VERSION: The version of this Message Mapping Guide is Version 1.2 Dated May 14, 2009.

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

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

References

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

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

Column	Description
Program Variables Column Headings	
PHIN Variable ID	PHIN data element identifier drawn from the coding system PH_PHINQuestions_CDC.
Label	Short name for the data element, which is passed in the message.
Description	Description of the data element. It may not match exactly with the description in PHIN Questions, because there may be local variations on the description that do not change the basic concept being mapped to
Data Type	Data type for the variable response expected by the program area. Data Types are Coded, Numeric, Date or Date/time, and Text.
CDC Priority	Indicator whether the program specifies the field as: **R - Required** - Mandatory for sending the message. If data element is not present , the message will error out. **P - Preferred** - This is an optional variable and there is no requirement to send this information to CDC. However, if this variable is already being collected by the state/territory or if the state/territory is planning to collect this information because it is deemed important for your own programmatic needs, CDC would like this information sent. CDC preferred variables are the most important of the optional variables to be earmarked for CDC analysis/assessment, even if sent from a small group of states. **O - Optional** - This is an optional variable and there is no requirement to send this information to CDC. This variable is considered nice-to-know if the state/territory already collects this information or is planning to collect this information, but has a lower level of importance to CDC than the preferred classification of optional data elements.
May Repeat	Indicator whether the response to the data element may repeat. "Y" in the field indicates that it may repeat. If the response does not repeat, the field is not populated or contains "N". Data elements that repeat require special processing.

Value Set Name	Name of the pre-coordinated value set in PHIN-VADS from which the response is drawn. The value sets and coding systems are accessible via the Public Health Information Network Vocabulary Access and Distribution Services. To obtain the valid code sets for the **Arboviral Human** implementation message mapping guide, complete the following steps: 1. Go to **http://phinvads.cdc.gov**. 2. Click on the **Views** hyperlink 3. Enter **Arboviral Human** in the lookup box and press the Search Views button. 4. Click on **Details** next to Arboviral Human Case Notification to obtain the valid code sets.
Value Set Code	Code for the pre-coordinated value set in PHIN-VADS from which the response is drawn. The value sets and coding systems are accessible via the Public Health Information Network Vocabulary Access and Distribution Services. To obtain the valid code set for the **Arboviral Human** implementation message mapping guide, complete the following steps: 1. Go to **http://phinvads.cdc.gov**. 2. Click on the **Views** hyperlink 3. Enter **Arboviral Human**in the lookup box and press the Search Views button. 4. Click on **Details** next to Arboviral Human Case Notification to obtain the valid code set.

Message Mapping Methodology Column Headings	
Message Context	Specific HL7 segment and field mapping for the element.
HL7 Data Type	HL7 data type used by PHIN to express the variable. Datatypes expected are CWE, SN, TS, ST, TX, XPN, XTN, or XAD, depending on the type of data being passed.
HL7 Optionality	Indicates if the field is required, optional, or conditional in a segment. The only values that appear in the Message Mapping are: **R** – Required. Must always be populated **O** – Optional. May optionally be populated.
Implementation Notes	Related implementation comments.

Subject-Related/Demographic Variables								**Mapping Methodology**			
PHIN Variable ID	**Label/Short Name**	**Description**	**Data Type**	**CDC Priority**	**May Repeat**	**Value Set Name**	**Value Set Code**	**Message Context**	**HL7 Data Type**	**HL7 Optionality**	**Implementation Notes**
NOT108	Notification ID	The unique identifier for the notification record.	Text	R				MSH-10-Message Control ID. No UID or label is passed in the message.	ST	R	If notification ID is not unique, a timestamp may be appended. HL7 recommended size increased to 50.
NOT114	Receiving Application	CDC Receiving Application for this message.	OID	R				MSH-5 Receiving Application. PHIN required/HL7 optional.	HD	R	Literal Value: 'CDC^2.16.840.1.114222.4.3.2.3^ISO'

Subject-Related/Demographic Variables								Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
NOT115	Message Profile ID	First instance is the reference to the structural specification used to validate the message. Second instance is the reference to the PHIN Message Mapping Guide from which the content is derived.	Text	R	Y/2			MSH-21-Message Profile ID. PHIN required/HL7 optional.	EI	R	First instance literal value: 'NND_ORU_v2.0^PHINProfileID^2.16.840.1.114222.4.10.3^ISO' Second instance literal value: 'Arbo_Case_Map_v1.0^PHINMsgMapID^2.16.840.1.114222.4.10.4^ISO'.
DEM197	Local patient ID	The local ID of the patient/entity.	Text	R				PID-3 Patient Identifier List where PID-3.1 ID Number is the local patient ID; PID-3.4 Assigning Authority format <localID&OID&ISO> Does not pass Variable ID or label.	CX	R	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	Y/2	Name Type (HL7)	PHVS_NameType_HL7_2x	PID-5 Patient Name field SECOND INSTANCE - where PID-5.7 Patient Name Type - is S for Pseudonym._HL7 reserves the first instance of the name for Legal Name.	XPN	R	Literal value: |~^^^^^^S|

Subject-Related/Demographic Variables								Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
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	<same value in each OBR instance>
NOT099	Subject Type	Type of subject for the notification. "Person", "Place/location", or "Non-Person Living Subject" are the appropriate subject types for Notifications to CDC.	Coded	R		Notification Section Header	PHVS_Notification SectionHeader_C DC	OBR|1|: Maps to the HL7 attribute OBR-4-Universal Service ID. No UID or label is passed in the message.	CE	R	Literal Value: 'PERSUBJ^Person Subject^CDCPHINVS'
NOT101	Notification Type	Type of notification. Notification types are "Individual Case", "Environmental", "Summary", and "Laboratory Report".	Coded	R		Notification Section Header	PHVS_Notification SectionHeader_C DC	OBR|2|: Maps to the HL7 attribute OBR-4-Universal Service ID. No UID or label is passed in the message.	CE	R	Literal Value: 'NOTF^Individual Case Notification^CDCPHINVS'
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	<same value in each OBR instance>

	Subject-Related/Demographic Variables							Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
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	<same value in each OBR instance>
INV169	Condition Code	Condition or event that constitutes the reason the notification is being sent.	Coded	R		Virus Type (Arboviral Disease)	PHVS_VirusType _ArboviralDisease	OBR-31 Reason for Study - *For HL7 this is an optional field but for the Case Notification profile, this is a mandatory field*	CE	R	This field should be populated using the standardized vocabulary from PHIN VADS PHVS_VirusType_Arboviral Disease Value Set Code. The data in INV169 will match the data populated for ARB001.
DEM115	Birth Date	Date of birth in YYYYMMDD format	Date	P				PID-7 Date/Time of Birth (does not pass Variable ID or label)	TS	O	
DEM113	Patient's sex	Patient's current sex.	Coded	P		Sex (MFU)	PHVS_Sex_MFU	PID-8 Administrative Sex (does not pass Variable ID or label)	IS	O	
DEM152	Race Category	Field containing one or more codes that broadly refer to the patient's race(s). ArboNet specific note: Race Category does not repeat for this interface.	Coded	R		Race Category	PHVS_RaceCateg ory_CDC	PID-10 Race (does not pass Variable ID or label)	CE	O	To send an "Unknown" because the application allows Unknown to be selected (that is, not as a default value): PID-10 would appear as |UNK^Unknown^NULLFL|
DEM165	Patient Address County	County of residence of the subject.	Coded	P		County	PHVS_County_FI PS_6-4	PID-11.9 Patient Address - County	IS	O	Use 5 character numeric code from PHVS_County_FIPS_6-4
DEM162	Patient Address State	State of residence of the subject.	Coded	O		State	PHVS_State_FIP S_5-2	PID-11.4 Patient Address - State	ST	O	

Subject-Related/Demographic Variables								Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
DEM163	Patient Address Zip Code	ZIP Code of residence of the subject.	Text	O				PID-11.5 Patient Address - Postal Code	ST	O	
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.	Coded	P		Ethnicity Group	PHVS_EthnicityGroup_CDC	PID-22 Ethnic Group (does not pass Variable ID or label)	CE	O	To send an "Unknown" because the application allows Unknown to be selected (that is, not as a default value): PID-22 would appear as |UNK^Unknown^NULLFL|
NOT109	State	State reporting the notification.	Coded	R		State	PHVS_State_FIPS_5-2	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	ArboNet: Business Process - message will fail if NOT109 is not populated with the numeric FIPS code.
NOT116	National Reporting Jurisdiction	National jurisdiction reporting the notification to CDC. This will be the same value as NOT109 Reporting State for all reporting jurisdictions except New York City.	Coded	R		Reporting Area (TB)	PHVS_ReportingArea_TB	Passed as an observation/OBX segment using this variable ID and label.	CWE	O	
INV169	Condition Code	Condition or event that constitutes the reason the notification is being sent. Must be populated in the "alternate code" component with the Arbovirus code, since the messages incoming to CDC from the state do not have an Arboviral condition code assigned.	Coded	R		Virus Type (Arboviral Disease)	PHVS_VirusType_ArboviralDisease	OBR-31 Reason for Study - *note that for HL7 this is an optional field but for Case Notification, this is a mandatory field. This row also appears on the Notification Structure tab.*	CE	R	This field should be populated using the standardized vocabulary from PHIN VADS PHVS_VirusType_Arboviral Disease Value Set Code. The data in INV169 will match the data populated for ARB001.
INV168	Local Record ID	Sending system-assigned local ID of the case investigation with which the subject is associated.	Text	R				(note that this is a Notification structural element)	EI	R	

	Subject-Related/Demographic Variables							Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
INV173	StateID	States use this field to link NEDSS investigations back to their own state investigations.	Text	P				Observation (OBX segment) under an OBR-4 value of 'NOTF'	ST	O	
INV128	Hospitalized	Was patient hospitalized because of this event?	Coded	O		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
INV137	OnsetDate	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) under an OBR-4 value of 'NOTF'	TS	O	The first 4 digits of this field is used to derive the arb_year value used by the Arboviral program.
INV145	Fatality	Did the patient die from this illness or complications of this illness?	Coded	O		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
INV146	DateOfDeath	The date and time the subject's death occurred.	Date	O				Observation (OBX segment) under an OBR-4 value of 'NOTF'	TS	O	
INV152	ImportedFrom	Indication of where the disease/condition was likely acquired.	Coded	O		Disease Acquired Jurisdiction	PHVS_DiseaseAcquiredJurisdiction_NND	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
INV153	CountryOfOrigin	If the disease or condition was imported, indicates the country in which the disease was likely acquired.	Coded	O		Country	PHVS_Country_3166-1	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
INV163	CaseStatus	Status of the case/event as suspect, probable, confirmed, or "not a case" per CSTE/CDC/ surveillance case definitions.	Coded	R		Case Classification Status	**PHVS_CaseClassStatus_NND**	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	**Valid Values:** Confirmed Not a Case Probable Suspect **Note: 'Unk - Unknown' is not a valid value for the Arboviral System**.

	Subject-Related/Demographic Variables							Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
INV178	Pregnant	Indicates whether the patient was pregnant at the time of the event.	Coded	O		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
INV2001	Age	Patient age at time of case investigation	Numeric	O				Observation (OBX segment) under an OBR-4 value of 'NOTF'	SN	O	
INV2002	AgeUnit	Patient age units at time of case investigation	Coded	O		Age Unit	PHVS_AgeUnit_UCUM	uses the INV2001 observation - maps to OBX-6-Units (does not use INV2002 ID or label)	CE	O	
ARB001	Arbovirus	Type of arbovirus the case was infected with.	Coded	R		Virus Type (Arboviral Disease)	PHVS_VirusType_ArboviralDisease	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB002	ClinicalSyndrome	Clinical Syndrome is the type of clinical presentation the case had.	Coded	P		Clinical Syndrome (Arbovirus)	PHVS_ClinicalSyndrome_Arbovirus	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB003	LabAcquired	Person fell ill with arboviral illness that was likely acquired due to work with infectious agents in a laboratory setting.	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB004	NonLabAcquired	Non-Lab Occupationally Acquired. Indicates possible infection in an occupational setting that is not a laboratory.	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB005	BloodDonor	Person who fell ill with arboviral illness and reported that they had donated blood sometime within the last 30 days prior to onset.	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	

Subject-Related/Demographic Variables								Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
ARB006	BloodTransfusion	Person who fell ill with arboviral illness and reported that they had received a blood transfusion sometime within the last 30 days prior to onset.	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB007	OrganDonor	Person who fell ill with arboviral illness and reported that they had donated an organ sometime within the last 30 days prior to onset.	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB008	OrganTransplant	Person who fell ill with arboviral illness and reported that they had received an organ transplant sometime within the last 30 days prior to onset.	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB009	BreastFedInfant	Person who fell ill with arboviral illness and reported that they were breast feeding or breast fed prior to the illness onset.	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB010	InfectedInUtero	Infant that was born to a mother who had a WNV illness/infection during their pregnancy.	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB011	Published	Published indicator	Boolean	R		Yes No Indicator (HL7)	PHVS_YesNo_HL7_2x	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB012	AFP	Did the patient suffer Acute Flaccid Paralysis?	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	

Subject-Related/Demographic Variables								Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
ARB013	IdentifiedByBloodDonorScreening	Donors who have been identified as having a WNV infection through routine blood donation screening by the blood collection agency. May or may not be symptomatic.	Coded	R		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation (OBX segment) under an OBR-4 value of 'NOTF'	CWE	O	
ARB014	DateOfDonation	Date of blood donation	Date	P				Observation (OBX segment) under an OBR-4 value of 'NOTF'	TS	O	
ARB015	LabTestingBy	Information on whether the specimen was tested in public health labs or exclusively in commercial laboratories.	Coded	P		Public Private Lab	PHVS_PublicPrivateLab_NND	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB016	RiskFactorDiabetes	Before your infection, did a health care provider ever tell you that you had diabetes?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB017	RiskFactorHypertension	Before your infection, did a health care provider ever tell you that you had high blood pressure (hypertension)?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB018	RiskFactorHeartAttack	Before your infection, did a health care provider ever tell you that you had heart attack (myocardial infarction)?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB019	RiskFactorCoronaryArtery	Before your infection, did a health care provider ever tell you that you had angina or coronary artery disease?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB020	RiskFactorCHF	Before your infection, did a health care provider ever tell you that you had congestive heart failure (CHF)?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	

	Subject-Related/Demographic Variables								Mapping Methodology			
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ARB021	RiskFactorStroke	Before your infection, did a health care provider ever tell you that you had a stroke (CVA)?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB022	RiskFactorCOPD	Before your infection, did a health care provider ever tell you that you had chronic obstructive pulmonary disease (COPD)?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB023	RiskFactorLiverDisease	Before your infection, did a health care provider ever tell you that you had chronic liver disease?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB024	RiskFactorKidneyDisease	Before your infection, did a health care provider ever tell you that you had kidney/renal disease or failure?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB025	RiskFactorAlcoholism	History of alcoholism?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB026	RiskFactorBoneMarrowTrans	History of bone marrow transplant	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB027	RiskFactorSolidOrganTransplant	History of solid organ transplant?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB028	RiskFactorOrgansTransplanted	What organ was transplanted? (may be multiple organs)	Coded	P	Y	Transplant Organ	PHVS_TransplantOrgan_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB029	RiskFactorOrganTransplantYear	What year was the transplant? (may be multiple years for multiple transplants)	Date	P	Y			Observation/OBX Segment with this variable ID and label	TS	O	

	Subject-Related/Demographic Variables							Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
ARB030	RiskFactorCancer	History of cancer?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB031	RiskFactorCancerType	If the patient reported cancer, what type(s)? (may be one or more cancer types)	Coded	P	Y	Cancer Type	PHVS_CancerType_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB032	RiskFactorCancerYear	What year was cancer diagnosed? (may be multiple years)	Date	P	Y			Observation/OBX Segment with this variable ID and label	TS	O	
ARB033	RiskFactorCancerTreatment	Are you currently being treated for cancer?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB034	RiskFactorImmuneSuppressed	At the time you were diagnosed with West Nile virus infection, were you immune suppressed?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB035	RiskFactorImmuneCondition	If the patient reported being immune suppressed, what is the immune condition?	Coded	P		Immunosuppressed Condition	PHVS_ImmunosuppressedCondition_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB036	RiskFactorChemo	At the time you were diagnosed with West Nile virus infection, were you undergoing chemotherapy?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB037	RiskFactorOtherCancer	At the time you were diagnosed with West Nile virus infection, were you undergoing other treatments for cancer?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB038	RiskFactorHemodialysis	At the time you were diagnosed with West Nile virus infection, were you undergoing hemodialysis?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	

Subject-Related/Demographic Variables								Mapping Methodology			
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ARB039	RiskFactorOtherKidneyTreatment	At the time you were diagnosed with West Nile virus infection, were you undergoing other treatments for kidney disease?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB040	RiskFactorSteroids	At the time you were diagnosed with West Nile virus infection, were you receiving oral or injected steroids?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB041	RiskFactorInsulin	At the time you were diagnosed with West Nile virus infection, were you receiving insulin or other medications to treat diabetes?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB042	RiskFactorHypertensionMeds	At the time you were diagnosed with West Nile virus infection, were you receiving medications to treat high blood pressure?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB043	RiskFactorCoronaryArteryMeds	At the time you were diagnosed with West Nile virus infection, were you receiving medications to treat coronary artery disease?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB044	RiskFactorCongestiveHeartMeds	At the time you were diagnosed with West Nile virus infection, were you receiving medications to treat congestive heart failure?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	

	Subject-Related/Demographic Variables							Mapping Methodology			
PHIN Variable ID	Label/Short Name	Description	Data Type	CDC Priority	May Repeat	Value Set Name	Value Set Code	Message Context	HL7 Data Type	HL7 Optionality	Implementation Notes
ARB045	RiskFactorImmune SuppressMeds	At the time you were diagnosed with West Nile virus infection, were you receiving medications that suppress the immune system?	Coded	P		Yes No Unknown (YNU)	PHVS_YesNoUnknown_CDC	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB046	RiskFactorPatient	Is the patient the source of the medical information?	Coded	P		Yes No Indicator (HL7)	PHVS_YesNo_HL7_2x	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB047	RiskFactorProvider	Is the provider the source of the medical information?	Coded	P		Yes No Indicator (HL7)	PHVS_YesNo_HL7_2x	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB048	RiskFactorFamily	Is the patient's family the source of the medical information?	Coded	P		Yes No Indicator (HL7)	PHVS_YesNo_HL7_2x	Observation/OBX Segment with this variable ID and label	CWE	O	
ARB049	RiskFactorMedical Record	Is the medical record the source of the medical information?	Coded	P		Yes No Indicator (HL7)	PHVS_YesNo_HL7_2x	Observation/OBX Segment with this variable ID and label	CWE	O	