

Attachment 1E.

Varicella Notification Message

Mapping Guide 06052007.xls

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Varicella Notification Message Mapping Guide

VERSION: The version of this Message Mapping Guide is Draft 0.6 dated 6/5/2007.

This Message Mapping Guide describes the content and message mapping specifications for the fixed set of data elements used to communicate information to meet the requirements for Varicella Individual Case reporting to CDC. The intended audience 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.

References

Version 1.0 of the *Message Specification Guide* is used to inform the mapping methodology for this guide.

Notify CDC Message-All PAMs from NEDSS PAM Platform Team. Last updated 1/26/2007.

NEDSS PAM Platform Help Guide, 11/30/2006.

Understanding the Organization of the Mapping Guide

| | |
|-------------------------------|--|
| <u>Revisions</u> | This tab is intended to provide revision control for updates made to the document. |
| <u>Key</u> | Key to columns in each Tab/Worksheet |
| <u>Subject-related</u> | This tab provides the mapping methodology for the demographic variables requested by the program. |
| <u>Generic Obs.</u> | This tab provides the content for the generic investigation questions. The ones that are not used for this particular instance are greyed out. |
| <u>Varicella Observations</u> | This tab provides the mapping methodology for the case/investigation content requested by the program for this specific notification. |
| <u>Varicella Lab Report</u> | This tab provides the mapping methodology for the content specific to a Varicella associated laboratory report. |
| <u>Notification Structure</u> | This tab provides the structural elements for the Notification. These variables are not negotiable. Default values are provided for HL7 structural elements that are required but not part of the surveillance data requested. |

Variables as Observations

Other than the variables that map to the Patient Identifier segment (see Subject-Specific tab), all other variables are passed as a series of OBX-Observation/Result segments that are logically tied to the OBR-Observation Request "section header" segment that immediately precedes it. This content presents the real differences between the messages since all types of Notifications are handled in a standard manner up to this point.

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Revisions

| Date | Version | Description |
|-----------|--------------|--|
| 4/20/2007 | Draft v. 0.5 | Now using the Value Set Name when referencing a value set, rather than using the Value Set Code. This aligns with what PHIN-VADS displays upon look up. |
| 4/20/2007 | Draft v. 0.5 | Added "notification subject type" to the OBR-Notification structural data to bring the message structure in line with the Outbreak Management version of the ORU Case Investigation Report message. |
| 4/20/2007 | Draft v. 0.5 | Changed all observations that use the CE value type in OBX-2 to CWE - coded with exception - to prepare for versioning of value sets. The additional fields are still optional at this point. |
| 4/24/2007 | Draft v. 0.5 | Added "patient name type" to the Subject-specific data to account for the default value that must be provided in the message. |
| 4/24/2007 | Draft v. 0.5 | Mapping change from PID-23 Birth Place attribute to using DEM126 to create an observation for Birth Country. Needed to be able to support country codes, whereas the PID-23 Birth Place attribute is "string". |
| 4/24/2007 | Draft v. 0.5 | Mapping change from DEM128 Deceased Date on the patient record to INV146 Date of Death collected as part of the investigation. |
| 4/24/2007 | Draft v. 0.5 | No longer supporting the RE - required but may be empty concept. The Program Optional/Required column reflects what the source messaging document specifies. |
| 4/24/2007 | Draft v. 0.5 | Removed NOT110 Record Type variable. This observation is no longer necessary as the Notification Type specified in NOT101 contains this information. |
| 4/24/2007 | Draft v. 0.5 | Broke out the supplemental notification data from the Notification Type (NOT101). Created NOT098 Supplemental Notification Type to designate that associated laboratory or vaccine report information is being passed with the notification. |
| 5/9/2007 | Draft v. 0.6 | "Sent to CDC for Genotyping" concept remapped from VAR161 to LAB508 |
| 5/9/2007 | Draft v. 0.6 | "Genotyping Sent Date" concept remapped from VAR162 to LAB509 |
| 5/9/2007 | Draft v. 0.6 | "Sent For Strain ID" concept remapped from VAR163 to LAB510 |
| 5/9/2007 | Draft v. 0.6 | "Strain Type" concept remapped from VAR164 to LAB511 |
| 6/5/2007 | Draft v. 0.6 | Created a Generic Observations tab and greyed out any generic surveillance questions that Varicella does not use. Only the Varicella-specific observations remain on the Varicella Observations tab. |

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Varicella Notification Message Mapping Guide

Key

| Column | Description |
|--|--|
| Program Variables Section | |
| PHIN Variable ID | PHIN element UID 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 as in PHIN Questions. |
| Data Type | Data type for the variable response expected by the program area |
| Prog. Req/Opt | Indicator whether the program specifies the field as: R - Required - mandatory for sending the message O - Optional - if the data is available it should be passed |
| May Repeat | Indicator whether the response to the data element may repeat. "Yes" in the field indicates that it may; otherwise, the field is not populated. Repeats require special processing. |
| Coded Concepts | Concepts that the program uses in answer to a particular question that required a coded response. |
| Value Set Name | Name of the pre-coordinated value set 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 at http://www.cdc.gov/PhinVSBrowser/StrutsController.do . |
| Data Validation | Business rules used for validating data integrity |
| Message Mapping Methodology Section | |
| Message Context | Specific HL7 segment and field mapping for the element. |
| HL7 Data Type | HL7 data type used by PHIN to express the variable. |
| HL7 Usage | Use of the field for PHIN. Indicates if the field is required, optional, or conditional in a segment. The only values that appear in the Message Mapping are: <ul style="list-style-type: none"> • R – Required. Must always be populated • O – Optional. May optionally be populated. |
| HL7 Cardinality | Indicator of the minimum and maximum number of times the element may appear. <ul style="list-style-type: none"> • [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. |
| Implementation Notes | Related implementation comments. |

| Subject/Demographic Variables | | | | | | | | | Mapping Methodology | | | | |
|-------------------------------|--------------------------|---|-----------|-------------|------------|--|-----------------|-----------------|--|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| DEM115 | Birth Date | Reported date of birth of patient. | Date | O | | | | | PID-7 Date/Time of Birth (does not pass Variable ID or label) | TS | O | [0..1] | |
| DEM113 | Patient's sex | Patient's current sex. | Code | O | | Male Female Unknown | Sex (MFU) | | PID-8 Administrative Sex (does not pass Variable ID or label) | IS | O | [0..1] | |
| DEM152 | Race Category | Field containing one or more codes that broadly refer to the patient's race(s). | Code | O | Y | American Indian or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Other Race | Race Category | | PID-10 Race (does not pass Variable ID or label) | CE | O | [0..*] | |
| DEM165 | Patient Address County | County of residence of the subject. | Code | O | | | County | | PID-11.9 Patient Address - County | IS | O | [0..*] | |
| DEM162 | Patient Address State | Patient's address state. | Text | O | | | State | | PID-11.4 Patient Address - State | ST | O | [0..*] | |
| DEM163 | Patient Address Zip Code | Patient's address Zip code. | Text | O | | | | | PID-11.5 Patient Address - Postal Code | ST | O | [0..*] | |
| DEM155 | Ethnic Group Code | Ethnic origin or ethnicity is based on the individual's self-identity of the patient as Hispanic or Latino; choose one value from the list. | Code | O | | Hispanic Non-hispanic | Ethnicity Group | | PID-22 Ethnic Group (does not pass Variable ID or label) | CE | O | [0..1] | |
| DEM126 | Birth Country | Patient's country of birth. | Code | O | | | Country | | Observation/OBX Segment with this UID and label under the Patient Subject section header in OBR-4. | CWE | O | [0..1] | |

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The generic surveillance elements that are not used for Varicella are shaded.

| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|--------------------------------|--|-----------|-------------|------------|-----------------------------------|--|--------------------------------------|--|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| NOT109 | Reporting State | State reporting the notification. | Coded | R | | Standard 2-digit State FIPS code | State | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| NOT113 | Reporting County | County reporting the notification. | Code | R | | | | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV169 | Condition Code | Condition or event that constitutes the reason the notification is being sent. | Coded | R | | | Nationally Notifiable Infectious Disease (NND) | must be 10030 Varicella (Chickenpox) | (note that this is a Notification structural element, so it appears twice in this Guide) | CE | O | [0..1] | |
| INV168 | Record ID | Unique Case Report ID (numeric only) assigned by the state. | Number | R | | | | | see Notification Structure tab - required data element | EI | R | [1..1] | |
| INV172 | Local Case ID | Official local (city/county) identification number for the case | Text | O | | | | | Observation/OBX Segment with this UID and label | ST | O | [0..1] | |
| INV173 | State Case ID | Official state identification number for the case; used by the state and the CDC to identify the case in communications. | Text | R | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| INV107 | Jurisdiction Code | Identifier for the physical site from which the notification is being submitted. | Code | R | | state-assigned jurisdiction codes | | | Observation/OBX Segment with this variable ID and label | IS | O | [0..1] | |
| INV108 | Case Program Area Code | The organizational ownership of the investigation. Program areas (e.g., Immunization, STD) are defined at the state level by the conditions for which they provide primary prevention and control. | Code | O | | state-assigned | | | Observation/OBX Segment with this variable ID and label | IS | O | [0..1] | |
| INV109 | Case Investigation Status Code | Status of the investigation. For example, <i>open</i> or <i>closed</i> . | Code | O | | Open Closed | | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

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| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|---------------------------------|---|--------------|-------------|------------|----------------|---------------------------|--|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV2006 | Case Close Date | Date the case investigation status was marked as Closed. | Date | O | | | | If the user enters the Date Closed for a case then the date must be >= Date Opened | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| 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 | [0..1] | |
| INV111 | Date of Report | Date the event or illness was first reported by the reporting source | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| INV112 | Reporting Source Type Code | Type of facility or provider associated with the source of information sent to Public Health. | Code | O | | | Reporting Source Type NND | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV114 | Reporting Source Name | Name of the provider reporting the case (typically the patient's primary care provider) | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| INV115a | Reporting Source Address Line 1 | Reporting source street address Line 1 | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| INV115b | Reporting Source Address Line 2 | Reporting source street address Line 2 | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| INV116 | Reporting Source Address City | Reporting source address city | Code | O | | | City | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV117 | Reporting Source Address State | Reporting source address state | Code | O | | | State | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV118 | Reporting Source Zip Code | Zip Code of the reporting source for this case. | Alphanumeric | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |

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| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|-----------------------------------|--|-----------|-------------|------------|----------------------|----------------------|--|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV119 | Reporting Source Address County | Reporting source address county | Code | O | | | County | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| 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 | [0..1] | |
| INV121 | Earliest Date Reported to State | Earliest date reported to state public health system | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| INV122 | Reporting Source Telephone Number | Reporting source telephone number | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| INV128 | Hospitalized | Was patient hospitalized because of this event? | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | 1) If the patient was hospitalized for this illness, then enable entry of admission date 2) If the patient was hospitalized for this illness, then enable entry of discharge date 3) If the patient was hospitalized for this illness, then enable entry of total duration of stay in the hospital in days 4) If the patient was hospitalized for this illness, then enable entry of hospital information | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV129 | Hospital Name | Name of the healthcare facility in which the subject was hospitalized. | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |

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|--------------------------------|-----------------------------------|--|-----------|-------------|------------|----------------|----------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| 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 | [0..1] | |
| INV133 | Discharge Date | Subject's discharge date from the hospital for the condition covered by the investigation. | Date | O | | | | If the user enters the Discharge Date, then the date must be >= Admission Date | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| 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 | [0..1] | |
| INV136 | Diagnosis Date | Date of diagnosis of condition being reported to public health system | Date | O | | | | 1) If the user enters the Diagnosis Date, then the date must be >= Illness Onset Date 2) If the user enters the Diagnosis Date, then the date must be >= Rash Onset Date | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| 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 | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| 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 | [0..1] | |
| 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 | [0..1] | |
| INV140 | Illness Duration Units | Unit of time used to describe the length of the illness or condition. | Code | O | | | Duration Unit (UCUM) | | Observation/OBX Segment with this variable ID and label | CE | O | [0..1] | |
| INV143 | Illness Onset Age | Age at onset of illness | Numeric | O | | | | age units required | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |

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| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV144 | Illness Onset Age Units | Age units at onset of illness | Code | O | | Days Months Weeks Years | Age Unit | | uses INV143 observation - maps to <i>OBX-6-Units</i> (does not use INV144 ID or label) | CWE | O | [0..1] | |
| INV145 | Did the patient die from this illness | Did the patient die from this illness or complications of this illness? | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | 1) If the patient died from varicella or complications (including secondary infection) associated with varicella, then enable entry of date of death (INV146) 2) If the patient died from varicella or complications (including secondary infection) associated with varicella, then enable entry of if autopsy was performed (VAR143) 3) If the patient died from varicella or complications (including secondary infection) associated with varicella, then enable entry of cause of death (VAR144) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV146 | Date of death | The date and time the subject's death occurred. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | re-mapped from DEM128 |
| INV147 | Investigation Start Date | The date the case investigation was initiated. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |

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| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|----------------------------|---|-----------|-------------|------------|--|---|---------------------------------|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV150 | Case outbreak indicator | Denotes whether the reported case was associated with an identified outbreak. | Code | O | | Yes No Unknown | If this case is part of an outbreak of 5 or more cases, then enable entry of outbreak name (INV151) | Yes No Unknown (YNU) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV151 | Case Outbreak Name | A state-assigned name for an identified outbreak. | Code | O | | state-assigned code | | | Observation/OBX Segment with this variable ID and label | IS | O | [0..1] | |
| INV152 | Case Disease Imported Code | Indication of where the disease/condition was likely acquired. | Code | | | Indigenous Out of country Out of jurisdiction Out of state Unknown | Disease Acquired Jurisdiction | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV153 | Imported Country | If the disease or condition was imported, indicates the country in which the disease was likely acquired. | Code | O | | | Country | if INV152 = Out of Country | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV154 | Imported State | If the disease or condition was imported, indicates the state in which the disease was likely acquired. | Code | O | | | State | if INV152 = Out of State | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV155 | Imported City | If the disease or condition was imported, indicates the city in which the disease was likely acquired. | Code | O | | | City | if INV152 = Out of Jurisdiction | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV156 | Imported County | If the disease or condition was imported, contains the county of origin of the disease or condition. | Code | O | | | County | if INV152 = Out of Jurisdiction | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

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| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|---------------------|---|-----------|-------------|------------|----------------|--------------------------|-----------------|---|---------------|-----------|-----------------|--------------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV157 | Transmission Mode | Code for the mechanism by which disease or condition was acquired by the subject of the investigation. Includes sexually transmitted, airborne, bloodborne, vectorborne, foodborne, zoonotic, nosocomial, mechanical, dermal, congenital, environmental exposure, indeterminate. | Code | O | | | Case Transmission Mode | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV159 | Detection Method | Code for the method by which the public health department was made aware of the case. Includes provider report, patient self-referral, laboratory report, case or outbreak investigation, contact investigation, active surveillance, routine physical, prenatal testing, perinatal testing, prison entry screening, occupational disease surveillance, medical record review, etc. | Code | O | | | Case Detection Method | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | Note required by program |
| 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. | Code | O | Y | | Case Confirmation Method | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| 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 | [0..1] | |

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| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|-----------------------------|--|-----------|-------------|------------|--|---------------------------------|--|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV163 | Case Class Status Code | Status of the case/event as suspect, probable, confirmed, or "not a case" per CSTE/CDC/ surveillance case definitions. | Code | R | | Confirmed Not a Case Probable Suspect | Case Class Status | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| 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 | [0..1] | |
| INV166 | MMWR Year | MMWR Year (YYYY) for which case information is to be counted for MMWR publication. | Date | R | | 4-digit year (####) | Case Class Status | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| INV176 | Date of First Report to CDC | Date the case was first reported to the CDC. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| INV177 | Date First Reported PHD | Earliest date the case was reported to a public health department. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| INV178 | Pregnancy status | Indicates whether the patient was pregnant at the time of the event. | Code | | | YNU | Yes No Unknown (YNU) | 1) If the case is a female and is/was pregnant, enable entry of number of weeks gestation at onset of illness (VAR159) 2) If the case is a female and is/was pregnant, enable entry of trimester at onset of illness (VAR160) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV179 | PID | Indicates whether or not the patient has pelvic inflammatory disease (PID). | Code | | | | Only valid for female patients. | Yes No Unknown (YNU) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| INV2001 | Age at case investigation | Patient age at time of case investigation | Numeric | R | | | | age unit required | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |

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| Generic Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|--------------------------------|---------------------------------|---|-----------|-------------|------------|----------------------------------|----------------|-----------------|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Valid Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| INV2002 | Age units at case investigation | Patient age units at time of case investigation | Code | O | | Days Months Weeks Years | Age Unit | | uses the INV2001 observation - maps to OBX-6-Units (does not use INV2002 ID or label) | CWE | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|--|---|-----------|-------------|------------|--|------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR100 | Number of lesions in total | Choose the numeric range within which a count of the patient's lesions falls. | Code | R | | < 50 50 - 249 250 - 499 > 500 | Number Of Lesions (VZ) | 1) If Number of Lesions <50 are present, then enable entry of total number of lesions 2) If Number of Lesions <50 are present, then enable entry of Macule, Papule, and/or Vesicle type and enable entry of count for each type of count | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR101 | Did the patient receive Varicella-containing vaccine | Indicate whether the patient received varicella-containing vaccine; a value of Yes or No enables other fields in this section, allowing for answers to their questions. | Code | R | | Yes No Unknown | Yes No Unknown (YNU) | If the patient did not receive varicella-containing vaccine, then enable entry of reason why varicella-containing vaccine was not received (VAR145) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR102 | Rash Onset Date | Date on which the physical manifestations of the illness—the rash—appeared | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| VAR103 | Rash Location | The anatomical location where the rash was located | Code | O | | Generalized Focal Unknown | Rash Distribution (VZ) | 1) If Rash Location = "Focal", the enable entry of Dermatome (VAR104) 2) If Rash Location = "Generalized", the enable entry of Location First Noted (VAR105) 3) If Generalized Rash Location = "Other", the enable entry of Other Location First Noted (VAR106) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR104 | Dermatome | If a value of <i>Focal</i> is specified in the Rash Location field, enter the nerve where the rash occurred (lumbar or thoracic, with a number) | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |

Attachment 1E

Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|---------------------------------|---|-----------|-------------|------------|---|--------------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR105 | Location First Noted | If a value of <i>Generalized</i> is specified for the Rash Location field, choose location where rash was first noted (if any); if none of the specific choices in the list apply, choose Other. | Code | O | | Inside Mouth Legs Arms Trunk Face/Head Other | Rash Location First Noted (VZ) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR106 | Other Generalized rash location | If a value of <i>Other</i> is specified in the Location First Noted, enter the location (i.e., the location where the rash was first noted is other than one of the values provided in the Location First Noted list) | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| VAR107 | Macules Present | If the value specified in Total Number of Lesions is < 50, indicate whether macules were present. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If Number of Lesions <50 and macules (flat lesions) are present, then enable entry of number of macules (flat lesions) VAR108 | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR108 | Number of Macules | If the value specified in Macules Present is Yes, indicate how many macules were present. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| VAR109 | Papules Present | If the value specified in Total Number of Lesions is < 50, indicate whether papules were present. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If Number of Lesions <50 and papules (raised lesions) are present, then enable entry of number of papules (raised lesions) (VAR110) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR110 | Number of Papules | If the value specified in Papules Present is Yes, indicate how many papules were present. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| VAR111 | Vesicles Present | If the value specified in Total Number of Lesions is < 50, indicate whether vesicles were present. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If Number of Lesions <50 and vesicles (fluid lesions) are present, then enable entry of number of vesicles (fluid lesions) VAR112 | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

Attachment 1E

Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|---|--|-----------|-------------|------------|----------------------|----------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR112 | Number of Vesicles | If the value specified in Vesicles Present is Yes, indicate how many vesicles were present. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| VAR113 | Mostly macular/papular | Indicate whether the lesions were mostly macular/papular. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR114 | Mostly vesicular | Indicate whether the lesions were mostly vesicular. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR115 | Hemorrhagic | Indicate whether the rash was hemorrhagic. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR116 | Itchy | Indicate whether the patient complained of itchiness. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR117 | Scabs | Indicate whether there were scabs. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR118 | Crops/Waves | Indicate whether the lesions appeared in crops or waves. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR119 | Did rash crust | Indicate whether the rash crusted. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | 1) If the rash crusted, then enable entry of how many days until all the lesions crusted over (VAR120) 2) If the rash did not crust, then enable entry of how many days the rash lasted (VAR121) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR120 | Number of Days until lesions crusted over | If the value specified in Did the rash crust? is Yes, enter the number of days that transpired for all of the lesions to crust over. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| VAR121 | Number of Days rash lasted | If the value specified in Did the rash crust? is No, enter the number of days that the rash was present. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |

Attachment 1E

Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|--|--|-----------|-------------|------------|-----------------------|----------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR122 | Fever | Indicate whether the patient had a fever during the course of the illness. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | 1) If the patient had a fever, then enable entry of date of fever onset (VAR123) 2) If the patient had a fever, then enable entry of date of highest measured temperature (VAR124) 3) If the patient had a fever, then enable entry of total number of days with fever (VAR125) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR123 | Fever Onset Date | If the value specified in Did patient have fever? is Yes, indicate the date when the fever began. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| VAR124 | Highest measured temperature | If the value specified in Did patient have fever? is Yes, indicate the highest temperature that was measured. | Numeric | O | | | | If highest temperature measured, then enable entry of the highest measured temperature in Fahrenheit or Celsius | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| INV2003 | Temperature Units | Temperature Units (Fahrenheit or Celsius). | Code | O | | Fahrenheit Celsius | Temperature Unit | | maps to VAR124 observation/OBX segment as the value in <i>OBX-6-Units</i> ; the variable ID and label do not appear | CWE | O | [0..1] | |
| VAR125 | Fever Duration in Days | If the value specified in Did patient have fever? is Yes, indicate the number of days for which the patient had a fever. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| VAR126 | Is patient immunocompromised due to medical condition or treatment | Indicate whether the patient was immunocompromised (anergic). | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If the patient was immunocompromised due to medical condition or treatment, then enable entry of medical condition or treatment (VAR127) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

Attachment 1E

Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|---|--|-----------|-------------|------------|----------------------|----------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR127 | Medical Condition or Treatment | If the value specified in Is patient immunocompromised due to medical condition or treatment? is Yes, indicate the medical condition or treatment associated with the patient being anergic. | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| VAR128 | Did patient visit a healthcare provider during this illness | Indicate whether the patient visited a healthcare provider during the course of this illness. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | Enable Complications field (VAR129) only if patient did visit a healthcare provider | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR129 | Did patient develop any complications that were diagnosed by a healthcare provider? | If the value specified in Did patient visit a healthcare provider during this illness? is Yes, indicate whether the patient developed complications (as described). | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|----------------------------|---|-----------|-------------|------------|----------------------|----------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR130 | Skin/soft tissue infection | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether there was skin or soft tissue infection. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | 1) If the patient developed any complications that were diagnosed by a healthcare provider, then enable entry of if complication was skin/soft tissue infection 2) If the patient developed any complications that were diagnosed by a healthcare provider, then enable entry of if complication was Cerebellitis/Ataxia 3) If the patient developed any complications that were diagnosed by a healthcare provider, then enable entry of if complication was Encephalitis 4) If the patient developed any complications that were diagnosed by a healthcare provider, then enable entry of if complication was Dehydration 5) If the patient developed any complications that were diagnosed by a healthcare provider, then enable entry of if complication was Hemorrhagic Condition 6) If the patient developed any complications that were diagnosed by a healthcare provider, then enable entry of if complication was Pneumonia 7) If the patient developed "other" complications that were diagnosed by a healthcare provider, then enable entry of "other" complication | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR131 | Cerebellitis/ataxia | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether there was cerebellitis/ataxia. | Code | O | | | | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|-----------------------------|---|-----------|-------------|------------|--|-----------------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR132 | Encephalitis | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether there was encephalitis. | Code | O | | | | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR133 | Dehydration | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether the patient was diagnosed as being dehydrated. | Code | O | | | | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR134 | Hemorrhagic condition | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether there was hemorrhagic condition. | Code | O | | | | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR135 | Pneumonia | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether pneumonia was a complication. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If the patient developed any Pneumonia, then enable entry of how pneumonia was diagnosed (VAR136) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR136 | How was pneumonia diagnosed | If the value in Pneumonia? is Yes, indicate how the pneumonia was diagnosed. | Code | O | | Medical Doctor Radiographic imaging procedure Unknown | Diagnosed Pneumonia By (VZ) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR137 | Other complications | If the value specified in Did patient develop any complications that were diagnosed by a healthcare provider? is Yes, indicate whether there were other complications not cited here. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If the patient developed "other" complications that were diagnosed by a healthcare provider, then enable entry of "other" complication (VAR138) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|----------------------------|--|-----------|-------------|------------|----------------------|----------------------------|-----------------|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR138 | Other complication details | If the value specified in Other Complications? is true, list the other complication(s). | Text | O | | | | | Observation/OBX Segment with this variable ID and label | TX | O | [0..1] | |
| VAR139 | Antiviral treatment | Indicate whether the patient was treated with acyclovir, famvir, or any licensed antiviral. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR140 | Name of medication | If the value specified in Antiviral? is yes, list the name of the medication. | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| VAR141 | Start Date of Medication | Start date of medication. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| VAR142 | Stop Date of medication | Stop date of medication. | Date | O | | | | | Observation/OBX Segment with this variable ID and label | TS | O | [0..1] | |
| VAR143 | Autopsy performed | If a value of Yes is specified in Did the patient die from this illness or complications associated with this illness?, indicate whether an autopsy was performed for the death. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR144 | Cause of death | If a value of Yes is specified in Did the patient die from this illness or complications associated with this illness?, indicate the official cause of death. | Text | O | | | | | Observation/OBX Segment with this variable ID and label | TX | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|---|--|-----------|-------------|------------|--|--------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR145 | Reason why patient did not receive Varicella-containing vaccine | If the value in Did the patient receive varicella-containing vaccine? is <i>No</i> , choose the reason why the patient did not receive the vaccine; if none of the specific choices in the list apply, choose <i>Other</i> . | Code | O | | Under age for vaccination Lab evidence of previous disease MD diagnosis of previous disease Medical Contraindication Born outside of U.S. Never offered vaccine Philosophical objection Other Parent/Patient report of disease Parent/Patient forgot to vaccinate Parent/Patient refusal Religious exemption Unknown | Vaccine Not Given Reason | If the Vaccine Not Given reason is other, enable Other reason why patient did not receive Varicella-containing vaccine (VAR146) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR146 | Other reason why patient did not receive Varicella-containing vaccine | If the value specified in Reason why patient did not receive varicella-containing vaccine is <i>Other</i> , indicate the reason (a reason other than those provided in the list). | Text | O | | | | | Observation/OBX Segment with this variable ID and label | TX | O | [0..1] | |
| VAR147 | Number of doses received on or after first birthday | If the value in Did the patient receive varicella-containing vaccine? is <i>Yes</i> , indicate the number of doses received (before the patient's first birthday). | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|--|--|-----------|-------------|------------|--|--------------------------|--|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR148 | Reason patient is >= 13 years old and received one dose on or after 13th birthday but never received second dose | Reason patient is >= 13 years old and received one dose on or after 13th birthday, but never received second dose. | Code | O | | Under age for vaccination Lab evidence of previous disease MD diagnosis of previous disease Medical Contraindication Born outside of U.S. Never offered vaccine Philosophical objection Other Parent/Patient report of disease Parent/Patient forgot to vaccinate Parent/Patient refusal Religious exemption Unknown | Vaccine Not Given Reason | If the patient is >= 13 years old and received one dose on or after 13th birthday but never received second dose, then enable entry of reason why second dose was not received | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR149 | Other reason patient did not receive second dose | If the value specified in Number of doses received on or after first birthday is 1 (one), choose from the list the reason the patient never received the second dose; if none of the specific choices in the list apply, choose <i>Other</i> . | Text | O | | | | If the Vaccine Not Given reason (VAR148) is Other, enable Other reason why patient did not receive Varicella-containing vaccine (VAR149) | Observation/OBX Segment with this variable ID and label | TX | O | [0..1] | |

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Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|---|---|-----------|-------------|------------|---|----------------------------|--|--|---------------|-----------|-----------------|---|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR150 | Diagnosed with Varicella before | Indicate whether the patient has a prior diagnosis of varicella. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If the patient has ever been diagnosed with varicella before, then enable entry of age at diagnosis (VAR151) If the patient has ever been diagnosed with varicella before, then enable entry of age type for age at diagnosis (INV2072) If the patient has ever been diagnosed with varicella before, then enable entry of who the patient was diagnosed by (VAR152) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR151 | Age at diagnosis | Age at diagnosis | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| INV2072 | Age at diagnosis units | Age units of patient | Code | O | | Days Months Weeks Years | Age Unit | | populates OBX-6 Units field of same Observation/OBX Segment as age (VAR151) - does not pass variable ID or label | CWE | O | [0..1] | Note that the UID was formerly INV2002. |
| VAR152 | Diagnosed by | Indicate who diagnosed the illness; if none of the choices apply choose <i>Other</i> . | Code | O | | Other Parent/Friend Physician/Health Care Provider | Diagnosed By (VZ) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR154 | Is this case epi-linked to another confirmed or probable case | Indicate whether this case is epi-linked to another confirmed or probable case (confirmed or probable). | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | If this case is epi-linked to another confirmed or probably case, then enable entry of type of case linked to (VAR155) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR155 | Type of case this case is epi-linked to | If the value specified in Is this case epi-linked to another confirmed or probable case? is Yes, indicate the kind of case with which the current case is epi-linked. | Code | O | | Confirmed Varicella Case Herpes Zoster Case Probable Varicella Case | Epi-linked Case Type (VZ) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

Attachment 1E

Varicella Case Notification Variables

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|--|---|-----------|-------------|------------|--|-------------------------|---|---|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| VAR156 | Transmission setting (setting of exposure) | Location where the patient was exposed to the illness; if none of the specific choices in the list apply, choose <i>Other</i> . | Code | O | | Athletics Place of Worship College Community Correctional Facility Daycare Doctor's Office Hospital ER Home Military Hospital outpatient clinic Other School International Travel Unknown Hospital Ward Work | Transmission Setting | If Transmission Setting = "Other", enable Specify other transmission setting (VAR157) | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR157 | Other transmission setting | If the value specified in Transmission Setting? is <i>Other</i> , describe the other transmission setting. | Text | O | | | | | Observation/OBX Segment with this variable ID and label | ST | O | [0..1] | |
| VAR158 | Is this case a healthcare worker | Indicate whether the patient who is the subject of the current case is a healthcare worker. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |
| VAR159 | Number of weeks gestation | If the patient was pregnant during the illness, indicate the number of weeks of gestation at the onset of the illness. | Numeric | O | | | | | Observation/OBX Segment with this variable ID and label | SN | O | [0..1] | |
| VAR160 | Trimester | If the patient was pregnant during the illness, indicate the trimester at the onset of the illness. | Code | O | | First trimester Second trimester Third trimester | Pregnancy Trimester | | Observation/OBX Segment with this variable ID and label | CWE | O | [0..1] | |

These variables are not negotiable. Default values are provided for HL7 structural elements that are required but not part of the surveillance data requested.

| Notification Variables | | | | | | | | | Mapping Methodology | | | | |
|------------------------|-------------------|--|-----------|-------------|------------|---------------------------------------|-----------------------------|-----------------|---|---------------|-----------|-----------------|--|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| NOT108 | Notification ID | The unique identifier for the notification record. | String | R | | | | | MSH-10-Message Control ID. No UID or label is passed in the message. | ST | R | [1..1] | HL7 recommended size increased to 50 |
| DEM197 | Local patient ID | The local ID of the patient/entity. | String | R | | | | | PID-3.1 Patient Identifier List – ID Number PID-3.4 Assigning Authority format <localID&OID&ISO> Does not pass Variable ID or label. | CX | R | [1..1] | Only the sending system's internally assigned patient id used for these de-identified messages |
| DEM100 | Patient 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 | | Coded Pseudo-Name to ensure anonymity | Name Type (HL7) | | PID-5.7 Patient Name Type - <u>second instance</u> (does not pass Variable ID or label). HL7 reserves the first instance of the name for Legal Name. | XPN | R | [1..2] | Literal value: ~^~^~^S |
| 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 where OBR-3.1 is the internally assigned case/investigation ID, OBR-3.3 is the OID for sending application as assigning authority, and OBR-3.4 is the literal value 'ISO'. The UID and label are not passed in the message. | EI | R | [1..1] | <same value in each OBR instance> |
| NOT099 | Subject Type | Type of subject for the notification. | Coded | R | | Person Subject | Notification Section Header | | OBR[1]: Maps to the HL7 attribute OBR-4-Universal Service ID. No UID or label is passed in the message. | CE | R | [1..1] | Literal Value: 'PERSUBJ^Person Subject^2.16.840.1.114222.4.5.274' |

| Notification Variables | | | | | | | | Mapping Methodology | | | | | |
|------------------------|--------------------------------|---|-----------|-------------|------------|------------------------------|---|---------------------|--|---------------|-----------|-----------------|---|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| NOT101 | Notification Type | Type of notification. Main notification types are "Individual Case", "Environmental", "Summary", and "Laboratory Report". | Coded | R | | Individual Case Notification | Notification Section Header | | OBR 2 : Maps to the HL7 attribute OBR-4-Universal Service ID. No UID or label is passed in the message. | CE | R | [1..1] | Literal Value: 'NOTF^Case Notification^2.16.840.1.114222.4.5.274' |
| NOT098 | Supplemental Notification Type | Supplemental Notification Types which may optionally be passed are "Associated Laboratory Report" and "Associated Vaccine Report". Multiple reports may be passed. | Coded | O | Y | Associated Lab Report | Notification Section Header | | OBR 3 : Maps to the HL7 attribute OBR-4-Universal Service ID. No UID or label is passed in the message. | CE | R | [0..*] | Literal Value: 'LABRPT^Associated Laboratory Report^2.16.840.1.114222.4.5.274' |
| NOT103 | Date First Submitted | Date the notification was first sent to CDC. This value does not change after the original notification. | Date/time | R | | | | | Maps to the HL7 attribute OBR-7-Observation Date/time. No UID or label is passed in the message. | TS | R | [1..1] | <same value in each OBR instance> |
| 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 | | | | | Maps to the HL7 attribute OBR-22-Result Report/Status Chg Date/time. No UID or label is passed in the message. | TS | R | [1..1] | <same value in each OBR instance> |
| INV169 | Condition Code | Condition or event that constitutes the reason the notification is being sent. | Coded | R | | 10030 Varicella | Nationally Notifiable Infectious Disease (NNID) reportable to the Nationally Notifiable Disease Surveillance System (NNDSS) | | Maps to HL7 attribute OBR-31-Reason for Study. The UID and label are not passed in the message. | CE | R | [1..1] | Default value in each OBR instance: '10030^Varicella Infection^2.16.840.1.1142224.5.78' |

Attachment 1E

This is the set of variables that may be passed if the Case Notification has an associated Laboratory report. The laboratory report is not required to be included with the Notification. A notification may also contain more than one Associated Laboratory Report section.

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|--|---|--------------|-------------|------------|----------------|----------------|-----------------|--|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| LAB143 | Reporting Lab Name | Name of Laboratory that reported test result. | Alphanumeric | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | ST | O | [0..1] | |
| LAB144 | Reporting Lab CLIA Number | CLIA (Clinical Laboratory Improvement Act) identifier for the laboratory that performed the test. | Alphanumeric | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | ST | O | [0..1] | |
| LAB163 | Date of Specimen Collection | The date the specimen was collected. | Date | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | TS | O | [0..1] | |
| LAB503 | Date Sample Received at Lab | Date Sample Received at Lab (accession date). | Date | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | TS | O | [0..1] | |
| LAB108 | Sample Analyzed date | The date and time the sample was analyzed by the laboratory. | Date | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | TS | O | [0..1] | |
| LAB197 | Lab Report Date | Date result sent from Reporting Laboratory. | Date | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | TS | O | [0..1] | |
| LAB334 | Date received in state public health lab | Date the isolate was received in state public health laboratory. | Date | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | TS | O | [0..1] | |
| LAB125 | Accession Number | A laboratory generated number that identifies the specimen related to this test. | Alphanumeric | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | ST | O | [0..1] | |

Attachment 1E

This is the set of variables that may be passed if the Case Notification has an associated Laboratory report. The laboratory report is not required to be included with the Notification. A notification may also contain more than one Associated Laboratory Report section.

| Program-Specific Surveillance Variables | | | | | | | | | Mapping Methodology | | | | |
|---|----------------------------|--|-----------|-------------|------------|---|-----------------------|-----------------|--|---------------|-----------|-----------------|----------------------|
| PHIN Variable ID | Label/Short Name | Description | Data Type | CDC Req/Opt | May Repeat | Coded Concepts | Value Set Name | Data Validation | Message Context | HL7 Data Type | HL7 Usage | HL7 Cardinality | Implementation Notes |
| LAB165 | Specimen Source | The medium from which the specimen originated. Examples include whole blood, saliva, urine, etc. | Code | O | | Blood Buccal swab Macular scraping Saliva Scab Tissue culture Urine Vesicular swab | Specimen | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | CE | O | [0..1] | |
| LAB101 | Resulted Test Name | The lab test that was run on the specimen. | Code | O | | <get the list of VZ LOINC codes> | Lab Test Result Name | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | CE | O | [0..1] | |
| LAB192 | Coded Result Value | Coded qualitative result value. | Code | O | | Not Done Unknown Indeterminate Negative Positive Pending | Modifier or Qualifier | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | CE | O | [0..1] | |
| LAB508 | Sent to CDC for Genotyping | Indicate whether the specimens were sent to CDC for genotyping. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | CE | O | [0..1] | |
| LAB509 | Genotyping Sent Date | If the specimen was sent to the CDC for genotyping, date on which the specimens were sent. | Date | O | | | | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | TS | O | [0..1] | |
| LAB510 | Sent For Strain ID | Indicate whether the specimen was sent for strain identification. | Code | O | | Yes No Unknown | Yes No Unknown (YNU) | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | CE | O | [0..1] | |
| LAB511 | Strain Type | If the specimen was sent for strain identification, indicate the strain. | Code | O | | Unknown Vaccine Type Strain Wild Type Strain | StrainType (VZ) | | Observation/OBX segment under OBR[3] with Universal Service ID of 'LABRPT' | CE | O | [0..1] | |