

Generic Case Notification Message Mapping Guide

**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
<b>Program Variables Column Headings</b>	
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:  <b>R - Required</b> - Mandatory for sending the message. If data element is not present, the message will error out. <b>P - Preferred</b> - 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. <b>O - Optional</b> - 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 <b>Generic</b> implementation message mapping guide, complete the following steps: 1. Go to <a href="http://phinvads.cdc.gov">http://phinvads.cdc.gov</a> . 2. Click on the <b>Views</b> hyperlink 3. Enter <b>Generic</b> in the lookup box and press the Search Views button. 4. Click on <b>Details</b> 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 <b>Generic</b> implementation message mapping guide, complete the following steps: 1. Go to <a href="http://phinvads.cdc.gov">http://phinvads.cdc.gov</a> . 2. Click on the <b>Views</b> hyperlink 3. Enter <b>Generic</b> in the lookup box and press the Search Views button. 4. Click on <b>Details</b> next to Generic Case Notification to obtain the valid code set.
<b>Message Mapping Methodology Column Headings</b>	
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.

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HL7 Optionality	Indicates if the field is required, optional, or conditional in a segment. The only values that appear in the Message Mapping are: <b>R</b> – Required. Must always be populated <b>O</b> – 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.

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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.
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.

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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
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.
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.

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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
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	
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	

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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	
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	

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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
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	
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: Caseld01LAB2009
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.



<b>Date</b>	<b>Version</b>	<b>Description</b>
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.