Public Health Information Network
HL7 Version 2.5

PHIN Messaging Standard

NATIONAL CONDITION REPORTING CASE NOTIFICATION ORU^R01 MESSAGE STRUCTURE SPECIFICATION/PROFILE

Version 2.0

October 23, 2008

Centers for Disease Control and Prevention

REVISION HISTORY

Date	Version	Description
8/15/2007	Draft 2.0	MSH-21 Message Profile ID: Updated the specification to reference both the structural specification (profile) as well as the Message Mapping Guide that provides the content for the message. Note that each artifact uses a different PHIN Messaging namespace (different OIDs).
11/30/2007	Draft 2.0	MSH-21 Message Profile ID: Corrected the cardinality from [1..1] to [2..2].
8/15/2007	Draft 2.0	Sample messages in section 4.1. Updated the OID referenced in OBR-31 Reason for Study to the new OID for that coding system.
8/15/2007	Draft 2.0	Removed the extraneous lines in OBX-3 definition of the CE datatype.
8/15/2007	Draft 2.0	Removed the extraneous lines in OBX-5 definition of the CWE datatype.
11/30/2007	Draft 2.0	MSH-4 Receiving Application: Removed the specific OID reference.
11/30/2007	Draft 2.0	MSH -6 Receiving Facility: Removed "PHIN" from description to read "OID for CDC as receiving facility".
11/30/2007	Draft 2.0	MSH-10 Message Control ID: Added "if local notification id is not unique, a timestamp may be appended."
11/30/2007	Draft 2.0	OBX-3 Observation Identifier: Removed the specific OID reference in OBX-3.3 Observation Identifier coding system. Added optional support for alternate question identifier or text to be passed along with the standard question ID
11/30/2007	Draft 2.0	OBR-31.3 Reason for Study: Removed the specific OID reference in coding system. Qualified the Value set name "Nationally Notifiable Disease Surveillance System (NNDSS) & Other Conditions of Public Health Importance" by adding the following text "this is the typical value set used, but there may be instances where there is another coding system used for conditions not on this list.
11/30/2007	Draft 2.0	Updated Table 2.2 Abstract Message Format so that it no longer contains the "Associated Laboratory Report" or "Associated Vaccine Report" functionality. These associated reports are now to be passed as separate messages and use different specifications. See National Notification Associated Laboratory Report Message Specification/Profile to pass a laboratory message with a Notification. See National Notification Associated Vaccine Report Message Specification/Profile to pass a vaccine message with a Notification.
11/30/2007	Draft 2.0	Made corrections to sample messages in section 4.1.
1/8/2008	Draft 2.0	Increased MSH-10 field size to 199.
1/8/2008	Draft 2.0	All CE datatypes have the same component definition and allow the "local triplet" (components 4, 5 and 6) to be passed along with the standardized code triplet in the first three positions. This includes OBR-31 Reason for Study, where it should not error if a "standard event code" is not present in the first triplet.
6/20/2008	Draft 2.0	Removed support for IS datatype as a valid value in OBX-2.
6/20/2008	Draft 2.0	Corrected cardinality for PID-5 Patient Name to be [2..2].
6/20/2008	Draft 2.0	MSH 21.2 Namespace ID changed from O (Optional) to R (Required) since the literals are provided in the specs. Overall field length for MSH-21 changed to 424.
6/20/2008	Draft 2.0	Corrected the Notification Section Header references in Section 2.2, the first OBR Observation Request instance. The Subject OBR carries "PERSUBJ" (for person subjects), "LOCSUBJ" (for location subjects), or "NPLSSUBJ" (for non-person living subjects) in OBR 4 Universal Service ID.
6/20/2008	Draft 2.0	MSH-4 Receiving Application: Removed the word "brokering"
6/20/2008	Draft 2.0	Corrected OBR-1 Set ID Cardinality to [1..1] from {1..*]
7/15/2008	Draft 2.0	Changed OBR-7 and OBR-22 timestamp from 14 to 12 minimum digits.
7/23/2008	Draft 2.0	Set OBR-2 to Not Supported rather than needing to provide "".
7/23/2008	Draft 2.0	Corrected PID-11 total field length to 523 from 455.

Date	Version	Description
7/23/2008	Draft 2.0	Corrected PID-25Birth Order to reference PHIN UID DEM117 rather than DEM17.
7/28/2008	Draft 2.0	Increased maximum length of PID-3.1 component where local person ID maps to 20 from 15. Overall field length for PID-3 calculates to 250 now.
7/28/2008	Draft 2.0	PID-7.1 "time" component of Date of Birth: Usage = 'R';Cardinality = '[0..1]' corrected to Usage = 'R';Cardinality = '[1..1]'.
7/28/2008	Draft 2.0	PID-7-Date/Time of Birth, PID-8-Administrative Sex, PID-10-Race, PID-22-Ethnicity Group: changed Usage to RE from O (optional) since these data elements are shared by almost all Case Notifications.
7/31/2008	Draft 2.0	Added support for XAD, XPN, and XTN datatypes to be passed as observations. This makes 8 valid value types possible for OBX-2.
8/2/2008	Draft 2.0	Corrected the rule of conditionality on the 5th component of the CE datatype. It formerly stated 'Must be valued if component 1 and component 3 are not valued". It now states: "Must be valued if component 1 and component 4 are not valued". This specifically affects PID-10 Race, PID-16-Marital Status, PID-22 Ethnic Group, PID-26 Citizenship, PID-28 Nationality, OBR-4 Universal Service Identifier, OBR-31 Reason for Study, OBX-3 Observation Identifier and OBX-6 Units.
8/2/2008	Draft 2.0	Corrected the rule of conditionality on the 5th component of the CWE datatype specification for OBX-5. It formerly stated 'Must be valued if component 1 and component 3 are not valued". It now states: "Must be valued if component 1 and component 4 are not valued".
8/3/2008	Draft 2.0	Changed verbiage on CWE and CE datatypes from "standard coding system OID" to "standard coding system identifier". This specifically affects PID-10 Race, PID-16-Marital Status, PID-22 Ethnic Group, PID-26 Citizenship, PID-28 Nationality, OBR-4 Universal Service Identifier, OBR-31 Reason for Study, OBX-3 Observation Identifier, OBX-5 where datatype is CWE, and OBX-6 Units.
9/4/2008	Draft 2.0	Increased OBX-2 field size from standard 2 char to 3 char to accommodate the datatype codes that are 3 characters in length.
10/8/2008	Draft 2.0	Changed OBR-7 and OBR-22 timestamp from 12 to 14 minimum digits per CCB approval.

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NATIONAL NOTIFICATION MESSAGE PROFILE

1 INTRODUCTION

In June, 2006, The Centers for Disease Control and Prevention (CDC) issued new guidance that calls for use of Health Level Seven (HL7) Version 2.5 as the national standard for public health entities to receive electronic messages by January 1, 2008. This consensus decision was based on the goal of exchanging public health information electronically by a wider user base than was possible under the previous guidance, which called for use of HL7 Version 3 (V3) messages. Specifically, this change requires that National Notifiable Disease (NND) messages be submitted to CDC in HL7 V2.5 format, not the HL7 Version 3 format.

CDC's National Center for Public Health Informatics notes that this position statement moves public health into alignment with the implementation guidance of the Health Information Technology Standards Panel (HITSP) on the use of HL7 V2.5 format as the national standard for public health entities to receive electronic messages for biosurveillance and electronic laboratory reporting. HITSP Implementation Guidance allows for the exchange of biosurveillance and electronic laboratory data in the form of clinical documents in addition to HL7 V2.5 messages. The Department of Health and Human Services is expected to make the HITSP Implementation Guidance a requirement for all electronic health information used by federally sponsored health systems.

1.1 SCOPE

This document specifies the static structure and methodology for the use of the *Health Level 7 (HL7) Version 2.5 Unsolicited Result Message* (ORU^R01) to support electronic interchange of any Nationally Notifiable Condition message health limited data set from public health entities to the CDC. The message structure is the same for Individual Case Notification, Summary Notification, Environmental Investigation Notification, and notification of laboratory report results to meet national reporting requirements to CDC.

The detailed content for data elements that are conveyed using this message can be found in the companion Message Mapping Guides that are specific to the program areas or conditions being passed. A Message Mapping Guide specifies the content and message mapping for the data elements used to communicate information to meet the requirements for Case reporting to CDC. The intended audiences for Message Mapping Guide 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.

If the Message Mapping Guide contains a tab for "Associated Lab Report", the Notification Associated Lab Report Message (ORU^R01) is specified in a separate profile.

If the Message Mapping Guide contains a tab for "Associated Vaccine Record" data elements requirements, the Notification Associated Vaccine Record Message (VXU^V04) is used to convey those data elements.

The dynamic processing requirements are captured in the *PHIN Transmit Condition Reporting Message Use Case* document that is part of the package needed to implement PHIN messages.

1.2 AUDIENCE

This document is not intended as a tutorial for either HL7 or interfacing in general. The reader is expected to have a basic understanding of interface concepts and HL7.

This specification is designed for use by messaging analysts and technical implementers, working to send or receive a specific PHIN notification. It must be used with the companion Message Mapping Guide to populate the specified structure with the content for the condition being passed.

1.3 CONTACTS

PHIN Help Desk
National Center for Public Health Informatics
Phone: 1-800-532-9929
Email: PHINTech@cdc.gov

2 HL7 ORU^R01 ABSTRACT MESSAGE

The following message descriptions portrays the HL7 unsolicited observation message, constrained for use as a Notification. The static definition is based on a message structure defined in the HL7 Standard. It is in compliance with the HL7 – messaging profiles, and may also define additional constraints on the standard HL7 message.[2]

2.1 ABSTRACT MESSAGE ATTRIBUTES TABLE ABBREVIATIONS

TABLE 2.1 MESSAGE ATTRIBUTES	
Abbreviation	**Definition**
Segment	Three-character code for the segment and theHL7 standard abstract syntax (*i.e.*, the square and curly braces) [XXX] Optional { XXX } Repeating XXX Required [{ XXX }] Optional and Repeating Note that for Segment Groups there will not be a segment code present, but the square and curly braces will still be present.
Name	Name of the Segment or Segment Group element.

Usage	Use of the segment for this guide. Indicates if the segment is required, optional, or conditional in a message. Legal values are
	
	R – Required. Must always be populated.
	
	    Conformant sending applications shall be capable of sending this message element, and the message element must always be populated with non-empty values.
	
	    Conformant receiving applications shall not reject a message containing this message element.
	
	    Conformant receivers may reject the message because this message element is not present or empty. The receiver may process or ignore this message element.
	
	RE – Required, but can be empty.
	
	    Conformant sending applications shall be capable of sending this message element, although the message element may be empty or not present in a message instance.
	
	    Conformant sending applications should send this message element when they have data available to send. For example, an application that has data for a particular patient for this message element stored in its data store, but does not send the data in the message would be non-conformant.
	
	    Conformant receiving applications shall not reject a message containing or missing this message element. The receiver may process or ignore this message element.
	
	O – Optional.
	
	    Use of optional message elements must be negotiated between the sender and receiver.

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[2] Section 2.12.4 Static Definition. Page 4. Health Level Seven, Version 2.5 © 2003. Final Standard.

TABLE 2.1 MESSAGE ATTRIBUTES	
Abbreviation	**Definition**

	C – Conditional. Must be populated based on computable Conditionality Statement.
	    If the conditionality statement is true, the message element is required, otherwise the message element is optional.
	CE – Conditional, but can be empty.
	    If the associated conditionality statement is true, the message element is required; otherwise, the message element is empty.
	X – Not used.
	    Conformant sending applications shall not populate these elements.
	    Conformant receiving applications may choose to reject the message if this element is present.
	    Receivers may choose to ignore this message element if populated.

Cardinality	Indicator of the minimum and maximum number of times the element may appear.
	    [0..0] Element never present.
	    [0..1] Element may be omitted and it can have at most, one Occurrence.
	    [1..1] Element must have exactly one Occurrence.
	    [0..n] Element may be omitted or may repeat up to n times.
	    [1..n] Element must appear at least once, and may repeat up to n times.
	    [0..*] Element may be omitted or repeat for an unlimited number of times.
	    [1..*] Element must appear at least once, and may repeat unlimited number of times.
	    [m..n] Element must appear at least m, and at most, n times.

Section	Indicator of the part of this guide that describes the segment.
Description	A short description of the use of the segment.

Note: In the tables throughout this document, items in Yellow = Not supported by the PHIN Standard.

2.2 ABSTRACT MESSAGE SYNTAX

Segment	Name	Usage	Cardinality	Section	Description
	Header Begin				
MSH	Message Header	R	[1..1]	3.2	Standard message header always the same format for all notification types.
[{SFT}]	Software Segment	X	[0..0]		Not supported.
	Header End				
{	*PATIENT_RESULT Begin*	R	[1..1]		This message is constrained to a single PATIENT_RESULT group. In effect, this limits the message to a single subject (as represented by the PID segment).
[	*PATIENT Begin (for Subject)*	R	[1..1]		The PATIENT Group is required in this message. The group contains information regarding the subject of the Notification.
PID	Patient Identification (for Subject)	R	[1..1]	3.3	The PID segment identifies the subject of the Notification Message. The type of subject (person, non-person living subject, or location) is identified in the Subject OBR. Additional subject information may also be associated with the Subject OBR.
[PD1]	Additional Demographics	X	[0..0]		Not supported.
[{NTE}]	Notes and Comments for PID (for Subject)	X	[0..0]		Not supported.
[{NK1}]	Next of Kin/Related Parties (for Subject)	X	[0..0]		Not supported.
[	*VISIT Begin*				
PV1	Patient Visit	X	[0..0]		Not supported.
[PV2]	Patient Visit – Additional Information	X	[0..0]		Not supported.
]	*VISIT End*				

TABLE 2-2. ORU^R01^ORU_R01 ABSTRACT MESSAGE SYNTAX

	TABLE 2-2. ORU^R01^ORU_R01 ABSTRACT MESSAGE SYNTAX				
Segment	**Name**	**Usage**	**Cardinality**	**Section**	**Description**
]	*PATIENT End* *(for Subject)*				
{	*ORDER_OBSERVATION Begin* *(Subject Group)*	R	[1..1]		There must be one Subject Group in the message. It should be the first ORDER_OBSERVATION group in the message.
[ORC]	Order Common	X	[0..0]		Not supported.
OBR	Observation Request (for Subject)	R	[1..1]	3.4	This OBR is associated with the subject of the investigation that, at a minimum, will identify the type of subject (*i.e.*, person, place, or non-person living subject). The Subject OBR carries "PERSUBJ" (for person subject), "LOCSUBJ" (for location/place subject), or "NPLSSUBJ" (for non-person living subject) in OBR 4 Universal Service ID. The OBR for Subject must be the first OBR in the message. These values are carried in the value set named *Notification Section Header*.
[{NTE}]	Notes and Comments (for Subject)	X	[0..0]		Not supported.
[{	*TIMING_QTY Begin*	X	[0..0]		Not supported.
TQ1	Timing/Quantity	X	[0..0]		Not supported.
[{TQ2}]	Timing/Quantity Order Sequence	X	[0..0]		Not supported.
}]	*TIMING_QTY End*				
[CTD]	Contact Data	X	[0..0]		Not supported for Notifications to CDC. Supported for Outbreak Case Investigation Message and Case Report messages.
[{	*OBSERVATION Begin* *(for Subject)*	O	[0..*]		The Observation Group is used to carry observations related to the subject of the investigation. These observations are data elements that do not have a proper place in the previous segments.
OBX	Observation Related to OBR (for Subject)	R	[1..1]	3.5	The OBX segment is used to carry data elements associated with the subject of the investigation.
{ [NTE] }	Notes and Comments	X	[0..0]		Not supported.

	TABLE 2-2. ORU^R01^ORU_R01 ABSTRACT MESSAGE SYNTAX				
Segment	**Name**	**Usage**	**Cardinality**	**Section**	**Description**
}]	*OBSERVATION End* *(for Subject)*				
[{FT1}]	Financial Transaction	X	[0..0]		Not supported.
[{CTI}]	Clinical Trial Identification	X	[0..0]		Not supported.
[{	*SPECIMEN Begin*				
SPM	Specimen	X	[0..0]		Not supported.
[{OBX }]	Observation Related to Specimen	X	[0..0]		Not supported.
}]	*SPECIMEN End*				
}	*ORDER_OBSERVATION End* *(Subject Group)*				
{	*ORDER_OBSERVATION Begin* *(Investigation Group)*	R	[1..1]		The Investigation Group is required in this message. It should be the second ORDER_OBSERVATION group in the message.
[ORC]	Order Common	X	[0..0]		Not supported.
OBR	Observation Request (for Investigation Group)	R	[1..1]	3.4	The Investigation OBR identifies the type of notification and serves to group the related set of surveillance questions that are carried as observations (OBXs). *OBR-4-Universal Service ID* carries either "NOTF" (for individual case notification), "ENVNTF" (for environmental investigation notifications), "LABNTF" (for National Lab Report Notification), or "SUMM" (for Summary Case Notification). The OBR for Notification Type must be the second OBR in the message.
[{NTE}]	Notes and Comments	X	[0..0]		Not supported.
[{	*TIMING_QTY Begin*	X	[0..0]		Not supported.
TQ1	Timing/Quantity	X	[0..0]		Not supported.
[{TQ2}]	Timing/Quantity Order Sequence	X	[0..0]		Not supported.
}]	*TIMING_QTY End*				

	TABLE 2-2. ORU^R01^ORU_R01 ABSTRACT MESSAGE SYNTAX				
Segment	**Name**	**Usage**	**Cardinality**	**Section**	**Description**
[CTD]	Contact Data	X	[0..0]		Not supported.
[{	*OBSERVATION Begin* *(for Investigation Group)*	O	[0..*]		This group is used to convey surveillance-related information.
OBX	Observation Related to OBR (for *Investigation Group*)	R	[1..1]	3.5	The OBX for *Investigation Group* is used to carry the set of non-subject-related PHIN Questions detailed in the program's Message Mapping Guide.
{[NTE]}	Notes and Comments	X	[0..0]		Not supported.
}]	*OBSERVATION End* *(for Investigation Group)*				
[{FT1}]	Financial Transaction	X	[0..0]		Not supported.
[{CTI }]	Clinical Trial Identification	X	[0..0]		Not supported.
[{	*SPECIMEN Begin*	X	[0..0]		Not supported.
SPM	Specimen	X	[0..0]		Not supported.
[{OBX}]	Observation Related to Specimen	X	[0..0]		Not supported.
}]	*SPECIMEN End*				
}	*PATIENT_RESULT End*				
[DSC]	Continuation Pointer	X	[0..0]		Not supported.

Please note that the additional, optional OBR segments to carry associated lab or associated vaccine data as specified in version 1.0 structure are no longer part of this message.

2.3 SIMPLIFIED MESSAGE STRUCTURE

This version shows the implemented message format without the HL7 standard notation.

Segment	Name	Optionality	May Repeat	Description
-TABLE 2-3. SIMPLIFIED MESSAGE STRUCTURE				
MSH	Message Header	R	No	Standard message header always the same format for all notification types.
PID	Patient Identification (for Subject)	R	No	The PID segment identifies the subject of the Notification Message. The type of subject (person, non-person living subject, or location) is identified in the Subject OBR. Additional subject information may also be associated with the Subject OBR.
OBR	Observation Request *(for Subject Group)*	R	No	This OBR is associated with the subject of the investigation that, at a minimum, will identify the type of subject (*i.e.*, person, place, or non-person living subject). The Subject OBR carries "PERSUBJ" (for person subject), "LOCSUBJ" (for location/place subject), or "NPLSSUBJ" (for non-person living subject) in OBR 4 Universal Service ID. The OBR for Subject must be the first OBR in the message. These values are carried in the value set named *Notification Section Header.*
[{OBX}]	Observation Related to OBR (for Subject)	O	Yes	The OBX segment, after the first OBR, is optionally used to carry data elements associated with the subject of the investigation.
OBR	Observation Request *(for Investigation Group)*	R	No	The Investigation OBR identifies the type of notification and serves to group the related set of surveillance questions that are carried as observations (OBXs). O*BR- 4-Universal Service ID* carries either "NOTF" (for individual case notification), "ENVNTF" (for environmental investigation notifications), "LABNTF" (for National Lab Report Notification), or "SUMM" (for Summary Case Notification). The OBR for Notification Type must be the second OBR in the message.
[{OBX}]	Observation Related to OBR (for Investigation n Group)	O	Yes	The OBX for Investigation Group is used to carry the set of non-subject-related PHIN Questions detailed in the program's Message Mapping Guide.

Please note that the additional, optional OBR segments to carry associated lab or associated vaccine data as specified in version 1.0 structure are no longer part of this message.

3 HL7 SEGMENT AND FIELD DESCRIPTIONS

This section contains descriptions of the segments used. Within each segment, the supported fields are briefly described. For more information on segments and fields, refer to the *HL7 Standard*.

3.1 SEGMENT ATTRIBUTE TABLE ABBREVIATIONS

The abbreviated terms and their definitions as used in the segment table headings are as follows:

TABLE 3-1 SEGMENT ATTRIBUTES	
Abbreviation	**Definition**
Seq	Sequence of the elements as they are numbered in the HL7 segment.
Len	PHIN maximum length of the element. Length of an element is calculated using the following rules: Field length = (Sum of all supported component lengths) + (component number of the last supported component) – 1. Component length = (Sum of all supported sub-component lengths) + (sub-component number of the last supported component) – 1. Messages **will fail validation** if they **exceed** the specified field lengths as defined by the guide.
DT	Data type used by PHIN for HL7 element.
Usage	Usage of the field for this profile. Indicates if the field, component, or subcomponent is required, optional, or conditional in the corresponding segment, field, or component. Legal values are **R –** Required. Must always be populated. Conformant sending applications shall be capable of sending this message element, and the message element must always be populated with non-empty values. Conformant receiving applications shall not reject a message containing this message element. Conformant receivers may reject the message because this message element is not present or empty. The receiver may process or ignore this message element. **RE –** Required, but can be empty. Conformant sending applications shall be capable of sending this message element, although the message element may be empty or not present in a message instance. Conformant sending applications should send this message element when they have data available to send. For example, an application that has data for a particular patient for this message element stored in its data store but does not send the data in the message would be non-conformant. Conformant receiving applications shall not reject a message containing or missing this message element. The receiver may process or ignore this message element. **O –** Optional. May optionally be populated. Use of optional message elements must be negotiated between the sender and

TABLE 3-1 SEGMENT ATTRIBUTES	
Abbreviation	**Definition**
	receiver. **C –** Conditional. Populated under specified conditions. If the conditionality statement is true, the message element is required; otherwise, the message element is optional. **CE –** Conditional, but can be empty. If the associated conditionality statement is true, the message element is required; otherwise, the message element is empty. **X –** Not used for this profile. Conformant sending applications shall not populate these elements. Conformant receiving applications may choose to reject the message if this element is present. Receivers may choose to ignore this message element if populated. Note: A required field in an optional segment does not mean that the segment must be present in the message. If the segment is present, the required fields within that segment must be populated. The convention applies to required components of optional fields. If the field is populated, then the required components must be populated. The convention also applies to required sub-components of optional components. If a component is populated, then the required sub-components of that component must be populated.
Cardinality	Indicator of the minimum and maximum number of times the element may appear. [0..0] Element never present. [0..1] Element may be omitted and it can have at most, one Occurrence. [1..1] Element must have exactly one Occurrence. [0..n] Element may be omitted or may repeat up to n times. [1..n] Element must appear at least once, and may repeat up to n times. [0..*] Element may be omitted or repeat for an unlimited number of times. [1..*] Element must appear at least once, and may repeat unlimited number of times. [m..n] Element must appear at least m, and at most, n times.
PHIN Value Set	Name for the value set used in public health messages, accessible via the Public Health Information Network Vocabulary Access and Distribution Services at http://www.cdc.gov/PhinVSBrowser/StrutsController.do.
HL7 Element Name	HL7 descriptor of the element in the segment.
Description/Comments	PHIN context and usage for the element.

3.2 MSH – MESSAGE HEADER SEGMENT

The Message Header Segment (MSH) is necessary to support the functionality described in the Control/Query chapter of the *HL7 standard*. MSH is used to define the intent, source, destination, and some specifics of the syntax of a message. The message header is mandatory for every message.

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)							
1	1	ST	R	[1..1]		Field Separator	Character to be used as the field separator for the rest of the message. Literal value: '|', ASCII (124).
2	4	ST	R	[1..1]		Encoding Characters	Field that always contains the following four characters, in the same order: |^~\&|.
3	227	HD	R	[1..1]		Sending Application	Field used to uniquely identify the sending application for messaging purposes. It must contain an OID that represents the sending application instance.
3.1	20	IS	O	[0..1]		Namespace ID	
3.2	199	ST	R	[1..1]		Universal ID	OID.
3.3	6	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'.
4	227	HD	R	[1..1]		Sending Facility	Unique identifier of the facility that sends the message. The sending facility must be part of the PHIN OID registry.
4.1	20	IS	O	[0..1]		Namespace ID	Facility short name; may be included for readability.
4.2	199	ST	R	[1..1]		Universal ID	OID.
4.3	6	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'.
5	227	HD	R	[1..1]		Receiving Application	CDC's message receiving application, specific to the Case Notification.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.1	20	IS	O	[0..1]		Namespace ID	Application short name; may be included for readability.
5.2	199	ST	R	[1..1]		Universal ID	OID.
5.3	6	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'.
6	227	HD	R	[1..1]		Receiving Facility	OID for CDC's all messages.
6.1	20	IS	O	[0..1]		Namespace ID	Literal value: 'PHIN', if used.
6.2	199	ST	R	[1..1]		Universal ID	Literal value: '2.16.840.1.114222'.
6.3	6	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'.
7	24	TS	R	[1..1]		Date/Time Of Message	Date/time the sending system created the message.
7.1	24	DTM	R	[1..1]		Time	YYYYMMDDHHMMSS[.S[S[S[S]]]][+/-ZZZZ], where at least the first fourteen digits are used to specify to a precision of "second." The time zone (+/-ZZZZ) is represented as +/- HHMM offset from Coordinated Universal Time (UTC) (formerly Greenwich Mean Time [GMT]), where +0000 or -0000 both represent UTC (without offset). If the time zone is not included, the time zone is understood to be the local time zone of the sender.
7.2		ID	X	[0..0]		Degree of Precision	Not supported.
8		ST	X	[0..0]		Security	Not supported.
9	15	MSG	R	[1..1]		Message Type	Field containing the message type, structure ID, and triggers for the message. For the Case Notification message, the value in this field will always be 'ORU^R01^ORU_R01'.
9.1	3	ID	R	[1..1]		Message Code	Literal value: 'ORU'.
9.2	3	ID	R	[1..1]		Trigger Event	Literal value: 'R01'.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
9.3	7	ID	R	[1..1]		Message Structure	Literal value: 'ORU_R01'.
10	199	ST	R	[1..1]		Message Control ID	String that uniquely identifies the message instance from the sending application. This field correlates to PHIN UID NOT108, the system-assigned, local ID of the notification record. If local notification id is not unique, a timestamp may be appended.
11	3	PT	R	[1..1]		Processing ID	Field that indicates, the intent for processing the message, such as "Testing," "Development," or "Production."
11.1	1	ID	R	[1..1]		Processing ID	Field that will always contain |P| for this message in a production environment.
11.2	1	ID	O	[0..1]		Processing Mode	If a code value is not explicitly sent in the message, the mode is understood to be "Current".
12	5	VID	R	[1..1]		Version ID	HL7 version number used to interpret, format and content of the message.
12.1	5	ID	R	[1..1]		Version ID	Literal value: '2.5' or '2.5.1' accepted.
12.2		CE	X	[0..0]		Internationalization Code	Not supported.
12.3		CE	X	[0..0]		International Version ID	Not supported.
13		NM	X	[0..0]		Sequence Number	Not supported.
14		ST	X	[0..0]		Continuation Pointer	Not supported.
15		ID	X	[0..0]		Accept Acknowledgment Type	Not supported.
16		ID	X	[0..0]		Application Acknowledgment Type	Not supported.
17		ID	X	[0..0]		Country Code	Not supported.
18		ID	X	[0..0]		Character Set	Not supported.
19		CE	X	[0..0]		Principal Language Of Message	Not supported.

					TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)		
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
20		ID	X	[0..0]		Alternate Character Set Handling Scheme	Not supported.
21	424	EI	R	[2..2]		Message Profile Identifier	Field used to reference or assert adherence to a message profile. Message profiles contain detailed explanations of grammar, syntax, and usage for a particular message or set of messages.
21.1	199	ST	R	[1..1]		Entity Identifier	First instance is the reference to the PHIN Message Profile that this message adheres structurally. Literal value: 'NND_ORU_v2.0'. Second instance is the reference to the PHIN Message Mapping Guide from which the content is derived. See MSH-21 details on the Notification Structure tab in the specific Message Mapping Guide.
21.2	20	IS	R	[1..1]		Namespace ID	First instance literal value: 'PHINProfileID'. Second instance literal value: 'PHINMsgMapID'.
21.3	199	ST	R	[1..1]		Universal ID	First instance literal value: '2.16.840.1.114222.4.10.3'. Second instance literal value: '2.16.840.1.114222.4.10.4'.
21.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO' for both instances.

3.3 PID – PATIENT IDENTIFICATION SEGMENT

The Patient Identification Segment (PID) is used as the primary means of conveying non-changeable patient identification information that is not likely to change frequently.

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
1	4	SI	O	[0..1]		Set ID - PID	Segment sequencing field not required to be populated, but may contain a '1'. Only one patient/one PID segment per message is supported.
2		CX	X	[0..0]		Patient ID	Not supported.
3	250	CX	R	[1..1]		Patient Identifier List	For patient confidentiality reasons, sending system-generated, internal person identifier only.
3.1	20	ST	R	[1..1]		ID Number	DEM197 Local patient ID or LOC001 Location ID, depending on the subject.
3.2		ST	X	[0..0]		Check Digit	Not supported.
3.3		ID	X	[0..0]		Check Digit Scheme	Not supported.
3.4	227	HD	R	[1..1]		Assigning Authority	
3.4.1	20	IS	O	[0..1]		Namespace ID	
3.4.2	199	ST	R	[1..1]		Universal ID	OID for sending application as assigning authority.
3.4.3	6	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'.
3.5		ID	X	[0..0]		Identifier Type Code	Not supported.
4		CX	X	[0..0]		Alternate Patient ID - PID	Not supported.

					TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)		
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5	513	XPN	R	[2..2]		Patient Name	Mandatory field that must be populated. Patient Name is not supported with the Case Notification message. Have adopted the HL7/eLincs/HITSP convention of treating this field as a pseudonym: The *first instance* is reserved for legal name. The pseudonym "name type" is passed in the *second instance* of the name field. Literal value: |~^^^^^^S|
5.1		FN	X	[0..0]		Family Name	Not supported.
5.1.1		ST	X	[0..0]		Surname	Not supported.
5.1.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
5.1.3		ST	X	[0..0]		Own Surname	Not supported.
5.1.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
5.1.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
5.2		ST	X	[0..0]		Given Name	Not supported.
5.3		ST	X	[0..0]		Second and Further Given Names or Initials Thereof	Not supported.
5.4		ST	X	[0..0]		Suffix (*e.g.*, JR or III)	Not supported.
5.5		ST	X	[0..0]		Prefix (*e.g.*, DR)	Not supported.
5.6		IS	X	[0..0]		Degree (*e.g.*, MD)	Not supported.
5.7	4	ID	R	[1..1]	Name Type (HL7)	Name Type Code	Supports data element DEM100.
5.8		ID	X	[0..0]		Name Representation Code	Not supported.
5.9		CE	X	[0..0]		Name Context	Not supported.
5.10		DR	X	[0..0]		Name Validity Range	Not supported.
5.11		ID	X	[0..0]		Name Assembly Order	Not supported.
5.12		TS	X	[0..0]		Effective Date	Not supported.

TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.13		TS	X	[0..0]		Expiration Date	Not supported.
5.14		ST	X	[0..0]		Professional Suffix	Not supported.
6		XPN	X	[0..0]		Mother's Maiden Name	Not supported.
7	24	TS	RE	[0..1]		Date/Time of Birth	Patient's date of birth. Correlates to PHIN Element UID DEM115 Birth Time.
7.1	24	DTM	R	[1..1]		Time	YYYYMMDD[HH[MM[SS[.S[S[S[S]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
7.2		ID	X	[0..0]		Degree of Precision	Not supported.
8	1	IS	RE	[0..1]	Sex (MFU)	Administrative Sex	Patient's sex. Correlates to PHIN Element UID DEM113 Patient's Current Sex. Note that only the code is sent with this IS data type.
9		XPN	X	[0..0]		Patient Alias	Not supported.
10	841	CE	RE	[0..*]	Race Category	Race	Field containing one or more codes that broadly refer to the patient's race(s). Correlates to PHIN Element UID DEM152 Race Category Code.
10.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standard specified in PHIN-VADS. If no standard code found, this field is blank.
10.2	199	ST	RE	[0..1]		Text	
10.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
10.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
10.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued
10.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued

TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
11	523	XAD	O	[0..*]		Patient Address	Residence address of the patient. Multiple addresses for the same person may be sent, if the mapping guide supports it.
11.1	184	SAD	O	[0..1]		Street Address	Correlates to PHIN Element UID DEM159 Patient's Street Address 1. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.2	120	ST	O	[0..1]		Other Designation	Correlates to PHIN Element UID DEM160 Patient's Street Address 2. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.3	50	ST	O	[0..1]		City	Correlates to PHIN Element UID DEM161 Patient Address City. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.4	50	ST	O	[0..1]	State	State or Province	Correlates to PHIN Element UID DEM162 Patient Address State.
11.5	12	ST	O	[0..1]		Zip or Postal Code	Correlates to PHIN Element UID DEM163 Patient Address Zip code.
11.6	3	ID	O	[0..1]	Country	Country	Correlates to PHIN Element UID DEM167 Patient Address Country. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.7	3	ID	O	[0..1]	Address Type	Address Type	Correlates to PHIN Element UID DEM158 Patient Address Type. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
11.9	20	IS	O	[0..1]	County	County/Parish Code	Correlates to PHIN Element UID DEM165 County Code.
11.10	20	IS	O	[0..1]		Census Tract	Correlates to PHIN Element UID DEM168 Census Tract. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.11		ID	X	[0..0]		Address Representation Code	Not supported.
11.12		DR	X	[0..0]		Address Validity Range	Not supported.

TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
11.13	24	TS	O	[0..1]		Effective Date	Correlates to PHIN Element UID DEM169 Residence *From* Date. Not sent for notification unless specified in the condition's Message Mapping Guide.
11.14	24	TS	O	[0..1]		Expiration Date	Correlates to PHIN Element UID DEM170 Residence *To* Date. Not sent for notification unless specified in the condition's Message Mapping Guide.
12		IS	X	[0..0]		County Code	Not supported – residence county is part of PID-11.
13		XTN	X	[0..0]		Phone Number - Home	Not supported due to patient confidentiality reasons.
14		XTN	X	[0..0]		Phone Number - Business	Not supported due to patient confidentiality reasons.
15		CE	X	[0..0]		Primary Language	Not supported.
16	841	CE	O	[0..1]	Marital Status	Marital Status	Correlates to PHIN Element UID DEM140. Not sent for notification unless specified in the condition's Message Mapping Guide.
16.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standard specified in PHIN-VADS. In the case that no standard code was found, this field may be blank.
16.2	199	ST	RE	[0..1]		Text	
16.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
16.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
16.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued
16.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued. Literal value 'L' if used.
17		CE	X	[0..0]		Religion	Not supported.
18		CX	X	[0..0]		Patient Account Number	Not supported due to privacy reasons.
19		ST	X	[0..0]		SSN Number - Patient	Not supported due to privacy reasons.

						TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)	
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
20		DLN	X	[0..0]		Driver's License Number - Patient	Not supported due to privacy reasons.
21		CX	X	[0..0]		Mother's Identifier	Not supported due to privacy reasons.
22	841	CE	RE	[0..1]	Ethnicity Group	Ethnic Group	Field that defines the patient as either Hispanic or Non-hispanic.
22.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standard specified in PHIN-VADS. If no standard code was found, this field is blank.
22.2	199	ST	RE	[0..1]		Text	
22.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
22.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
22.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued
22.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued. Literal value 'L' if used.
23		ST	X	[0..0]		Birth Place	Not supported.
24	1	ID	O	[0..1]		Multiple Birth Indicator	PHIN UID DEM116 Multiple Birth Indicator. Not sent for notification unless specified in the condition's Message Mapping Guide.
25	2	NM	O	[0..1]		Birth Order	PHIN UID DEM117 Birth Order. Not sent for notification unless specified in the condition's Message Mapping Guide.
26	841	CE	O	[0..*]	Country	Citizenship	PHIN UID DEM2009 Citizenship. Not sent for notification unless specified in the condition's Message Mapping Guide.

						TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)	
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
26.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standard specified in PHIN-VADS. If no standard code was found, this field is blank.
26.2	199	ST	RE	[0..1]		Text	
26.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
26.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
26.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued
26.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued. Literal value 'L' if used.
27		CE	X	[0..0]		Veterans Military Status	Not supported.
28	841	CE	O	[0..1]	Country	Nationality	PHIN UID DEM2004 Country of Origin. Not sent for notification unless specified in the condition's Message Mapping Guide.
28.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standards specified in PHIN-VADS. If no standard code was found, this field is blank.
28.2	199	ST	RE	[0..1]		Text	
28.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
28.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
28.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued
28.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued
29		ID	X	[0..0]		Patient Death Date and Time	Not supported.

TABLE 3-3. PATIENT IDENTIFICATION SEGMENT (PID)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
30		ID	X	[0..0]		Patient Death Indicator	Not supported.
31		ID	X	[0..0]		Identity Unknown Indicator	Not supported.
32		IS	X	[0..0]		Identity Reliability Code	Not supported.
33		TS	X	[0..0]		Last Update Date/Time	Not supported.
34		HD	X	[0..0]		Last Update Facility	Not supported.
35		CE	X	[0..0]		Species Code	Not supported.
36		CE	X	[0..0]		Breed Code	Not supported.
37		ST	X	[0..0]		Strain	Not supported.
38		CE	X	[0..0]		Production Class Code	Not supported.
39		CWE	X	[0..0]		Tribal Citizenship	Not supported.

3.4 OBR – OBSERVATION REQUEST SEGMENT

Each instance of the Observation Request Segment (OBR) serves as a section header for the OBX segments that directly follow. The *OBR-4-Universal Service ID* value uses a value set called "Notification Section Header" to identify subject type and associated subject-level observations, and notification type and associated observations.

TABLE 3-4. OBSERVATION REQUEST SEGMENT (OBR)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
1	4	SI	R	[1..1]		Set ID - OBR	Sequence number of one of multiple OBRs that may be in a message. For the first order transmitted, the set ID is |1|; for the second order, it is |2|; etc.
2	2	EI	X	[0..0]		Placer Order Number	Not supported.
3	427	EI	R	[1..1]		Filler Order Number	Unique identifier created by the sending application for this case or investigation instance. Correlates to INV168 PHIN data element.
3.1	199	ST	R	[1..1]		Entity Identifier	Internally assigned case/investigation ID required.
3.2	20	IS	O	[0..1]		Namespace ID	

						TABLE 3-4. OBSERVATION REQUEST SEGMENT (OBR)	

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
3.3	199	ST	R	[1..1]		Universal ID	OID for sending application as assigning authority.
3.4	6	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'.
4	420	CE	R	[1..1]	Notification Section Header	Universal Service Identifier	Code that indicates the type of data carried in this Notification segment. "Subject Type" in OBR|1| correlates to PHIN Element UID NOT099. "Notification Type" in OBR|2| correlates to PHIN Element UID NOT101.
4.1	20	ST	R	[1..1]		Identifier	Notification "section header" value as defined in the value set.
4.2	199	ST	O	[0..1]		Text	Notification "section header" text as defined in the value set.
4.3	199	ID	R	[1..1]		Name of Coding System	Coding system identifier.
4.4	20	ST	X	[0..0]		Alternate Identifier	Not supported.
4.5	199	ST	X	[0..0]		Alternate Text	Not supported.
4.6	199	ID	X	[0..0]		Name of Alternate Coding System	Not supported.
5		ID	X	[0..0]		Priority – OBR	Not supported.
6		TS	X	[0..0]		Requested Date/Time	Not supported.
7	24	TS	R	[1..1]		Observation Date/Time	Field required to be populated when the OBR is transmitted as part of a report message. This field correlates to **NOT103 Date Notification First Submitted: Date/time the investigation was submitted**. If the application cannot supply this timestamp on notification updates, provide 00000000000000 to meet the required status for the field. It must be provided if the OBR-25 value is "F", the status which indicates the first time the notification is sent.

					TABLE 3-4. OBSERVATION REQUEST SEGMENT (OBR)		
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
7.1	24	DTM	R	[1..1]		Time	YYYYMMDDHHMMSS[.S[S[S[S]]]]][+/-ZZZZ], where at least the first fourteen digits are used to specify to a precision of "seconds."
7.2		ID	X	[0..0]		Degree of Precision	Not supported.
8		TS	X	[0..0]		Observation End Dt/Time	Not supported.
9		CQ	X	[0..0]		Collection Volume	Not supported.
10		XCN	X	[0..0]		Collector Identifier	Not supported.
11		ID	X	[0..0]		Specimen Action Code	Not supported.
12		CE	X	[0..0]		Danger Code	Not supported.
13		ST	X	[0..0]		Relevant Clinical Information	Not supported.
14		TS	X	[0..0]		Specimen Received Date/Time	Not supported.
15		SPS	X	[0..0]		Specimen Source	Not supported.
16		XCN	X	[0..0]		Ordering Provider	Not supported.
17		XTN	X	[0..0]		Order Callback Phone #	Not supported.
18		ST	X	[0..0]		Placer Field 1	Not supported.
19		ST	X	[0..0]		Placer Field 2	Not supported.
20		ST	X	[0..0]		Filler Field 1	Not supported.
21		ST	X	[0..0]		Filler Field 2	Not supported.
22	24	TS	R	[1..1]		Results Rpt/Status Change Date/Time	This field correlates to data element **NOT106 Date of Notification: Date/time the notification was sent to an outside entity**. The first time the notification is sent, this field will equal the value in OBR-7 Observation Date/time.
22.1	24	DTM	R	[1..1]		Time	YYYYMMDDHHMMSS[.S[S[S[S]]]]][+/-ZZZZ], where at least the first fourteen digits are used to specify to a precision of "seconds."
22.2		ID	X	[0..0]		Degree of Precision	Not supported.

							TABLE 3-4. OBSERVATION REQUEST SEGMENT (OBR)
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
23		MOC	X	[0..0]		Charge to Practice	Not supported.
24		ID	X	[0..0]		Diagnostic Serv Sect ID	Not supported.
25	1	ID	R	[1..1]	Result Status	Result Status	Required field in this message; applies to the entire report. Literal value: 'F' for *Final*, when the notification is first sent. Literal value: 'C' for *Correction*, when an update/revision is sent. Literal value: 'X' for *Delete*, when the notification should be deleted or rescinded.
26		PRL	X	[0..0]		Parent Result	Not supported.
27		TQ	X	[0..0]		Quantity/Timing	Not supported.
28		XCN	X	[0..0]		Result Copies To	Not supported.
29		EIP	X	[0..0]		Parent	Not supported.
30		ID	X	[0..0]		Transportation Mode	Not supported.
31	841	CE	R	[1..1]		Reason for Study	Code that indicates the condition being reported with this Notification. This field correlates to INV169, Condition Code, and is required for each OBR instance.
31.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standard specified in PHIN-VADS. If no standard code was found, this field is blank.
31.2	199	ST	RE	[0..1]		Text	
31.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
31.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
31.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
TABLE 3-4. OBSERVATION REQUEST SEGMENT (OBR)							
31.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued. Literal value 'L' if used.
32		NDL	X	[0..0]		Principal Result Interpreter	Not supported.
33		NDL	X	[0..0]		Assist. Result Interpreter	Not supported.
34		NDL	X	[0..0]		Technician	Not supported.
35		NDL	X	[0..0]		Transcriptionist	Not supported.
36		TS	X	[0..0]		Scheduled Date/Time	Not supported.
37		NM	X	[0..0]		No. of Sample Containers	Not supported.
38		CE	X	[0..0]		Transport Logistics of Collected Sample	Not supported.
39		CE	X	[0..0]		Collector's Comment *	Not supported.
40		CE	X	[0..0]		Transport Arrangement Responsibility	Not supported.
41		ID	X	[0..0]		Transport Arranged	Not supported.
42		ID	X	[0..0]		Escort Required	Not supported.
43		CE	X	[0..0]		Planned Patient Transport Comment	Not supported.
44		CE	X	[0..0]		Procedure Code	Not supported.
45		CE	X	[0..0]		Procedure Code Modifier	Not supported.
46		CE	X	[0..0]		Placer Supplemental Service Information	Not supported.
47		CE	X	[0..0]		Filler Supplemental Service Information	Not supported.
48		CWE	X	[0..0]		Medically Necessary Duplicate Procedure Reason.	Not supported.
49		IS	X	[0..0]		Result Handling	Not supported.

3.5 OBX – OBSERVATION RESULT SEGMENT

The Observation Result Segment (OBX) is used to convey observation results as "name/value pairs." Observations that may have multiple responses are reported under a single OBX segment with the same value in OBX-3 and the repeats in OBX-5.

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Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)							
1	4	SI	R	[1..1]		Set ID – OBX	Sequence number of the OBX, which increments up by one for each observation segment in the group.
2	3	ID	R	[1..1]	<<see specific Message Mapping Guide for content carried as OBX segments – the HL7 Datatype is specified for each observation>>	Value Type	Format of the observation value expressed in OBX-5. Value Type is required for this message. The expected value types for this interface are: **CWE** (Coded with Exceptions, for coded responses); **SN** (Structured Numeric, for numeric responses); **ST** (String, for alphanumeric responses up to 199 characters); **TS** (Timestamp, for any date or date/time response); **TX** (Text, for alphanumeric responses that the program indicated may exceed 199 characters); **XAD** (Extended Address, for passing an address as an observation); **XPN** (Extended Person Name, for passing a person name as an observation); or **XTN** (Extended Telephone Number, for passing a telephone number as an observation).
3	841	CE	R	[1..1]	<<see specific Message Mapping Guide for the UID and Label for the content carried as OBX segment>>	Observation Identifier	Unique identifier of the specific observation being passed in this segment.

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
3.1	20	ST	R	[1..1]		Identifier	PHIN UID or other identifier for question. The list of variables expressed as OBX segments is accessible via PHIN-VADS.
3.2	199	ST	O	[0..1]		Text	
3.3	199	ID	R	[1..1]		Name of Coding System	Coding system identifier.
3.4	20	ST	X	[0..0]		Alternate Identifier	Not supported.
3.5	199	ST	X	[0..0]		Alternate Text	Not supported.
3.6	199	ID	X	[0..0]		Name of Alternate Coding System	Not supported.
4	20	ST	RE	[0..1]		Observation Sub-ID	Field that may contain a sequence number used to group observations that may repeat.
5	99999	varies	RE	[0..*]	<<see specific Message Mapping Guide for content carried as OBX segments - the value in OBX-2 Value Type dictates the expected format of the response carried in OBX-5>>	Observation Value	Actual result value or observation. The data type in OBX-2 Value Type indicates the format of the observation. The length of the observation field is variable, depending upon the value type. The Standard allows the observation value to repeat, using a tilde (~) for multipart, single-answer results with the same data type. The Standard allows this field to be empty and still be a valid OBX segment.
Breakdown for the SN data type result (total maximum length is 36):							
5.1	2	ST	O	[0..1]		Comparator	Defined as greater than, less than, greater than or equal, less than or equal, equal, and not equal, respectively (= ">" or "<" or ">=" or "<=" or "=" or "<>". If this component is not valued, it defaults to equal ("=").
5.2	15	NM	R	[1..1]		Num1	First number.
5.3	1	ST	O	[0..1]		Separator/Suffix	"-" or "+" or "/" or "." or ":"
5.4	15	NM	O	[0..1]		Num2	Second number.

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
Breakdown for the ST data type result (total maximum length is 199):							
5.1	199	ST	RE	[0..1]		String Data	String data that is left-justified, with trailing blanks optional. May be any displayable (printable) ASCII characters (hexadecimal values between 20 and 7E, inclusive, or ASCII decimal values between 32 and 126), except the defined escape characters and defined delimiter characters.
Breakdown for the TX data type result (total maximum length is 256)**:**							
5.1	256	TX	RE	[0..1]		Text Data	String data meant for user display (on a terminal or printer). Such data would not necessarily be left-justified, since leading spaces may contribute greatly to the clarity of the presentation to the user. Because this type of data is intended for display, it may contain certain escape character sequences designed to control the display. Escape sequence formatting is defined in Section 2.7 of the *HL7 2.5 Standard Use of Escape Sequences in Text Fields*. Leading spaces should be included. Trailing spaces should be removed.
Breakdown for the CWE Data type result (total maximum length is 1060)**:**							
5.1	20	ST	RE	[0..1]		Identifier	An attempt must be made to map the local/source value to the standard specified in PHIN-VADS. In the case that no standard code was found, this field may be blank.
5.2	199	ST	RE	[0..1]		Text	
5.3	199	ID	CE	[0..1]		Name of Coding System	Standard coding system identifier. Must be valued if component 1 is valued.
5.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 9 are not valued.
5.5	199	ST	RE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued.

					TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)		
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued. Literal value 'L' if used.
5.7	10	ST	O	[0..1]		Coding System Version ID	
5.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
5.9	199	ST	CE	[0..1]		Original Text	Must be valued if component 1 and component 4 are not valued

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
Breakdown for the TS data type result (total maximum length is 24):							
5.1	24	DTM	RE	[0..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where: • the first four digits specify a precision of "year" • the first six are used to specify a precision of "month" • the first eight are used to specify a precision of "day" • the first ten are used to specify a precision of "hour" • the first twelve are used to specify a precision of "minute" • the first fourteen are used to specify a precision of "second" • the first sixteen are used to specify a precision of "one tenth of a second" • the first nineteen are used to specify a precision of "one ten-thousandths of a second." The time zone (+/-ZZZZ) is represented as +/-HHMM offset from Coordinated Universal Time (UTC) (formerly Greenwich Mean Time [GMT]), where +0000 or -0000 both represent UTC (without offset). If the time zone is not included, the time zone defaults to that of the local time zone of the sender.
5.2		ID	X	[0..0]		Degree of Precision	Not supported.
Breakdown for the XPN data type result (total maximum length is 422):							
5.1	50	FN	RE	[0..1]		Family Name	
5.1.1	50	ST	R	[1..1]		Surname	
5.1.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
5.1.3		ST	X	[0..0]		Own Surname	Not supported.

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.1.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
5.1.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
5.2	30	ST	RE	[0..1]		Given Name	
5.3	30	ST	RE	[0..1]		Second and Further Given Names or Initials Thereof	
5.4	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
5.5	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
5.6	6	IS	O	[0..1]	Degree License Certification (HL7)	Degree (*e.g.*, MD)	
5.7	4	ID	O	[0..1]	Name Type (HL7)	Name Type Code	
5.8		ID	X	[0..0]		Name Representation Code	Not supported.
5.9		CE	X	[0..0]		Name Context	Not supported.
5.10		DR	X	[0..0]		Name Validity Range	Not supported.
5.11		ID	X	[0..0]		Name Assembly Order	Not supported.
5.12		TS	X	[0..0]		Effective Date	Not supported.
5.13		TS	X	[0..0]		Expiration Date	Not supported.
5.14	199	ST	O	[0..1]		Professional Suffix	

Breakdown for the XTN data type result (total maximum length is 451)**:**

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.1		ST	X	[0..0]		Telephone number	Not supported.
5.2	3	ID	O	[0..1]	Telecommunication Use Code (HL7)	Telecommunication use code	
5.3	8	ID	O	[0..1]	Telecommunication Equipment Type (HL7)	Telecommunication equipment type	
5.4	199	ST	O	[0..1]		email address	
5.5	3	NM	O	[0..1]	Country	Country code	

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.6	5	NM	O	[0..1]		Area/city code	
5.7	9	NM	O	[0..1]		Local number	
5.8	5	NM	O	[0..1]		Extension	
5.9	199	ST	O	[0..1]		Any text	
5.10	4	ST	O	[0..1]		Extension prefix	
5.11	6	IS	O	[0..1]		Speed dial code	
5.12		ID	X	[0..0]		Unformatted telephone number	Not supported.

Breakdown for the XAD data type result (total maximum length is 386):

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.1	120	SAD	O	[0..1]		Street Address	
5.1.1	120	ST	R	[1..1]		Street or Mailing Address	
5.1.2		ST	X	[0..0]		Street Name	Not supported.
5.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
5.2	120	ST	O	[0..1]		Other Designation	
5.3	50	ST	O	[0..1]		City	
5.4	50	ST	O	[0..1]	State	State or Province	
5.5	12	ST	O	[0..1]		Zip or Postal Code	
5.6	3	ID	O	[0..1]	Country	Country	
5.7	3	ID	O	[0..1]	Address Type	Address Type	
5.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
5.9	20	IS	O	[0..1]	County	County/Parish Code	
5.10		IS	X	[0..0]		Census Tract	Not supported.
5.11		ID	X	[0..0]		Address Representation Code	Not supported.
5.12		DR	X	[0..0]		Address Validity Range	Not supported.

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
5.13		TS	X	[0..0]		Effective Date	Not supported.
5.14		TS	X	[0..0]		Expiration Date	Not supported.
6	841	CE	RE	[0..1]		Units	Units of measure that put the numeric observation value expressed in OBX-5 into context. Included are weight, height, age, and temperature units.
6.1	20	ST	RE	[0..1]		Identifier	
6.2	199	ST	RE	[0..1]		Text	
6.3	199	ID	CE	[0..1]		Name of Coding System	Coding system identifier. Must be valued if component 1 is valued.
6.4	20	ST	CE	[0..1]		Alternate Identifier	Must be valued if component 1 and component 5 are not valued
6.5	199	ST	CE	[0..1]		Alternate Text	Must be valued if component 1 and component 4 are not valued
6.6	199	ID	CE	[0..1]		Name of Alternate Coding System	Must be valued if component 4 is valued
7		ST	X	[0..0]		References Range	Not supported.
8		IS	X	[0..0]		Abnormal Flags	Not supported.
9		NM	X	[0..0]		Probability	Not supported.
10		ID	X	[0..0]		Nature of Abnormal Test	Not supported.
11	1	ID	R	[1..1]	Observation Result Status (HL7)	Observation Result Status	Literal value 'F' is always sent. Updates and revisions are not processed based on status changes to the observation-level status code.
12		TS	X	[0..0]		Effective Date of Reference Range Values	Not supported.
13		ST	X	[0..0]		User Defined Access Checks	Not supported.
14		TS	X	[0..0]		Date/Time of the Observation	Not supported.

TABLE 3-5. OBSERVATION RESULT SEGMENT (OBX)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
15		CE	X	[0..0]		Producer's ID	Not supported.
16		XCN	X	[0..0]		Responsible Observer	Not supported.
17		CE	X	[0..0]		Observation Method	Not supported.
18		EI	X	[0..0]		Equipment Instance ID	Not supported.

4   MISCELLANEOUS

This section contains additional material for use by implementers.

4.1 EXAMPLE GENERIC NOTIFICATION MESSAGES

These messages are for demonstration purposes and should not be used to encode, as details such as OIDs may change.

4.1.1 FIRST NOTIFICATION MESSAGE

This message reflects a first-time notification send. The *OBR-25-Result Status* value is "F" and the *OBR-7 Observation Date/time* and *OBR-22 Status Update Date/time* values are the same.

```
MSH|^~\&|^OIDTBD^ISO|^OIDTBD^ISO|^OIDTBD^ISO|^2.16.840.1.1142
   22^ISO|200701101913100||ORU^R01^ORU_R01|N31000036200711301
   43500|D|2.5|||||||||NND_ORU_v2.0^PHINProfileID^2.16.840.1.
   114222.4.10.3^ISO~nnn_Case_Map_vn.n^PHINMsgMapID^2.16.840.
   1.114222.4.10.4^ISO<CR>
PID|1||<DEM197 value>^^^<assigning authority
   OID>&ISO||~^^^^^^S||20010606|F||1002-5^American Indian or
   Alaska Native^CDCREC^I^American Indian^L~2106-
   3^White^CDCREC^C^Caucasian^L|^^Decatur^GA^30303^^^^13089||
   ||||||||||2135-2^Hispanic or Latino^CDCREC<CR>
OBR|1|""|CAS1000280924^^OID^ISO|PERSUBJ^Person
   Subject^CDCPHINVS|||200710010121310|||||||||||||||20071001
   0121310|||F|||||||12345^Event Code^NND<CR>
OBR|2|""|CAS1000280924^^OID^ISO|NOTF^INDIVIDUAL CASE
   NOTIFICATION^CDCPHINVS|||200710010121310|||||||||||||||||200
   710010121310|||F|||||||12345^Event Code^NND<CR>
OBX|1|CWE|INV107^Case Jurisdiction
   Code^PHINQUESTION||^^^^LOCALJURISDICTION|||||||F<CR>
OBX|2|CWE|NOT109^Reporting
      State^PHINQUESTION||13^Georgia^FIPS5_2|||||||F<CR>
OBX|3|CWE|NOT116^National Reporting
      Jurisdiction^PHINQUESTION||13^Georgia^FIPS5_2|||||||F<CR>
OBX|4|ST|INV173^State Case
      ID^PHINQUESTION||GA343092843|||||||F<CR>
OBX|5|TS|INV147^Investigation Start
      Date^PHINQUESTION||20060512|||||||F<CR>
OBX|6|SN|INV2001^Age at investigation
      ^PHINQUESTION||^29|a^Years^UCUM|||||||F<CR>
OBX|7|CWE|INV109^Case Investigation Status
      Code^PHINQUESTION||385651009^Open^SCT|||||||F<CR>
OBX|8|CWE|INV163^Case Class Status
      Code^PHINQUESTION||410605003^Confirmed^SCT^C^^L|||||||F<C
      R>
OBX|9|SN|INV165^MMWR Week^PHINQUESTION||^15|||||||F<CR>
OBX|10|TS|INV166^MMWR Year^PHINQUESTION||2006|||||||F<CR>
OBX|11|CWE|INV128^Was the patient hospitalized as a result of
      this event^PHINQUESTION||N^No^HL70136|||||||F<CR>
```

```
OBX|12|CWE|INV145^Did the patient die from the illness or
    complications of the
    illness^PHINQUESTION||Y^Yes^HL70136|||||||F<CR>
```

4.1.2 UPDATED NOTIFICATION MESSAGE

This message reflects the sending of an updated notification. The *OBR-25-Result Status* value has changed from "F" to "C" (Final to Corrected). *OBR-22-Results/report Date/time* contains the new send time as the Notification Date/time. *OBR-7-Observation Date/time* remains the same as the original notification. All data for the notification as it exists at that time is sent (snapshot mode), including the resending of associated laboratory reports and associated Vaccine data (in separate messages).

```
MSH|^~\&|^2.16.840.1.114222.TBD^ISO|^2.16.840.1.114222.TBD|^2
    .16.840.1.114222.4.3.2.3^ISO|PHIN^2.16.840.1.114222^ISO|20
    071202112003||ORU^R01^ORU_R01|NOT0005645120071202112003|D|
    2.5|||||||||||NND_ORU_v2.0^PHINProfileID^2.16.840.1.114222.4
    .10.3^ISO~xxxxCase_Map_vn.n^PHINMsgMapID^2.16.840.1.114222
    .4.10.4^ISO<CR>
PID|1||<DEM197 value>^^^<assigning authority
    OID>&ISO||~^^^^^^S||20010606|F||1002-5^American Indian or
    Alaska Native^CDCREC^I^American Indian^L~2106-
    3^White^CDCREC^C^Caucasian^L||^^Decatur^GA^30303^^^^13089||
    |||||||||||2135-2^Hispanic or Latino^CDCREC<CR>
OBR|1|""|<INV168 value>^^OID^ISO|PERSUBJ^Person
    Subject^CDCPHINVS|||200606010191310|||||||||||||||||20060601
    0191310|||C|||||||12345^Event Code^NND<CR>
OBX|1|CWE|DEM153^Detailed Race^PHINQUESTION||1002-5^American
    Indian or Alaska Native^CDCREC~1047-0^Cabazon^CDCREC~1018-
    1^San Carlos Apache^CDCREC||||||F<CR>
OBX|2|CWE|DEM153^Detailed Race^PHINQUESTION||2106-
    3^White^CDCREC~2113-9^Irish^CDCREC~2114-
    7^Italian^CDCREC||||||F<CR>
OBX|3|CWE|DEM156^Detailed Ethnicity^PHINQUESTION||2153-
    5^Mexican American Indian^CDCREC~2155-0^Central
    American^CDCREC||||||F<CR>
OBX|4|CWE|DEM171^Patient Address City -
    Coded^PHINQUESTION||331532^Decatur^
    2.16.840.1.113883.6.245||||||F<CR>
OBR|2|""|0280923^^OID^ISO|NOTF^Individual Case
    Notification^CDCPHINVS|||200606010191310|||||||||||||||||200
    606010191310|||C|||||||12345^Event Code^NND<CR>
OBX|1|CWE|INV107^Case Jurisdiction
    Code^PHINQUESTION||^^^^LOCALJURISDICTION||||||F<CR>
OBX|2|CWE|NOT109^Reporting
    State^PHINQUESTION||13^Georgia^FIPS5_2||||||F<CR>
OBX|3|ST|INV173^State Case
    ID^PHINQUESTION||GA343092843||||||F<CR>
```

```
OBX|4|TS|INV147^Investigation Start
    Date^PHINQUESTION||20060512||||||F<CR>
OBX|5|SN|INV2001^Age at investigation
    ^PHINQUESTION||^29|a^Years^UCUM|||||||F<CR>
OBX|6|CWE|INV109^Case Investigation Status
    Code^PHINQUESTION||56116003^Open^2.16.840.1.114222.4.5.7
    5||||||F<CR>
OBX|7|CWE|INV163^Case Class Status
    Code^PHINQUESTION||410605003^Confirmed^SCT^C^^L||||||F<C
    R>
OBX|8|SN|INV165^MMWR Week^PHINQUESTION||^15||||||F<CR>
OBX|9|TS|INV166^MMWR Year^PHINQUESTION||2006||||||F<CR>
OBX|10|CWE|INV128^Was the patient hospitalized as a result of
    this event^PHINQUESTION||N^No^HL70136||||||F<CR>
OBX|11|CWE|INV145^Did the patient die from the illness or
    complications of the
    illness^PHINQUESTION||Y^Yes^HL70136||||||F<CR>
OBX|12|CWE|INV150^Case outbreak
    indicator^PHINQUESTION||Y^Yes^HL70136||||||F<CR>
OBX|13|CWE|INV151^Case outbreak
    name^PHINQUESTION||^^^^OUTBREAKNAME AS TEXT||||||F<CR>
OBX|14|CWE|INV178^Pregnancy status
    ^PHINQUESTION||Y^Yes^HL70136||||||F<CR>
```

4.1.3 RESCINDED NOTIFICATION MESSAGE

This message reflects the sending of a notification retraction. The OBR-25 Status value is "X". OBR-22 Results/report Date/time contains the new send time as the Notification Date/time. OBR-7 Observation Date/time remains the same as the original notification.

```
MSH|^~\&|^2.16.840.1.114222.TBD^ISO|^2.16.840.1.114222.TBD^IS
    O|^2.16.840.1.114222.4.3.2.3^ISO|^2.16.840.1.114222^ISO|20
    07021422100||ORU^R01^ORU_R01|N05600011|D|2.5||||||||||NND_O
    RU_v2.0^PHINProfileID^2.16.840.1.114222.4.10.3^ISO~xxxx_Ca
    se_Map_Vn.n^PHINMsgMapID^2.16.840.1.114222.4.10.4^ISO<CR>
PID|1||2398273947^^^&<assigning authority
    OID>&ISO||~^^^^^^S<CR>
OBR|1|""|CAS1000280924^^OID^ISO|PERSUBJ^Person
    Subject^CDCPHINVS|||200710010121310|||||||||||||||||20070214
    22100|||X|||||||12345^Event Code^NND<CR>
OBR|2|""|CAS1000280924^^OID^ISO|NOTF^CASE
    NOTIFICATION^CDCPHINVS|||200710010121310|||||||||||||||||200
    7021422100|||X|||||||12345^Event Code^NND<CR>
```

4.2 REFERENCES

Health Level Seven, Version 2.5, 2003, Chapter 2 – Control.

Health Level Seven, Version 2.5, 2003, Chapter 2a – Data Types.

Health Level Seven, Version 2.5, 2003, Chapter 3 – **Patient Administration.**

Health Level Seven, Version 2.5, 2003, Chapter 4 – **Order Entry.**

Health Level Seven, Version 2.5, 2003, Chapter 5 – **Observation Reporting.**

Transmit Condition Reporting Message Use Case captures the requirements and message interactions that apply for Condition Report, Adverse Event, Morbidity Report, and National Condition Notification messages.

Transmit Batch Message Use Case captures the requirements and message interactions that apply for any HL7 2x payload.