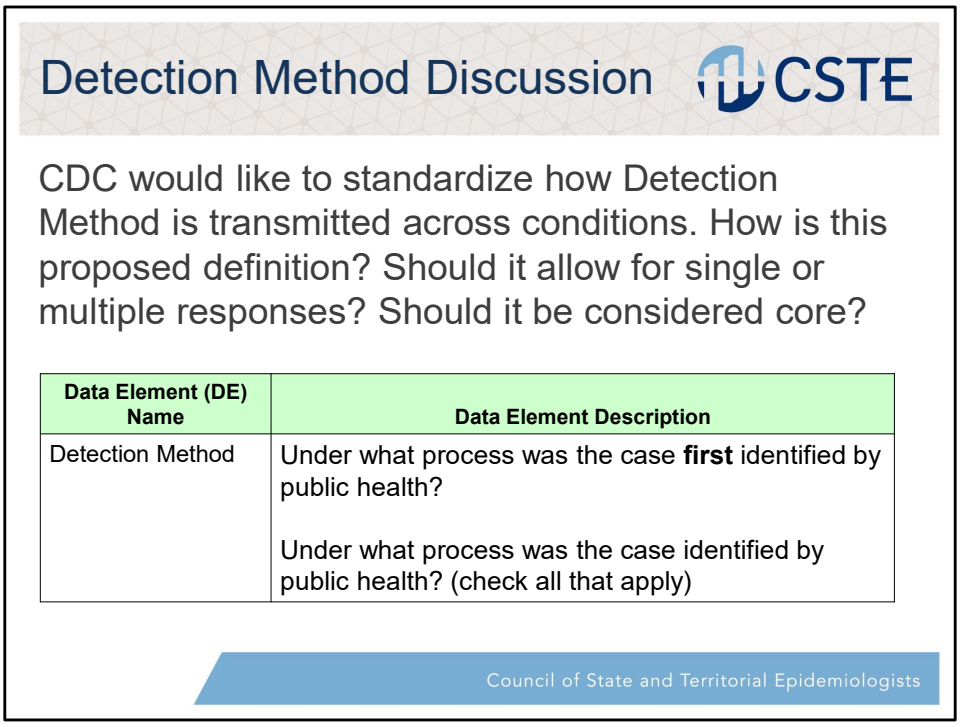
In addition to the Reporting Source information in GenV2, specific MMGs include the "Detection Method" data element. There are eight MMGs that ask which process was used to identify the case, using similar value sets.

- **COVID and STD** MMGs ask about the process by which a case was first identified.
- **RIBD and VPD** MMGs ask how the case was identified without specifying if it was the first identification.

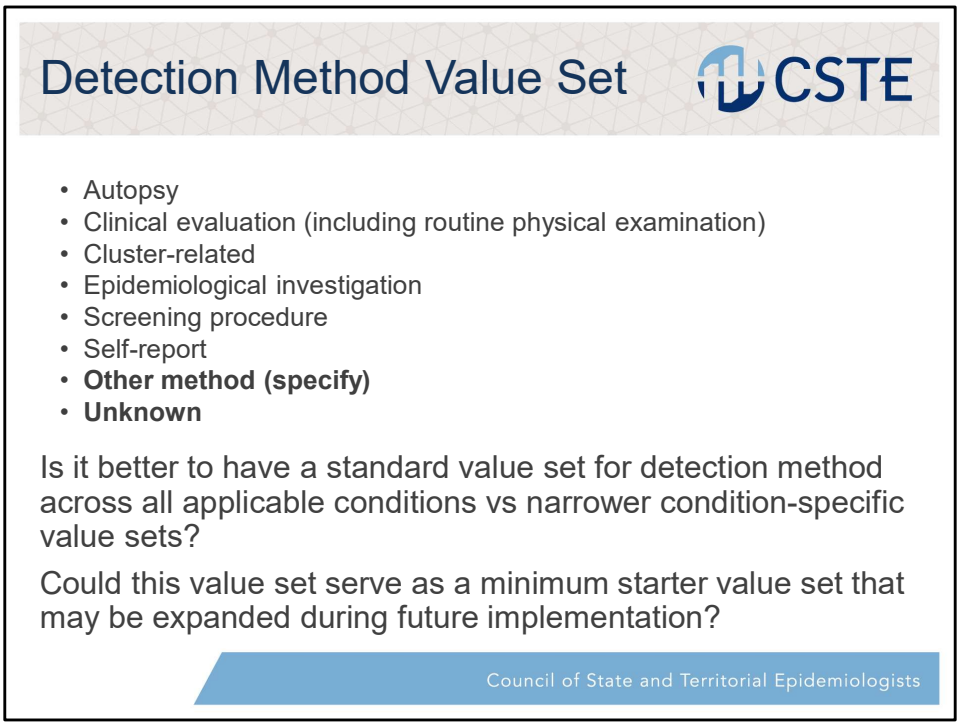
Only the COVID MMG allows for multiple entries for Detection Method.



For comparison, here are the value sets for detection method for the eight condition specific MMGs. This includes methods such as routine surveillance, diagnostic testing, epidemiological or cluster investigation, and screening.



CDC would like to standardize how detection method is transmitted across conditions, whether or not it is considered a core data element. On our call we will talk about a proposed definition for detection method, which would also take into account whether a single response or multiple responses should be allowed.



We will also discuss if it is better to have a standard value set for detection method across all applicable conditions versus narrower condition-specific value sets. Could the value set provided here serve as a minimum starter value set that may be expanded during future implementation?

Next Steps

- Upcoming Reporting Source meeting on August 16th from 1pm-2pm Eastern time.
- The next large DSWG call will be on August 30th, 2024.

NOTE:

All drafts released for DEST/DSWG review are drafts and the resulting recommendations passed to CSTE for final steps have not been made available. Please do not pass on draft documents as final products.