



# Cancer Pathology Implementation Guide

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# Document History

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# 1. Introduction

## 1.1 Purpose of Data Exchange Solution

*Allows healthcare providers and pathology laboratories to submit electronic lab results containing electronic pathology reports through MiHIN.*

To help keep consumers healthy and cancer-free, state cancer surveillance programs are tasked with monitoring the incidence of cancer. These programs work to help consumers prevent cancer while also encouraging recommended cancer screenings or tests to help detect cancer early.

Cancer pathology reports are an important and fundamental tool for cancer monitoring, service planning, and research. These reports are the primary method for identifying the rate of occurrence and impact of cancer in a population. Cancer information collected from pathology laboratories can be used to evaluate diagnosis and treatment strategies for an entire consumer population and for the Medicaid beneficiary population. Meaningful Use recognizes the importance of this information as a reportable measure.

Paper-based reporting has been used for most reportable infectious diseases and other laboratory findings, such as cancer pathology reports. Today, electronic reports allow hospitals and laboratories to send these cancer test results through automated and secure digital communication quickly and efficiently. Electronic lab reports allow timely reporting to public health agencies and help reduce reporting burdens in healthcare.

National cancer laboratories are currently able to send pathology information to state central cancer registries through the Public Health Information Network Messaging System (PHIN MS). State cancer registries are intended to enable monitoring the incidence of cancer, enable cancer control planning and allow assessment of progress toward goals relative to the state public health interventions.

However, Michigan is one of the few remaining states that does not receive electronic cancer pathology lab test results through PHIN MS. For the State of Michigan, this role is performed by the Michigan Cancer Surveillance Program. The health information network (HIN) transports this information through the Michigan Department of Health and Human Services (MDHHS) Data Hub to the state's Cancer Registry.

## 1.2 Message Content

The Use Case Exhibit (UCE) for the Cancer Pathology data exchange solution defines message content as Lab Orders, Lab Results, or other related clinical observation and is further defined in each UCIG for each data sharing scenario checked and initialed by PO in Attachment 1 to this UCE.

For the purposes of implementation of the data exchange solution, Message Content refers to HL7 2.xx, ORU^R01. HL7 v2.5.1 or newer version of HL7 is preferred, however v2.3.1 is allowable.

## 1.3 Data Flow

In this data exchange solution, MiHIN enables the transport of messages across Trusted Data Sharing Organizations (TDSOs) within MiHIN, called “Participating Organizations” in the diagram below.

### 1.3.1 Data Flow



**Figure 1. Data Flow for Cancer Pathology Reports**

1. Participating organizations generate and send reportable lab messages that contain cancer pathology reports to the state’s Health Information Network (HIN) via a trusted data sharing organization, which may or may not be the organization itself.
2. HIN routes the reportable lab message to the state Cancer Registry via the State Data Hub.
3. Once the reportable lab has successfully been received and processed by the Cancer Registry, the State Data Hub generates and sends a notice of receipt back to the participating organizations via the State HIN.

### 1.3.2 Actors

- **Actor:** Participating Organizations
  - *Role:* Generates and sends reportable lab messages containing cancer pathology information and receives notices of receipt
- **Actor:** HIN
  - *Role:* Receives reportable lab messages and routes them to the State Data Hub. Receives notice of receipt from the State Data Hub and routes it to the participating organization.
- **Actor:** MDHHS Data Hub
  - *Role:* Receives reportable lab messages from State HIN and sends them to the State Cancer Registry. Generates a notice once the cancer registry has successfully received the reportable lab and sends it to State HIN.
- **Actor:** State Cancer Registry
  - *Role:* Receives reportable lab messages and process them

For more information about this data exchange solution, refer to the documents found on the following page:

<http://mihin.org/cancer-pathology/>

## 2. Onboarding

### 2.1 Prerequisites

Participating organizations should begin two parallel onboarding tracks simultaneously:

- Obtain, review, and execute legal agreements, and
- Establish technical transport and testing.

#### *2.1.1 Universal Legal Prerequisites*

The following legal documentation will need to be executed prior to any connectivity being established between MiHIN and participating organizations.

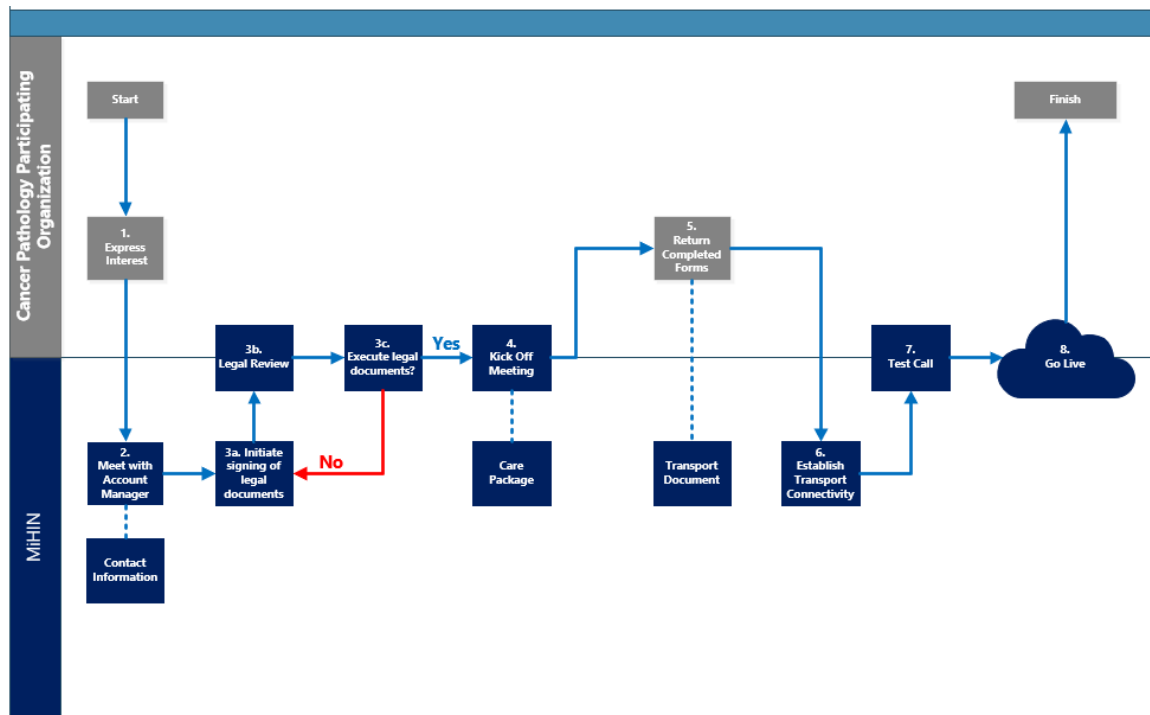
- Statement of Work (SOW)
- MiHIN's Exhibit A Agreement (Found on the MiHIN Legal Portal)
- Participant Agreement (Found on the MiHIN Legal Portal)
- Must select the appropriate data exchange solution (Cancer Pathology) on the MiHIN legal portal in addition to the above agreements.

To initiate the legal onboarding contact, email [help@mihin.org](mailto:help@mihin.org).

#### *2.1.2 Technical Requirements*

There are no technical prerequisites for participation in this data exchange solution.

## 2.2 Cancer Pathology Onboarding Process



For organizations that will be participating with the Cancer Pathology data exchange solution, onboarding steps are as follows:

- Express interest in participating in the data exchange solution
- Meet with Account Manager
  - Exchange contact information
- Initiate signing of legal documents
- Legal Review
- Execute Legal Documents
  - Exhibit A
  - Participant Agreement
- Kick-Off Meeting
  - Distribute Cancer Pathology Care Package
- Exchange required documents
  - Transport Document
  - OID Request Form
- Establish transport method/connectivity (VPN)
- Test Call



- Transport Document
  - Test Reportable Lab Message
- Go Live

## 2.3 Technical Connectivity Process

MiHIN considers itself “transport agnostic” and offers multiple options for organizations to establish technical connectivity to transport data to MiHIN. Organizations should select one or more connectivity methods for message transport based on their technical capabilities, and put in a service request at [www.mihin.org/requesthelp](http://www.mihin.org/requesthelp). Currently MiHIN accepts the following transport methods:

■ **LLP over IPsec VPN** – Lower-Layer Protocol over Internet Protocol Security Virtual Private Network

For VPN connectivity two VPNs are required. A primary VPN will facilitate regular traffic. A secondary will be established for fail-over purposes.

Additional transport methods may be added in the future. These can include NwHIN, XCA, REST/RESTFUL APIs, FHIR, and others.

The following steps describe the technical onboarding process. However, MiHIN typically conducts “onboarding kickoff” meetings with new organizations to go through each of these steps in detail and answer any questions.

1. The organization selects one or more supported transport methods and establishes connectivity with MiHIN. This step varies based on the method selected:
  - a. LLP over IPsec VPN – MiHIN’s site-to-site VPN request form must be completed, sent and approved by MiHIN. Send a request via [www.mihin.org/requesthelp](http://www.mihin.org/requesthelp) to obtain the VPN request form. A pre-shared key is then exchanged between the organization and MiHIN to initialize the connection. The LLP over IPsec VPN is the most efficient transport for very high volumes of messages.
2. Test messages are sent by the organization to MiHIN.
  - a. All test messages must have a “T” in the Message Header – field 11
  - b. Test traffic is routed via MiHIN to the appropriate destination. For Cancer Pathology, the destination is the state Cancer Registry via the state data hub.

- c. The end destination monitors for inbound test traffic and confirm receipt with MiHIN, which confirms with the organization.
- 3. For the Cancer Pathology Data Exchange Solution, the state Cancer Registry deems the sending facility to have entered into Data Quality Assurance Status (DQA) once they have successfully received a properly formatted message from the sending facility via the organization through MiHIN.
  - a. Until completion of the DQA process, sending facilities should continue to dually send their Cancer Pathology reports through MiHIN as well as continuing to send using any current method.
- 4. The state Michigan Cancer Registry declares the sending facility to be at production status after another period of successful testing and exiting DQA status.
  - a. At this time, the sending facility may then send production messages through the participating organization to MiHIN. The sending facility now places a “P” (for production) value in the MSH-11 instead of the “T” used during testing.

### *2.3.1 Onboarding Additional Sending Facilities*

When a participating organization wishes to onboard additional sending facilities, those facilities must first register with the cancer registry. Once successful, the registration information from the cancer registry, including the Facility ID Number, must be emailed via [www.mihin.org/requesthelp](http://www.mihin.org/requesthelp).

The new sending facility should then begin sending test messages to the cancer registry in the same fashion as the initial facility as detailed in section 3.1.2. Test messages may be required to contain “T” value in MSH-11. This requirement is decided by the receiving organization.

## 3. Specifications

### 3.1 Overview

#### 3.1.1 Environments

- MiHIN Pre-Production
- MiHIN Production

### 3.2 General Message Requirements

#### 3.2.1 Message Trigger Events

The HL7 message type for cancer pathology is ORU and the trigger event is R01.

For general rules that apply to the entire message, refer to the [NAACCR Implementation Guide for Pathology Laboratory Electronic Reporting](#).

### 3.3 Specific Segment and Field Definitions

#### 3.3.1 Segment 1 – Message Header

The definitions in the table below shall be conformed to by all HL7 messages communicating the message header segment.

Sequence	Length	DT	Usage	Cardinality	TBL#	Item #	Element Name	Comments
1	1	ST	R	1..1		00001	Field Separator	
2	4	ST	R	1..1		00002	Encoding Characters	
3	180	HD	R	1..1	0361	00003	Sending Application	
4	180	HD	R	1..1	0362	00004	Sending Facility	OID
5	180	HD	R	1..1	0361	00005	Receiving Application	MCSR
6	180	HD	R	1..1	0362	00006	Receiving Facility	MDHHS
7	26	TS	R	1..1		00007	Date/Time of Message	
8	40	ST	X	0..0		00008	Security	
9	7	CM	R	1..1	0076 0003	00009	Message Type	ORU^R01^ORU_ R01
10	20	ST	R	1..1		00010	Message Control ID	Should be repopulated (rather than pass-through)

Sequence	Length	DT	Usage	Cardinality	TBL#	Item #	Element Name	Comments
								for outbound message header
11	3	PT	R	1..1		00011	Processing ID	<b>P</b> when in production, <b>T</b> for testing
12	60	VID	R	1..1	0104	00012	Version ID	
13	15	NM	X	0..0		00013	Sequence Number	
14	180	ST	X	0..0		00014	Continuation Pointer	
15	2	ID	X	0..0	0155	00015	Accept Acknowledgment Type	
16	2	ID	X	0..0	0155	00016	Application Acknowledgment Type	
17	2	ID	X	0..0		00017	Country Code	
18	16	ID	X	0..0		00692	Character Set	
19	60	CE	X	0..0			Principal Language of Message	
20	20	ID	X	0..0		00356	Alternate Character Set Handling Scheme	

### 3.3.2 All Remaining Segments

The message header is the only segment that MIHIN requires to be formatted in a certain way. As noted previously, please follow the registry specified standards for all remaining segment and field definitions: [NAACCR Implementation Guide for Pathology Laboratory Electronic Reporting](#).

### 3.3.3 Required Message Fields

- MSH-10: Message Control ID
- MSH-3.1: Sending Application Namespace ID
- MSH-4.1: Sending Facility Namespace ID
- MSH-4.2: Sending Facility Universal ID
- MSH-9.2: Trigger Event
- PID-10: Race
- PID-11.1: Street Address

- PID-11.5: ZIP
- PID-2: Patient ID or PID-3: Patient Identifier List will be accepted
- PID-5.1: Patient Family Name
- PID-5.2: Patient Given Name
- PID-7: DOB
- PID-8: Sex
- PV1-2: Patient Class
- OBR-16: Ordering Provider
- OBX-11: Observation Results Status
- OBX-2: Value Type
- OBX-3: Observation Identifier
- OBX-5: Observation Value

## 4. Production Support

	Severity Levels			
	1	2	3	4
<b>Description</b>	<b>Critical Impact/ System Down:</b> Business critical software is down or critical interface has failed. The issue is impacting all production systems, causing all participating organizations' or other organizations' ability to function to be unusable.	<b>Significant Business Impact:</b> Software component severely restricted. Entire organization is unable to continue business functions, causing all communications and transfer of messages to be halted.	<b>Partial Failure or Downtime:</b> Program is useable and less significant features unavailable. The service is online, though may not working as intended or may not currently working as intended or may not currently be accessible, though other systems are currently available.	<b>Minimal Business:</b> A non-critical software component is malfunctioning, causing minimal impact, or a test system is down.
<b>Example</b>	All messages to and from MiHIN are unable to be sent and received, let alone tracked	MiHIN cannot communication (send or receive) messages between single or multiple participating organizations, but can still successfully communicate with other organizations.	Messages are lost in transit; messages can be received but not sent.	Additional feature requested.
<b>Primary Initiation Method</b>	<b>Phone:</b> (517) 336-1430	<b>Phone:</b> (517) 336-1430	Web form at <a href="http://mihin.org/requesthelp">http://mihin.org/requesthelp</a>	Web form at <a href="http://mihin.org/requesthelp">http://mihin.org/requesthelp</a>
<b>Secondary Initiation Method</b>	Web form at <a href="http://mihin.org/requesthelp">http://mihin.org/requesthelp</a>	Web form at <a href="http://mihin.org/requesthelp">http://mihin.org/requesthelp</a>	Email to <a href="mailto:help@mihin.org">help@mihin.org</a>	Email to <a href="mailto:help@mihin.org">help@mihin.org</a>
<b>Tertiary Initiation Method</b>	Email to <a href="mailto:help@mihin.org">help@mihin.org</a>	Email to <a href="mailto:help@mihin.org">help@mihin.org</a>	N/A	N/A
<b>Initial Response</b>	Within 2 hours	Within 2 hours	1 business day	1 business day
<b>Resolution Goal</b>	24 hours	24 hours	3 business days	7 business days

A list of common questions regarding the Cancer Pathology Data Exchange Solution can be found at:

<https://mihin.org/cancer-pathology-2/>

If you have questions, please contact the MiHIN Help Desk:

- [www.mihin.org/requesthelp](http://www.mihin.org/requesthelp)
- Phone: (517) 336-1430
- Monday – Friday 8:00 AM – 5:00 PM (Eastern)

## 5. Legal Advisory Language

This reminder applies to all use cases covering the exchange of electronic health information:

The Data Sharing Agreement (DSA) establishes the legal framework under which participating organizations can exchange messages through the MiHIN Platform, and sets forth the following approved reasons for which messages may be exchanged:

- a. By health care providers for Treatment, Payment and/or Health Care Operations consistent with the requirements set forth in HIPAA
- b. Public health activities and reporting as permitted by HIPAA and other Applicable Laws and Standards
- c. To facilitate the implementation of “Meaningful Use” criteria as specified in the American Recovery and Reinvestment Act of 2009 and as permitted by HIPAA
- d. Uses and disclosures pursuant to an Authorization provided by the individual who is the subject of the Message or such individual’s personal representative in accordance with HIPAA
- e. By Data Sharing Organizations for any and all purposes, including but not limited to pilot programs and testing, provided that such purposes are consistent with Applicable Laws and Standards
- f. For any additional purposes as specified in any use case, provided that such purposes are consistent with Applicable Laws and Standards

Under the DSA, “**Applicable Laws and Standards**” means all applicable federal, state, and local laws, statutes, acts, ordinances, rules, codes, standards, regulations and judicial or administrative decisions promulgated by any governmental or self-regulatory agency, including the State of Michigan, the Michigan Health Information Technology Commission, or the Michigan Health and Hospital Association, as any of the foregoing may be amended, modified, codified, reenacted, promulgated or published, in whole or in part, and in effect from time to time. “Applicable Laws and Standards” includes but is not limited to HIPAA; the federal Confidentiality of Alcohol and Drug Abuse Patient Records statute, section 543 of the Public Health Service Act, 42 U.S.C. 290dd-2, and its implementing regulation, 42 CFR Part 2; the Michigan Mental Health Code, at MCLA §§ 333.1748 and 333.1748a; and the Michigan Public Health Code, at MCL § 333.5131, 5114a.

It is each participating organization’s obligation and responsibility to ensure that it is aware of Applicable Laws and Standards as they pertain to the content of each message sent, and that its delivery of each message complies with the Applicable

Laws and Standards. This means, for example, that if a use case is directed to the exchange of physical health information that may be exchanged without patient authorization under HIPAA, the participating organization must not deliver any message containing health information for which an express patient authorization or consent is required (e.g., mental or behavioral health information).

**Disclaimer:** The information contained in this implementation guide was current as of the date of the latest revision in the Document History in this guide. However, Medicare and Medicaid policies are subject to change and do so frequently. HL7 versions and formatting are also subject to updates. Therefore, links to any source documents have been provided within this guide for reference. MiHIN applies its best efforts to keep all information in this guide up-to-date. It is ultimately the responsibility of the participating organization and sending facilities to be knowledgeable of changes outside of MiHIN's control.



## 6. Appendices

### 6.1 Appendix A - Message Example

MiHIN is content-agnostic and does not validate content for this data exchange solution beyond the message header. To enter fully into production, messages must conform to the registry's implementation guide as well: [North American Association of Central Cancer Registries Implementation Guide for Pathology Laboratory Electronic Reporting](#). A message example is shown below:

```
MSH|^~\&||INDEPENDENTLABSERVICES^33D1234567^CLIA|||200506021339|
|ORU^R01^ORU_R01|2004072813390045|P|2.5.1|||VOL_V_3
0_ORU_R01^NAACCR_CP^2.16.840.1.113883.9.8^ISO
```

```
PID|1||000001125^^^^SS-common key insertion area^^^^CKS
~00466144^^^^MR||Paulson^Ryan||19780319|M||2106-3^White^HL70005|
640 E Hudson Circle^^St. Clair Shores^MI^48082^^H||||M
ORC|RE|||||||Gift of Mercy Hospital|565 S Rhine
Street^^Warren^MI^48093||565 S Rhine Street^^Warren^MI^48082
```

```
OBR|1||06-123456-MH|22049-1^Flow Cytometry
Analysis^LN|||200505021212|||||200505311130|^Bone
marrow|^B.J.^Healing^^^^M.D.|2033271605|||||200505311332|||F|||||1
09772&PATHOLOGIST&QUINCY&&&Dr .&MD&&NPI
```

```
OBX|1|TX|22633-2^nature of specimen^LN||Bone
marrow.||||N|||F|||200505021212 OBX|2|TX|22636-5^clinical
history^LN||Evaluate for non-Hodgkin's lymphoma: ALL: myelodysplastic
syndromes: chronic Lymphoproliferative disorders, CLL. Prior therapy:
chemotherapy, Fludarabine more than one month ago. CBC report
received.||||N|||F|||200505021212
```

```
OBX|3|TX|22638-1^comments^LN||Correlation with a comprehensive bone
marrow morphology examination, CBC data/blood smear, and other relevant
clinical and laboratory data is recommended.||||N|||F|||200505021212
```

```
OBX|4|TX|22637-3^final diagnosis^LN||A small population of monoclonal B-
cells (Kappa) is present in the bone marrow. The antigenic profile is consistent
with chronic lymphocytic leukemia/small lymphocytic lymphoma
(CLL/SLL).||||N|||F|||200505021212
```

OBX|5|TX|22049-1^phenotype^LN||1. A monoclonal kappa B-cell population co-expressing CD5 and CD23 is present. 2. -92% maturing myeloid elements are present.||||N||||F||||20050502121

\*Green-highlighted area above is common key insertion area

## 7. Acronyms and Abbreviations Guide

<b>DQA</b>	Data Quality Assurance
<b>DSA</b>	Data Sharing Agreement
<b>HIN</b>	Health Information Network
<b>HL7</b>	Health Level Seven
<b>MCSP</b>	Michigan Cancer Surveillance Program
<b>MDHHS</b>	Michigan Department of Health and Human Services
<b>MiHIN</b>	Michigan Health Information Network Shared Services
<b>MSH</b>	Message Header
<b>MU</b>	Meaningful Use
<b>MUCA</b>	Master Use Case Agreement
<b>NAACCR</b>	North American Association of Central Cancer Registries
<b>OID</b>	Object Identifier
<b>PHIN MS</b>	Public Health Information Network Messaging System
<b>TDSO</b>	Trusted Data Sharing Organization
<b>VPN</b>	Virtual Private Network

## 8. Definitions

**Applicable Laws and Standards.** In addition to the definition set forth in the Data Sharing Agreement, the federal Confidentiality of Alcohol and Drug Abuse Patient Records statute, section 543 of the Public Health Service Act, 42 U.S.C. 290dd-2, and its implementing regulation, 42 CFR Part 2; the Michigan Mental Health Code, at MCLA §§ 333.1748 and 333.1748a; and the Michigan Public Health Code, at MCL § 333.5131, 5114a.

**Common Gateway.** The method by which data is sent and received by MiHIN using various national standard protocols (e.g. NwHIN SOAP, IHE XCA, IHE XDS.b).

**Conforming Message.** A message that is in a standard format that strictly adheres to the implementation guide for its applicable use case.

**Data Sharing Agreement.** Any data sharing organization agreement signed by both MiHIN and a participating organization. Data sharing organization agreements include but are not limited to: Qualified Data Sharing Organization Agreement, Virtual Qualified Data Sharing Organization Agreement, Consumer Qualified Data Sharing Agreement, Sponsored Shared Organization Agreement, State Sponsored Sharing Organization Agreement, Direct Data Sharing Organization Agreement, Simple Data Sharing Organization Agreement, or other data sharing organization agreements developed by MiHIN.

**Electronic Address.** A string that identifies the transport protocol and end point address for communicating electronically with a recipient. A recipient may be a person, organization or other entity that has designated the electronic address as the point at which it will receive electronic messages. Examples of an electronic address include a secure email address (Direct via secure SMTP) or secure URL (SOAP / XDR / REST / FHIR). Communication with an electronic address may require a digital certificate or participation in a trust bundle.

**Electronic Service Information (ESI).** All information reasonably necessary to define an electronic destination's ability to receive and use a specific type of information (e.g, discharge summary, patient summary, laboratory report, query for patient/provider/healthcare data). ESI may include the type of information (e.g. patient summary or query), the destination's electronic address, the messaging framework supported (e.g., SMTP, HTTP/SOAP, XDR, REST, FHIR), security information supported or required (e.g., digital certificate) and specific payload definitions (e.g., CCD C32 V2.5). In addition, ESI may include labels that help identify the type of recipient (e.g., medical records department).

**End Point.** An instance of an electronic address or ESI.

**Exhibit.** Collectively, a use case exhibit or a pilot activity exhibit.

**Health Level 7 (HL7).** An interface standard and specifications for clinical and administrative healthcare data developed by the Health Level Seven organization and approved by the American National Standards Institute (ANSI). HL7 provides a method for disparate systems to communicate clinical and administrative information in a normalized format with acknowledgement of receipt

**Health Information.** Any information, including genetic information, whether oral or recorded in any form or medium, that (a) is created or received by a health provider, public health authority, employer, life insurer, school or university, or healthcare clearinghouse; and (b) relates to the past, present, or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present, or future payment for the provision of health care to an individual.

**Health Information Network (HIN).** An organization or group of organizations responsible for coordinating the exchange of protected health information (PHI) in a region, state, or nationally.

**Health Plan.** An individual or group plan that provides, or pays the cost of medical care (as “group health plan” and “medical care” are defined in section 2791(a)(2) of the Public Health Service Act, 42 U.S.C. 300gg-91(a)(2)). Health plan further includes those entities defined as a health plan under HIPAA, 45 C.F.R 160.103.

**Health Professional** means (a) any individual licensed, registered, or certified under applicable Federal or State laws or regulations to provide healthcare services; (b) any person holding a nonclinical position within or associated with an organization that provides or coordinates healthcare or healthcare related services; and (c) people who contribute to the gathering, recording, processing, analysis or communication of health information. Examples include, but are not limited to, physicians, physician assistants, nurse practitioners, nurses, medical assistants, home health professionals, administrative assistants, care managers, care coordinators, receptionists and clerks.

**Health Provider** means facilities/hospitals, health professionals, health plans, caregivers, pharmacists/other qualified professionals, or any other person or organization involved in providing healthcare.

**Information Source.** Any organization that provides information that is added to a MiHIN infrastructure service.

**Master Use Case Agreement (MUCA).** Legal document covering expected rules of engagement across all use cases. Trusted data sharing organizations sign master use case agreement one time, then sign use case exhibits for participation in specific use cases.

**Meaningful Use.** Using certified EHR technology to improve quality, safety and efficiency of healthcare, and to reduce health disparities as further contemplated by title XIII of the the American Recovery and Reinvestment Act of 2009.

**Message.** A mechanism for exchanging message content between the participating organization to MiHIN services, including query and retrieve.

**Message Content.** Information, as further defined in an Exhibit, which is sent, received, found or used by a participating organization to or from MiHIN services. Message content includes the message content header.

**Message Header (“MSH”) or Message Content Header.** The MSH segment present in every HL7 message type that defines the Message’s source, purpose, destination, and certain syntax specifics such as delimiters (separator characters) and character sets. It is always the first segment in the HL7 message, with the only exception being HL7 batch messages.

**Michigan Cancer Surveillance Program.** The program that operates the cancer registry for the State of Michigan. The cancer registry is connected to the MDHHS Data Hub.

**Michigan Health Information Network Shared Services.** The MiHIN for the State of Michigan.

**MiHIN Infrastructure Service.** Certain services that are shared by numerous use cases. MiHIN infrastructure services include, but are not limited to, Active Care Relationship Service (ACRS), Health Directory, Statewide Consumer Directory (SCD), and the Medical Information Direct GATEway (MIDIGATE®).

**MiHIN Services.** The MiHIN infrastructure services and additional services and functionality provided by MiHIN allowing the participating organizations to send, receive, find, or use information to or from MiHIN as further set forth in an exhibit.

**Negative Acknowledgment (NAK or NACK).** “Not acknowledged” and is used to negatively acknowledge or to reject previously received message content or to indicate some kind of error.

**Notice.** A message transmission that is not message content and which may include an acknowledgement of receipt or error response, such as an ACK or NACK.

**Patient Data.** Any data about a patient or a consumer that is electronically filed in a participating organization or participating organization participant’s systems or repositories. The data may contain protected health information (PHI), personal credit information (PCI), and/or personally identifiable information (PII).

**Person Record.** Any record in a MiHIN infrastructure service that primarily relates to a person.

**Pilot Activity.** The activities set forth in the applicable exhibit and typically includes sharing message content through early trials of a new use case that is still being defined and is still under development and which may include participating organization feedback to MiHIN to assist in finalizing a use case and use case and use case exhibit upon conclusion of the pilot activity.

**Send / Receive / Find / Use (SRFU).** Means sending, receiving, finding, or using message content. Sending involves the transport of message content. Receiving involves accepting and possibly consuming or storing message content. Finding means querying to locate message content. Using means any use of the message content other than sending, receiving and finding. Examples of use include consuming into workflow, reporting, storing, or analysis. Send/Receive/Find/Use (SRFU) activities must comply with Applicable Laws & Standards or State Administrative Code as that term is defined in this agreement and the data sharing agreement.

**Service Interruption.** A party is unable to send, receive or find message content for any reason, including the failure of network equipment or software, scheduled or unscheduled maintenance, general Internet outages, and events of force majeure.

**Source System.** A computer system, such as an electronic health record system, at the participating organization, that sends, receives, finds or uses message content or notices.

**Transactional Basis.** The transmission of message content or a notice within a period of time of receiving message content or notice from a sending or receiving party as may be further set forth in a specific exhibit.

**Transitions of Care.** The movement of a patient from one setting of care (e.g. hospital, ambulatory primary care practice, ambulatory specialty care practice, long-term care, rehabilitation facility) to another setting of care and can include transfers within a healthcare organization.

**Trusted Data Sharing Organization (TDSO).** An organization that has signed any form of agreement with MiHIN for data sharing.

**Use Case.** (a) A use case agreement previously executed by a participating organization; or (b) the use case summary, use case exhibit and a use case implementation guide that participating organization or TDSO must follow to share specific message content with the MiHIN.

**Use Case Exhibit.** The legal agreement attached as an exhibit to the master use case agreement that governs participation in any specific use case.

**Use Case Implementation Guide (UCIG).** The document providing technical specifications related to message content and transport of message content between participating organization, MiHIN, and other TDSOs. use case implementation guides are made available via URLs in exhibits.

**Use Case Summary.** The document providing the executive summary, business justification and value proposition of a use case. Use case summaries are provided by MiHIN upon request and via the MiHIN website at [www.mihin.org](http://www.mihin.org).