Commonwealth of Virginia
Syndromic Surveillance Submission Guide:
Emergency Department and Urgent Care Data
(September 2019)

HL7 version 2.5.1

Prepared by:

Virginia Department of Health

Office of Epidemiology

Division of Surveillance and Investigation

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

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INTRODUCTION

Background

The Virginia Department of Health (VDH) compiled this guide for eligible hospitals and urgent care centers who wish to demonstrate meaningful use of certified electronic health record technology by the submission of syndromic surveillance data. The information in this implementation guide is based on the *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings, release 2.0* (April 2015) with VDH-specific amplifications and constraints. The HL7 2.5.1 data elements requested by VDH for syndromic surveillance submission are listed below by message segment.

Please note that not all the information presented in the *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings* is replicated in this document. For example, all unsupported fields have been excluded from this document. VDH compiled this guide to assist healthcare facilities and electronic health record (EHR) vendors with understanding what data elements an HL7 2.5.1 message should contain for syndromic surveillance submission in Virginia. Please refer to *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings, release 2.0* for additional information.

Useful Resources

PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings, release 2.0 - https://www.cdc.gov/nssp/documents/guides/syndrsurvmessagguide2_messagingguide_phn.pdf

PHIN VADS value sets for syndromic surveillance date elements - http://phinvads.cdc.gov/vads/ViewView.action?name=Syndromic Surveillance

Virginia Department of Health Meaningful Use website - http://www.vdh.virginia.gov/meaningful-use/

Syndromic Surveillance in Virginia

Syndromic surveillance is a strategy used by public health to detect emerging issues and monitor the health of the community in near-real time. VDH collects and analyzes syndromic surveillance data from healthcare facilities with the purpose of improving the health of the community. Data received from healthcare facilities are categorized into syndromes based on the patient's chief complaint or diagnosis. Analytic tools are then used by VDH to rapidly identify unusual patterns in time or geography that might indicate situations of concern. The primary tool used by VDH is a syndromic surveillance system called Electronic Surveillance System for the Early Notification of Community-based Epidemics, also known as ESSENCE. ESSENCE provides near real-time situational awareness of potential public health threats and emergencies by alerting VDH staff when unusual increases in symptom presentations or diagnoses are detected in the community.

DATA SUBMISSION

Data Submission Parameters

- Syndromic surveillance data can be submitted to VDH by either batched or real-time messages. Real-time messages are preferred.
- If batching is selected, messages should be sent at 6 hour intervals no later than the following times: 2am, 8am, 2pm, and 8pm EST.
- Data must be submitted at least within 24 hours of the date and time of the patient's initial encounter. Any subsequent updates to a patient's record must also be submitted within 24 hours of the information (transaction) being added to the patient record.
- Preferred transport mechanism is HTTPS but other options are supported if a healthcare facility or EHR vendor cannot support HTTPS. More information about transport options for public health reporting can be found on the ConnectVirginia website - https://www.connectvirginia.org/services/public-health-reporting/
- Facilities should submit **all visits** to the emergency department or urgent care center with no filtering done prior to submission to VDH.
- Prefer that facilities do not send update messages for visits more than 3 weeks old.

Supported ADT Message Types

Four message transaction types are accepted for syndromic surveillance submission:

ADT^A04 (Registration) – A patient has arrived or checked in as a one-time, or recurring, outpatient and is not assigned to a location.

ADT^A01 (Admit/Visit Notification) **–** A patient undergoes the admission process and is assigned to a location.

ADT^A08 (Patient Information Update) – Patient information has changed but no other trigger event has occurred.

ADT^A03 (Discharge) – A patient's stay in a healthcare facility has ended and their status is changed to discharged.

Supported ADT Message Format

HL7 version 2.5.1 is the required message format for Stage 2 and Stage 3 of Meaningful Use.

Required Message Segments

The message segments requested for syndromic surveillance submission are the same for each message transaction type; however, the order of segments does differ by message type. It is important to note the segment order for an A03 differs from the segment order of A01, A04, and A08 messages types. Differences in segment order between message types are highlighted.

R = Required to be sent
RE = Required to be sent but can be empty if information is not available

Segment Order	ADT^A04	ADT^A01	ADT^A08
Message Header (MSH)	R	R	R
Event Type (EVN)	R	R	R
Patient Identification (PID)	R	R	R
Patient Visit (PV1)	R	R	R
Patient Visit Additional Information (PV2)	RE	RE	RE
Observation/Result (OBX)	R	R	R
Diagnosis (DG1)	RE	RE	RE
Insurance (IN1)	RE	RE	RE

Segment Order	ADT^A03
Message Header (MSH)	R
Event Type (EVN)	R
Patient Identification (PID)	R
Patient Visit (PV1)	R
Patient Visit Additional Information (PV2)	RE
Diagnosis (DG1)	RE
Observation/Result (OBX)	R
Insurance (IN1)	RE

Data Element Sender Usage

The data elements requested for syndromic surveillance submission are not the same for each message transaction type.

Sender Usage	Sender Usage Description
R : Required	Required to always be sent
RE : Required but may be empty	Required to be sent but can be empty if information is not available
C : Conditional	Required to always be sent when another data element is present
CE : Conditional but may be empty	Required to be sent when another data element is present but can be empty if information is not available
O : Optional	Information will be accepted if sent

Data Type Definitions

The datatypes used in this guide are defined and specified further in the table below.

Data Type	Data Type Name
CE	Coded Element
CWE	Coded with Exceptions
CX	Extended Composite ID with check Digit
EI	Entity Identifier
HD	Hierarchic Designator
ID	Coded Value for HL7-defined tables
IS	Coded Value for user-defined tables
MSG	Message Type
NM	Numeric
PT	Processing Type
SI	Sequence Identifier
ST	String Data
TX	Text Data
TS	Time Stamp
VID	Version Identifier
XAD	Extended Address
XPN	Extended Person Name

DATA ELEMENT SPECIFICATIONS

The tables below outline the data elements by message segment that are required or requested for syndromic surveillance submission.

MESSAGE HEADER SEGMENT (MSH)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Field Separator	1	ST	1	R	Default value "|"
Encoding Characters	2	ST	4	R	Default values "^~\&"
Sending Facility	4	HD	100	R	Identifies the facility location where the patient was treated.
Namespace ID	4.1	IS	20	R	Full name of facility where patient presented for treatment. No acronyms or abbreviations will be accepted.
Universal ID	4.2	ST	199	R	National Provider Identifier (10 digit identifier).
Universal ID Type	4.3	ID	6	R	Literal Value: "NPI"
Receiving Application	5	HD	227	O	Literal Value: "SYNDSURV"
Receiving Facility	6	HD	227	O	
Namespace ID	6.1	IS	20	O	Literal Value: "VDH"
Universal ID	6.2	ST	199	O	Literal Value: "2.16.840.1.114222.4.1.184"
Universal ID Type	6.3	ID	6	O	Literal Value: "ISO"
Date/Time of Message	7	TS	26	R	Date/Time the sending system created the message in the following format: *YYYYMMDDHHMMSS*
Message Type	9	MSG	15	R	All messages will be Admit-Discharge-Transfer (ADT) message types. The triggering event is a real-world circumstance causing the message to be sent. Supported trigger events are A04 (Registration), A01 (Admission), A08 (Update), and A03 (Discharge).

Message Code	9.1	ID	3	R	Literal Value: “ADT”
Trigger Event	9.2	ID	3	R	One of the following Literal Values: “A01”, “A03”, “A04”, or “A08”
Message Structure	9.3	ID	7	R	One of the following Literal Values: “ADT_A01” or “ADT_A03” Trigger events A01, A04 and A08 share the same “ADT_A01” Message structure.
Message Control ID	10	ST	199	R	A number or other identifier that uniquely identifies the individual message.
Processing ID	11	PT	3	R	Indicates how to process the message. Literal Values: “P” for Production, “D” for Debug, or “T” for Training.
Version ID	12	VID	5	R	Literal Value: “2.5.1”
Message Profile Identifier	21	EI	427	R	Literal Value: “PH_SS-Ack^SS Sender^2.16.840.1.114222.4.10.3^ISO” or “PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO”

MSH Segment Example:

MSH|^~\&||DownTownProcessing^2231237890^NPI|SYNDSURV|VDH^2.16.840.1.114222.4.1.184^ISO|201408071400||ADT^A01^ADT_A01|NIST-SS-001.12|P|2.5.1|||||||PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO

EVENT TYPE SEGMENT (EVN)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Event Type Code	1	ID	3	RE	One of the following Literal Values: “A01”, “A03”, “A04”, or “A08” Should be the same as information sent in MSH-9.2.
Recorded Date/Time	2	TS	26	R	Most systems default to the system Date/Time when the transaction was entered. Format: *YYYYMMDDHHMMSS*
Event Facility	7	HD	241	R	Location where the patient was treated; should be the same as information sent in MSH-4.
Namespace ID	7.1	IS	20	R	Full name of facility where patient presented for treatment. No acronyms or abbreviations will be accepted.
Universal ID	7.2	ST	199	R	National Provider Identifier (10 digit identifier).

Universal ID Type	7.3	ID	6	R	Literal Value: “NPI”

EVN Segment Example:

EVN|A01|201406071300|||||GreaterNorthMedCtr^4356012945^NPI

PATIENT IDENTIFICATION SEGMENT (PID)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Set ID – PID	1	SI	4	R	Literal Value: “1”
Patient Identifier List	3	CX	478	R	PID.3 is a repeating field that can accommodate multiple patient identifiers. Patient’s unique identifier(s) from the facility that is submitting this report to public health. Different jurisdictions use different identifiers and may use a combination of identifiers to produce a unique patient identifier. Patient identifiers should be strong enough to remain a unique identifier across different data provider models, such as a networked data provider or State HIE.
ID Number	3.1	ST	15	R	Use patient medical record (MR) number or equivalent such as master patient index (MPI) identifier. The identifier provided should allow the facility to retrieve information on the patient if additional information is requested by VDH.
Identifier Type Code	3.5	ID	5	R	Value Set: *Identifier Type (Syndromic Surveillance)* Use the Identifier Type Code that corresponds to the type of ID Number specified in PID-3.1. For Medical Record Number, use literal value: “MR”.
Assigning Facility	3.6	HD	227	O	Identification information for the facility that assigned the number in PID-3.1.
Patient Name	5	XPN	294	R	This field contains the names of the patient; the primary or legal name of the patient is reported first.
Family Name	5.1	FN	194	RE	Primary or legal name of the patient (last name).
Given Name	5.2	ST	30	RE	Given name of the patient (first name).

Name Type Code	5.7	ID	1	RE	When the name of the patient is known, but not being sent, accepted values are “L”, “S”, or “U”. Example: |~^^^^^^S|.
Date/Time of Birth	7	TS	26	RE	Format: *YYYYMMDD*
Administrative Sex	8	IS	1	RE	Value Set: *Gender (Syndromic Surveillance)*
Race	10	CE	478	RE	Value Set: *Race Category (CDC)* Race should be submitted if known. Patient may have more than one race defined.
Identifier	10.1	ST	20	RE	Standardized code for patient race category. If unknown, use literal value: “UNK”.
Text	10.2	ST	199	RE	Standardized text description that corresponds with code in PID-10.1. If unknown, use literal value: “Unknown”.
Name of Coding System	10.3	ID	20	CE	Literal Value: “CDCREC”
Patient Address	11	XAD	513	RE	This field contains the mailing address of the patient. Expecting only the patient address information in the supported components. Not expecting street address information.
City	11.3	ST	50	RE	Free text city or town.
State	11.4	NM	2	RE	Value Set: *State* Use 2 digit FIPS State code of patient’s primary residence.
ZIP or Postal Code	11.5	ST	12	RE	Use 5 digit domestic ZIP code of patient’s primary residence. Foreign postal codes are also supported.
Country	11.6	ID	3	RE	Value Set: *Country* Use 3 character ISO Country code of patient’s primary residence.
County/Independent City Code	11.9	IS	20	RE	Value Set: *County* Use 5 digit FIPS County code of patient’s primary residence.
Ethnic Group	22	CE	478	RE	Value Set: *Ethnicity Group (CDC)* Ethnicity should be submitted if known.
Identifier	22.1	ST	20	RE	Standardized code for patient ethnicity category. If unknown, use literal value: “UNK”.
Text	22.2	ST	199	RE	Standardized text description that corresponds with code in PID-22.1. If unknown, use literal value: “Unknown”.
Name of Coding System	22.3	ID	20	CE	Literal Value: “CDCREC”

Patient Death Date and Time	29	TS	26	CE	This field contains the date and time at which the patient death occurred. This field should not be populated on an admission message (A01). Format: *YYYYMMDDHHMMSS* If PV1-36 is valued with any of the following: “20”, “40”, “41”, “42”, PID-29 shall be populated.
Patient Death Indicator	30	ID	1	CE	This field indicates whether the patient is deceased. This field should not be populated on an admission message (A01). If PID-29 is valued, PID-30 shall be populated with the literal value “Y”.

PID Segment Example:

PID|1||2222^^^^MR^GreaterNorthMedCtr&4356012945&NPI||Smith^John||19640227|F||2106-3^White^CDCREC|^^Decatur^13^30303^USA^^^13121||||||||||2135-2^Hispanic or Latino^CDCREC||||||20140826202100|Y

PATIENT VISIT SEGMENT (PV1)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Set ID – PV1	1	SI	4	RE	Literal Value: “1”
Patient Class	2	IS	1	R	Value Set: *Patient Class (Syndromic Surveillance)* Patient classification within facility (e.g., Emergency, Outpatient, Inpatient).
Visit Number	19	CX	478	R	
ID Number	19.1	ST	15	R	Unique identifier for a patient visit.
Identifier Type Code	19.5	ID	227	R	Literal Value: “VN”
Discharge Disposition	36	IS	3	R (A03) RE (A08)	Value Set: *Discharge Disposition (HL7)* Should be sent upon patient’s departure from facility (A03) and all subsequent updates (A08). Disposition provides the outcome of patient’s visit (i.e. Discharged to home, Expired, Admitted as inpatient).
Admit Date/Time	44	TS	26	R	Date and time the patient presented to facility for treatment. Do not send update messages for visits more than 3 weeks old. Format: *YYYYMMDDHHMMSS*

Discharge Date/Time	45	TS	26	R (A03) RE (A08)	Date and time of an outpatient/emergency patient discharge. Format: *YYYYMMDDHHMMSS*

PV1 Segment Example:

PV1|1|E|||||||||||||||1200222^^^GreaterNorthMedCtr&4356012945&NPI^VN|||||||||||||||||||||201408171200

PATIENT VISIT – ADDITIONAL INFORMATION SEGMENT (PV2)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Admit Reason	3	CE	478	RE	Short description of the provider's reason for patient admission. Admit Reason may be coded or free text. If only free text is used it is communicated in component 3.2.
Identifier	3.1	ST	20	RE	Value Set: *Diagnosis (ICD-9 CM)* or *Cause of Death (ICD-10)* or *Disease*.
Text	3.2	ST	199	RE	Text description that corresponds with code in PV2-3.1.
Name of Coding System	3.3	ID	20	CE	If PV2-3.1 (the identifier) is provided then PV2-3.3 is valued. Literal Values: "I10", "I9CDX", or "SCT"

PV2 Segment Example:

PV2|||O24.4^Diabetes Mellitus arising in pregnancy^I10

OBSERVATION/RESULT SEGMENT (OBX)* *See Appendix B for full description of all OBX segment data of interest					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Set ID – OBX	1	SI	4	R	This field contains the sequence number. Set ID numbers the repetitions of the segments. For the first repeat of the OBX segment, the sequence number shall be one (1), for the second repeat, the sequence number shall be two (2), etc. Example:

					OBX|1|…. OBX|2|…. OBX|3|….
Value Type	2	ID	3	R	This field contains the format of the observation value in OBX-5.
Observation Identifier	3	CE	478	R	Value Set: *Observation Identifier (Syndromic Surveillance)* This field contains a unique identifier for the observation.
Observation Value	5		99999	R	Listed below are the supported fields for OBX-5 by sender usage requirement (e.g. R, RE, O). Values received in this field are defined by value type (OBX-2) and observation identifier (OBX-3). We strongly encourage submission of all fields listed below. **Required:** Chief Complaint/Reason for Visit Facility/Visit Type **Required but may be empty if unavailable:** Age Smoking Status Treating Facility Address BMI (Height/Weight) **Optional, but highly recommended:** Clinical Impression Date of Onset Diastolic Blood Pressure Initial Acuity Initial Pulse Oximetry Initial Temperature Medication List Medications Prescribed or Dispensed Pregnancy Status Problem List Systolic Blood Pressure Travel History

					Triage Notes
Units	6	CE	62	C	Units of measurement used for numeric data (e.g. age, temperature, or pulse oximetry).
Observation Result Status	11	ID	1	R	Value Set: *Observation Result Status (HL7)* This field reflects the current completion status of the results for the observation identifier.

OBX Segment Example:

OBX|1|TX|8661-1^ CHIEF COMPLAINT – REPORTED^LN||CRAMPY AND BURNING STOMACH ACHE AFTER DRINKING TOO MUCH WATER ||||||F

DIAGNOSIS SEGMENT (DG1)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Set ID	1	SI	4	R	The first occurrence of segment must have the literal value of “1”. Each following occurrence should be numbered consecutively.
Diagnosis Code	3	CE	478	R	Should be sent upon patient’s departure from facility. Values from standards code sets: *ICD-9*, *ICD-10*, or *SNOMED*.
Identifier	3.1	ST	20	R	Standardized code value for diagnosis. Decimals should be included in ICD-9 and 10, if possible.
Text	3.2	ST	199	R	Standardized text description that corresponds to the code provided in 3.1.
Name of Coding System	3.3	ID	20	C	Literal Values: “I9CDX”, “I10”, or “SCT”
Diagnosis Type	6	IS	2	R	If segment is provided this field is required to be valued. Literal Values: “A” for Admitting diagnosis, “W” for Working diagnosis, or “F” for Final diagnosis.

DG1 Segment Example:

DG1|1||R07.9^Chest pain, unspecified^I10|||F

INSURANCE SEGMENT (IN1)					
Field Name	**Seq**	**DT**	**Length**	**Sender Usage**	**Notes/Value Set**
Set ID-IN1	1	SI	4	R	The first occurrence of segment must have the literal value of “1”. Each following occurrence should be numbered consecutively.
Insurance Plan ID	2	CE	478	R	This field contains a unique identifier for the insurance plan. If an insurance plan ID is unavailable, use “UNK^UNKNOWN^NULLFL”.
Insurance Company ID	3	CX	250	R	This field contains unique identifiers for the insurance company. If an insurance company identifier is unavailable, use “UNKNOWN^^^UNKNOWN”.
Plan Type	15	IS	3	O	Value Set: *Source of Payment Typology (PHDSC)* This field contains the coding structure that identifies the various plan types (e.g. Medicare, Medicaid, Blue Cross, HMO, etc.).

IN1 Segment Example:

IN1|1|INSURANCE PLAN ID|INSURANCE COMPANY ID||||||||||PLAN TYPE

APPENDIX A: Messaging Examples

A04 Message Example - Patient X is registered at the emergency department

MSH|^~\&||HOSPITALNAME^999999999^NPI|SYNDSURV|VDH^2.16.840.1.114222.4.1.184^ISO|201203300000||ADT^A04^ADT_A01|1234567890|D|2.5.1|||||||PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO

EVN|A04|201203270000|||||HOSPITALNAME^999999999^NPI

PID|1||9999000000^^^^MR||LastName^FirstName||19700115|M||2106-3^White^CDCREC|^^Decatur^13^30303^USA^^^13121||||||||||2186-5^Not Hispanic or Latino^CDCREC

PV1|1|E|||||||||||||||2222000068^^^^VN|||||||||||||||||||||||201203270000

OBX|1|TX|8661-1^CHIEF COMPLAINT – REPORTED^LN||Sore throat and head hurts||||||F

OBX|2|CWE|SS003^FACILITY/VISIT TYPE^PHINQUESTION||261QE0002X^Emergency Care^HCPTNUCC||||||F

A03 Message Example - Patient X is discharged to home from the emergency department

The additional information included and the different segment order in the A03 message compared to the previous A04 message is highlighted.

MSH|^~\&||HOSPITALNAME^999999999^NPI|SYNDSURV|VDH^2.16.840.1.114222.4.1.184^ISO|201203300000||ADT^A03^ADT_A03|1234567890|D|2.5.1|||||||PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO

EVN|A03|201203270000|||||HOSPITALNAME^999999999^NPI

PID|1||9999000000^^^^MR|| LastName^FirstName||19700115|M||2106-3^White^CDCREC|^^Decatur^13^30303^USA^^^13121||||||||||2186-5^Not Hispanic or Latino^CDCREC

PV1|1|E|||||||||||||||2222000068^^^^VN|||||||||||||||01|||||||201203270000

DG1|1||J02.9^Acute pharyngitis, unspecified^I10|||F

DG1|2||R50.9^Fever, unspecified^I10|||F

DG1|3||R51^Headache^I10|||F

DG1|4||H92.02^Otalgia, left ear^I10|||F

OBX|1|TX|8661-1^CHIEF COMPLAINT – REPORTED^LN||Sore throat and head hurts||||||F

OBX|2|CWE|SS003^FACILITY/VISIT TYPE^PHINQUESTION||261QE0002X^Emergency Care^HCPTNUCC||||||F

A08 Message Example – Update for Patient X within the emergency department

MSH|^~\&||HOSPITALNAME^999999999^NPI|SYNDSURV|VDH^2.16.840.1.114222.4.1.184^ISO|201203300000||

ADT^A08^ADT_A01|1234567890|D|2.5.1|||||||PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO

EVN|A08|201203270000|||||HOSPITALNAME^999999999^NPI

PID|1||9999000000^^^^MR|| LastName^FirstName||19700115|M||2106-3^White^CDCREC|^^Decatur^13^30303^USA^^^13121||||||||||2186-5^Not Hispanic or Latino^CDCREC

PV1|1|E|||||||||||||||2222000068^^^^VN|||||||||||||||||||||201203270000

PV2|||25064002^Headache^SCT|||||||1|||||||||||||EM||||||||||N||WI^WALK IN

OBX|1|TX|8661-1^CHIEF COMPLAINT – REPORTED^LN||Sore throat and head hurts|||||F

OBX|2|CWE|SS003^FACILITY/VISIT TYPE^PHINQUESTION||261QE0002X^Emergency Care^HCPTNUCC|||||F

OBX|3|NM|21612-7^AGE – REPORTED^LN||43|a^YEAR^UCUM||||F|||20110217

OBX|4|NM|8302-2^BODY HEIGHT^LN||69|[in_us]^inch [length]^UCUM |||||F|||20110217

OBX|5|CWE|72166-2^TOBACCO SMOKING STATUS^LN||428071000124103 ^Current Heavy tobacco smoker ^SCT|||||F|||20110217

OBX|6|XAD|SS002^TREATING FACILITY LOCATION^PHINQUESTION||1234 Anywhere Street^^Doraville^13^30341^USA^C^^13089|||||F|||201102091114

OBX|7|NM|3141-9^BODY WEIGHT MEASURED^LN ||120|[lb_av]^ pound [mass]^UCUM||||F|||20110217

OBX|8|NM|39156-5^Body Mass Index^LN||35|kg/m2^ kilogram / (meter squared)^UCUM||||F|||20110217

OBX|9|TX|44833-2^PRELIMINARY DIAGNOSIS^LN||Pain consist with pharyngitis|||||F|||20110209111

OBX|10|TS|11368-8^ILLNESS OR INJURY ONSET DATE^LN||20110215|||||F

OBX|11|NM|8462-4^DIASTOLIC BLOOD PRESSURE^LN||90|mm[Hg]|||||F|

OBX|12|NM|8480-6^SYSTOLIC BLOOD PRESSURE^LN||120|mm[Hg]|||||F|||20110217

OBX|13|CWE|11283-9^INITIAL ACUITY^LN||CR^Critical^HL70432|||||F|||20110217

OBX|14|NM|59408-5^OXYGEN SATURATION IN ARTERIAL BLOOD BY PULSE OXIMETRY^LN||91|%^PERCENT^UCUM||A|||F|||20110217145139

OBX|15|NM|11289-6^BODY TEMPERATURE^LN||100.1|[degF]^FAHRENHEIT^UCUM||||F|||20110217

OBX|16|TX|10160-0 ^Medication Use Reported^LN||Lasix 20 mg po bid, Simvastatin 40 mg po qd|||||F|||20110217

OBX|17|TX|8677-7^History of Medication Use Reported^LN||151679^Serzone^RXNORM~42568^Wellbutrin^RXNORM~431722^12 HR Tramadol 100 MG Extended Release Tablet|||||F

OBX|18|CWE|11449-6 Pregnancy Status ^LN||N^No^HL70136|||||F

OBX|19|CWE|11450-4^Problem List - Reported^LN|| 5990^UTI (URINARY TRACT INFECTION)^I9CDX ||||||F|||20110217

OBX|20|TX|10182-4^History of travel Narrative ^LN||Arrived home from Liberia two days ago. ||||||F|||20110217

OBX|21|TX|54094-8^EMERGENCY DEPARTMENT TRIAGE NOTE^LN||Patient arrived c/o head pain and sore throat for 2 days. Tried OTC medicine 2x/day.||||||F|||201102091114

DG1|1||J02.9^Acute pharyngitis, unspecified^I10|||F

DG1|2||R50.9^Fever, unspecified^I10|||F

DG1|3||R51^Headache^I10|||F

DG1|4||H92.02^Otalgia, left ear^I10|||F

IN1|1|10010116^VA BLUE CROSS SUPPLEMENT MEDICARE|8880007

****Please note: Subsequent ADT messages should contain all fields submitted in previous messages for a single visit with the addition of any updated fields.****

APPENDIX B: OBX Segment Summary and Specifications

Summary of OBX Segment Requirements

The following OBX segments are expected with each syndromic surveillance message (absolute minimum of one (**Chief Complaint**) may occur in rare circumstances; if BMI can be calculated within the EHR, then BMI can be sent in place of Height and Weight):

Data Element Name	Data Type	Sender Usage	VDH-Specific Notes
Chief Complaint/Reason for Visit	TX, CWE	R	Message will be rejected if Chief Complaint OBX segment is not present.
Facility/Visit Type	CWE	R	
Age	NM	RE	
Height	NM	RE	If sending a Height OBX segment, a Weight OBX segment is also required.
Smoking Status	CWE	RE	
Treating Facility Location	XAD	RE	
Weight	NM	RE	If sending a Weight OBX segment, a Height OBX segment is also required.

The following OBX segments are encouraged for improving syndromic surveillance and supporting more in-depth analyses:

Data Element Name	Data Type	Sender Usage	VDH-Specific Notes
Body Mass Index (BMI)	NM	O	If BMI can be calculated within the EHR, then it is preferable to just receive BMI instead of height and weight.
Clinical Impression	TX	O	
Date of Onset	TS	O	
Diastolic Blood Pressure	NM	O	If sending a DBP segment, a SBP segment is also required.
Initial Acuity	CWE	O	
Initial Pulse Oximetry	NM	O	
Initial Temperature	NM	O	
Medication List	TX	O	
Medications Prescribed or Dispensed	TX	O	
Pregnancy Status	CWE	O	
Problem List	CWE	O	
Systolic Blood Pressure	NM	O	If sending a SBP segment, a DBP segment is also required.
Travel History	TX	O	
Triage Notes	TX	O	

OBX Segment Specifications

The table below outlines the OBX data elements that are required or requested for syndromic surveillance submission.

OBSERVATION/RESULT SEGMENT (OBX)			
OBX Segment Data	**Field Name**	**Seq**	**Notes/Value Set**
Chief Complaint / Reason for Visit			Patient's self-reported chief complaint or reason for visit.
	Set ID	1	The first occurrence of segment must have the literal value of "1". Only a single OBX segment should be sent containing chief complaint text.
	Value Type	2	Literal Values: "TX" or "CWE"
	Identifier	3.1	Literal Value: "8661-1"
	Text	3.2	Literal Value: "CHIEF COMPLAINT – REPORTED"
	Name of Coding System	3.3	Literal Value: "LN"
	Chief Complaint Text	5	**Free text describing the chief complaint or reason for visit should be used.** When OBX-2=TX, text data should be included in component 5.1 When OBX-2=CWE, text data should be included in component 5.9
	Example OBX Segment		OBX|3|TX|8661-1^CHIEF COMPLAINT – REPORTED^LN||STOMACH ACHE THAT HAS LASTED 2 DAYS; NAUSEA AND VOMITING; MAYBE A FEVER|||||F|||201102171531 OBX|3|CWE|8661-1^CHIEF COMPLAINT – REPORTED^LN||^^^^^^^^STOMACH ACHE THAT HAS LASTED 2 DAYS; NAUSEA AND VOMITNG;MAYBE A FEVER|||||F|||201102171531
Facility/Visit Type			Type of facility that the patient visited for treatment.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "CWE"
	Identifier	3.1	Literal Value: "SS003"
	Text	3.2	Literal Value: "Facility/Visit Type"
	Name of Coding System	3.3	Literal Value: "PHINQUESTION"

	Coded Identifier	5.1	Value Set: *Facility/Visit Type (Syndromic Surveillance)*
	Text	5.2	Text associated with code from the value set specified.
	Name of Coding System	5.3	Literal Value: “HCPTNUCC”
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|2|CWE|SS003^FACILITY/VISIT TYPE^PHINQUESTION|| 261QE0002X^Urgent Care^HCPTNUCC|||||F|||201102091114
Age/Age Units			Numeric value of patient age at time of visit.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “NM”
	Identifier	3.1	Literal Value: “21612-7”
	Text	3.2	Literal Value: “AGE – REPORTED”
	Name of Coding System	3.3	Literal Value: “LN”
	Numeric Value	5.1	Numeric value of the patient’s reported age at the time of visit. Must be rounded to an integer. For patients less than one year of age, use the value “0”.
	Units Identifier	6.1	Value Set: *Age Unit (Syndromic Surveillance)* Use literal value “a” to indicate years.
	Units	6.2	Literal Value: “YEAR”
	Units Coding System	6.3	Literal Value: “UCUM”
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|4|NM|21612-7^AGE – REPORTED^LN||43|a^YEAR^UCUM||||F|||20110217
Height			Height of the patient. Allows calculation of Body Mass Index (BMI). Note: If BMI can be calculated within the EHR, then it is preferable to just receive BMI instead of height and weight.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “NM”
	Identifier	3.1	Literal Value: “8302-2”

	Text	3.2	Literal Value: “Body Height”
	Name of Coding System	3.3	Literal Value: “LN”
	Numeric Value	5.1	Numeric value of the patient’s height at this visit.
	Units Identifier	6.1	Value Set: *Height Unit*
	Units Coding System	6.3	Literal Value: “UCUM”
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|3|NM|8302-2^BODY HEIGHT^LN||69|[in_us]^inch [length]^UCUM |||||F|||20110217
Smoking Status			Smoking status of patient.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “CWE”
	Identifier	3.1	Literal Value: “72166-2”
	Text	3.2	Literal Value: “Tobacco Smoking Status”
	Name of Coding System	3.3	Literal Value: “LN”
	Coded Identifier	5.1	Value Set: *Smoking Status (Meaningful Use)*
	Text	5.2	Text associated with code from the value set specified.
	Name of Coding System	5.3	Literal Value: “SCT”
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|CWE|72166-2^TOBACCO SMOKING STATUS^LN||428071000124103 ^Current Heavy tobacco smoker ^SCT|||||F|||20110217
Treating Facility Location			Address of treating facility location: Street Address, City, Zip Code, County, State.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “XAD”
	Identifier	3.1	Literal Value: “SS002”

	Text	3.2	Literal Value: “Treating Facility Location”
	Name of Coding System	3.3	Literal Value: “PHINQUESTION”
	Facility Street Address	5.1	Street address of the facility where patient received care.
	Other Designation	5.2	Additional address information may be placed here (optional).
	Facility City	5.3	City/Town name written as free text.
	Facility State	5.4	Value Set: *State* Use 2 digit FIPS State codes.
	Facility Zip Code	5.5	USPS zip code.
	Facility Country	5.6	Value Set: *Country* Use 3 character ISO Country codes.
	Facility County/Independent City Code	5.9	Value Set: *County* Use 5 digit FIPS County codes.
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|XAD|SS002^TREATING FACILITY LOCATION^PHINQUESTION||1234 Anywhere Street^^Doraville^13^30341^USA^C^^13089|||||F|||201102091114
Weight			Weight of the patient. Allows calculation of Body Mass Index (BMI). Note: If BMI can be calculated within the EHR, then it is preferable to just receive BMI instead of height and weight.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “NM”
	Identifier	3.1	Literal Value: “3141-9”
	Text	3.2	Literal Value: “Body Weight Measured”
	Name of Coding System	3.3	Literal Value: “LN”
	Numeric Value	5.1	Numeric value of the patient’s weight at this visit.
	Units Identifier	6.1	Value Set: *Weight Unit*
	Units Coding System	6.3	Literal Value: “UCUM”

	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|3|NM|3141-9^BODY WEIGHT MEASURED^LN ||120|[lb_av]^ pound [mass]^UCUM||||F|||20110217
BMI			Body Mass Index. If BMI can be calculated within the EHR, then it is preferable to just receive BMI instead of height and weight.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "NM"
	Identifier	3.1	Literal Value: "39156-5" when data is calculated as kilograms per square meter Literal Value: "59574-4" when data is calculated as a percentile
	Text	3.2	Literal Value: "Body Mass Index"
	Name of Coding System	3.3	Literal Value: "LN"
	Numeric Value	5.1	Numeric value of the patient's BMI at this visit.
	Units Identifier	6.1	Value Set: *Units of Measure (Syndromic Surveillance)* Literal Value: "kg/m2" BMI percentile does not have units.
	Units	6.2	If [OBX-3.1] is "39156-5" then use Literal Value: "kilogram / (meter squared)" BMI percentile does not have units.
	Units Coding System	6.3	Literal Value: "UCUM"
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|3|NM|39156-5^Body Mass Index^LN||35|kg/m2^ kilogram / (meter squared)^UCUM||||F|||20110217 OBX|3|NM|59574-4^Body Mass Index^LN||70|||||F|||20110217
Clinical Impression			Clinical impression (free text) of the diagnosis.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "TX"
	Identifier	3.1	Literal Value: "44833-2"

	Text	3.2	Literal Value: “PRELIMINARY DIAGNOSIS”
	Name of Coding System	3.3	Literal Value: “LN”
	Text Data	5.1	Provide the clinical impression of the diagnosis as free text.
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|TX|44833-2^PRELIMINARY DIAGNOSIS^LN||Pain consist with appendicitis||||||F|||20110209111
Date of Onset			Date that the patient began having symptoms of condition being reported.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “TS”
	Identifier	3.1	Literal Value: “11368-8”
	Text	3.2	Literal Value: “ILLNESS OR INJURY ONSET DATE”
	Name of Coding System	3.3	Literal Value: “LN”
	Time	5.1	YYYYMMDD[HHMM] (Date of onset of symptoms associated with reason for visit).
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|7|TS|11368-8^ILLNESS OR INJURY ONSET DATE^LN||20110215|||||F
Diastolic Blood Pressure (DBP)			Most recent Diastolic Blood Pressure of the patient.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “NM”
	Identifier	3.1	Literal Value: “8462-4”
	Text	3.2	Literal Value: “Diastolic Blood Pressure”
	Name of Coding System	3.3	Literal Value: “LN”
	Numeric Value	5.1	Numeric value of the patient’s most recent diastolic BP.
	Units Identifier	6.1	Literal Value: “mm[Hg]”

	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|6|NM|8462-4^DIASTOLIC BLOOD PRESSURE^LN||90|mm[Hg]|||||F|
Initial Acuity			Assessment of the intensity of medical care the patient requires.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "CWE"
	Identifier	3.1	Literal Value: "11283-9"
	Text	3.2	Literal Value: "INITIAL ACUITY"
	Name of Coding System	3.3	Literal Value: "LN"
	Coded Identifier	5.1	Value Set: *Admission Level of Care (HL7)*
	Text	5.2	Text associated with code from the value set specified.
	Name of Coding System	5.3	Literal Value: "HL70432"
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|CWE|11283-9^INITIAL ACUITY^LN||CR^Critical^HL70432|||||F|||20110217
Initial Pulse Oximetry			First recorded pulse oximetry value.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "NM"
	Identifier	3.1	Literal Value: "59408-5"
	Text	3.2	Literal Value: "OXYGEN SATURATION IN ARTERIAL BLOOD BY PULSE OXIMETRY"
	Name of Coding System	3.3	Literal Value: "LN"
	Numeric Value	5.1	Numeric value of the patient's first pulse oximetry reading.
	Units Identifier	6.1	Literal Value: "%"
	Units Text	6.2	Literal Value: "percent"

	Units Coding System	6.3	Literal Value: “UCUM”
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|4|NM|59408-5^OXYGEN SATURATION IN ARTERIAL BLOOD BY PULSE OXIMETRY^LN||91|%^PERCENT^UCUM||A|||F|||20110217145139
Initial Temperature			Initial temperature of the patient.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “NM”
	Identifier	3.1	Literal Value: “11289-6”
	Text	3.2	Literal Value: “BODY TEMPERATURE”
	Name of Coding System	3.3	Literal Value: “LN”
	Numeric Value	5.1	Numeric value of the patient’s first temperature reading during this visit.
	Units Identifier	6.1	Value Set: *Temperature Unit* Literal Value: “[degF]” or “Cel”
	Units Text	6.2	Literal Value: “Fahrenheit” or “Celsius”
	Units Coding System	6.3	Literal Value: “UCUM”
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|3|NM|11289-6^BODY TEMPERATURE^LN||100.1|[degF]^FAHRENHEIT^UCUM||||F|||20110217
Medication List			Current medications entered as narrative.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “TX”
	Identifier	3.1	Literal Value: “10160-0”
	Text	3.2	Literal Value: “Medication Use Reported”
	Name of Coding System	3.3	Literal Value: “LN”
	Text Data	5.1	Provide the patient’s current medications as free text.

	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|TX|10160-0 ^Medication Use Reported^LN||Lasix 20 mg po bid, Simvastatin 40 mg po qd||||||F|||20110217
Medications Prescribed or Dispensed			Current medications entered as standardized codes. Collection of this data may be relevant to more in-depth analyses, individual patient follow-up or other surveillance process.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “TX”
	Identifier	3.1	Literal Value: “8677-7”
	Text	3.2	Literal Value: “History of Medication Use Reported”
	Name of Coding System	3.3	Literal Value: “LN”
	Text Data	5	Use standard vocabulary included in RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine.
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|8|TX|8677-7^History of Medication Use Reported^LN ||151679^Serzone^RXNORM~42568^Wellbutrin^RXNORM~431722^12 HR Tramadol 100 MG Extended Release Tablet|||||F
Pregnancy Status			Whether the patient is pregnant during the encounter.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “CWE”
	Identifier	3.1	Literal Value: “11449-6”
	Text	3.2	Literal Value: “Pregnancy Status”
	Name of Coding System	3.3	Literal Value: “LN”
	Coded Identifier	5.1	Use literal values: “N”, “Y”, or “UNK”
	Text	5.2	Use literal values: “No”, “Yes”, or “Unknown”
	Name of Coding System	5.3	Literal Value: “HL70136”

	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|CWE|11449-6 Pregnancy Status ^LN||Y^Yes^HL70136|||||F
Problem List			Problem list of the patient condition(s). Can provide co-morbidity, pregnancy status, and indications of severity and chronic disease conditions, and medical and surgical histories.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "CWE"
	Identifier	3.1	Literal Value: "11450-4"
	Text	3.2	Literal Value: "Problem List - Reported"
	Name of Coding System	3.3	Literal Value: "LN"
	Coded Identifier	5.1	Standardized code value for code sets: *ICD-9*, *ICD-10*, or *SNOMED*.
	Text	5.2	Standardized text description that corresponds to the code provided in 3.1.
	Name of Coding System	5.3	Literal Values: "I9CDX", "I10", or "SCT"
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|CWE|11450-4^Problem List - Reported^LN|| 5990^UTI (URINARY TRACT INFECTION)^I9CDX |||||F|||20110217
Systolic Blood Pressure (SBP)			Most recent Systolic Blood Pressure of the patient.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be "1" for the first repeat, "2" for the second repeat, etc.
	Value Type	2	Literal Value: "NM"
	Identifier	3.1	Literal Value: "8480-6"
	Text	3.2	Literal Value: "Systolic Blood Pressure"
	Name of Coding System	3.3	Literal Value: "LN"
	Numeric Value	5.1	Numeric value of the patient's most recent systolic BP.
	Units Identifier	6.1	Literal Value: "mm[Hg]"
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*

	Example OBX Segment		OBX|5|NM|8480-6^SYSTOLIC BLOOD PRESSURE^LN||120|mm[Hg]|||||F|||20110217
Travel History			Travel History as a narrative.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “TX”
	Identifier	3.1	Literal Value: “10182-4”
	Text	3.2	Literal Value: “History of travel Narrative”
	Name of Coding System	3.3	Literal Value: “LN”
	Text Data	5.1	Provide the patient’s history of travel narrative as free text.
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|1|TX|10182-4^History of travel Narrative ^LN||Arrived home from Liberia two days ago. ||||||F|||20110217
Triage Notes			Triage notes for the patient visit.
	Set ID	1	Set ID numbers the repetitions of the segments. Literal value shall be “1” for the first repeat, “2” for the second repeat, etc.
	Value Type	2	Literal Value: “TX”
	Identifier	3.1	Literal Value: “54094-8”
	Text	3.2	Literal Value: “EMERGENCY DEPARTMENT TRIAGE NOTE”
	Name of Coding System	3.3	Literal Value: “LN”
	Text Data	5.1	Enter original free text of triage notes for the patient visit.
	Observation Result Status	11	Value Set: *Observation Result Status (HL7)*
	Example OBX Segment		OBX|7|TX|54094-8^EMERGENCY DEPARTMENT TRIAGE NOTE^LN||Pain a recurrent cramping sensation.||||||F|||201102091114

APPENDIX C: Revision History

Revisions to this Guide

The following data elements have been updated and/or corrected within the guide.

Page #	Data Element	Changes/Updates
4	**Data Submission** – Data Submission Parameters	Added 6th bullet addressing update messages for older visits
11	**Patient Visit Segment –** PV1-44 Admit Date/Time	Added a sentence on a 3 week filter for update messages
17	**Appendix A: Messaging Examples**	Added an A08 message example with all possible OBX segments included.
24	**Appendix B: BMI OBX Segment** – OBX-3.1 Identifier	Added LOINC code (59574-4) for BMI percentile values
24	**Appendix B: BMI OBX Segment** – OBX-6.1 Units Identifier	Added units identifier “kg/m2”
24	**Appendix B: BMI OBX Segment** – OBX-6.2 Units	Added “Literal Value: “kilogram / (meter squared)””

For questions about syndromic surveillance submission to the Virginia Department of Health, please contact:

VDH Syndromic Surveillance Team
syndromic@vdh.virginia.gov
(804) 864-8141

OR

VDH Meaningful Use Team
meaningfuluse@vdh.virginia.gov