Exchange C-CDA: Discharge Medication Reconciliation - Inbound

Implementation Guide for Sending Organizations

Version 16

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Table of Contents

1. Introduction

1.1 Purpose of Data Exchange Solution

Helps healthcare providers share patient medication information at the time of discharge with other care team members and organizations, including physicians, practices, pharmacies, hospitals, and transitional facilities such as outpatient and skilled nursing facilities.

When a patient's medications change it is critically important to check the patient's medication list to be sure there are no problems with new, different or missing medicines. "Medication reconciliation" is the detailed process of checking the accuracy of a patient's medications, particularly when those medications have changed. Finding and correcting medication discrepancies helps avoid errors such as omissions, duplications, dosing errors or negative drug interactions. Regular confirmation of a patient's medications can also help confirm the patient is correctly following a treatment plan.

Medication reconciliation becomes critical when a patient moves from one care setting to another, such as being admitted to or discharged from a hospital. These "transitions of care" very commonly involve prescription of new medications which may interact negatively with a patient's existing medications.

The medication reconciliation process includes a comparison of existing and previous medication regimens and should occur at:

- Every transition of care in which new medications are ordered;
- When existing orders are rewritten or adjusted, and
- When patients add nonprescription medications to their self-care.

1.2 Message Content

For this data exchange solution, message content refers to a document conforming to Clinical Document Architecture (CDA) standards.

Participating organizations provide agreed upon transition of care documents via a Consolidated – Clinical Document Architecture (C-CDA) to be generated and sent to the statewide service.

For more information on the HL7 C-CDA documents, please refer to the following link: http://www.healthit.gov/policy-researchers-implementers/consolidated-cda-overview

1.3 Data Flow

1.3.1 Functional Data Flow

Data Flow for Discharge Medication Reconciliation

1. The participating organization generates a Discharge Medication Reconciliation Continuity of Care Document (CCD), which is triggered by the discharge of a patient from the organization.
2. The participating organization sends the Discharge Medication Reconciliation CCD, in a timely manner, to MiHIN via the established transport mechanism.
3. MiHIN receives the CCD, and processes it through the Active Care Relationship Service® (ACRS®) and confirms receipt of the message via a positive acknowledgement response.

2. Onboarding

2.1 Prerequisites

Participating organizations must complete legal onboarding prior to beginning the technical onboarding process. Once all required legal agreements are fully executed, the participating organization will proceed to the technical onboarding phase.

2.1.1 Universal Legal Prerequisites

Upon a participating organization indicating interest in onboarding, MiHIN will review the organization's legal status to confirm whether the appropriate agreements are in place. If required legal agreements have not yet been executed, a MiHIN staff member will work with the participating organization to complete the necessary pre-onboarding legal steps.

Prior to initiating technical onboarding, the participating organization must have an executed Participation Agreement or the applicable legacy master data-sharing agreement plus applicable Use Case Exhibits executed. In some cases, execution of a Statement of Work (SOW) may also be required.

To initiate the pre-onboarding legal process, please contact MiHIN's Help Desk by emailing help@mihin.org or visiting our portal https://mihinhelp.refined.site/portal/50

2.1.2 Technical Requirements

The following implementation dependencies and technical requirements must be completed for the Discharge Medication Reconciliation Data Exchange Solution to operate in a production environment.

2.1.2.1 Data Exchange Solution Requirements

There are no data exchange solution implementations required for data contributing organizations.

- Please note: While there are no data exchange requirements to send Discharge Medication Reconciliation C-CDAs, if an organization chooses to use these messages for the establishment of Real-Time ACRS® relationships, the organization will need to onboard, both legally and technically, to the ACRS Data Exchange Solution.

2.1.2.2 Other Requirements

Participating organizations seeking to onboard as data contributors must meet the following pre-requisites and requirements:

- Ability to establish either a Direct Secure Messaging (DSM), Secure File Transfer Protocol (sFTP), or a Restful API connection with MiHIN.
- Ability to generate CCD messages that meet the C-CDA template structure and standards.
- Ability to meet conformance requirements.
- Lastly, any participating organization that will be contributing Discharge Medication Reconciliation CCDs via IHE transactions must successfully onboard to the Intelligent Query Broker, and have access to an application or engine that can perform provide and register transactions.

2.2 Discharge Medication Reconciliation Inbound Onboarding Process

- Express interest in the data exchange solution by contacting MiHIN's Help Desk.
- Meet with a MiHIN staff member to address business needs, and complete the legal onboarding.
- Once legal onboarding is complete, MiHIN's onboarding team will be engaged to initiate the technical onboarding process.
    - At a high level, the following will occur during this phase:
        - A kickoff meeting will be held to review the data exchange solution in greater detail, clarify roles and responsibilities, and address any questions.
        - The participating organization will complete and return any required documentation.

- MiHIN and the participating organization will establish or confirm transport connectivity.
- All parties will participate in data flow testing.
- Once testing is complete, a production go-live will be scheduled.
- MiHIN and the participating organization will review conformance and data quality requirements to support promotion of the participating organization to production for the data exchange solution. Following promotion to production, Clinical Data Repository (CDR)/Longitudinal Record validation will be completed. Should any data quality issues be identified during post-production validation, MiHIN will continue to work with the participating organization until such issues are resolved.

2.3 Technical Connectivity Process

MiHIN considers itself "transport agnostic" and offers multiple options for organizations to establish technical connectivity for data exchange. Participating organizations should select one or more connectivity methods for message transport based on their technical capabilities and communicate the selection(s) to www.mihin.org/requesthelp early in the onboarding process.

Currently, MiHIN supports the following transport methods:

- **REST API -** Representational State Transfer Application Programming Interface
- **DSM** - Direct Secure Messaging
- **sFTP** - Secure File Transfer Protocol
- **IHE PnR -** Integrated Healthcare Enterprise Provide and Register
  - IHE "XDS.b Provide and Register Document Set" transaction
  - Note: May be fee-based

The following steps describe the technical onboarding process. However, MiHIN typically conducts "onboarding kickoff" meeting with new participating organizations to properly review each onboarding step in detail and address any questions.

1. The participating organization must provide the following information so MiHIN can ensure CCDs are properly processed and routed to downstream participating organizations.
    a. Source connectivity information
        i. REST API
            1. Source IP
        ii. Direct Secure Messaging
            1. Source DSM Address(es)
        iii. IHE Protocol
            1. Source IP
            2. The participating organization's certificate if using IHE Provide and Register (PnR) connections
        iv. SFTP
            1. IP addresses in test/pre-production and production as they will need to be whitelisted by MiHIN
    b. If applicable, the Managing Organization's OID that the sending facility (or facilities) belong(s) to
    c. Sending facility name(s) and the associated object identifier(s) (OID(s)) that will be sending CCDs inbound to MiHIN
    d. Xpath to sending facility OID mapping relationship
    e. Subtype and Xpath mapping relationship
    f. ACRS Population Name
        i. This is required if using CCDs to generate real-time active care relationships

2. The participating organization selects one or more transport methods and establishes connectivity, or confirms existing connectivity with MiHIN.

    a. **REST API:** A designated email address must be provided so that Cognito credentials can be created and distributed and their source IP for whitelisting. Organizations connecting via this transport will need to contact MiHIN's OAuth2 endpoint, listed in Section 3.1 and acquire a token that will be used to make a connection with the MiHIN's REST API URL (also listed in Section 3.1).

    b. **DSM:** MiHIN accepts Direct Secure Messages from Health Internet Service Provider (HISPs) that have EHNAC-DTAAP (DirectTrust) accreditation. Test messages are sent to verify HISP connectivity. The Message Header section

in the test messages is verified for appropriate routing configuration.

c. **sFTP:** The participating organization must have a MiHIN-hosted sFTP account provisioned for them with the appropriate submission and return folders for the discharge medication reconciliation data exchange solution by submitting an sFTP request form containing the designated IP address, intended account holder email and cell phone. MiHIN will configure file paths for all needed folders and provide login credentials for access.

d. **IHE XDS.b Provide and Register Document Set:** Organizations seeking to participate via IHE transactions must first be onboarded to the IQB Application where they will specify which IHE protocols and associated transactions will be utilized. The participating organization must return the IQB onboarding form, install MiHIN's public certificate and provide a public certificate of their own for proper data exchange. For more information, please refer to the Intelligent Query Broker (IQB) documentation which can be accessed via MiHIN's Resources Hub.

3. Testing will differ depending on the transport mechanism selected:

a. **DSM and sFTP**: Testing will be conducted by having the onboarding facility(s) send a test message to the Pre-Production endpoint specified in Section 3.1. MiHIN will monitor inbound messages and confirm receipt. For DSM and sFTP transport methods, this is performed by internal MiHIN staff monitoring the DSM address or the sFTP submission folder and confirms the receipt of sent messages.

b. **REST API**: Testing will be conducted by having the onboarding facility (or facilities) send a test message to the pre-production URL endpoint specified in Section 3.1. MiHIN will monitor inbound traffic for sent messages and return responses will be sent back to the organization upon receipt. For an example of the response format returned for REST API, see Appendix A.

c. **IHE PnR Document Set**: Testing will be conducted by the onboarding facility by submitting a test CCD via IHE Transaction. Test transactions will be monitored, and a SOAP API response will be sent to the organization confirming receipt. For an example, refer to the IQB Implementation Guide.

4. CDR testing will be completed following the initial production go-live using production data. MiHIN will confirm that CCDs are being processed and stored correctly within the CDR. Testing will be considered complete once CCDs have been successfully received and are displayed correctly in the CDR.

5. Following successful testing, a go-live call will be conducted during which configuration settings are promoted to the MiHIN production environment. As part of this process, onboarding facilities will generate and transmit production CCDs to the chosen production endpoint. MiHIN will monitor inbound traffic and return the appropriate responses upon receipt. Once the CCDs and any applicable responses have been successfully received, and production messages are accepted by both the CDR (and subsequently the Longitudinal Record Viewer), the organization will be considered live/in-production.

3. Specifications

3.1 Overview

3.1.1 Environments

- MiHIN Pre-Production
  - Med Rec Rest API endpoint
    - https://messages.preprod.mihin.services/send?message_type=ccda
  - Cognito oAuth2 endpoint
    - https://mitp-adt-hub-preprod.auth.us east1.amazoncognito.com/oauth2/token
  - Exchange C-CDA general DSM endpoint
    - ccd.preprod@direct.mihin.net
      - subtype: medrec; ccda_medrec.preprod@direct.mihin.net
  - sFTP Pre-Production server URL
    - Server: sftp.preprod.mihin.services
    - Folder Structure: SenderOID/ccda_medrec/upload
  - IHE protocol endpoint
    - Please refer to the IQB Implementation Guide for a complete list of URL/IP pre-production endpoints.

- MiHIN Production
  - Med Rec Rest API endpoint
    - https://messages.mihin.services/send?message_type=ccda
  - Cognito oAuth2 endpoint
    - https://mitp-adt-hub-prod.auth.us-east-1.amazoncognito.com/oauth2/token
  - Exchange C-CDA general DSM endpoint
    - ccd@direct.mihin.net
      - Subtype: medrec; ccda_medrec.prod@direct.mihin.net
  - sFTP Production server URL
    - Server: sftp.mihin.services
    - Folder Structure: SenderOID/ccda_medrec/upload
  - IHE protocol endpoint
    - Please refer to the IQB Implementation Guide for a complete list of URL/IP production endpoints.

3.2 General Specification Requirements

3.2.1 C-CDA File Structure and Specifications

At the time of the patient's discharge, the participating organization shall generate and transmit the CCD to MiHIN. This applies to inpatient, observation, and emergency department visits.

Specifications are outlined below:

- The CCD should be sent in .xml format. Style sheet format is not required. Recipients will develop a custom style sheet based on individual requirements.
- To reduce customization, the participating organization may send the entire care summary record, ensuring that the information below is captured.
- CCDs sent via direct secure messaging must be sent as an XDM.zip file. Please note this encoding occurs automatically with most HISP vendors upon sending.

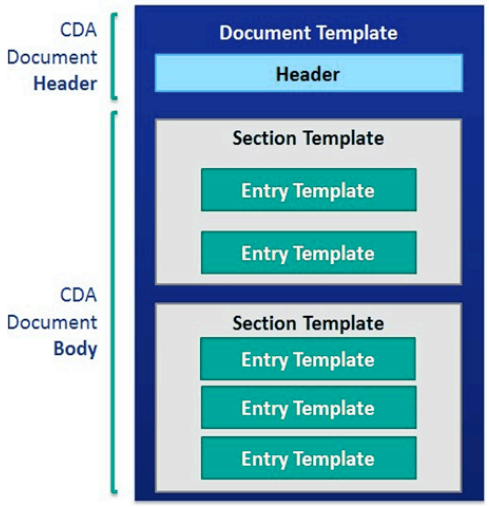

Figure 3. C-CDA File Structure

3.2.2 C-CDA Required Fields

3.2.2.1 Clinical Data Repository Field Specifications

Organizations submitting CCDs must adhere to the following specifications for documents to be ingested properly in the CDR.

- The combination of the MRN and OID must be the very first line in the PatientRole xpath
  - MRN = Unique Identifier from the facility/managing organizations.
    - Alphanumeric
    - Anything the participating organization consistently uses to identify their patients
  - OID = Object Identifier
- Properly formatted Patient ID in patientRole xpath Example:
  - <id assigningAuthorityName="SHCPI" root="1.2.840.114350.1.13.200.2.7.5.737384.49" extension="xxxxxxxxx" />
- For participating organizations only sending a social security number:
  - If a C-CDA has the below root OID only, it will be rejected:
    - <id assigningAuthorityName="Social Security Administration" root="2.16.840.1.113883.4.1" extension="xxxxxxxxx" />

3.2.2.2 Conformance Field Specifications

Participating organizations sending CCDs and seeking to meet established conformance specifications must refer to the following Xpaths used in the XML document. For more information, please refer to the Conformance Reporting User Guide.

1. Patient identifying/demographic information (header section of C-CDA)
   a. Provider Organization OID
   b. Visit ID
   c. Patient First Name
   d. Patient Last Name
   e. Patient Date of Birth
   f. Patient Gender
   g. Patient Social Security Number (SSN)
   h. Patient Address
   i. Patient City
   j. Patient State
   k. Patient Zip Code
   l. Encounter Type
   m. Attending Provider First Name
   n. Attending Provider Last Name

o. Attending Provider NPI
p. Attending Provider Phone

2. Medication section information (three sections), each section should be a section template:
    a. Admission medications present
    b. Prescriptions ordered during visit (if applicable)
    c. Medications at time of discharge
        i. Date (start/end) as applicable
        ii. Medication name (generic or brand)
        iii. RxNorm code from eRx system
        iv. Full sig (strength, frequency, dosage, route)

3. Other information (body template/s of C-CDA)
    a. Admitting diagnosis
    b. Active allergies and adverse reactions (if applicable)
    c. Visit diagnosis/working diagnosis (on file)
    d. Active problems
    e. Discharge disposition – home, skilled nursing facility, etc. (if available)
    f. Chief complaint (if available)
    g. Encounter Type
    h. Functional Status
    i. Immunizations
    j. Plan of Care
    k. Procedures
    l. Reason for Referral
    m. Results/Laboratory Values
    n. Social History
    o. Tests Ordered
    p. Visit Diagnosis
    q. Visit Diagnosis Description
    r. Vital Signs
    s. Discharge Medication Name
    t. Discharge Medication Code
    u. Discharge Medication Begin Date
    v. Discharge Medication End Date
    w. Discharge Medication Status
    x. Discharge Medication Dose Unit

y. Discharge Medication Dose Quantity
z. Discharge Medication Instructions

3.2.2.3 MIGateway® Transition of Care (TOC) Viewer Message Specifications

For CCDs (both Ambulatory and Discharge Medication Reconciliation) to be linked to discharge (A03) ADT Notifications and viewable in the TOC Viewer, specific fields between the ADT and the CCD must link. The link is indicated in the ADT Table by the medrec_id column being the primary key of the Med Rec Table and has medrec = 1. The matching criteria are shown below:

- Patient First Name:
  - ADT: PID-5.2
  - CCD: /patient/name/given[not(@*)][1]/text()
- Patient Last Name:
  - ADT: PID-5.1
  - CCD: /patient/name/family/text()
- Patient DOB:
  - ADT: PID-7
  - CCD: /patient/birthTime/@value
- Patient Gender:
  - ADT: PID-8
  - CCD: /patient/administrativeGenderCode/@code
- Encounter Id:
  - ADTPV1.19
  - CCD: /ClinicalDocument/componentOf/encompassingEncounter/id/@extension

3.3 Transport Specifications

3.3.1 Sending via Direct Secure Messaging

CCDs sent to MiHIN via DSM as email attachments must adhere to the following specifications:

1. There shall be only one CCD file attached per email.
2. The appropriate MiHIN DSM email address must be in the “To” line. An error

will occur if it is in the Carbon-Copy (Cc) line of the outgoing message.

3.3.2 Sending via REST API

The participating organization must adhere to the following:

- Provide an email address to receive the Cognito credentials (i.e. the clientId and secret) as each will be sent separately for security purposes.
  - MiHIN will have the CognitoUser configured on their end of the connection.
- Provide the Source IP(s) to be whitelisted.
- Participate in the Rest API server test to ensure conformity to these specifications and connectivity. The participating organization will need to make a call to MiHIN's OAuth2 endpoint and have a token assigned to be used for the forthcoming API call. OAuth2 endpoints for pre-production and prod are listed in Section 3.1.

These tokens are acquired through making a call to the following URLs and must make sure they are using tokens from the appropriate environments to make calls to the appropriate environment end point, specifically:

- Pre-Production
  - Token:
    - https://mitp-adt-hub-preprod.auth.us-east 1.amazoncognito.com/oauth2/token used for:
  - Endpoint:
    - https://messages.preprod.mihin.services/send?message_type=ccda
- Production
  - Token:
    - https://mitp-adt-hub-prod.auth.us-east 1.amazoncognito.com/oauth2/token used for:
  - Endpoint:
    - https://messages.mihin.services/send?message_type=ccda

During testing, the participating organization will request the appropriate token and then send test CCDs to the specified endpoint. Response messages will be returned based on confirmation of receipt. Examples of these responses are listed in Appendix A.

4. Production Support

	Severity 1	Severity 2	Severity 3	Severity 4
Description	A critical production system is down or does not function at all, and there is no circumvention or workaround for the problem; a significant number of users are affected, and a production business system is inoperable.	More than 90% of messages received and delivered successfully, but some messages are not delivered/received with required accuracy. Service component severely restricted in one of the following ways: • High impact risk or actual occurrence of patient care affected or operational impairment • Business critical service has a partial failure for multiple TDSOs • A critical service is online however, is operating in a degregated state and having a significant impact on multiple TDSOs	Service component restricted in one of the following ways: • A component is not performing as documented or there are unexpected results • Business critical service has failed for a two or more TDSOs • A critical service is usable however, a workaround is available, or less significant features are unavailable	No operational impact to MiHIN. A non-critical service component is malfunctioning, causing minimal impact, or a test system is down.
Initiation Method	**Call** (844) 454-2443 and **submit** a ticket online at www.mihin.org/requesthelp	**Call** (844) 454-2443 and **submit** a ticket online at www.mihin.org/requesthelp	**Submit** a ticket online at www.mihin.org/requesthelp	**Submit** a ticket online at www.mihin.org/requesthelp
Acknowledgement Communication	Within **30 minutes**	Within **30 minutes**	Within **3 business hours**	Within **6 business hours**
Resolution Goal	**<2** hours Restore Time from 8 am – 5 pm ET Monday-Friday and **<4** hours nights, weekends and holidays	**<4** hours Restore Time from 8 am - 5 pm ET Monday-Friday and **<8** hours nights, weekends and holidays	**<12** hours Restore Time from 8 am - 5 pm ET Monday–Friday and **<24** hours nights, weekends and holidays	Within **5 business days**

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

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

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 Healthcare 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 "Promoting Interoperability" 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 Examples

6.1.1 REST API Response Example

from log group

/aws/api-gateway/adt-hub-api-in-usqhin-prod

requestId: 05be2753-d197-4969-8697-165590a3957d, ip: 52.204.176.226, caller: -, user: -,

requestTime: 27/Aug/2025:17:00:52 +0000, httpMethod: POST, resourcePath: /send, status: 200,

protocol: HTTP/1.1, responseLength: 71

6.1.2 SOAP API Response Example

<?xml version="1.0" encoding="UTF-8"?>

<soap:Envelope

xmlns:soap="http://www.w3.org/2003/05/soap-envelope"

xmlns:rs="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0">

<soap:Header/>

<soap:Body>

<rs:RegistryResponse
status="urn:oasis:names:tc:ebxmlregrep:ResponseStatusType:Success"/>

</soap:Body>

</soap:Envelope>

6.2 Appendix B - Conformance Information

For more information on conformance for Discharge Medication Reconciliation CCDs and the use of the MIGateway® modules regarding this data exchange, please refer to the Conformance Reporting User Guide which can be accessed via MiHIN's Resources Hub: https://mihin.org/resourcehub/

6.3 Appendix C - External Information

Hospital Pay-for-Performance (P4P) Documentation
https://www.bcbsm.com/providers/network/value-partnerships/

7. Acronyms and Abbreviations Guide

ACK	HL7 Acknowledgment message
ACRS®	Active Care Relationship Service®
API	Application Programming Interface
C-CDA	Consolidated Clinical Document Architecture
CCD	Continuity of Care Document
CDR	Clinical Data Repository
DSM	Direct Secure Messaging
EHNAC-DTAAP	Electronic Healthcare Network Accreditation Commission Direct Trusted Agent Accreditation Program
EHR	Electronic Health Record
HISP	Health Internet Service Provider
HL7®	Health Level Seven®
JSON	JavaScript Object Notation
MIGateway®	A MiHIN tool that brings data together in a consolidated place, giving healthcare organizations a centralized, secure way to access key patient information across Michigan.
NPI	National Provider Identifier
OID	Object Identifier

PHI	Protected Health Information
REST	Representational State Transfer
sFTP	Secure File Transfer Protocol
SOAP	Simple Object Access Protocol
VPN	Virtual Private Network
XML	Extended Mark-Up Language

8. Definitions

Active Care Relationship. (a) For health providers, a patient who has been seen by a provider within the past 24 months, or is considered part of the health provider's active patient population they are responsible for managing, unless notice of termination of that treatment relationship has been provided to Michigan Health Information Network Shared Services (MiHIN); (b) for payers, an eligible member of a health plan;(c) an active relationship between a patient and a health provider for the purpose of treatment, payment and/or healthcare operations consistent with the requirements set forth in Health Insurance Portability and Accountability Act (HIPAA); (d) a relationship with a health provider asserted by a consumer and approved by the health provider; or (e) any person or Trusted Data Sharing Organization authorized to receive message content under an exhibit which specifies that an active care relationship may be generated by sending or receiving message content under that exhibit. Active care relationship records are stored by MiHIN in the Active Care Relationship Service® (ACRS®).

Active Care Relationship Service® (ACRS®). The Michigan Health Information Network Shared Services infrastructure service that contains records for those Trusted Data Sharing Organizations, their participating organizations participants or any health providers who have an active care relationship with a patient.

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.

Data Sharing Agreement. Any data sharing organization agreement signed by both Michigan Health Information Network Shared Services (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 Medical Record or Electronic Health Record (EMR/EHR). A digital version of a patient's paper medical chart.

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

Health Level Seven® (HL7®). An interface standard and specifications for clinical and administrative healthcare data developed by the Health Level Seven (HL7) organization and approved by the American National Standards Institute. 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 healthcare to an individual; or the past, present, or future payment for the provision of healthcare to an individual.

Message. A mechanism for exchanging message content between the participating organization to Michigan Health Information Network Shared 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 Michigan Health Information Network Shared Services. Message content includes the message content header.

Message Header ("MSH") or Message Content Header. The Message Header (MSH) segment present in every Health Level Seven® (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.

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).

Document History

Date	Version	Sections Revised	Description	Modifier
04/09/19	11	All	Revised into new style	S. Southard
01/30/20	11	All	Proof and Edits	A. Jones
4/17/24	12	Section 4	Updated DSM endpoint addresses	A. Pacheco
6/24/2024	13	All	Edited for branding and formatting	E. Mata
03/27/2026	14	All	Revised language, and formatting	M. Gibbs
04/02/2026	15	Section 2.3, Section 3.2.1,	Added transport mechanism, and clarified verbiage	M. Engle
04/08/2026	16	All	Final review, and minor verbiage updates	M. Gibbs