

VERSION: The version of this Message Mapping Guide is Version 1.01 dated January 6, 2010.

"This artifact is considered to be a technical document. Please contact PHINTech@cdc.gov, copying the NEDSS team at NEDSS@cdc.gov for assistance with this artifact."

This Message Mapping Guide describes the content and message mapping specifications for the set of data elements used to communicate information to meet the requirements for Generic Case Notifications to CDC. The intended audiences for this document are the state/local and CDC programs and other public health related organizations interested in using the HL7 V2.5 Case Notification Message Specification for transmitting their data elements to CDC.

References

National Condition Reporting, Notifiable Events and Reporting Mechanisms for 2009, Division of Integrated Surveillance Systems and Services, National Center for Public Health Informatics, Centers for Disease Control and Prevention, June 2009.

National Notification Message Structure Specification version 2.0 is used to inform the mapping methodology for this guide. The ORU^R01 - Unsolicited Observation Message is the HL7 standard message used to pass the Nationally Notifiable Condition Report message. The National Notification message is used to convey a limited data set of investigation/surveillance information to meet national reporting requirements, where CDC is the only receiver. This document specifies the structure and methodology for the use of the Health Level 7 (HL7) Version 2.5 Unsolicited Result Message (ORU^R01) that supports the electronic interchange of any Nationally Notifiable Condition message from public health entities to the CDC.

| Column | Description |
|--|---|
| Program Variables Column Headings | |
| PHIN Variable ID | PHIN data element identifier drawn from the coding system PH_PHINQuestions_CDC. |
| Label | Short name for the data element, which is passed in the message. |
| Description | Description of the data element. It may not match exactly with the description in PHIN Questions, because there may be local variations on the description that do not change the basic concept being mapped to the PHIN Question identifier. |
| Data Type | Data type for the variable response expected by the program area. Data Types are Coded, Numeric, Date or Date/time, and Text. |
| CDC Priority | Indicator whether the program specifies the field as: R - Required - Mandatory for sending the message. If data element is not present, the message will error out. P - Preferred - This is an optional variable and there is no requirement to send this information to CDC. However, if this variable is already being collected by the state/territory or if the state/territory is planning to collect this information because it is deemed important for your own programmatic needs, CDC would like this information sent. CDC preferred variables are the most important of the optional variables to be earmarked for CDC analysis/assessment, even if sent from a small group of states. O - Optional - This is an optional variable and there is no requirement to send this information to CDC. This variable is considered nice-to-know if the state/territory already collects this information or is planning to collect this information, but has a lower level of importance to CDC than the preferred classification of optional data elements. |
| May Repeat | Indicator whether the response to the data element may repeat. "Y" in the field indicates that it may repeat. If the response does not repeat, the field is not populated or contains "N". Data elements that repeat require special processing. |
| Value Set Name | Name of the pre-coordinated value set in PHIN-VADS from which the response is drawn. The value sets and coding systems are accessible via the Public Health Information Network Vocabulary Access and Distribution Services. To obtain the valid code set and coding systems for the Generic implementation message mapping guide, complete the following steps: 1. Go to http://phinvads.cdc.gov . 2. Click on the Views hyperlink 3. Enter Generic in the lookup box and press the Search Views button. 4. Click on Details next to Generic Case Notification to obtain the valid code set.. |
| Value Set Code | Code for the pre-coordinated value set in PHIN-VADS from which the response is drawn. The value sets and coding systems are accessible via the Public Health Information Network Vocabulary Access and Distribution Services. To obtain the valid code set for the Generic implementation message mapping guide, complete the following steps: 1. Go to http://phinvads.cdc.gov . 2. Click on the Views hyperlink 3. Enter Generic in the lookup box and press the Search Views button. 4. Click on Details next to Generic Case Notification to obtain the valid code set. |
| Message Mapping Methodology Column Headings | |
| Message Context | Specific HL7 segment and field mapping for the element. |
| HL7 Data Type | HL7 data type used by PHIN to express the variable. Datatypes expected are CWE, SN, TS, ST, TX, XPN, XTN, or XAD, depending on the type of data being passed. |
| HL7 Optionality | Indicates if the field is required, optional, or conditional in a segment. The only values that appear in the Message Mapping are: R – Required. Must always be populated O – Optional. May optionally be populated. |

| Implementation Notes | Related implementation comments. |
|----------------------|----------------------------------|
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| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Priority | May Repeat | Value Set Name | Value Set Code | HL7 Message Context | HL7 Data Type | HL7 Optionality | HL7 Implementation Notes |
|------------------|-----------------------|--|-----------|--------------|------------|-----------------|----------------------|-------------------------------|---------------|-----------------|--|
| NOT108 | Notification ID | The unique identifier for the notification record. | Text | R | | | | MSH-10-Message Control ID. | ST | R | If notification ID is not unique, a timestamp may be appended. No UID or label is passed in the message. |
| NOT114 | Receiving Application | CDC's PHIN Common Data Store (CDS) is the Receiving Application for this message. | OID | R | | | | MSH-5-Receiving Application. | HD | R | Literal Value: 'PHINCDS^2.16.840.1.114222.4.3.2.10^ISO' |
| NOT115 | Message Profile ID | First instance is the reference to the structural specification used to validate the message. Second instance is the reference to the PHIN Message Mapping Guide from which the content is derived. | Text | R | Y/2 | | | MSH-21-Message Profile ID. | EI | R | First instance literal value: 'NND_ORU_v2.0^PHINProfileID^2.16.840.1.114222.4.10.3^ISO' Second instance literal value: 'Gen_Case_Map_v1.0^PHINMsgMapID^2.16.840.1.114222.4.10.4^ISO'. |
| DEM197 | Local Subject ID | The local ID of the Subject/Entity. | Text | R | | | | PID-3-Patient Identifier List | CX | R | PID-3.1-ID Number is the local Subject ID from the sending system's internally assigned Subject id; PID-3.4-Assigning Authority format <localID&OID&ISO> Does not pass Variable ID or label. |
| DEM100 | Subject Name Type | Name is not requested by the program, but the Patient Name field is required to be populated for the HL7 message to be valid. Have adopted the HL7 convention for processing a field where the name has been removed for de-identification purposes. | Coded | R | Y/2 | Name Type (HL7) | PHVS_NameType_HL7_2x | PID-5.7-Patient Name Type | XPN | R | Literal value: ~^~~~~S Patient Name Type is passed in the second instance as HL7 reserves the first instance of the name field for Legal Name. |
| INV168 | Local Record ID | Sending system-assigned local ID of the case investigation with which the Subject is associated. | Text | R | | | | OBR-3-Filler Order Number | EI | R | OBR-3.1 is the internally assigned case/investigation ID. OBR-3.3 is the OID for sending application as assigning authority. OBR-3.4 is the literal value: 'ISO'. The same value is used for each OBR segment, and the UID and label are not passed in the message. |

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|------------------|--------------------------|---|-----------|--------------|------------|--|--|--|---------------|-----------------|--|
| NOT099 | Subject Type | Type of subject for the notification. "Person", "Place/location", or "Non-Person Living Subject" are the appropriate subject types for Notifications to CDC. | Coded | R | | Notification Section Header | PHVS_NotificationSectionHeader_CDC | First OBR Segment-OBR-4-Universal Service ID. | CE | R | Literal value: 'PERSUBJ^Person Subject^CDCPHINVS' |
| NOT101 | Notification Type | Type of notification. Notification types are "Individual Case", "Environmental", "Summary", and "Laboratory Report". | Coded | R | | Notification Section Header | PHVS_NotificationSectionHeader_CDC | Second OBR Segment-OBR-4-Universal Service ID. | CE | R | Literal Value: 'NOTF^Individual Case Notification^CDCPHINVS' No UID or label is passed in the message. |
| NOT103 | Date First Submitted | Date/time the notification was first sent to CDC. This value does not change after the original notification. | Date/time | R | | | | OBR-7-Observation Date/time. | TS | R | The same value is used for each OBR segment, and the UID and label are not passed in the message. |
| NOT106 | Date of Report | Date/time this version of the notification was sent. It will be the same value as NOT103 for the original notification. For updates, this is the update/send date/time. | Date/time | R | | | | OBR-22-Result Report/Status Chg Date/time. | TS | R | The same value is used for each OBR segment, and the UID and label are not passed in the message. |
| INV169 | Condition Code | Condition or event that constitutes the reason the notification is being sent. | Coded | R | | Nationally Notifiable Disease Surveillance System (NNDSS) and Other Conditions of Public Health Importance | PHVS_NotifiableEvent_Disease_Condition_CDC_NNDSS | OBR-31-Reason for Study. | CE | R | Default value in each OBR instance: 'Event Code^Event Description^NND' The UID and label are not passed in the message. |
| DEM115 | Birth Date | Date of birth in YYYYMMDD format | Date | P | | | | PID-7-Date/Time of Birth | TS | O | The UID and label are not passed in the message. |
| DEM113 | Subject's Sex | Subject's current sex. | Coded | P | | Sex (MFU) | PHVS_Sex_MFU | PID-8-Administrative Sex | IS | O | The UID and label are not passed in the message. |
| DEM152 | Race Category | Field containing one or more codes that broadly refer to the Subject's race(s). | Coded | P | Y | Race Category | PHVS_RaceCategory_CDC | PID-10-Race | CE | O | To send an "Unknown" because the application allows Unknown to be selected (that is, not as a default value): PID-10 would appear as UNK^Unknown^NULLFL The UID and label are not passed in the message. |
| DEM165 | Subject's Address County | County of residence of the subject. | Coded | P | | County | PHVS_County_FIPS_6-4 | PID-11.9-Patient Address - County | IS | O | The entire address construct (PID-11) may repeat per HL7 but only expecting the first instance to be populated and parsed. |
| DEM162 | Subject's Address State | State of residence of the subject. | Coded | O | | State | PHVS_State_FIPS_5-2 | PID-11.4-Patient Address - State | ST | O | The entire address construct (PID-11) may repeat per HL7 but only expecting the first instance to be populated and parsed. |

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|------------------|----------------------------------|--|-----------|--------------|------------|---------------------------------|--|---|---------------|-----------------|--|
| DEM163 | Subject's Address Zip Code | ZIP Code of residence of the subject. | Text | O | | | | PID-11.5-Patient Address - Postal Code | ST | O | The entire address construct (PID-11) may repeat per HL7 but only expecting the first instance to be populated and parsed. |
| DEM155 | Ethnic Group Code | Ethnic origin or ethnicity is based on the individual's self-identity of the Subject as Hispanic or Latino. | Coded | P | | Ethnicity Group | PHVS_EthnicityGroup_CDC | PID-22-Ethnic Group | CE | O | To send an "Unknown" because the application allows Unknown to be selected (that is, not as a default value): PID-22 would appear as UNK^Unknown^NULLFL The UID and label are not passed in the message. |
| NOT109 | Reporting State | State reporting the notification. | Coded | R | | State | PHVS_State_FIPS_5-2 | Observation/OBX Segment with this variable ID and label | CWE | O | Two digit numeric FIPS code |
| NOT116 | National Reporting Jurisdiction | National jurisdiction reporting the notification to CDC. This will be the same value as NOT109 Reporting State for all reporting jurisdictions except New York City. | Coded | R | | National Reporting Jurisdiction | PHVS_NationalReportingJurisdiction_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV107 | Jurisdiction Code | Identifier for the physical site from which the notification is being submitted. | Coded | P | | | | Observation/OBX Segment with this variable ID and label | CWE | O | Jurisdiction Code is expected in the fifth component of the CWE datatype. |
| INV109 | Case Investigation Status Code | Status of the investigation. | Coded | O | | Case Investigation Status | PHVS_CaseInvestigationStatus_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV110 | Investigation Date Assigned | Date the investigator was assigned to this investigation. | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV111 | Date of Report/Referral | Date the event or illness was first reported by the reporting source (physician or lab reported to the local/county/state health department). | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV112 | Reporting Source Type Code | Type of facility or provider associated with the source of information sent to Public Health. | Coded | O | | Reporting Source Type | PHVS_ReportingSourceType_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV118 | Reporting Source Zip Code | Zip Code of the reporting source for this case. | Text | O | | | | Observation/OBX Segment with this variable ID and label | ST | O | |
| INV120 | Earliest Date Reported to County | Earliest date reported to county public health system | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV121 | Earliest Date Reported to State | Earliest date reported to state public health system | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |

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|------------------|---|--|-----------|--------------|------------|------------------------|-----------------------|---|---------------|-----------------|---|
| INV128 | Was the patient hospitalized as a result of this event? | Was patient hospitalized as a result of this event? | Coded | O | | Yes, No, Unknown (YNU) | PHVS_YesNoUnknown_CDC | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV132 | Admission Date | Subject's admission date to the hospital for the condition covered by the investigation | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV133 | Discharge Date | Subject's discharge date from the hospital for the condition covered by the investigation | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV134 | Duration of Hospital Stay in Days | Subject's duration of stay at the hospital for the condition covered by the investigation | Numeric | O | | | | Observation/OBX Segment with this variable ID and label | SN | O | |
| INV136 | Diagnosis Date | Date of diagnosis of condition being reported to public health system | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV137 | Date of Illness Onset | Date of the beginning of the illness. Reported date of the onset of symptoms of the condition being reported to the public health system | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV138 | Illness End Date | Time at which the disease or condition ends. | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV139 | Illness Duration | Length of time this person had this disease or condition. | Numeric | O | | | | Observation/OBX Segment with this variable ID and label | SN | O | |
| INV140 | Illness Duration Units | Unit of time used to describe the length of the illness or condition. | Coded | O | | Age unit | PHVS_AgeUnit_UCUM | OBX-6-Units | CE | O | Part of the INV139 Observation/OBX Segment. The UID and label are not passed in the message. |
| INV145 | Did the patient die from this illness? | Did the patient die from this illness or complications of this illness? | Coded | P | | Yes No Unknown (YNU) | PHVS_YesNoUnknown_CDC | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV146 | Deceased Date | If the patient died from this illness or complications associated with this illness, indicate the date of death | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV147 | Investigation Start Date | The date the case investigation was initiated | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV150 | Case Outbreak Indicator | Denotes whether the reported case was associated with an identified outbreak | Coded | P | | Yes No Unknown (YNU) | PHVS_YesNoUnknown_CDC | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV151 | Case Outbreak Name | A state-assigned name for an indentified outbreak | Coded | P | | | | Observation/OBX Segment with this variable ID and label | CWE | O | |

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|------------------|-----------------------------|--|-----------|--------------|------------|-------------------------------|--------------------------------------|---|---------------|-----------------|--|
| INV152 | Case Disease Imported Code | Indication of where the disease/condition was likely acquired. | Coded | P | | Disease Acquired Jurisdiction | PHVS_DiseaseAcquiredJurisdiction_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV153 | Imported Country | If the disease or condition was imported, indicates the country in which the disease was likely acquired. | Coded | P | | Country | PHVS_Country_ISO_3166-1 | Observation/OBX Segment with this variable ID and label | CWE | O | Three letter country code |
| INV154 | Imported State | If the disease or condition was imported, indicates the state in which the disease was likely acquired. | Coded | P | | State | PHVS_State_FIPS_5-2 | Observation/OBX Segment with this variable ID and label | CWE | O | Two digit numeric FIPS code |
| INV155 | Imported City | If the disease or condition was imported, indicates the city in which the disease was likely acquired. | Coded | P | | City | PHVS_City_USGS_GNIS | Observation/OBX Segment with this variable ID and label | CWE | O | One to ten digit numeric GNIS Feature ID |
| INV156 | Imported County | If the disease or condition was imported, contains the county of origin of the disease or condition. | Coded | O | | County | PHVS_County_FIPS_6-4 | Observation/OBX Segment with this variable ID and label | CWE | O | Five digit numeric FIPS code |
| INV157 | Transmission Mode | Code for the mechanism by which disease or condition was acquired by the subject of the investigation. | Coded | O | | Case Transmission Mode | PHVS_CaseTransmissionMode_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV161 | Confirmation Method | Code for the mechanism by which the case was classified, providing information about how the case classification status was derived. More than one confirmation method may be indicated. | Coded | O | Y | Case Confirmation Method | PHVS_CaseConfirmationMethod_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV162 | Confirmation Date | If an investigation is confirmed as a case, the confirmation date is entered. | Date | O | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV163 | Case Class Status Code | Status of the case/event as suspect, probable, confirmed, or not a case per CSTE/CDC/ surveillance case definitions. | Coded | R | | Case Classification Status | PHVS_CaseClassStatus_NND | Observation/OBX Segment with this variable ID and label | CWE | O | |
| INV165 | MMWR Week | MMWR Week for which case information is to be counted for MMWR publication. | Numeric | R | | | | Observation/OBX Segment with this variable ID and label | SN | O | |
| INV166 | MMWR Year | MMWR Year (YYYY) for which case information is to be counted for MMWR publication. | Date | R | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV173 | State Case ID | States use this field to link NEDSS investigations back to their own state investigations. | Text | O | | | | Observation/OBX Segment with this variable ID and label | ST | O | |
| INV176 | Date of First Report to CDC | Date the case was first reported to the CDC | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV177 | Date First Reported PHD | Earliest date the case was reported to the public health department whether at the local, county, or state public health level | Date | P | | | | Observation/OBX Segment with this variable ID and label | TS | O | |
| INV178 | Pregnancy status | Indicates whether the patient was pregnant at the time of the event | Coded | O | | Yes No Unknown (YNU) | PHVS_YesNoUnknown_CDC | Observation/OBX Segment with this variable ID and label | CWE | O | |

| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Priority | May Repeat | Value Set Name | Value Set Code | HL7 Message Context | HL7 Data Type | HL7 Optionality | HL7 Implementation Notes |
|------------------|---------------------------------|--|-----------|--------------|------------|----------------|-------------------|---|---------------|-----------------|---|
| INV200 | Legacy Case ID | CDC uses this field to link current case notifications to case notifications submitted by a previous system (NETSS, STD-MIS, etc.) | Text | P | | | | Observation/OBX Segment with this variable ID and label | CWE | O | Legacy Case ID is expected in the fifth component of the CWE datatype. For a NETSS case ID, please use the following format: Case ID(6) - State(2) - Site(3) - Year(4) ex: CaseId01LAB2009 |
| INV2001 | Age at case investigation | Subject age at time of case investigation. | Numeric | P | | | | Observation/OBX Segment with this variable ID and label | SN | O | |
| INV2002 | Age units at case investigation | Subject age units at time of case investigation | Coded | P | | Age unit | PHVS_AgeUnit_UCUM | OBX-6-Units | CE | O | Part of the INV2001 Observation/OBX Segment. The UID and label are not passed in the message. |

| Date | Version | Description |
|----------|---------|--|
| 1/6/2010 | 1.01 | INV173 (<i>State Case ID</i>) was incorrectly listed as a CWE datatype. The correct listing is a ST datatype. |
| 1/6/2010 | 1.01 | Corrected date for reference: National Condition Reporting Notifiable Events and Reporting Mechanisms for 2009, to correspond with posted reference. |