Interoperable Referrals
Implementation Guide

Version 3
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Document History

Date	Version	Sections Revised	Description	Modifier
10/29/2020	1	All	Initial Guide	S. Spieker
11/12/2020	2	4.1	General Message Requirements	S. Spieker
11/16/2020	3	1	Allowed data sharing	M Graham

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Acronyms and Abbreviations Guide

ACRS®	Active Care Relationship Service®
ACO	Accountable Care Organization
API	Application Programming Interface
BH	Behavioral Health
CCD®	Continuity of Care Document
CKS	Common Key Service
DME	Durable Medical Equipment
DSO	Data Sharing Organization
Dx	Diagnosis
EHR	Electronic Health Record
EMR	Electronic Medical Record
EP	Eligible Professional
FQHC	Federally Qualified Health Center
FTP	File Transfer Protocol
HD	Health Directory
HIE	Health Information Exchange
HIN	Health Information Network
ICO	Integrated Care Organization
IPA	Independent Physician Association
IRN	Interconnected Referral Network
LLP	Lower-Layer Protocol
MiHIN	Michigan Health Information Network Shared Services
MU	Meaningful Use
MUCA	Master Use Case Agreement

PHI	Protected Health Information
PIHP	Pre-Paid Inpatient Health Plan
PO	Participating Organization
RA	Referral Administrator
RO	Receiving Organization
SDoH	Social Determinants of Health
SFTP	Secure File Transfer Protocol
SO	Sending Organization
SOM	State of Michigan
TDSO	Trusted Data Sharing Organization
UCA	Use Case Agreement
UCS	Use Case Summary
VPN	Virtual Private Network

Definitions

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 organizational 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.

Community Benefit Organizations: CBO work at the local level to meet community needs. They include social service agencies and nonprofit organizations. CBO do not generally deliver/provide medical services or care.

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 Medical Record or Electronic Health Record (EMR/EHR). A digital version of a patient's paper medical chart.

Health Directory. (HD) The statewide shared service established by MiHIN that contains contact information on health providers, electronic addresses, end points, and ESI, as a resource for authorized users to obtain contact information and to securely exchange health information.

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.

Interconnected Referral Network (IRN). A care network that knits together health care, human services and community-based organizations to facilitate the coordination of care.

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.

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. For the Use Case the Message Content is a patient/person's demographics and pertinent Referral information (Referrals Payload as listed in the Specification Section of this Implementation Guide) from one Participating Organization (PO) another PO in order to initiate and manage services for the patient/person.

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 Gateway (MIGateway®).

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.

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) and/or personally identifiable information (PII).

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

Provider Community. A healthcare provider with an active care relationship with the applicable patient.

Referral Payload. Required patient demographic data, referral/transaction data and status from each Referral.

Referral. A process to transfer of a patient's healthcare, human services and community-based needs data between a sending and receiving organization to facilitate the delivery and coordination of care.

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.

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.

1. Introduction

1.1 Purpose of Use Case

The Referrals use case supports Transitions of Care and Care Coordination across the State by collecting referral transaction (payload) data in standard format and making it available in the TOC Viewer as an ACRS attribute-and creating the interoperable means to deliver the referral payload to the intended recipient regardless of the technology employed.

> ***Supports Transitions of Care and Care Coordination***
> ***through interoperable referral data exchange***

A person's needs are often interconnected, but our health care and social service systems are often fragmented and siloed. When a person is identified with a medical, behavioral, financial, social or community related need the organization involved in the person's care should be able to efficiently and easily refer the person to another organization that can assist in coordinating care to meet that need.

Referrals must be securely and efficiently delivered, tracked and managed in a way that is actionable for the sending and receiving organization. The communication and workflow for each referral must also be efficient and effective in order to meet the needs of the individual in need of the referral. An electronic exchange of referrals through an Interconnected Referral Network (IRN) can help improve the quality, efficiency, and cost of healthcare. An IRN also allows for a broader net and more inclusive care for the patient regardless where they seek services.

Organizations and providers use their EMR or competing/different IRN and technology to transact Referrals. The intent of this Use Case is to identify and take specific data (payload) from the systems and IRN in use. The data in the payload from various competing sources can then be mapped and added to information made available for Care Coordination.

To this end, the data will be shared following the Gravity Project data justice protocols (in general) and the following MiHIN rules specifically:

1. Primary use is for care coordination, as allowed by HIPAA and governed by the Infrastructure Use Cases
2. Secondary use includes reporting to third parties (state, payors) of aggregate (deidentified) data.

NOTE – Requirement Related to This Use Case: Organizations entering into the Referrals use case should in general also enter into the Active Care Relationship Service and Health Directory.

1.2 Message Content

For this use case, Message Content means a patient/person's demographics and pertinent Referral information (Referrals Payload as listed in the Specification Section of this Implementation Guide) from one Participating Organization (PO) another PO in order to initiate and manage services for the patient/person.

The Referral Payload should make the following clear:
- A referral was done
- When was the referral made
- Who did the referral
- Who was the recipient of the referral
- Who was the subject of the referral
- What kind of services were requested
- A way to determine what state the service request is in over time as it moves through a commonly accepted life-cycle/state-model
- A way to determine what activities were provided as a result of that service request

1.3 Data Flow and Actors

Multiple actors can participate in this use case, each with a specific role in the process.

■ Actor: Sending PO
■ Role: Sends Referral Message Content to HIN and accesses the returned status message content from the Receiving PO.
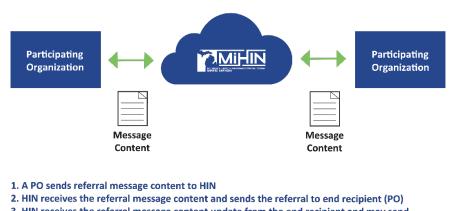
■ Actor: HIN
■ Role: Stores Message Content and makes the Message Content available to receiving PO and then sends updated referral status message content back to the sending PO

■ Actor: Receiving PO

■ Role: Accesses Message Content and returns the status of the referral back to HIN.

Integrated Referral Network

1. A PO sends referral message content to HIN
2. HIN receives the referral message content and sends the referral to end recipient (PO)
3. HIN receives the referral message content update from the end recipient and may send the update back to the PO as appropriate.

1.3.1 Use Case Summary

The coordination of care across the healthcare continuum can be very challenging and can have a negative impact on healthcare costs as well as patient care if referrals are not received or coordinated in an efficient and timely manner. In today's environment, making referrals is often managed within an Electronic Medical Record (EMR) system or a manual process – involving phone calls and faxes. Some EMRs provide the ability to generate referrals; however, the process is not always interoperable. The absence of a common, unifying system or network can create gaps in care, limits efficient and effective collaboration and can have a negative impact on healthcare costs and care.

Electronic referral systems have improved the quantity, tracking and quality of a referral. They have also guided pre-visit work-ups; increased the number of referrals; and are associated with a high degree of satisfaction by physicians in many settings. Utilizing an electronic referral system has provided cost savings by reducing wait times for new appointments and unnecessary referrals or follow-up. Offices have also noted a reduction in missing or incomplete information, thus avoiding additional phone time between the two organizations."[i],[ii]

To ensure that the person receives the needed care, the referral should be well coordinated through an IRN to confirm that the referral may include the following but is not limited to:

1. Is received and acted on in a timely manner
2. Meets criteria for the receiving organization's mission
3. Denotes the level of urgency for the referral
4. Includes all needed information to expedite the referral process
5. Tracks all activity, status and communication in real-time between care providers

The data exchange in the IRN's referral may include, but is not limited to, selected and relevant Protected Health Information (PHI) and supporting documentation to expedite the referral process for the individual.

The intended audience for this use case includes any organization that wants to send or receive electronic referrals to other organizations involved in coordinating care for an individual through an IRN. These include, but are not limited to:

1. Addiction or Behavioral Health
2. Community Resource Agency/Community Benefit Organization (CBO)
3. Diagnostic Facility
4. Durable Medical Equipment (DME)
5. FQHC, Tribal or Rural health center
6. Health Dept
7. Health Plan/Payers
8. Paramedic
9. Pre-paid Inpatient Health Plan (PIHP)
10. Physician Organization or Physician Hospital Organization (includes "like" organizations: ACO, IPA, etc.)
11. Primary Care
12. Post-Acute Care (Home Health, Hospice, Palliative Care, LTC, SNF)
13. Physical Therapy (PT), Occupational Therapy (OT) and Speech/Language Therapy (S/LP)
14. School (K-12, colleges, universities)
15. Specialty / Multi-specialty Care Practice

2 Standard Overview

2.1 Message Format
Referral Payload data sent/received through a PO's referral software vendor must be formatted according to Section 4.2 General Message Requirements.

2.2 Message SAMPLE

1. ABC Primary Care
2. 2349823492834
3.
4. ABC Primary Care
5. 2349823492834
6.
7.
8. 1234
9. Steve
10. Smith
11. 01/01/1980

12. Male
13. 123 East Street
14.
15. Somewhere
16. MI
17. 12345
18. Kent
19. 19712369129378
20. 09/07/2020
21. 0900
22. We Care 4 You
23.
24. Housing
25.
26. Shelter

3 Onboarding Process

3.1 Initial Onboarding

For organizations to share data with MiHIN under this use case, the organization undergoes two onboarding processes. The two onboarding processes are legal onboarding and technical connectivity onboarding. To initiate these two onboarding processes, notify MiHIN via http://mihin.org/requesthelp/.

3.1.1 Initial Legal Process

The first time an organization undergoes the legal onboarding process with MiHIN, the organization negotiates and enters into a master organization agreement and master use case agreement which then allows the organization to enter into one or more use cases via use case exhibits.

Once an organization has entered into a master organization agreement, the organization can enter into an unlimited number of use cases with MiHIN. All of MiHIN's use cases are available at http://mihin.org/about-mihin/resources/

3.1.2 Initial Technical Connectivity Process

MiHIN considers itself "transport agnostic" and offers multiple options for organizations to establish technical connectivity to transport Referral Payload data to MiHIN. Organizations should select one connectivity methods for message transport based on their technical capabilities, and put in a service request at 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

■ Web API – MiHIN supports and provides the API.

■ FTP – MiHIN supports SFTP.

For VPN connectivity, it is recommended that two VPNs be established. A primary VPN will facilitate regular traffic. A secondary is recommended to 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 transport method and establishes connectivity with MiHIN. THE APPROPRIATE OPTION WILL BE REVIEWED WITH REFERRAL VENDOR:
    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 to obtain the VPN request form. A pre-shared key is then securely 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.
    b. **Web API** – MiHIN supports and provides the API. MiHIN and the client exchange certificates. MiHIN provides the client with an endpoint to send to, that is specific to the type of data the client will be sending.
    c. **FTP** –SFTP and can receive message content via Secure File Transfer Protocol (SFTP). Organizations participating in the use case via SFTP will be required to establish SFTP with MiHIN. To establish SFTP, organizations will need to complete an SFTP form (provided by MiHIN) and submit it to help@mihin.org. MiHIN will then set up the SFTP and confirm access with the submitter.

2. PO should prepare to have a TEST and PROD the TEST port has been established, the PO can send TEST data to test the connectivity to the TEST environment. The PO's technical resource should submit a service request for ports at www.mihin.org/requesthelp.

3.2 Onboarding and training staff.

Depending on the selected Referral vendor, The MiHIN Help Desk may work with the Organization to determine a primary contact or Referral Administrator (RA). The RA is responsible for creating, managing, and reviewing the list of users and providers for their organization to assure accuracy as well as managing the organization's questionnaire.

4 Specifications

4.1 General Message Requirements

Field #	Field #		Field #	Field #	Field #		Field #

1	PO_Name (user readable)	Char	125	PO user readable name	Required
2	PO_OID	Num	125	Provider Organization Identification Number	Required
3	Row_ID (starting with 1)	Num	8	Unique row identifier starting with 1	Required
4	Sending Organization (SO)	Char	125	Sending Organization (SO) readable name	Required
5	SO OID	Num	125		Required
6	HD Provider ID	Num	10		Optional
7	ORG UNIQUE_ID_Number (or CKS)	Num	10	Subject's unique identifier at the sending org	Required
8	SSN	Num	4	Patient Social Security Number - Last 4 digits	
9	First_Name	Char	50	Patient First Name	Required
10	Last_Name	Char	50	Patient Last Name	Required
11	DOB	Char	10	Patient Date of Birth (format: MM/DD/YYYY)	Required
12	Gender	Char	4	M, "F", "N"(nonbinary), "D"(declined)	Required
13	Address_1	Char	100	Patient Home Street Address. Use "NA" if patient is homeless	Required
14	Address_2	Char	100	Patient Home Additional Street Address	optional
15	City	Char	30	Patient City. Use "NA" if patient is homeless	Required
16	MI	Char	2	State	Required
17	ZIP	Num	5	Patient ZIP Code (format: 12345)	Required
18	County	Char	50	County	Required
19	Contact phone	Num	10	format: ###-###-####	Required
20	Parent/legal guardian First Name	Char	10	Parent/Legal Guardian First Name	Optional
21	Parent/legal guardian Last Name	Char	25	Parent/Legal Guardian last Name	Optional
22	Referral ID	Num	50	Internal ID used from Sender/Receiver's vendor	Required
23	Referral Recipient Org (RO) Name	Char	125	Receiving Organization (RO) readable name	Required
24	Referral Recipient Org (RO) OID	Num		Receiving Organization (RO)Organization Identification Number	Required

25	Subject Condition	Char	25	Medical Behavioral Healthcare_Poor health Healthcare_ Finances Food Employment HousingShelter Utilities FamilyCare Education Transportation Safety Stress Anxiety Depression other	Required
26	Subject Condition: Diagnosis	NumChar		ICD permissible, z codes, LOINC	Optional
27	Subject Referral reason/request	Char	50	Service selected from formatted/permissible list	Required
28	Referral status	Num	2	Subject's referral status: 1-11. Number to match the following status: 1 Originated 2 Received 3 Accepted 4 Scheduled 5 Cancelled 6 Contacted 7 No Show 8 Declined (person declined) 9 Unable to Contact 10 Service Complete 11 Referral rejected (insufficient resources or not able/willing to service person)	Required
29	Referral Status date	Num	10	Corresponding date to the referral status (format: MM/DD/YYYY)	Required
30	Referral Status time	Num	4	Corresponding time to the referral status (format: 23:59)	Required

5 Troubleshooting

5.1 Production Support

	Severity Levels			
	1	*2*	*3*	*4*
Description	***Critical Impact/ System Down:*** 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.	***Significant Business Impact:*** Software component severely restricted. Entire organization is unable to continue business functions, causing all communications and transfer of messages to be halted.	**Partial Failure or Downtime:** 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.	**Minimal Business:** A non-critical software component is malfunctioning, causing minimal impact, or a test system is down.
Example	All referrals and /or messages are unable to be sent and received, let alone tracked	Referral messages between two participating organizations are not updating, but organizations can still	Filtering features are not working as expected but Referrals can still be sent/received and updated.	Additional feature requested.

		successfully communicate with other organizations.		
Primary Initiation Method	*Phone:* (517) 336-1430	*Phone:* (517) 336-1430	Web form at http://mihin.org/ requesthelp	Web form at http://mihin.org/ requesthelp
Secondary Initiation Method	Web form at http://mihin.org/ requesthelp	Web form at http://mihin.org/ requesthelp	Email to help@mihin.org	Email to help@mihin.org
Tertiary Initiation Method	Email to help@mihin.org	Email to help@mihin.org	N/A	N/A
Initial Response	Within 2 hours	Within 2 hours	1 business day	1 business day
Resolution Goal	24 hours	24 hours	3 business days	7 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)

6 Legal Advisory Language

This reminder applies to all UCEs or PAEs covering the exchange of electronic health information:

The data sharing agreement establishes the legal framework under which PO can exchange messages through the HIN 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; and

f. **For any additional purposes as specified in any UCE or PAE, provided that such purposes are consistent with Applicable Laws and Standards**.

Under these agreements, "***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 agency, including the State of Michigan, or the Michigan Health Information Technology Commission 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 which is enforceable against a Party. Without limiting the generality of the foregoing, "Applicable Laws and Standards" includes 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 PO'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 UCE is directed to the exchange of physical health information that may be exchanged without patient authorization under HIPAA, the PO 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 will apply 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.

7 Endnotes:

[1]Yeuen K, Chen A, Keith E, et al. Not perfect, but better: primary care providers' experiences with electronic referrals in a safety net health system. J Gen Intern Med. 2009;24(5):614–619. doi:10.1007/s11606-009-1087-5 [PMC free article] [PubMed] [CrossRef] [Google Scholar]

[2]Azamar-Alonso, A, Costa, A, et al. Electronic referral systems in health care: a scoping review. Published on line May 6, 2019 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6511625/#CIT0013