

## Utah Syndromic Surveillance Meaningful Use HL7 ADT 2.5.1 Message Guidance

Required HL7 ADT 2.5.1 Message Data Elements for Syndromic Surveillance Reporting in Utah for Meaningful Use Stage 2 Certification

R – Required, Must always be populated

RE – Required, but may be empty (segment is not sent). If Sender has data, it must be sent.

O – Optional

Data Element Name	Description of Field/Additional Notes	HL7 name (if different) and HL7 location	Usage
<b>Message Header (MSH) Segment</b>	<p>The MSH segment is used to define the intent, source, destination, and some specifics of the syntax of the message. It includes identification of message delimiters, sender, receiver, message type, timestamp, etc.</p> <p>The MSH segment is required for....</p> <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	MSH	R
Field Separator	Default Value “ ”	MSH-1	R
Encoding Characters	Default Values “^~\&”	MSH-2	R
Sending Facility	Name and identifier of facility sending data	MSH-4	R
Sending Facility Namespace ID	Facility Name ID – 1-20 characters in length	MSH-4.1	R
Sending Facility Universal ID	Facility Universal ID – many facilities use their ‘NPI’ number (the facility OID is also acceptable)	MSH-4.2	R
Sending Facility Universal ID Type	<p>Universal ID Type – if the NPI number is used, this value will be ‘NPI’</p> <p>Use the PHVS_UniversalIDType_SyndromicSurveillance code set to find the appropriate coded value for this component of the MSH-4 field. The code set is available at</p> <p>&lt;<a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6050">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6050</a>&gt;.</p>	MSH-4.3	R
Receiving Application	This field uniquely identifies the receiving application. For syndromic surveillance, the receiving application is Biosense2.	MSH-5	O
Namespace ID	Receiving application name. For syndromic surveillance reporting in Utah this is “Biosense2”	MSH-5.1	O
Universal ID	Universal ID of receiving application. The OID for Biosense2 is “2.16.840.1.113883.3.1673”	MSH-5.2	O

Universal ID Type	Universal ID Type for an OID is "ISO"	MSH-5.3	O
Date/Time Of Message	Timestamp of when the message was created by the "sending system"	MSH-7	R
Message Type	Type of HL7 message being sent [ADT]	MSH-9.1	R
Message Trigger Event	Reason message was triggered: registration at ED, inpatient admission, updates to info, or end of visit [A01 for Admission; A04 for Registration; A08 for Update; A03 for Discharge]	MSH-9.2	R
Message Structure	Syndromic Surveillance Message Structure < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6047">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6047</a> >.	MSH-9.3	R
Message Control ID	Number that uniquely identifies the message	MSH-10	R
Processing ID	This field is used to decide whether to process the message as defined in HL7 Application Processing rules. SHALL have a value of "P" for Production, "D" for Debug or "T" for Training.	MSH-11	R
Version ID	Value shall be 2.5.1	MSH-12	R
Message Profile Identifier	Shall contain either 'PH_SS-Ack^SS Sender^2.16.840.1.114222.4.10.3^ISO' or either 'PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO'	MSH-21	R
<b>Event Type (EVN) Segment</b>	The EVN segment is used to communicate trigger event information to receiving applications.  The EVN segment is required for... <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	EVN	R
Recorded Date/Time	Timestamp of when the message was created or generated from the "original or treating facility". Does not have to equal MSH-7. Shall be expressed with a minimum precision of the nearest minute 'YYYYMMDDHHMM'	EVN-2	R
Event Facility	Name and identifier of facility where the event occurred	EVN-7	R
Event Facility Namespace ID	Name of the treating facility - 1-20 characters in length	EVN-7.1	R
Event Facility Universal ID	Facility Universal ID – many facilities use their 'NPI' number (the facility OID is also acceptable)	EVN-7.2	R
Event Facility Universal ID Type	Universal ID Type – if the NPI number is used, this value will be 'NPI'	EVN-7.3	R

<p align="center"><b>Patient Identification (PID) Segment</b></p>	<p>The PID segment is used as the primary means of communicating patient identification information. It contains pertinent patient identifying and demographic information.</p> <p>The PID segment is required for....</p> <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	<p align="center">PID</p>	<p align="center">R</p>
<p align="center">Set ID - PID</p>	<p>Set ID SHALL have the Literal Value of '1'</p>	<p align="center">PID-1</p>	<p align="center">R</p>
<p align="center">Unique Patient Identifier</p>	<p>Unique identifier for the patient (can use medical record number)</p>	<p align="center">PID-3</p>	<p align="center">R</p>
<p align="center">Unique Patient Identifier number</p>	<p>Unique identifier number</p>	<p align="center">PID-3.1</p>	<p align="center">R</p>
<p align="center">Unique Identifier Type</p>	<p>code use the PHVS_IdentifierType_SyndromicSurveillance value set found at &lt;<a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3597">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3597</a>&gt;</p>	<p align="center">PID-3.5</p>	<p align="center">R</p>
<p align="center">Patient Name Type Code</p>	<p>HL7 message structure requires that the PID-5 [Patient name field be populated even when patient name data shall not be sent (such as the case with syndromic surveillance data). In such instances, patient name shall be presented in a pseudonymized manner.</p> <p>If patient name is unknown, the PID-5 field shall be valued with only the PID-5.7 [Patient Name Type Code] component of the field being populated. The PID-5.7 shall be valued with the value of "U". Example of PID-5 with patient name as unknown " ~^U ".</p> <p>If Patient Name is known, but not sent, then the PID-5 field shall be valued with "S" in PID-5.7. Example of PID-5 with patient name not sent (but known) " ~^S ".</p> <p>Use the PHVS_NameType_SyndromicSurveillance code set to get the correct coded value that should be populated in PID-5.7. This code set is found at &lt;<a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6056">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6056</a>&gt;</p>	<p align="center">PID-5.7</p>	<p align="center">R</p>

Date of Birth (DOB)	This field is set as optional in the Syndromic Surveillance PHIN Messaging Guide. However Utah's Biosense system (Utah's syndromic surveillance system) requires that the age of the patient be reported. The sender can choose to include the DOB of the patient, and Biosense uses the DOB to calculate the patients' age. Or the sender can send the age of the patient in an OBX segment. If DOB is reported in PID-7, it should be as YYYYMMDD.	PID-7	RE
Gender	Gender of patient – use PHVS_Gender_SyndromicSurveillance value set found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3403">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3403</a> >	PID-8	RE
Race	Race of patient	PID-10	RE
Race identifier	Use PHVS_RaceCategory_CDC value set found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.836">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.836</a> >	PID-10.1	RE
Text	Text of the race of the code in PID-10.1. If code 2106-3 [White] is in PID-10.1, then the text in PID-10.2 is White.	PID-10.2	RE
Name of the Coding System	If a value is in PID-10.1, then PID-10.3 must be present. For the code set PHVS_RaceCategory_CDC the value in PID-10.3 Shall be 'CDCREC'	PID-10.3	RE
Patient Address City	The only values that are required for the patients address for Syndromic Surveillance reporting in Utah are City, Zip or Postal Code and County	PID-11.3	RE
Patient Address Zip or Postal Code	The only values that are required for the patients address for Syndromic Surveillance reporting in Utah are City, Zip or Postal Code and County	PID-11.5	RE
Patient Address County Code	The only values that are required for the patients address for Syndromic Surveillance reporting in Utah are City, Zip or Postal Code and County. Use PHVS_County_FIPS_6.4 found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.829#">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.829#</a> >	PID-11.9	RE
Ethnicity	Ethnicity of patient	PID-22	RE
Ethnicity code	Use code set PHVS_EthnicityGroup_CDC found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.837">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.837</a> >	PID-22.1	RE
Text of Ethnicity code used	For example, if code 2135-2 is used in PID-22.1, the text is 'Hispanic or Latino'	PID-22.2	RE
Name of Ethnicity Coding system	If a value is in PID-22.1, then PID-22.3 must be present. For the code set PHVS_EthnicityGroup_CDC the value in PID-22.3 Shall be 'CDCREC'	PID-22.3	RE
Patient Death Date and Time	If patient has died, death timestamp. Minimum precision of nearest minute 'YYYYMMDDHHMM'. If PV1-36 is valued with any of the following: '20', '40', '41', '42' the PID-29 Shall be populated.	PID-29	RE

Patient Death Indicator	If patient has died, death flag. Use 'Y' for yes, patient died.	PID-30	RE
<b>Patient Visit (PV1) Segment</b>	<p>The PV1 segment is used by Registration/Patient Administration applications to communicate information on a visit-specific basis.</p> <p>The PV1 segment is required for....</p> <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	PV1	R
Patient Class	Patient classification within facility. Use PHVS_PatientClass_SyndromicSurveillance value set, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3404">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3404</a> >	PV1-2	R
Visit Number		PV1-19	R
Visit Number ID Number	Unique identifier for each patient visit	PV1-19.1	R
Identifier Type Code	PV1-19.5 Shall be valued as 'VN'	PV1-19.5	R
Discharge Disposition	This field is required if the message is an (A03) – Discharge message. It is required but can be empty for an (A08) – Update message. Do not populate the PV1-36 for an (A01) – Admission or (A04) – Registration message. Use the PHVS_DischargeDisposition_HL7_2x value set, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.915">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.915</a> >	PV1-36	RE
Admit Date/Time	This field contains the admit date/time. This field is also used to reflect the date/time of an outpatient/emergency patient registration. Shall be expressed with a minimum precision of the nearest minute 'YYYYMMDDHHMM'	PV1-44	R
Discharge Date/Time	This field is required if the message is an (A03) – Discharge message. It is required but can be empty for an (A08) – Update message. Do not populate the PV1-45 for an (A01) – Admission or (A04) – Registration message. Shall be expressed with a minimum precision of the nearest minute 'YYYYMMDDHHMM'	PV1-45	RE
<b>Patient Visit – Additional Information (PV2) Segment</b>	The PV2 segment is a continuation of the visit-specific information and is the segment where the Admit Reason is found.	PV2	RE
Admit Reason	Reason patient is admitted as an inpatient from ED.	PV2-3	RE

Admit Reason Identifier	Coded value for the admit reason. Use PHVS_AdministrativeDiagnosis_CDC_ICD-9CM, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.856">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.856</a> >, or PHVS_CausesOfDeath_ICD-10_CDC, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3593">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3593</a> >, or PHVS_Disease_CDC, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.909">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.909</a> >.	PV2-3.1	RE
Admit Reason Text	If only free text is used to communicate the Admit Reason, use this component of the PV2-3 field.	PV2-3.2	RE
Admit Reason Name of Coding System	If there is a value in PV2-3.1, then the code system used must be identified here.	PV2-3.3	RE
<b>Observation/ Result (OBX) Segment</b>	The OBX segment in the ADT message is used to transmit observations related to the patient and the visit.  The OBX segment is required for.... <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	OBX	R
Set ID – OBX	This field contains the sequence number. Example: OBX 1 .... OBX 2 .... OBX 3 ....	OBX-1	R
Value Type	This field contains the format of the observation value in the OBX segment. It identifies the structure of the data found in the OBX-5 field. Use PHVS_ValueType_SyndromicSurveillance, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6057">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6057</a> >, (TS, TX, NM, CWE, XAD)	OBX-2	R
Observation Identifier	Identifies the field sent in OBX-5. Use PHVS_ObservationIdentifier_SyndromicSurveillance, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3589">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3589</a> >.	OBX-3	R
Identifier	This component contains the concept code used as the observation identifier	OBX-3.1	R
Name of Coding System	This component identifies the code system for the coded value used as the observation identifier in OBX-3.1	OBX-3.3	R
Observation Value	This field contains the value observed by the observation producer. OBX-2-value type contains the data type for this field according to which observation value is formatted.	OBX-5	RE

Observation Value - TS	If data type in OBX-2 is 'TS' – Time Stamp	OBX-5.1	RE
Observation Value - TX	If data type in OBX-2 is 'TX' – Text Data	OBX-5.1	RE
Observation Value – NM	If data type in OBX-2 is 'NM' – Numeric Value	OBX-5.1	RE
Observation Value – CWE	If data type in OBX-2 is 'CWE' – Coded With Exception	OBX-5	RE
CWE Identifier	Coded value of CWE	OBX-5.1	R
CWE Text	Text of CWE	OBX-5.2	RE
CWE Name of Coding System	If OBX-5.1 is provided, then OBX-5.3 is valued.	OBX-5.3	R
CWE Alternate Identifier		OBX-5.4	RE
CWE Alternate Text		OBX-5.5	RE
CWE Name of Alternate Coding System		OBX-5.6	RE
CWE Original Text	Free text may be included in this component	OBX-5.9	RE
Observation Value - XAD	Physical address of treating facility location	OBX-5	O
<b>Diagnosis (DG1) Segment</b>	<p>The DG1 segment contains patient diagnosis information of various types. Syndromic surveillance supports Admitting, Working and Final Diagnosis types.</p> <p>The DG1 segment is required with exception (RE) for....</p> <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	DG1	RE
Set ID – DG1	This field contains the number that identifies this transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc.	DG1-1	R
Diagnosis Code	This contains the diagnosis code assigned to this diagnosis.	DG1-3	R

Diagnosis Code Identifier	This component contains a code value (concept ID) from one of the following code systems: PHVS_AdministrativeDiagnosis_CDC_ICD-9CM, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.856">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.856</a> >, or PHVS_CausesOfDeath_ICD-10_CDC, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3593">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3593</a> >, or PHVS_Disease_CDC, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.909">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.909</a> >.	DG1-3.1	RE
Diagnosis Code Text	This component contains a text description for the concept identified in DG1-3.1	DG1-3.2	RE
Diagnosis Code Name of Coding System	This component contains the coding system identifier (Table 0396 Code System Identifiers) for the concept identified in DG1-3.1. DG1-3.3 Shall be valued to one of the literal values identifying the appropriate coding system ('I10', 'I9CDX', 'SCT').	DG1-3.3	RE
Diagnosis Date/Time	This field contains the date/time that the diagnosis was determined.	DG1-5	O
Diagnosis Type	This field contains a code that identifies the type of diagnosis being sent . Use PHVS_DiagnosisType_HL7_2x, found at < <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.827">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.827</a> > (NOTE: Shall be either A , F, or W; A = Admitting, F = Final, W = Working).	DG1-6	R
<b>Procedures (PR1) Segment</b>	Information relative to various types of procedures performed. Note: if the PR1 segment is present in the message, there are certain PR1 fields that are required for syndromic surveillance reporting.  The PR1 segment is optional for... <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	PR1	O
Set ID – PR1 (Procedures)	For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc.	PR1-1	R
Procedure Code	CPT code for any procedures conducted	PR1-3	R



Procedure Code Identifier	Use one of the following coding systems: Concept value from CPT-4 Concept value from ICD-9CM Procedure code , Volume 3 Concept value from ICD-10-PCS International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS)	PR1-3.1	RE
Procedure Text Identifier	Free text identifier of the coded procedure	PR1-3.2	O
Procedure Code Name of Coding System	If there is a CPT-4 code in 3.1, this component is valued with 'C4', the value from HL7 2x Table 0396, Code System Identifiers, code system found here < <a href="http://phinvals.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3338">http://phinvals.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3338</a> >. If there is a ICD-9CM Procedure code in 3.1, this component is valued with 'I9CP', the value from HL7 2x Table 0396, Code System Identifiers. If there is a ICD-10-PCS code in 3.1, this component is valued with 'I10P', the value from HL7 2x Table 0396, Code System Identifiers. PHVS_CodingSystem_HL7_2x_Table 0396 Lists of all the code systems identifiers from HL7 Table 0396 Condition Predicate: If PR1-3.1 (the identifier) is provided then PR1-3.3 is valued.	PR1-3.3	RE
Procedure Date/Time	This field is a Time Stamp (TS) field. Contains the date/time that the procedure was performed.	PR1-5	R
Insurance (IN1) Segment	IN1 segment contain insurance policy coverage information necessary to produce properly pro-rated and patient and insurance bills. Note: if the IN1 segment is present in the message, there are certain IN1 fields that are required for syndromic surveillance reporting.  The IN1 segment is optional for... <ul style="list-style-type: none"> <li>• ADT A01 (admit/visit notification)</li> <li>• ADT A04 (register a patient)</li> <li>• ADT A08 (update patient information)</li> <li>• ADT A03 (end visit)</li> </ul>	IN1	O

Set ID – IN1	The Set ID in the IN1 segment is used to aggregate the grouping of insurance segments. If the IN1 segment is included in the message, then the IN1-1 segment must be populated. For the first occurrence of the IN1 segment in the message, IN1-1 will be populated with a “1”.	IN1-1	R
Insurance Plan ID	Use HL7 Table 0072: User defined: Insurance Plan ID. This field contains a unique identifier for the insurance plan. This field is optional. If the insurance ID Plan is unavailable, use  UNK^UNKNOWN^NULLFL	IN1-2	R
Insurance Company ID	Unique Identifiers for the insurance company. This field is optional. If the insurance ID Plan is unavailable, use  UNK^UNKNOWN^NULLFL	IN1-3	R
Plan Type	This contains the coding structure that identifies the various plan types (Medicare, Medicaid, Blue Cross, HMO, etc.). Use HL7 table 0086.	IN1-15	O