The Michigan Syndromic Surveillance System- MSSS

Electronic Syndromic Submission for Emergent and Ambulatory Data to the Michigan Department of Community Health

Background and Electronic Syndromic Surveillance Reporting Detail for MSSS

MSSS
August 2014

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Background and Overview

What is the Michigan Syndromic Surveillance System (MSSS)?

The Michigan Syndromic Surveillance System (MSSS) is a real-time surveillance system that tracks the chief presenting complaints from healthcare providers allowing public health officials and providers to monitor trends and investigate unusual increases in symptom presentations.

Why has the MSSS been developed?

The Syndromic Surveillance System provides real-time situational awareness of potential public health threats and emergencies. The system sends alerts to Michigan public health officials when unusual increases in symptom presentations are detected, and MDCH epidemiologists can analyze findings, investigate further, and contact local public health agencies and providers.

De-identified data is also transmitted from MSSS to CDC BioSense 2.0, the national syndromic surveillance program. Emergency departments participating in syndromic surveillance in Michigan have contributed data to BioSense since as far back as 2008. Additional information about BioSense 2.0 is available at: http://www.cdc.gov/biosense/biosense20.html.

The MSSS has been a joint project with the Michigan Bureau of Disease Control, Prevention and Epidemiology (BDCPE), Michigan Office of Public Health Preparedness (OPHP), Michigan Department of Technology, Management & Budget (DTMB) and Altarum Institute.

Meaningful Use and MSSS

Meaningful use messaging guidelines for syndromic surveillance data differ based upon the sender. According to the CDC Meaningful Use website, Emergent care centers are to use the "PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Data" that is available on the CDC Meaningful Use website. Ambulatory care centers are to use the "Recommended Guidelines for Syndromic Surveillance Using Inpatient and Ambulatory Clinical Care EHR Data," which is under development by the International Society for Disease Surveillance (ISDS). The HL7 data elements requirements listed in Appendix B used these guides as their basis.

Michigan receives syndromic data from hospital emergency departments and urgent care centers (emergent care) and from eligible non-emergency care providers (ambulatory care). Michigan currently has no plans to accept messages for inpatient data. The chart below details the healthcare providers from whom Michigan will accept syndromic data.

Eligible Healthcare Provider	Can Participate in MSSS?	National Guidance/ Setting Type
Hospital Emergency Departments	Yes	Emergent Guide
Urgent Care Centers	Yes	Emergent Guide
Hospital Inpatient Settings	No	--
Physicians (Primarily MD & DO)	Yes	Ambulatory Guide
Dentists or dental surgeons	No	--
Podiatrists	No	--
Optometrists/Ophthalmologists	No	--
Nurse Practitioners	Yes	Ambulatory Guide
Physician Assistants (furnishing services in a FQHC or RHC led by a physician assistant)	Yes	Ambulatory Guide
Chiropractors	No	--
Certified nurse-midwife	No	--

For more information on definitions of these categories, please visit the Centers for Medicare and Medicaid Services (CMS) EHR Incentive Program page at http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/.

Eligible Hospitals and Providers that wish to fulfill the Meaningful Use public health objective of capability to submit electronic syndromic surveillance data to public health agencies must comply with the following regulations:

1. Michigan's Capacity to Accept Syndromic Surveillance Data
2. CMS Final Rules for the EHR Incentive Program
3. ONC Final Rules for Health Information Technology Standards, Implementation Specifications, and Certification Criteria for EHR Technology

Visit www.michiganhealthit.org/public-health/ for more information on the meaningful use interactions with public health and the MSSS in Michigan. Eligible Providers who need guidance or have questions regarding the Medicare and Medicaid Incentive Program and Meaningful Use in general should visit the M-CEITA website (www.mceita.org) for valuable information.

1. Michigan's Capacity to Accept Syndromic Surveillance Data

MDCH has determined MSSS has the capacity to receive syndromic data in accordance with the established meaningful use vocabulary and content exchange standards for eligible hospital emergency departments (not inpatient hospital departments), urgent care centers, and certain ambulatory care providers (Eligible Professionals or EPs). MSSS can receive syndromic data from EPs as of August 1, 2013. Therefore, eligible professionals that are required to report syndromic data according to meaningful use objectives do not, in general, qualify for exclusion to the meaningful use objective for the reason the state does not have the capability to accept syndromic data electronically. Furthermore, eligible

hospitals that are required to report syndromic data according to meaningful use objectives do not qualify for exclusion to the meaningful use objective for the reason the state does not have the capability to accept syndromic data electronically. For more information please see the Public Health Meaningful Use FAQ at: https://www.michiganhealthit.org/public-health/faq/

2. CMS Final Rules for the EHR Incentive Program:

Meaningful use Stage 1 objective	Meaningful use Stage 1 measure	Certification criterion
Capability to submit electronic syndromic surveillance data to public health agencies and actual submission in accordance with applicable law and practice.	Performed at least one test of certified EHR technology's capacity to provide electronic syndromic surveillance data to public health agencies and follow-up submission if the test is successful (unless none of the public health agencies to which an EP, eligible hospital or CAH submits such information have the capacity to receive the information electronically).	Final Rule Text: §170.302(l). *Public Health Surveillance.* Electronically record, modify, retrieve, and submit syndrome-based public health surveillance information in accordance with the standard (and applicable implementation specifications) specified in §170.205(d)(1) or §170.205(d)(2).

3. ONC Final Rules for Health Information Technology Standards, Implementation Specifications, and Certification Criteria for EHR Technology:

Certification Criterion	Electronic Health Record (EHR)Technology:		
	Content Exchange Standards and Implementation Specifications		Message Vocabulary
Final Rule Text: § 170.302(l). Public health surveillance. Electronically record, modify, retrieve, and submit syndrome-based public health surveillance information in accordance with the standard (and applicable implementation specifications) specified in § 170.205(d)(1) or § 170.205(d)(2).	HL7 2.3.1	ONC and Michigan Specifications for Implementation are available in the *Syndromic Submission Reporting to MDCH Guide*	None cited.
	HL7 2.5.1	ONC and Michigan Specifications for Implementation are available in the *Syndromic Submission Reporting to MDCH Guide*	

How to Send Data Electronically

To participate in the MSSS, a submitter must:

1. Be able to create an outbound HL7 message.
2. Transport the message.
3. Test the message.
4. Move new data feed into production.

1. Outbound HL7 Message Format

The MSSS can accept an HL7 2.3.1 or HL7 2.5.1 message, however starting in January 2013, the MSSS will only accept new connections using the HL7 2.5.1 format specified in Appendix B. The data elements for these guides are based on the latest national guides available at the time. The specific guides and version, along the message specifications, are listed in Appendix B.

Facilities that are currently sending data using the HL7 message format outlined in previous version of the MSSS Submission Guides (also known as the Legacy MSSS format) can continue to use that format. Facilities that are sending the Legacy MSSS message format can qualify for Stage 1 Meaningful Use; however, Stage 2 Meaningful Use requires the use of the new MSSS message format that is listed in Appendix B.

2. Transport the Message

Facilities wishing to send data should contact their respective Sub-State Health Information Exchange or Qualified Organization (Sub-State HIE or QO) regarding the status of their capacity for processing syndromic messages. MDCH currently plans to only accept new connections to the MSSS via sub-state HIEs. If other transportation options are needed, please contact the Technical Information contact listed below.

Facilities that are sending data to the MSSS as of December 31, 2012 will be able to continue to send with the current transport methodology until such time that the facility wishes to transition away from the Legacy MSSS message format. At that time, the facility will have to transition to a message transport method that goes through a sub-state HIE.

3. Test the Message

Structure and Contents

Like message transport, your local HIE may be able to help with testing the message structure and contents. **A web-based message validator is available for the MDCH Syndromic Message listed in this guide and prospective senders are expected to evaluate their syndromic message with this utility.** Submitting a test message to the validator will satisfy the One Test requirement for Stage 1 Year 1 of Meaningful Use for Syndromic Surveillance.

To obtain access to the MDCH Syndromic Message Validator (MDCH-V), please contact John Christensen.

Transport

Message testing includes the ability to send the message to MDCH securely as well as testing of the message contents. This will include the reception of the message by the MSSS as well as the

acknowledgement message going back to the sending facility. Transport of the message will likely happen through the sender's sub-state HIE and a potential sender should contact them in regards to their capacity and any setup that is needed. If the sender does not currently subscribe to a sub-state HIE, they should contact MiHIN (www.mihin.org) for information on what sub-state HIEs are available. Any HIE wishing to test may contact the MSSS technical contact below to arrange testing.

Sending Test Messages

Potential submitters should visit the Meaningful Use website (www.michiganhealthit.org/public-health/steps-for-meaningful-use/) and register in the Online Health Systems Testing Repository (HSTR). This will serve as notification to the MSSS Staff and begin the testing and onboarding process. The MSSS Staff will then contact the submitter with information on what they will need to do in order to submit a test message to the MSSS testing application. This will include agreeing upon unique identifiers for each facility that will submit data so it can be processed and stored correctly.

After sending the initial test messages to the MSSS, the MSSS onboarding team will provide feedback on message quality and any other items that will need to be changed or fixed.

4. Move to Production

To move to production, MSSS staff must verify that the message is without any errors and is ready to for entry into the production system. At that point, MSSS Staff, the sending facility, and all parties involved will agree on a date to begin sending and receiving messages. Moving submitters into production will typically happen in batch once or twice a month. This will likely cause some delay between the time that a submitter is approved to move to production and when the actual move happens. The MSSS Technical Staff will make any needed changes to the system to move the feed to production and the sender will change any testing flags in the message header (namely, MSH-11) to production.

When a site moves into production, ALL parties that interact with the syndromic message must log that interaction and hold those logs for one year. This includes the sender, any HIEs, the MSSS and any other application or vendor that interacts with the message, even if it only passes through their system.

Contact Information

Question Subject Area	Contact Person
Technical Information Submitter Onboarding Access to Syndromic Validator (MDCH-V) Troubleshooting/Technical Problems OID Creation and Registration	John Christensen – Altarum Institute John.Christensen@altarum.org
Meaningful Use Verification Meaningful Use Questions	MDCH Meaningful Use Team DCHPublicHealthMU@michigan.gov
Application Sign-up to View Data (Participating Facilities/Professionals) User Training/Support	Katie Arends – Michigan Dept. of Community Health ArendsK@michigan.gov

Appendix A

The Michigan Department of Community Health has defined several categories to help indicate where a prospective submitter is in the testing process. This is intended to help bring prospective submitters going through Michigan's onboarding process in line with terminology that is commonly used in reference to Meaningful Use.

Onboarding Phase	Definition
One Test	A provider who has submitted one message that can be identified as a qualifying Syndromic HL7 message, regardless of whether it is of a quality that would move into production submission. Submitting a test message to the web-based message validator (MDCH-V) will satisfy the One Test requirement. This would pass Stage 1.
Follow-up Submission	A provider who: • Is not in production • Has submitted at least one message and entered the One Test Phase Providers are assumed to be working on message quality independently given the available tools, the MSSS Implementation Guide and/or the feedback given from their initial test. Entering this phase is a requirement of Stage 1 Meaningful Use to prove intent to move towards production status. Failure to adequately engage in Follow-up Submission will jeopardize the provider's ability to meet Stage 1 Meaningful Use in the second year. **As part of Follow-up Submission, providers are expected to send at least one test message to the MDCH-V or MSSS Test during each calendar quarter.**
On-Going Submission	A provider who: • Is currently in production **OR** • Has been approved for production, but is waiting for the transition date **OR** • Has registered in the Online HSTR and notified MSSS Staff of the intent to move to production within their reporting period, but is still engaged in testing and validation at the end of their reporting period **OR** • Has registered in the Online HSTR and notified MSSS Staff of the intent to move to production within their reporting period, but is awaiting invitation to test by MDCH Those not registered by the reporting period deadline or who fail to participate in the onboarding process by failing to respond to requests from MDCH for action within 30 days on two occasions will not qualify. This phase is a requirement of Stage 2 Meaningful Use. If this phase is met prior to officially beginning Stage 2 Meaningful Use (i.e. before or during the Stage 1, Year 2 EHR Reporting period), this will also pass Stage 1 Meaningful Use for the second year. **As part of testing and validation, providers are expected to send at least one test message to the MDCH-V or MSSS Test during each calendar quarter (or the EHR reporting period quarter in 2014).**

Appendix B

The HL7 message in this guide and the data elements for ambulatory data providers were derived from the draft "Revised Guidelines for Syndromic Surveillance Using Inpatient and Ambulatory Clinical Care EHR Data" developed by the International Society for Disease Surveillance and modified for Michigan's specific requirements. The data elements for emergent data providers are derived from the "PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Data" and its Addendum published on the CDC Meaningful Use website and modified for Michigan's specific requirements.

The MSSS requires the use of Object Identifiers (OIDs) in the syndromic message: a Facility OID and an Organizational OID.

- The Facility OID used in EVN-7 corresponds to the Event Facility, which is the location where the patient was treated. Note that senders will need distinct Facility OIDs for emergency and ambulatory data if a location (e.g., hospital + co-located clinics) sees both types of patients. Senders will also need to register unique OIDs for each facility location that treats patients.

- The Organizational OID used in MSH-4 should represent the organization (e.g., health system, parent company) or sender of the message.

- For submitters that are single facilities with no "parent" or "sister" provider locations, the Facility OID and Organizational OID can be the same.

- Information on obtaining an OID can be found in the OID Creation and Registration Guide at https://www.michiganhealthit.org/public-health/msss/

Data elements are marked as follows:

- R for required
- RE for required, but can be empty
- O for optional
- C for conditional values (when conditions are met, treat the same as R)
- CE for conditional values that may be empty (when conditions are met, treat the same as RE)
- X for items that will be ignored

Please refer to the tables in this appendix for information on each of these fields. Heavily shaded rows in the HL7 specification table below indicate items that are part of the HL7 2.5.1 standard, but not included in any syndromic surveillance specification for the MSSS. For ease of use, elements with a green background color indicate HL7 requirements that are different than those listed in the "PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Data" and its Addendum.

The Segment, Sequence, Length, Data Type, Cardinality, Value Set, HL7 Field Name, and Values/Notes columns below were obtained directly from the PHIN Messaging Guide listed above and its Addendum. The Data Element Name column is MDCH's interpretation of the data elements listed in both the Emergency Department guide and the Ambulatory guide published by the ISDS. The Requirements and Additional MDCH Requirements columns were constructed by MDCH based on the data needs of the

MSSS. These final two columns describe requirements needed by MDCH specifically for our MSSS program and should supersede the national guidance if there is a conflict.

For additional information about data elements, please see "Description of Field" in TABLE 2-5: DATA ELEMENTS OF INTEREST in the "PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care and Inpatient Settings" here: http://www.cdc.gov/phin/library/guides/PHIN%20MSG%20Guide%20for%20SS%20Final_508readyRelease1_9%2004%2027%202013.pdf.

Links to Value Sets for Coded Data Elements (e.g., Discharge Disposition, Race, Patient Class) can also be found in the above listed PHIN Messaging Guide.

Message Segments

Segment	Name	Required
MSH	Message Header	R
EVN	Event Type	R
PID	Patient Identification	R
PV1	Patient Visit	R
[PV2]	Patient Visit - Additional Information	RE
[{DG1}]	Diagnosis Information	RE
{OBX}	Observation / Result	R

General Acknowledgment Message

Upon internal verification of the data being successfully/unsuccessfully received, the MSSS will transmit the ACK message. Any ACK messages received by message intermediaries, such as an HIE, should return the ACK to the original message sender. Listed below are HL7 Segments that will be sent for the ACK message:

Segment	Name	Required
MSH	Message Header	R
MSA	Message Acknowledgment	R
[Err]	Error Information	O

These values are the acknowledgment types sent to the external system by MSSS:

- **AA** - This value will be sent in this field if the message was accepted without error.
- **AR/AE** - This value will be sent in this field if there is any type of error with receiving the transaction from the External System. If an 'AR' or 'AE' is returned, the MSSS will reject this transaction and continue with next transaction. The sender would be expected to resend the errant message at a later time with the original event time stamp, the message time stamp would indicate the time of the resend.

Message Observations

The following message observations (OBX segments) are required or optional in the message.

For Syndromic Surveillance, the most critical OBX segment is Chief Complaint. The MSSS algorithms look at field 5.9 for free text chief complaint. The Chief Complaint is based on the patient's perspective, so it may be available before the doctor sees the patient. Though the Chief Complaint OBX segment is listed as "RE" (Required but may be empty) in the table below, we are requesting that submitters treat it as "R" (Required).

Observation	OBX-3 Coding	Type	Required
Date of Onset	11368-8^^LN	TS	RE
Clinical Impression	44833-2^^LN	TX	O
Triage Notes	54094-8^^LN	TX	O
Facility Street Address	SS002^^PHINQUESTION	XAD	O
Age	21612-7^^LN	NM	R
Initial Temperature	11289-6^^LN	NM	RE
Initial Pulse Oximetry	59408-5^^LN	NM	RE
Height	8302-2^^LN	NM	O
Weight	3141-9^^LN	NM	O
Blood Pressure Diastolic	8462-4^^LN	NM	O
Blood Pressure Systolic	8480-6^^LN	NM	O
Smoking Status	72166-2^^LN	CWE	O
Encounter Reason	ENCRSN^^L	CWE	RE
Chief Complaint	8661-1^^LN	CWE	RE
Facility/Visit Type	SS003^^PHINQUESTION	CWE	RE

More details are available in the OBX section on starting on page 37 of this guide.

MSH – Message Header Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
MSH	1	1	ST	[1..1]		Field Separator		Default Value "|" (ASCII 124).	MSH-1 (Field Separator). SHALL have the Literal Value of '|'	R	
MSH	2	4	ST	[1..1]		Encoding Characters		Default Values "^~\&" (ASCII 94,126, 92, and 38).	MSH-2 (Encoding Characters) SHALL have the Literal Value of "^~\&"	R	
MSH	3	227	HD	[0..1]	0361	Sending Applications				O	
MSH	4	227	HD	[1..1]	0362	Sending Facility		Field that uniquely identifies the facility associated with the application that sends the message If Acknowledgements are in use, this facility will receive any related Acknowledgement message. National Provider Identifier. (10-digit identifier) Note: The use of 'NPI' should be discussed during the implementation process as local jurisdictions may differ on their use of identifiers for this field		R	MDCH will **not** be using the NPI as a Facility ID. MDCH expects the sender to use a registered OID for this field. The OID used in this field should represent the sender of the message. (e.g. if a patient is seen at Lansing Central Hospital and it is part of the Lansing Hospital System which has a unified EHR, the Lansing Hospital System OID would go here) This field may be the same as EVN-7.
MSH	4.1	20	IS	[0..1]	0362	Namespace ID		0362		R	This is the Organization name. Hospitals converting from a Legacy syndromic

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
											message should coordinate with MSSS staff to ensure that this field is properly populated to avoid any loss of data from the Legacy message feed.
MSH	4.2	199	ST	[1..1]		Universal ID				R	Sending Organization OID
MSH	4.3	6	ID	[1..1]	0301	Universal ID Type		0301		R	Value of 'ISO' is expected
MSH	5	227	HD	[0..1]	0361	Receiving Application		0361		R	Set 'MSSS' or 'MSSS^2.16.840.1.114222.4.3.2.2.3.161.1.6777^ISO', needed for HIE routing
MSH	6	227	HD	[0..1]	0362	Receiving Facility		0362		R	Set 'MDCH' or 'MDCH^2.16.840.1.114222.4.3.2.2.3.161.1^ISO', needed for HIE routing
MSH	7	26	TS	[1..1]		Date/Time of Message		Note: Date/Time the sending system created the message in the following format:YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ] The minimum acceptable precision is to the nearest minute; seconds are desirable. If Coordinated Universal Time (UTC) offset is not sent, it is assumed to be offset of the receiver.	MSH-7 (Date/Time of Message) SHALL be expressed with a minimum precision of the nearest minute, and be represented in the following format: 'YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ]'.	R	
MSH	8	40	ST	[0..1]		Security				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
MSH	9	15	MSG	[1..1]		Message Type		Note: 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 A01 (Inpatient Admission), A04 (Emergency Department Registration) and A08 (Update).	MSH-9 (Message Type) SHALL be constrained to be a value in the set (‘ADT^A01^ADT_A01’, ‘ADT^A03^ADT_A03’’, ‘ADT^A04^ADT_A01’’, ‘ADT^A08^ADT_A01’’).	R	ADT A01, A03, A04 and A08 Messages Only
MSH	9.1	3	ID	[1..1]		Message Code		Literal Value “ADT” or “ACK”		R	
MSH	9.2	3	ID	[1..1]		Trigger Event		One of the following literal values: “A01”, “A03”, “A04”, or “A08”		R	
MSH	9.3	7	ID	[1..1]		Message Structure		Trigger events A01, A04, and A08 share the same “ADT_A01” Message Structure. One of the following literal values: “ADT_A01” or “ADT_A03”, or “ACK”		R	
MSH	10	199	ST	[1..1]		Message Control ID		Note: This field is a number or other identifier that uniquely identifies the message.		R	Unique Message Identifier
MSH	11	3	PT	[1..1]		Processing ID		Note: Indicates how to process the message as defined in HL7 processing rules Literal values: “P” for Production, “D” for Debug or “T” for Training.	MSH-11 (Processing ID) SHALL have a value in the set of literal values (‘P, ‘D, ‘T’).	R	Must be 'T' if a Test message or if a sender is in the onboarding process. Must be 'P' if a Production message and the sender has completed the onboarding process. (see #4 on page 7)

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
MSH	12	60	VID	[1..1]		Version ID		Note: HL7 version number used to interpret format and content of the message. Literal value: “2.3.1” or “2.5.1”	MSH-12 (Version ID) SHALL have the Literal Value of ‘2.5.1’.	R	Must be '2.5.1'
MSH	13	15	NM	[0..1]		Sequence Number				X	
MSH	14	180	ST	[0..1]		Continuation Pointer				X	
MSH	15	2	ID	[0..1]	0155	Accept Acknowledgement Type				X	State of Michigan will acknowledge all messages
MSH	16	2	ID	[0..1]	0155	Application Acknowledgment Type				X	State of Michigan will acknowledge all messages
MSH	17	3	ID	[0..1]	0399	Country Code				X	
MSH	18	16	ID	[0..1]	0211	Character Set				X	
MSH	19	478	CE	[0..1]		Principal Language Of Message				X	
MSH	20	20	ID	[0..1]	0356	Alternate Character Set Handling Scheme				X	
MSH	21	427	EI	[1..*]		Message Profile		PH_SS-Ack^SS Sender^2.16.840.1.114222.4.10.3^ISO or PH_SS-Ack^SSReceiver^2.16.840.1.114222.4.10.3^ISO PH_SS-NoAck^SS Sender^2.16.840.1.114222.4.10.3^ISO or PH_SS-NoAck^SSReceiver^2.16.840.1.114222.4.10.3^ISO PH_SS-Batch^SSR	An instance of MSH.21 (Message Profile Identifier) SHALL contain the constant 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”	R	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								Sender^2.16.840.1.114222.4.10.3^ISO or PH_SS-Batch^SSReceiver^2.16.840.1.114222.4.10.3^ISO			

EVN – Event Type Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
EVN	1	3	ID	[0..0]	0003	Event Code Type				X	
EVN	2	26	TS	[1..1]		Date/Time of Event	Message or Report Date/Time	Note: Most systems default to the system Date/Time when the transaction was entered. YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ] The minimum acceptable precision is to the nearest minute; seconds and microseconds are desirable; the Coordinated Universal Time (UTC) offset is not required.	EVN-2 (Recorded Date/Time of Message) SHALL be expressed with a minimum precision of the nearest minute, and be represented in the following format: 'YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ]'..	R	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
EVN	3	26	TS	[0..1]		Date/Time Planned Event				X	
EVN	4	3	IS	[0..1]	0062	Event Reason Code				X	
EVN	5	309	XCN	[0..1]	0188	Operator ID				X	
EVN	6	26	TS	[0..1]		Event Occurred				X	
EVN	7	241	HD	[1..1]		Event Facility		Required, if using HL7 version 2.5.1 For HL7 version 2.3.1, use an OBX segment with a HD data type. Note: This is the location where the patient was actually treated.		R	
EVN	7.1	20	IS	[0..1]		Namespace ID	Facility Name	Name of originating facility		R	Hospitals converting from a Legacy syndromic message should coordinate with MSSS staff to ensure that this field is properly populated to avoid any loss of data from the Legacy message feed.
EVN	7.2	199	ST	[1..1]		Universal ID	Facility Identifier	National Provider Identifier. (10-digit identifier) Note: The use of 'NPI' should be discussed during the implementation process as local jurisdictions may differ on their use of identifiers for this field		R	MDCH will **not** be using the NPI as a Facility ID. MDCH expects the sender to use a registered OID for this field. The OID used in this field must be specific to the facility/branch location where the patient was treated. (e.g. if a patient is seen at Lansing Central Hospital and it is part of the Lansing Hospital System which has a unified EHR, the

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
											Lansing Central Hospital OID would go here) This field may be the same as MSH-4.
EVN	7.3	6	ID	[1..1]		Universal ID Type		Expecting Value “NPI”		R	Value of ‘ISO’ is expected

PID – Patient Identification Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PID	1	4	SI	[0..1]		Set ID - PID		Note: This Set ID numbers the repetitions of the segments. Only one patient per message is supported. Literal value: "1"	PID-1 (Set ID) SHALL have the Literal Value of '1'	RE	
PID	2	20	CX	[0..0]		Patient ID				X	
PID	3	478	CX	[1..*]		Patient Identifier List	Unique Patient Identifier (Emergent), Medical Record Number (Emergent), Unique Patient/Visit Identifier (Ambulatory)	PID.3 is a repeating field that can accommodate multiple patient identifiers. Note: Patient's unique identifier(s) from the facility that is submitting this report to public health officials Different jurisdictions use different identifiers and may often 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.		R	MDCH recommends that a masked identifier be used in this field in order to keep this information as deidentified as possible. In reference to the data elements, the Unique Patient Identifier is Required, the use of a Medical Record Number is Optional and, from MDCH's standpoint, is discouraged.
PID	3.1	15	ST	[1..1]		ID Number		Note: A Unique Patient Identifier is required (such as Patient Account number or		R	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								MPI Number). In addition, it is strongly recommended to submit the patient medical record number to facilitate identification of the patient in the event of a required follow-up investigation. Without it, the work required to follow up on the data provider is greatly increased.			
PID	3.2	1	ST	[0..1]		Check Digit				X	
PID	3.3	3	ID	[0..1]	0061	Check Digit Scheme		0061		X	
PID	3.4	227	HD	[0..1]	0363	Assigning Authority		0363		RE	
PID	3.5	5	ID	[1..1]		Identifier Type Code		Identifier Type (Syndromic Surveillance) Note: 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".		R	
PID	3.6	227	HD	[0..1]		Assigning Facility				RE	
PID	3.7	8	DT	[0..1]		Effective Date				X	
PID	3.8	8	DT	[0..1]		Expiration Date				X	
PID	3.9	705	CWE	[0..1]		Assigning Jurisdiction				X	
PID	3.10	705	CWE	[0..1]		Assigning Facility				X	
PID	4	20	CX	[0..0]		Alternate Patient ID				X	
PID	5	294	XPN	[1..*]		Patient Name		Note: Syndromic Surveillance does not require the patient		R	Required by HL7 Standard, but Syndromic data is to be

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								name. The Patient ID number will be used to identify uniquely the patient. HL7 does require the patient name field for a PID segment. The patient name field must still be populated even when reporting de-identified data. The first field name contains the primary or legal name of the patient. Therefore, the name type code (PID.5.7) should be “L “(Legal), when populated. When the name of the patient is known, but not desired to be sent, HL7 recommends the following: |~^^^^^^S|. The "S" for the name type code (PID.5.7) in the second name field indicates that it is a pseudonym. When the name of the patient is not known, HL7 recommends the following: |~^^^^^^U|. The "U" for the name type code (PID.5.7) in the second name field indicates that it is unspecified.			deidentified. Submitters should only send this field as: |~^^^^^^^S|
PID	5.1	194	FN	[0..1]		Family Name				RE	Should be blank per PID-5 notes

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PID	5.2	30	ST	[0..1]		Given Name				RE	Should be blank per PID-5 notes
PID	5.3	30	ST	[0..1]		Second Given Name or Initials				RE	Should be blank per PID-5 notes
PID	5.4	20	ST	[0..1]		Suffix				RE	Should be blank per PID-5 notes
PID	5.5	20	ST	[0..1]		Prefix				RE	Should be blank per PID-5 notes
PID	5.6	6	IS	[0..0]	0360	Degree				X	
PID	5.7	1	ID	[1..1]	0200	Name Type Code		0200 Expected Values: “L” (Legal) – used for patient legal name “S” (Pseudonym) – used for de-identification of patient name “U” (Unspecified) – used when patient name is not known		R	Should be "S" per PID-5 notes
PID	5.8	1	ID	[0..1]		Name Representation Code				X	
PID	5.9	483	CE	[0..1]		Name Context				X	
PID	5.10	53	DR	[0..1]		Name Validity Range				X	
PID	5.11	1	ID	[0..1]	0444	Name Assembly Order				X	
PID	5.12	26	TS	[0..1]		Effective Date				X	
PID	5.13	26	TS	[0..1]		Expiration Date				X	
PID	5.14	199	ST	[0..1]		Professional Suffix				X	
PID	6	294	XPN	[0..*]		Mother's Maiden Name				X	
PID	7	26	TS	[0..1]		Date of Birth				RE	Format of YYYYMMDD
PID	8	1	IS	[0..1]	0001	Administrative Sex	Gender			RE	Values of 'M', 'F' or 'U'

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PID	9	294	XPN	[0..0]		Patient Alias				X	
PID	10	478	CE	[0..*]	0005	Race	Race	Race Category (CDC) Note: Patient could have more than one race defined.		RE	
PID	10.1	20	ST	[0..1]		Identifier		Note: Standardized code for patient race category		RE	
PID	10.2	199	ST	[0..1]		Text		Note: Standardized description associated with code in PID-10.1		RE	
PID	10.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component PID 10.1.		CE	
PID	10.4	20	ST	[0..1]		Alternate Identifier				X	
PID	10.5	199	ST	[0..1]		Alternate Text				X	
PID	10.6	20	ID	[0..1]		Name of Alternate Coding System				X	
PID	11	513	XAD	[0..1]		Patient Address		Note: Expecting only the patient primary (current) address information in the supported components		RE	Home City, State, ZIP Code and County only.
PID	11.1	184	SAD	[0..1]		Street Address				X	Expected to be empty
PID	11.2	120	ST	[0..1]		Other Designation				X	Expected to be empty
PID	11.3	50	ST	[0..1]		City	Patient City/Town			RE	
PID	11.4	50	ST	[0..1]	FIPS 5-2	State or Province	Patient State	FIPS 5-2		RE	
PID	11.5	12	ST	[0..1]	USPS	ZIP or Postal Code	Patient ZIP Code	USPS		RE	HOME ZIP Only
PID	11.6	3	ID	[0..1]	ISO	Country	Patient	ISO 3166-1		RE	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
					3166-1		Country				
PID	11.7	3	ID	[0..1]	0190	Address Type		190 ; Expecting value: 'C'		O	
PID	11.8	50	ST	[0..1]		Other Geographic Designation				O	
PID	11.9	20	IS	[0..1]		County/Parish Code	Patient County			RE	
PID	11.10	20	IS	[0..1]		Census Tract				X	
PID	11.11	1	ID	[0..1]		Address Representation Code				X	
PID	11.12	53	DR	[0..0]		Address Validity Range				X	
PID	11.13	26	TS	[0..1]		Effective Date				X	
PID	11.14	26	TS	[0..1]		Expiration Date				X	
PID	12	4	IS	[0..0]	0289	County Code				X	
PID	13	250	XTN	[0..*]		Phone Number - Home				X	
PID	14	250	XTN	[0..*]		Phone Number - Business				X	
PID	15	478	CE	[0..1]	0296	Primary Language				X	
PID	16	478	CE	[0..1]	0002	Marital Status				X	
PID	17	478	CE	[0..1]	0006	Religion				X	
PID	18	250	CX	[0..1]		Patient Account Number				X	
PID	19	16	ST	[0..0]		SSN Number - Patient				X	
PID	20	64	DLN	[0..0]		Driver's License Number - Patient				X	
PID	21	250	CX	[0..*]		Mother's Identifier				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PID	22	478	CE	[0..1]	0189	Ethnic Group	Ethnicity	Ethnicity Group (CDC)		RE	
PID	22.1	20	ST	[0..1]		Identifier		Note: Standardized code for patient ethnic group.		RE	
PID	22.2	199	ST	[0..1]		Text		Note: Standardized description associated with code in PID-22.1.		O	
PID	22.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component PID-22.1.		CE	
PID	22.4	20	ST	[0..1]		Alternate Identifier				X	
PID	22.5	199	ST	[0..1]		Alternate Text				X	
PID	22.6	20	ID	[0..1]		Name of Alternate Coding System				X	
PID	23	250	ST	[0..1]		Birth Place				X	
PID	24	1	ID	[0..1]	0136	Multiple Birth Indicator				X	
PID	25	2	NM	[0..1]		Birth Order				X	
PID	26	478	CE	[0..*]	0171	Citizenship				X	
PID	27	478	CE	[0..1]	0172	Veterans Military Status				X	
PID	28	478	CE	[0..0]	0212	Nationality				X	
PID	29	26	TS	[0..1]		Patient Death Date		Condition Rule: If the patient expired, this field should contain the patient death date and time. (PV1-36 denotes patient expiration) The minimum acceptable precision is to the nearest minute; seconds are desirable. (meaning if you have/know it	If valued, PID-29 (Patient Death and Time), SHALL be expressed with a minimum precision of the nearest minute and be represented in the following format:	CE	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								send it) If Coordinated Universal Time (UTC) offset is not sent, it is assumed to be offset of the receiver. Condition Predicate: If PV1.36 is valued '20'	'YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ]'		
PID	30	1	ID	[0..1]		Patient Death Indicator		Condition Rule: If the patient expired, this field should contain the patient death indicator. (PV1-36 denotes patient disposition) Condition Predicate: If PV1.36 is valued '20'	If valued, PID-30 (Patient Death Indicator), SHALL be valued to the Literal Value 'Y'.	CE	
PID	31	1	ID	[0..1]	0136	Identity Unknown Indicator				X	
PID	32	20	IS	[0..*]	0445	Identity Reliability Code				X	
PID	33	26	TS	[0..1]		Last Update Date/Time				O	
PID	34	241	HD	[0..1]		Last Update Facility				O	
PID	35	478	CE	[0..1]	0446	Species Code				X	
PID	36	478	CE	[0..1]	0447	Breed Code				X	
PID	37	80	ST	[0..1]		Strain				X	
PID	38	478	CE	[0..1]	0429	Production Class Code				X	
PID	39	697	CWE	[0..*]	0171	Tribal Citizenship				X	

PV1 – Patient Visit Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PV1	1	4	SI	[0..1]		Set ID		Note: Set ID numbers the repetitions of the segments Only one patient per message is supported. Literal value: "1"	PV1-1 (Set ID) SHALL have the Literal Value of '1'	RE	
PV1	2	1	IS	[0..1]	0004	Patient Class	Patient Class	Patient Class (Syndromic Surveillance)		R	
PV1	3	1220	PL	[0..1]		Assigned Patient Location				O	
PV1	4	2	IS	[0..1]	0007	Admission Type		0007		O	
PV1	5	250	CX	[0..1]		Pre-Admit Number				X	
PV1	6	1220	PL	[0..1]		Prior Patient Location				X	
PV1	7	309	XCN	[0..*]	0110	Attending Doctor	Unique Physician Identifier			RE	Must be Physician's Individual (Type 1) NPI. This is required to identify the physician for Meaningful Use verification. Only needed in Ambulatory settings.
PV1	8	309	XCN	[0..*]	0110	Referring Doctor				X	
PV1	9	309	XCN	[0..0]	0110	Consulting Doctor				X	
PV1	10	3	IS	[0..1]	0069	Hospital Service				O	
PV1	11	1220	PL	[0..1]		Temporary Location				X	
PV1	12	2	IS	[0..1]	0087	Preadmit Test Indicator				X	
PV1	13	2	IS	[0..1]	0092	Re-Admission				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
						Indicator					
PV1	14	6	IS	[0..1]	0023	Admit Source				O	
PV1	15	2	IS	[0..*]	0009	Ambulatory Status				O	
PV1	16	2	IS	[0..1]	0099	VIP Indicator				X	
PV1	17	309	XCN	[0..*]	0010	Admitting Doctor				X	
PV1	18	2	IS	[0..1]	0018	Patient Type				X	
PV1	19	478	CX	[1..1]		Visit Number				R	All should be unique unless multiple messages are describing the same encounter
PV1	19.1	15	ST	[1..1]		ID Number	Unique Visiting ID (Emergent) Unique Patient/Visit ID (Ambulatory)	Note: Unique identifier for a patient visit		R	
PV1	19.2	1	ST	[0..1]		Check Digit				X	
PV1	19.3	3	ID	[0..1]	0061	Check Digit Scheme				X	
PV1	19.4	227	HD	[0..1]	0363	Assigning Authority				RE	
PV1	19.5	5	ID	[1..1]		Identifier Type Code		Identifier Type Note: Use the Identifier Type Code that corresponds to the type of ID Number specified in PV1-19.1.	PV1-19.5 (Identifier Type Code) SHALL be valued to the Literal Value 'VN'.	R	
PV1	19.6	227	HD	[0..1]		Assigning Facility				RE	
PV1	19.7	8	DT	[0..1]		Effective Date				X	
PV1	19.8	8	DT	[0..1]		Expiration Date				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PV1	19.9	705	CWE	[0..1]		Assigning Jurisdiction				X	
PV1	19.10	705	CWE	[0..1]		Assigning Facility				X	
PV1	20	50	FC	[0..*]	0064	Financial Class				X	
PV1	21	2	IS	[0..1]	0032	Charge Price Indicator				X	
PV1	22	2	IS	[0..1]	0045	Courtesy Code				X	
PV1	23	2	IS	[0..1]	0046	Credit Rating				X	
PV1	24	2	IS	[0..*]	0044	Contract Code				X	
PV1	25	8	DT	[0..*]		Contract Effective Date				X	
PV1	26	12	NM	[0..*]		Contract Amount				X	
PV1	27	3	NM	[0..*]		Contract Period				X	
PV1	28	2	IS	[0..1]	0073	Interest Code				X	
PV1	29	4	IS	[0..1]	0110	Transfer to Bad Debt Code				X	
PV1	30	8	DT	[0..1]		Transfer to Bad Debt Date				X	
PV1	31	10	IS	[0..1]	0021	Bad Debt Agency Code				X	
PV1	32	12	NM	[0..1]		Bad Debt Transfer Amount				X	
PV1	33	12	NM	[0..1]		Bad Debt Recovery Amount				X	
PV1	34	1	IS	[0..1]	0111	Delete Account Indicator				X	
PV1	35	8	DT	[0..1]		Delete Account Date				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PV1	36	3	IS	[0..1]	0112	Discharge Disposition	Discharge Disposition	Discharge Disposition (HL7)		RE	
PV1	37	47	DLD	[0..1]	0113	Discharged to Location				X	
PV1	38	478	CE	[0..1]	0114	Diet Type				X	
PV1	39	2	IS	[0..1]	0115	Servicing Facility				X	
PV1	40	1	IS	[0..0]	0116	Bed Status				X	
PV1	41	2	IS	[0..1]	0117	Account Status				X	
PV1	42	1220	PL	[0..1]		Pending Location				X	
PV1	43	1220	PL	[0..1]		Prior Temporary Location				X	
PV1	44	26	TS	[1..1]		Admit Date/Time	Encounter or Visit Date/Time	Note: Date and time of the patient presentation. YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ] The minimum acceptable precision is to the nearest minute; seconds are desirable. (meaning if you have/know it send it) If Coordinated Universal Time (UTC) offset is not sent, it is assumed to be offset of the receiver	PV1-44 (Admit Date/Time) SHALL be expressed with a minimum precision of the nearest minute and be represented in the following format: 'YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ]'..	R	
PV1	45	26	TS	[0..1]		Discharge Date/Time	Disposition Date/Time	Note: Date and time of the patient discharge. YYYYMMDDHHMM[SS[.S[S[S[S]]]]] [+/-ZZZZ] The minimum acceptable precision is to the nearest		O	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								minute; seconds are desirable. (meaning if you have/know it send it) If Coordinated Universal Time (UTC) offset is not sent, it is assumed to be offset of the receiver.			
PV1	46	12	NM	[0..1]		Current Patient Balance				X	
PV1	47	12	NM	[0..1]		Total Charges				X	
PV1	48	12	NM	[0..1]		Total Adjustments				X	
PV1	49	12	NM	[0..1]		Total Payments				X	
PV1	50	250	CX	[0..1]	0203	Alternate Visit ID				X	
PV1	51	1	IS	[0..1]	0326	Visit Indicator				X	L
PV1	52	309	XCN	[0..0]	0010	Other Healthcare Provider				X	

PV2 – Patient Visit – Additional Information Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PV2	1	1220	PL	[0..1]		Prior Pending Location				X	
PV2	2	478	CE	[0..1]	0129	Accommodation Code				X	
PV2	3	478	CE	[0..1]		Admit Reason		ICD-9 Clinical Modification diagnosis code (including E-codes and V-codes) Or ICD-10 Clinical Modification diagnosis code Or SNOMED Disorder/ Disease domain	PV2-3.3 SHALL be valued to one of the Literal Values in the set ('I10', 'I9CDX', 'SCT').	RE	In the Legacy MSSS message, this was the chief complaint area; free-text chief complaint has been moved to OBX-5
PV2	3.1	20	ST	[0..1]		Identifier				RE	
PV2	3.2	199	ST	[0..1]		Text		It is strongly recommended that text be sent to accompany any identifier.		RE	
PV2	3.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component PV2-3.1.		C	
PV2	3.4	20	ST	[0..1]		Alternate Identifier				X	
PV2	3.5	199	ST	[0..1]		Alternate Text				X	
PV2	3.6	20	ID	[0..1]		Name of Alternate Coding System				X	
PV2	4	478	CE	[0..1]		Transfer Reason				X	
PV2	5	25	ST	[0..*]		Patient Valuables				X	
PV2	6	25	ST	[0..1]		Patient Valuables Location				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PV2	7	2	IS	[0..*]	0130	Visit User Code				X	
PV2	8	26	TS	[0..1]		Expected Admit Date/Time				X	
PV2	9	26	TS	[0..1]		Expected Discharge Date/Time				X	
PV2	10	3	NM	[0..1]		Estimated Length of Inpatient Stay				X	
PV2	11	3	NM	[0..1]		Actual Length of Inpatient Stay				X	
PV2	12	50	ST	[0..1]		Visit Description				X	
PV2	13	309	XCN	[0..*]		Referral Source Code				X	
PV2	14	8	DT	[0..1]		Previous Service Date				X	
PV2	15	1	ID	[0..1]	0136	Employment Illness Related Indicator				X	
PV2	16	1	IS	[0..1]	0213	Purge Status Code				X	
PV2	17	8	DT	[0..1]		Purge Status Date				X	
PV2	18	2	IS	[0..1]	0214	Special Program Code				X	
PV2	19	1	ID	[0..1]	0136	Retention Indicator				X	
PV2	20	1	NM	[0..1]		Expected Number of Insurance Plans				X	
PV2	21	1	IS	[0..1]	0215	Visit Publicity Code				X	
PV2	22	1	ID	[0..1]	0136	Visit Protection Indicator				X	
PV2	23	250	XON	[0..*]		Clinic Organization Name				X	
PV2	24	2	IS	[0..1]	0216	Patient Status Code				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
PV2	25	1	IS	[0..1]	0217	Visit Priority Code				X	
PV2	26	8	DT	[0..1]		Previous Treatment Date				X	
PV2	27	2	IS	[0..1]	0112	Expected Discharge Disposition				X	
PV2	28	8	DT	[0..1]		Signature on File Date				X	
PV2	29	8	DT	[0..1]		First Similar Illness Date				X	
PV2	30	478	CE	[0..1]	0218	Patient Charge Adjustment Code				X	
PV2	31	2	IS	[0..1]	0219	Recurring Service Code				X	
PV2	32	1	ID	[0..1]	0136	Billing Media Code				X	
PV2	33	26	TS	[0..1]		Expected Surgery Date and Time				X	
PV2	34	1	ID	[0..1]	0136	Military Partnership Code				X	
PV2	35	1	ID	[0..1]	0136	Military Non-Availability Code				X	
PV2	36	1	ID	[0..1]	0136	Newborn Baby Indicator				X	
PV2	37	1	ID	[0..1]	0136	Baby Detained Indicator				X	
PV2	38	478	CE	[0..1]	0430	Mode of Arrival Code				X	
PV2	39	478	CE	[0..*]	0431	Recreational Drug Use Code				X	
PV2	40	478	CE	[0..1]	0432	Admission Level of				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
						Care Code					
PV2	41	478	CE	[0..*]	0433	Precaution Code				X	
PV2	42	478	CE	[0..1]	0434	Patient Condition Code				X	
PV2	43	2	IS	[0..1]	0315	Living Will Code				X	
PV2	44	2	IS	[0..1]	0316	Organ Donor Code				X	
PV2	45	478	CE	[0..*]	0435	Advance Directive Code				X	
PV2	46	8	DT	[0..1]		Patient Status Effective Date				X	
PV2	47	26	TS	[0..1]		Expected LOA Return Date/Time				X	
PV2	48	26	TS	[0..1]		Expected Pre-admission Testing Date/Time				X	
PV2	49	20	IS	[0..*]	0534	Notify Clergy Code				X	

OBX – Observation/Results Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
OBX	1	4	SI	[0..1]		Set ID – OBX		Note: 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|….		RE	
OBX	2	3	ID	[1..1]	0125	Value Type		0125 Note: Identifies the structure of data in observation value (OBX.5).	OBX-2 SHALL be valued to the Literal Value in the set ('TS', 'TX', 'NM', 'CWE', 'XAD').	R	
OBX	3	478	CE	[1..1]		Observation ID		Observation Identifier (Syndromic Surveillance) Note: Identifies data to be received in observation value (OBX.5)		R	
OBX	3.1	20	ST	[1..1]		Identifier				R	
OBX	3.2	199	ST	[0..1]		Text				O	
OBX	3.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component OBX-3.1. Usage for this element is essentially R		R	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								(Required) since OBX 3.1 is Required.			
OBX	3.4	20	ST	[0..1]		Alternate Identifier				X	
OBX	3.5	199	ST	[0..1]		Alternate Text				X	
OBX	3.6	20	ID	[0..1]		Name of Alternate Coding System				X	
OBX	4	20	ST	[0..1]		Observation Sub-Id				X	
OBX	5	99999	Varies	[0..*]		Observation Value		Note: Values received in observation value are defined by value type (OBX.2) and observation identifier (OBX.3). Listed below are the supported fields for each of the supported value types.		RE	
The OBX segment will be used for several different pieces of data in the syndromic message. The Data Element being sent in each respective OBX segment will dictate the data type and identifiers (set in OBX-2 and OBX-3) and subsequently determine the format of the OBX-5 segment. Some of these data are required and several of them are optional. All of the different possible configurations of the OBX-5 segments are listed below.											
Date of Onset (TS)											
OBX	5.1	24	DTM	[0..1]		Time	Date of Onset	OBX Segment (TS Data Type, 1st Component, 5th field) with LOINC Code (11368-8) Observation Identifier		RE	
OBX	5.2	1	ST	[0..0]		Degree of Precision				X	
Clinical Impression (TX)											
OBX	5.1	65536	TX	[0..1]		Text Data	Clinical Impression	Note: The TX data type is used to carry string data intended for display purposes. It can contain leading blanks (space		O	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								characters). OBX Segment (TX Data Type, 5th field) with LOINC Code (44833-2) Observation Identifier			
Triage Notes (TX)											
OBX	5.1	65536	TX	[0..1]		Text Data	Triage Notes	Note: The TX data type is used to carry string data intended for display purposes. It can contain leading blanks (space characters). OBX Segment (TX Data Type, 5th field) with LOINC Code (54094-8) Observation Identifier		O	
Facility Street Address (XAD)											
OBX	5.1	184	SAD	[0..1]		Street Address	Facility Street Address	If this data element is captured and maintained as part of the facility registration process, it may not be sent with every message. See ISDS recommendations, section 4.2, on Facility Registration ISDS. OBX Segment (XAD Data Type) with PHINQUESTION Code (SS002) Observation Identifier		O	
OBX	5.1.1	120	ST	[0..1]		Street or Mailing Address		Note: This is the first subcomponent of the SAD data type. This has the same effect as		O	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								being the first component of the field, while limiting the length based on other subcomponents that are not supported.			
OBX	5.1.2	50	ST	[0..1]		Street Name				O	
OBX	5.1.3	12	ST	[0..1]		Dwelling Number				O	
OBX	5.2	120	ST	[0..1]		Other Designation				O	
OBX	5.3	50	ST	[0..1]		City	Facility City			O	
OBX	5.4	50	ST	[0..1]	FIPS 5-2	State or Province	Facility State	FIPS 5-2		O	
OBX	5.5	12	ST	[0..1]	USPS	ZIP or Postal Code	Facility ZIP Code	USPS		O	
OBX	5.6	3	ID	[0..1]	ISO 3166 -1	Country		ISO 3166-1		O	
OBX	5.7	3	ID	[0..1]	0190	Address Type		0190		O	
OBX	5.8	50	ST	[0..1]		Other Geographic Designation				O	
OBX	5.9	20	IS	[0..1]		County/Parish Code	Facility County			O	
OBX	5.10	20	IS	[0..1]		Census Tract				X	
OBX	5.11	1	ID	[0..1]		Address Representation Code				X	
OBX	5.12	53	DR	[0..0]		Address Validity Range				X	
OBX	5.13	26	TS	[0..1]		Effective Date				X	
OBX	5.14	26	TS	[0..1]		Expiration Date				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
Age (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	Age	Note: A numeric data type is a number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer. OBX Segment (NM Data Type, 1st Component, 5th field) with LOINC Code (21612-7) Observation Identifier		R	
Initial Temperature (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	Initial Temperature	Note: A numeric data type is a number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer. OBX Segment (NM Data Type, 1st Component, 5th field) with LOINC Code (11289-6) Observation Identifier		RE	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
Initial Pulse Oximetry (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	Initial Pulse Oximetry	Note: A numeric data type is a number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer. OBX Segment (NM Data Type, 1st Component, 5th field) with LOINC Code (59408-5) Observation Identifier		RE	
Height (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	Height	Note: A numeric data type is a number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer.		O	OBX Segment (NM Data Type, 1st Component, 5th field) with LOINC Code (8302-2) Observation Identifier
Weight (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	Weight	Note: A numeric data type is a number represented as a series		O	OBX Segment (NM Data Type, 1st Component, 5th

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer.			field) with LOINC Code (3141-9) Observation Identifier
BP Diastolic (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	BP Diastolic (SBP/DBP - Most Recent)	Note: A numeric data type is a number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer.		O	OBX Segment (NM Data Type, 1st Component, 5th field) with LOINC Code (8462-4) Observation Identifier
BP Systolic (NM)											
OBX	5.1	16	ST	[0..1]		Numeric Value	BP Systolic (SBP/DBP - Most Recent)	Note: A numeric data type is a number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer.		O	OBX Segment (NM Data Type, 1st Component, 5th field) with LOINC Code (8480-6) Observation Identifier

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
Smoking Status (CWE)											
OBX	5.1	20	ST	[0..1]		Identifier	Smoking Status	Note: Implementers should check with their local jurisdiction for version of adopted coding system.		O	OBX Segment (CWE Data Type, 5th field) with LOINC Code (72166-2) Observation Identifier
OBX	5.2	199	ST	[0..1]		Text		It is strongly recommended that text be sent to accompany any identifier		RE	
OBX	5.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component 1.		C	
OBX	5.4	20	ST	[0..1]		Alternate Identifier		It is strongly recommended that text be sent to accompany any identifier.		RE	
OBX	5.5	199	ST	[0..1]		Alternate Text		Condition Rule: Required if an identifier is provided in component 4.		RE	
OBX	5.6	20	ID	[0..1]		Name of Alternate Coding System				C	
OBX	5.7	10	ST	[0..1]		Coding System Version ID				O	
OBX	5.8	10	ST	[0..1]		Alternate Coding System Version ID				O	
OBX	5.9	199	ST	[0..1]		Original Text		Provide the richest text available in this field.		RE	
Encounter Reason (CWE)											
OBX	5.1	20	ST	[0..1]		Identifier	Encounter Reason	Note: Implementers should check with their local jurisdiction for version of adopted coding		RE	OBX Segment (CWE Data Type, 5th field) with a local

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								system.			code (ENCRSN) as an observation identifier.
OBX	5.2	199	ST	[0..1]		Text		It is strongly recommended that text be sent to accompany any identifier		RE	
OBX	5.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component OBX-5.1.		C	
OBX	5.4	20	ST	[0..1]		Alternate Identifier		It is strongly recommended that text be sent to accompany any identifier.		RE	
OBX	5.5	199	ST	[0..1]		Alternate Text				RE	
OBX	5.6	20	ID	[0..1]		Name of Alternate Coding System		Condition Rule: Required if an identifier is provided in component OBX-5.4.		C	
OBX	5.7	10	ST	[0..1]		Coding System Version ID				O	
OBX	5.8	10	ST	[0..1]		Alternate Coding System Version ID				O	
OBX	5.9	199	ST	[0..1]		Original Text		Provide the richest text available in this field.		RE	Encounter Reason Free Text. Differs from Chief Complaint as it is based on the clinician's perspective
Chief Complaint (CWE)											
OBX	5.1	20	ST	[0..1]		Identifier	Chief Complaint	Note: Implementers should check with their local jurisdiction for version of adopted coding system. OBX Segment (CWE Data Type, 5th field) with LOINC Code		RE	No coding system has been designated locally.

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								(8661-1) Observation Identifier			
OBX	5.2	199	ST	[0..1]		Text		It is strongly recommended that text be sent to accompany any identifier		RE	
OBX	5.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component 1.		C	
OBX	5.4	20	ST	[0..1]		Alternate Identifier		It is strongly recommended that text be sent to accompany any identifier.		RE	
OBX	5.5	199	ST	[0..1]		Alternate Text		Condition Rule: Required if an identifier is provided in component 4.		RE	
OBX	5.6	20	ID	[0..1]		Name of Alternate Coding System				C	
OBX	5.7	10	ST	[0..1]		Coding System Version ID				O	
OBX	5.8	10	ST	[0..1]		Alternate Coding System Version ID				O	
OBX	5.9	199	ST	[0..1]		Original Text		Provide the richest text available in this field.		RE	Chief Complaint Free Text. Differs from Encounter Reason as it is based on patient's perspective
Facility/Visit Type (CWE)											
OBX	5.1	20	ST	[0..1]		Identifier	Facility/ Visit Type	Note: Implementers should check with their local jurisdiction for version of adopted coding system. OBX Segment (CWE Data Type) with PHINQUESTION Code		RE	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								(SS003) Observation Identifier			
OBX	5.2	199	ST	[0..1]		Text		It is strongly recommended that text be sent to accompany any identifier		RE	
OBX	5.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component 1.		C	
OBX	5.4	20	ST	[0..1]		Alternate Identifier		It is strongly recommended that text be sent to accompany any identifier.		RE	
OBX	5.5	199	ST	[0..1]		Alternate Text		Condition Rule: Required if an identifier is provided in component 4.		RE	
OBX	5.6	20	ID	[0..1]		Name of Alternate Coding System				C	
OBX	5.7	10	ST	[0..1]		Coding System Version ID				O	
OBX	5.8	10	ST	[0..1]		Alternate Coding System Version ID				O	
OBX	5.9	199	ST	[0..1]		Original Text				RE	
OBX	6	62	CE	[0..1]		Units		Pulse Oximetry Unit Temperature Unit Age unit (Syndromic Surveillance) Note: Units are a conditional field. If numeric data is sent, the units field must define the units of the value used in observation value (OBX.5)	*If OBX 3.1 is valued with 21612-7, then OBX-6.1 (Identifier) SHALL be valued to a member of the set: PHVS_AgeUnit_Sy	C	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								Condition Predicate: If OBX.2 (Value Type) is valued “NM”	ndromicSurveillance, (Value Set OID 2.16.840.1.114222.4.11.3402). *If OBX 3.1 = is valued with 11289-6 then OBX-6.1 (Identifier) SHALL be valued to a member of the set: PHVS_TemperatureUnit_UCUM (Value Set OID 2.16.840.1.114222.4.11.919). *If OBX 3.1 is valued with 59408-5 then OBX6.1 (Identifier) SHALL be valued to a member of the set PHVS_PulseOximetryUnit_UCUM, (Value Set OID 2.16.840.1.114222.4.11.3590)		
OBX	6.1	20	ST	[1..1]		Identifier	Age Units			R	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
OBX	6.2	20	ST	[0..1]		Text		Standardized description associated with code in OBX-6.1.		O	
OBX	6.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in component OBX-6.1. Usage for this element is essentially R (Required) since the component OBX 6.1) is Required.		R	
OBX	6.4	20	ST	[0..1]		Alternate Identifier				X	
OBX	6.5	199	ST	[0..1]		Alternate Text				X	
OBX	6.6	20	ID	[0..1]		Name of Alternate Coding System				X	
OBX	7	60	ST	[0..1]		Reference Range				X	
OBX	8	5	IS	[0..*]	0078	Abnormal Flags				X	
OBX	9	5	NM	[0..1]		Probability				X	
OBX	10	2	ID	[0..*]	0080	Nature of Abnormal Test				X	
OBX	11	1	ID	[1..1]	0085	Observation Result Status		0085 Expected value: 'F'		R	
OBX	12	26	TS	[0..1]		Date Last Observed Normal Values				X	
OBX	13	20	ST	[0..1]		User Defined Access Checks				X	
OBX	14	26	TS	[0..1]		Date/Time of the Observation				O	
OBX	15	478	CE	[0..1]		Producer's ID				X	
OBX	16	309	XCN	[0..*]		Responsible				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
						Observer					
OBX	17	478	CE	[0..*]		Observation Method				X	
OBX	18	424	EI	[0..*]		Equipment Instance Identifier				X	
OBX	19	26	TS	[0..1]		Date/Time of the Analysis				X	

DG1 – Diagnosis Segment

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
DG1	1	4	SI	[1..1]		Set ID – DG1		Note: Numbers the repetitions of the segments	DG1-1 (Set ID) for the first occurrence of a DG1 Segment SHALL have the Literal Value of '1'. Each following occurrence SHALL be numbered consecutively.	R	
DG1	2	2	ID	[0..1]	0053	Diagnosis Coding Method				X	
DG1	3	478	CE	[1..1]		Diagnosis Code, Identifier, Text, Coding System	Diagnosis/External Cause of Injury Code (Emergent), Primary Diagnosis (Ambulatory), Additional Diagnosis (Ambulatory)	ICD-9 Clinical Modification diagnosis code (including E-codes and V-codes) Or ICD-10 Clinical Modification diagnosis code Or SNOMED Disorder/ Disease domain		RE	Data should be sent on a regular schedule and should not be delayed for diagnosis or verification procedures. Regular updating of data should be used to correct any errors or send data available later. Include V-codes and E-codes This field is a repeatable field; multiple codes may be sent. The first diagnosis code should be the primary / diagnosis.
DG1	3.1	20	ST	[0..1]		Identifier		Note: Standardized code for diagnosis.		RE	
DG1	3.2	199	ST	[0..1]		Text		Note: Standardized description associated with code in DG1-3.1.		RE	
DG1	3.3	20	ID	[0..1]		Name of Coding System		Condition Rule: Required if an identifier is provided in	DG1-3.3 SHALL be valued to one of the Literal Values in	R	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
								component DG1-3.1. Usage for this element is essentially R (Required) since the component DG1 3.1 is Required.	the set ('I10', 'I9CDX', 'SCT').		
DG1	3.4	20	ST	[0..1]		Alternate Identifier				X	
DG1	3.5	199	ST	[0..1]		Alternate Text				X	
DG1	3.6	20	ID	[0..1]		Name of Alternate Coding System				X	
DG1	4	40	ST	[1..1]		Diagnosis Description				X	
DG1	5	26	TS	[0..1]		Diagnosis Date/Time				O	
DG1	6	2	IS	[0..0]		Diagnosis Type	Diagnosis Type	Diagnosis Type (HL7) Note: Identifies the type of diagnosis being sent. Literal values: "A" for Admitting diagnosis, "W" for Working diagnosis or "F" for Final diagnosis.		R	
DG1	7	478	CE	[0..0]	0118	Major Diagnostic Category				X	
DG1	8	478	CE	[0..0]	0055	Diagnostic Related Group				X	
DG1	9	1	ID	[0..0]	0136	DRG Approval Indicator				X	
DG1	10	2	IS	[0..0]	0056	DRG Grouper Review Code				X	

Segment	Sequence	Length	Data Type	Cardinality	Value Set	HL7 Field Name	Data Element Name	Values/Notes	Conformance Statements	Requirement	Additional MDCH Requirements
DG1	11	478	CE	[0..0]	0083	Outlier Type				X	
DG1	12	3	NM	[0..0]		Outlier Days				X	
DG1	13	538	CP	[0..0]		Outlier Cost				X	
DG1	14	4	ST	[0..0]		Grouper Version And Type				X	
DG1	15	2	ID	[0..1]	0359	Diagnosis Priority				X	
DG1	16	309	XCN	[0..*]		Diagnosing Clinician				X	
DG1	17	3	IS	[0..1]	0228	Diagnosis Classification				X	
DG1	18	1	ID	[0..1]	0136	Confidential Indicator				X	
DG1	19	26	TS	[0..1]		Attestation Date/Time				X	
DG1	20	427	EI	[0..1]		Diagnosis Identifier				X	
DG1	21	1	ID	[0..1]	0206	Diagnosis Action Code				X	

Appendix C – Change Log

December 2013 Revision

- Added Appendix C to show revision changes.
- Changed table heading (pg 4).
- Updated references to accepting syndromic feeds from eligible providers to indicate Michigan's ability to receive those messages as of specific dates (pgs 4 and 5).
- Changed guidance for sub-state HIE selection to MiHIN and moved references to M-CEITA to page 4 (page 6).
- Updated links to MichiganHealthIT.org to reflect website restructuring. (pgs 4, 5, and 7).
- Updated link to MiHIN website (pg 6).
- Updated local code for Encounter Reason from ENCRSN^^MDCH to ENCRSN^^L (page 11).
- Changes to Structure and Content section; added references to MDCH Syndromic Validator (MDCH-V), including use of MDCH-V for One Test (pgs 6-8).
- Added details about test message submission during follow-up submission/testing and validation (pg 9 and 10, Appendix A).
    - Changed "emailed" to "notified."
    - Added bolded sections at the bottom of Follow-up Submission and On-Going Submission.
- Clarified OID usage in MSH-4 and EVN-7 (pgs 12 and 19, Appendix B).
- Added link to OID Creation and Registration Guide (pg 9, Appendix B).
- Corrected mistake in full name for PHTR (pg 7, 8).
- Added clarification that MSH-4.1 is the Organization Name field (pg 12).
- Corrected MSH-12 to state that it can only be a value of "2.5.1" in the MDCH Requirements (pg 15).
- Updated Bureau of Epidemiology to Bureau of Disease Control, Prevention & Epidemiology (pg 3).

August 2014 Revision

- Added language about data submission to CDC BioSense (pg 3).
- Added Ophthalmologists to table of healthcare providers (pg 4).
- Reversed the order of "Transport" and "Structure" sections on page 6 to better reflect the process chronology.
- Changed the name of the "Public Health Testing Repository" (PHTR) to "Health Systems Testing Repository" (HSTR).
- Added text about agreeing on senders ID data before sending test messages (pg 7).
- Updated the On-Going Submission definition (bulleted list only) in Appendix A (pg 8).
- Added clarifying text about the need for distinct Facility OIDs (pg 9).
- Added link to where submitters can find additional details on data elements (pg 10).
- Added note about PHIN code value sets (pg 10)

- Corrected the “Date of Onset” OBX-3 code from 11368^^LN to 11368-8^^LN (pg 12).
- Corrected the “Weight” OBX-3 code from 29463-7^^LN to 3141-9^^LN (pg 12) and in Appendix B (pg 43).
- Corrected the “Smoking Status” OBX-3 code from 54845-3^^LN to 72166-2^^LN (pg 12) and in Appendix B (Pg 44).
- Added additional text in “Message Observations” on the importance of the “Chief Complaint” segment and field 5.9 to MSSS goals (pg 12).
- Specified OID numbers as options for MSH-5 and MSH-6 (pg 14).