



MiHIN
Shared Services

Michigan Health Information Network

Commercial Payers (PPQC) and SIM Data Aggregator Implementation Guide

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Acronyms and Abbreviations Guide

ACRS	Active Care Relationship Service
APS	All-Payer Supplemental
BCN	Batch Clearance Notice
CAT 1	QRDA Category 1
CAT 3	QRDA Category 3
CCD	Continuity of Care Document
CDA	Clinical Document Architecture
CMS	Centers for Medicare & Medicaid Services
CQM	Clinical Quality Measure
CQMRR	Clinical Quality Measurement Reporting and Repository
eCQM	electronic Clinical Quality Measure
EHR	Electronic Health Record
EP	Eligible Professional
FHIR	Fast Healthcare Interoperability Resources
HEDIS	Healthcare Effectiveness Data and Information Set
HIE	Health Information Exchange
HIN	Health Information Network
HL7	Health Level Seven
MDC	Michigan Data Collaborative
MDHHS	Michigan Department of Health and Human Services

MiHIN	Michigan Health Information Network Shared Services
MiPCT	Michigan Primary Care Transformation Project
MSMS	Michigan State Medical Society
MU	Meaningful Use
MUCA	Master Use Case Agreement
PO	Participating Organization
PPQC	Physician-Payer Quality Collaborative
PQRS	Physician Quality Reporting System
QMI	Quality Measure Information
QRDA	Quality Reporting Document Architecture
QRS	Quality Rating System
SIM	State Innovation Model
SOM	State of Michigan
TDSO	Trusted Data Sharing Organization

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 HIN; (b) for payers, an eligible member of a health plan; (c) an active relationship between a patient and care manager or other person or organization for the purpose of treatment, payment or operations; or (d) a relationship with a health provider asserted by a consumer and approved by such health provider.

Active Care Relationship Service. The HIN Infrastructure Service that contains information on those TDSOs and health professionals 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.

Common Gateway. The method by which data is sent and received by HIN using different 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 this use case.

Data Sharing Agreement. Any data sharing organization agreement signed by both HIN and participating organization

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.

Electronic CQM. CQMs that are specified in a standard electronic format and are designed to use data from Health IT systems for measurement.

Electronic Medical Record or Electronic Health Record. A digital version of a patient's paper medical chart.

Electronic Service Information. 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, find patient/provider/healthcare data).

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

Exhibit. A use case exhibit or a pilot activity exhibit.

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 professional, health plan, public health authority, employer, life insurer, school or university, or health care 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 Professional or Health Provider. (a) Any individual licensed, registered, or certified under Federal or State laws or regulations to provide health care services; (b) any person holding a non-clinical position within or associated with an organization that provides healthcare or healthcare related services; and (c) people who contribute to the gathering, recording, processing, analysis or communication of Health Information.

HIN Infrastructure Service. Certain services that are shared by numerous use cases. HIN Infrastructure Services include, but are not limited to, ACRS, HPD, Statewide Consumer Directory (SCD), and the Medical Information Direct GATeWay (MIDIGATE®).

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

Information Source. Any organization that provides information that is added to a HIN Infrastructure Service.

Master Use Case Agreement. 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.

Message. A mechanism for exchanging message content between the participating organization to HIN services, including find and retrieve.

Message Content. Information which is sent, received, found or used by a participating organization to or from HIN Services, including, but not limited to, PHI, common keys, de-identified data, metadata, Digital Credentials, and data schema. Message Content includes the Message Content Header.

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

Patient Data. Any data about a patient or a consumer that is electronically filed in a participating organization or organization's systems or repositories. The data may contain protected health information, personal credit information, or personally identifiable information.

Person Record. Any record in a HIN Infrastructure Service that primarily relates to an individual person.

Send / Receive / Find / Use. Means sending, receiving, finding, or using message content. Sending involves transport of message content. Receiving involves accepting and possibly consuming/storing message content. Finding means querying to locate message content. Using means any use of the message content other than sending, receiving and finding.

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.

Trusted Data Sharing Organization. An organization that has signed any form of agreement with HIN for data sharing.

Use Case. A specific scenario or group of scenarios for sharing patient health information.

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. The document providing technical specifications related to Message Content and transport of Message Content between participating organizations, HIN, 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 HIN upon request and are available via www.mihin.org.

View Download Transmit. A requirement for Meaningful Use with the objective to provide patients with the ability to view online, download and transmit their health information within four business days of the information being available to an Eligible Professional.

1 Introduction

1.1 Purpose of Use Case

The Commercial Payers (PPQC) and SIM Data Aggregator use case scenarios enable providers and payers to consolidate and standardize the electronic exchange of quality-related data and performance results.

1.1.1 Commercial Payers (PPQC)

At this time, the burden of collecting, calculating and reporting quality measure information is borne by physicians and payers (both government and commercial health plans). This quality information is used to measure performance within provider incentive programs and to calculate payer quality measures required by national measure sets such as the Healthcare Effectiveness Data and Information Set (HEDIS), the Quality Rating System (QRS), and electronic Clinical Quality Measures (CQMs) for various federal and state quality reporting programs.

Due to a lack of standards, the electronic formats required by various health plans, federal, and state quality measure reporting programs can vary significantly. These discrepancies add work burdens to physicians and physician organizations because each quality measure must be sent in many different formats to satisfy the requirements of all health plans and programs.

Health plans also suffer from this lack of streamlined processes, as each health plan must work with each physician or physician organization separately to gather the data necessary for each applicable quality measure. As a result, each physician organization establishes its own separate technical connection with every health plan. This creates a point-to-point tangled web of redundancies, inconsistencies, and inefficiencies.

The Physician-Payer Quality Collaborative (PPQC) is a multi-stakeholder initiative including physicians, commercial payers, state Medicaid, and the statewide health information network who are focused on the alignment and streamlining of quality measure processes. It is led by the Michigan State Medical Society (MSMS) with support from the Michigan Health Information Network Shared Services (MiHIN).

The PPQC effort was born at the intersection of two stakeholder groups finding common ground.

- The MSMS Executive Council of Physician Organizations surveyed all of its members and discovered that quality measure alignment was identified as a top priority for 2015 and beyond.

- MiHIN holds a quarterly Payer Day, where commercial and state payers also unanimously identified quality measure processes as a significant pain point needing improvement.

As a result, MSMS and MiHIN partnered to form the PPQC to bring all stakeholders to the table to find solutions to quality measure alignment and pain points. The discussions held within the PPQC led to the concept for the Commercial Payers (PPQC) use case scenario. Therefore, this scenario has strong stakeholder support from physician organizations and payers alike.

The Commercial Payers (PPQC) use case scenario enables providers to consolidate supplemental clinical quality information into a single feed routed through the statewide health information network (HIN). Further, providers in this use case scenario will all use the same standardized reporting format.

The HIN validates and evaluates this quality information, then distributes it to the appropriate health plans/payers based on those payers' membership information. Payers receive information only for patients who are their members. In this way payers gain access to a greater quantity and quality of supplemental clinical quality information. Additionally, all of the inbound and outbound quality information to/from payers is in a single, statewide standardized format.

In addition, this use case scenario supports quality measure performance feedback to providers from an all-payer/all-patient perspective. The HIN captures standardized gaps-in-care reports produced by payers, aggregates them and then routes the gaps-in-care information back to all providers who have a relationship with that patient.

This use case scenario standardizes and streamlines the gaps-in-care process, reporting formats, and information transport resulting in more closed gaps, better HEDIS scores for health plans, and better care for patients.

This use case scenario supports two different activities:

- **Supplemental Data Filtering:** HIN receives all-payer supplemental data files in single standard format from participating organizations. HIN then separates this information into payer-specific files based on the payer's attributions and routes that data to the appropriate payer, also in a single standard format.
- **Report Gaps in Care:** Once supplemental data is combined with claims data and processed by payers, the raw results data is sent back to HIN, also in a standard format. At HIN, this raw data is aggregated and distributed back to providers in one consolidated gaps-in-care report.

1.1.2 SIM Data Aggregator

Additionally, the State Innovation Model (SIM) project administered by the State of Michigan Department of Health and Human Services (MDHHS) has elected to take advantage of this use case scenario to fulfill the quality monitoring component of the SIM project. Providers participating in SIM will send in clinical information through



HIN, which will then be routed to the designated data aggregator. Please see Appendix A for SIM-specific information.

1.2 Message Content

For this use case, Message Content means an All-Payer Supplemental (APS) file containing supplemental clinical quality information from a physician or a physician organization.

1.3 Data Flow and Actors

Receiving organizations, such as commercial payers and/or state projects, must provide Active Care Relationship Service (ACRS) 2.0 files to MiHIN. Patient data contained in the APS files sent by participating organizations will be broken out and matched to eligible receivers' ACRS files. A separate file will be created for each receiver, ensuring that each will only receive data on their patients.

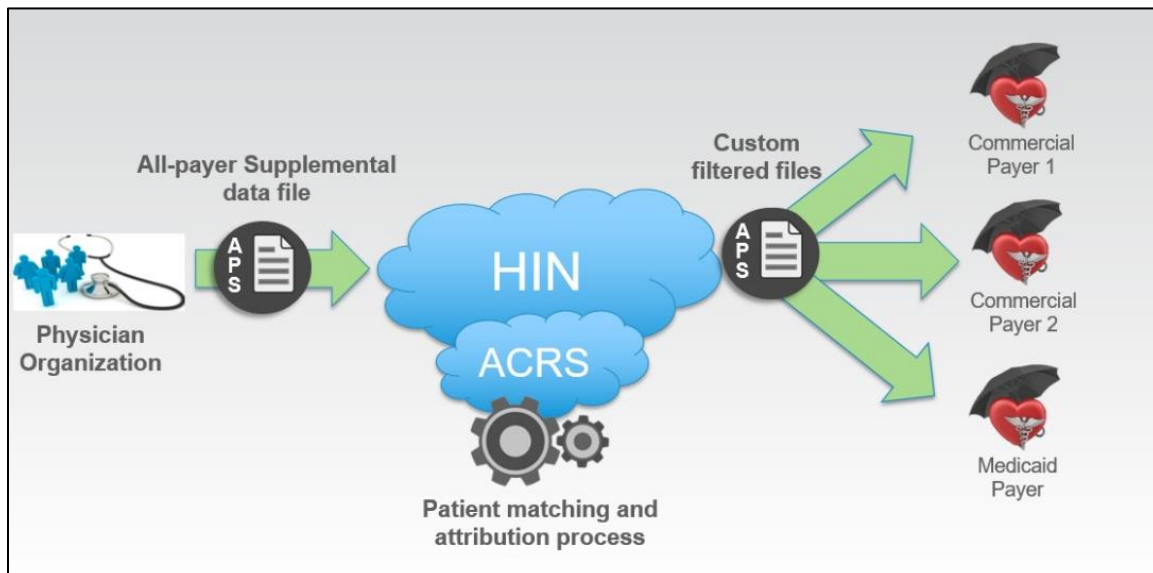


Figure 1. Payer Routing Phase

Once data recipients receive the supplemental data and combine it with claims or other data and calculate quality measures, resulting Gaps in Care Reports are generated and submitted to HIN, who then determines attribution and shares it with appropriate participating organizations.

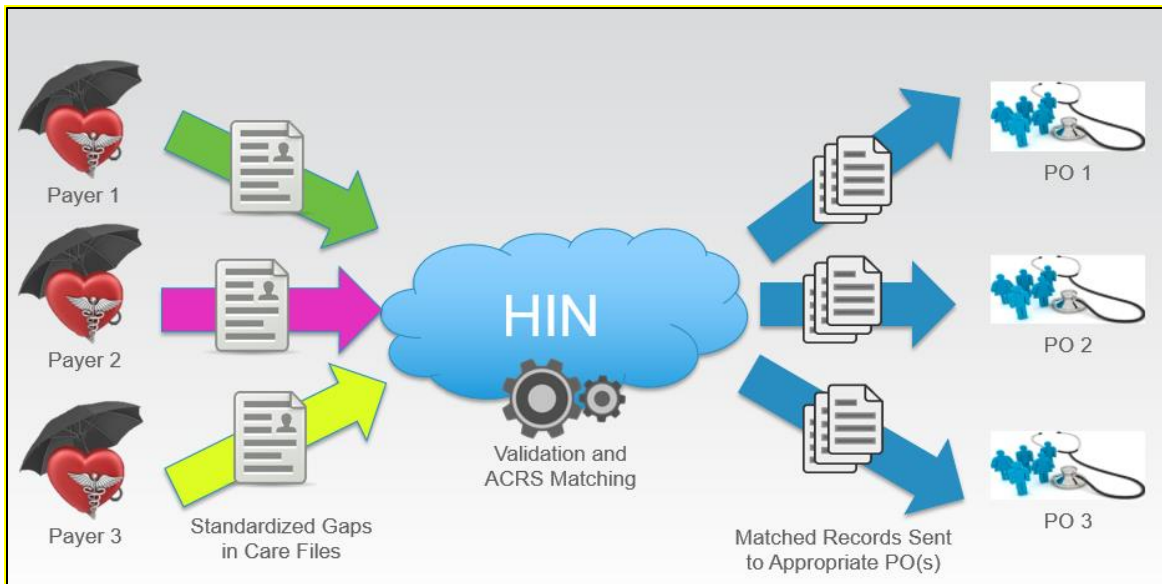


Figure 2. Report Gaps in Care

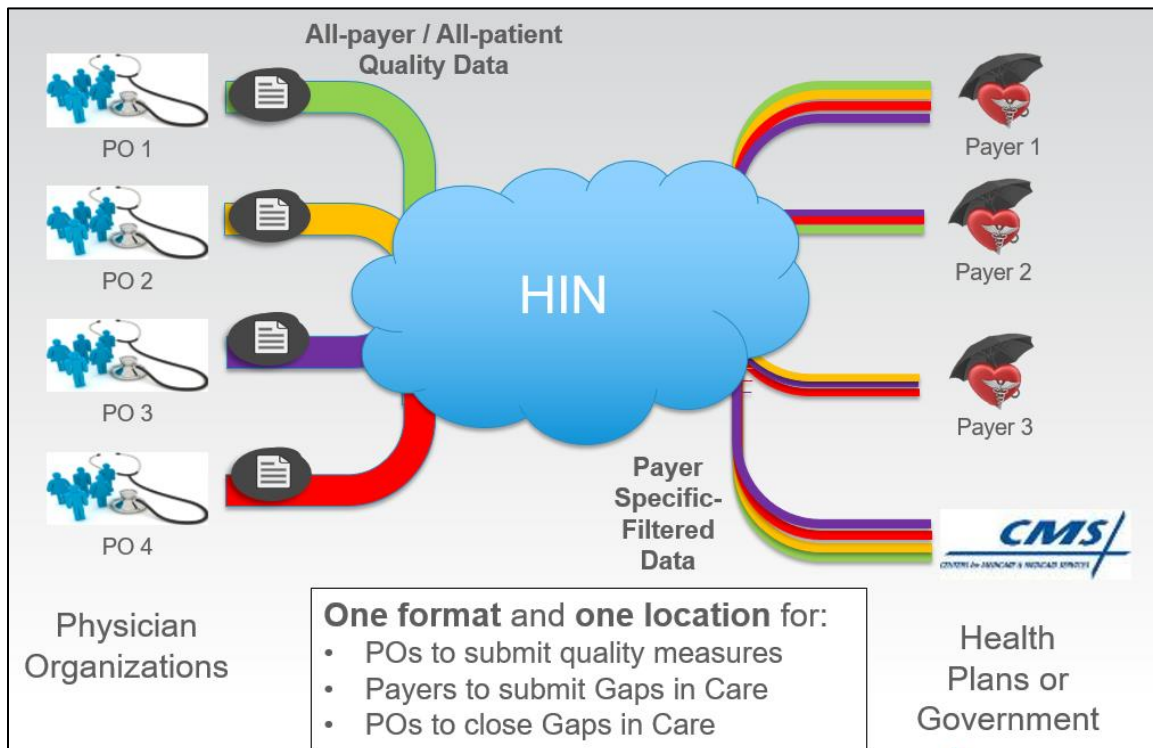


Figure 3. Quality Measure Data Flow

For more information about this use case, refer to the documents linked below:

Use Case Summary:

<https://mihin.org/quality-measure-information>

2 Standard Overview

2.1 Message Format

The current message format supported is the APS format - a pipe-delimited flat file. All quality data files should conform to this specification. It is available for download here:

<https://mihin.org/about-mihin/resources/>

2.2 Message Example

Below is an example of a properly formatted APS .txt file. This sample file can also be sent to you upon request.

```
2.16.840.1.113883.4.290.26|1|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|17856-6|1|<8|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|2|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|12773-8|1|=105|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|3|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|20454-5|1|=9|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|4|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|11218-5|1|=25|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|5|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|10524-7|2|=|6|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|6|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|12503-9|2|=|7|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|7|9999999944|Tricia|Franklin|F|1/15/1987|||9999992108|||R|3/15/2015|14463-4|2|=|6|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|8|9999999944|Tricia|Franklin|F|1/15/1987|||9999992114|||R|11/22/2015|10368-9|2|=|7|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|9|9999999944|Tricia|Franklin|F|1/15/1987|||9999992114|||S|11/22/2015|||DP|190|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|10|9999999944|Tricia|Franklin|F|1/15/1987|||9999992114|||S|11/22/2015|||SP|140|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|11|9999999944|Tricia|Franklin|F|1/15/1987|||9999992114|||S|11/22/2015|67028|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
2.16.840.1.113883.4.290.26|12|9999999944|Tricia|Franklin|F|1/15/1987|||9999992114|||S|11/22/2015|||BM|23.7|1/12/2016|T|2|2|eng|eng|US|G|L|P||5|Persona Health Plan|1119|48341|ah7xct5hfl4bdznumnupokdyn67ruuxusrdj4qgc|
```

3 Onboarding Process

3.1 Initial Onboarding

For organizations to share data with HIN under this use case scenario, the organization undergoes two onboarding processes simultaneously. The two onboarding processes are legal onboarding and technical connectivity onboarding. These may occur in parallel – i.e. the organization can review and complete legal agreements with HIN while simultaneously establishing and testing technical connectivity. To initiate these two parallel onboarding processes, notify HIN via <http://mihin.org/requesthelp/>.

3.1.1 Initial Legal Process

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

Once an organization has entered into a master participating organization agreement, the organization can enter into an unlimited number of use cases with HIN. All of HIN's use cases are available at:

<http://mihin.org/about-mihin/resources/>

3.1.2 Initial Technical Connectivity Process

HIN considers itself “transport agnostic” and offers multiple options for organizations to establish technical connectivity to transport data to HIN. 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. Currently HIN accepts the following transport methods:

- LLP over IPsec VPN – Lower-Layer Protocol over Internet Protocol Security Virtual Private Network
- DSM – Direct Secure Messaging
- SFTP - Secure File Transfer Protocol

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, and others.

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

1. The participating organization selects one or more supported transport methods and establishes connectivity with HIN. This step varies based on the method selected:
 - a. LLP over IPsec VPN – HIN’s site-to-site VPN request form must be completed, sent and approved by HIN. Send an email via www.mihin.org/requesthelp to obtain the VPN request form. A pre-shared key is then exchanged between the participating organization and HIN to initialize the connection. The LLP over IPsec VPN is the most efficient transport for very high volumes of messages.
 - b. Direct Secure Messaging – HIN accepts Direct Secure Messages from Health Internet Service Provider (HISPs) that have EHNAC-DTAAP (DirectTrust) accreditation. Test messages are sent to verify HISP connectivity (“ping pong”). The Message Header section in the test messages is verified for appropriate routing configuration.
 - c. Secure File Transfer Protocol - participating organization provides address information of their SFTP client machine and is then given a username and password by HIN. Participating organization shall then access their Input and Output folder with HIN’s SFTP server to pick up or drop off files.
2. Test messages are sent by the participating organization to HIN.
 - a. All test messages must have a “TEST” in the file name and may NOT contain PHI.
 - b. Test traffic is routed via HIN to the appropriate destination.
 - c. The end destination monitors for inbound test traffic and confirm receipt with HIN, which confirms with the participating organization.

4 Specifications

4.1 Message Trigger Events

The APS file should be generated on a schedule determined between the participating organization and MiHIN Onboarding, but will be no less frequent than one file per month.

4.2 File Level Requirements

1. The file must be a text file with suffix “.txt”
2. File name should adhere to the naming convention, with the date being the file creation date: “<SOURCE_OID>_APS_yyyymmdd.txt”
 - a. If your org does not have an OID, MiHIN can create one for you. Please reach out to the Help Desk at: www.mihin.org/requesthelp
3. Fields must be separated by pipes “|”
4. Number of columns contained in the first line (Header) must be exactly three
5. Number of columns contained in all subsequent lines must be exactly 89
6. The first file submitted by newly onboarded participating organizations should be a historical file, with subsequent files containing only new data for that month. Historical files are defined as containing data for patients with a measure-dependent look-back period, which can be up to five years or more.

4.3 Specific Record-Level Requirements and Field Definitions

For specific guidance on individual field values and rules, please refer to the specification document for the APS file. The most recent version is hosted on this web site:

<https://mihin.org/about-mihin/resources/>

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 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 transmitted.	Additional feature requested.
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 are experiencing difficulties or 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 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 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
- 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. HIN 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 HIN's control.

Appendix A. Michigan SIM Data Aggregator Information

A.1 State Innovation Model Quality Component

Reinventing Michigan's health care system is one of the State's top priorities. The SIM program is a mechanism to both improve the health of all Michiganders and have a health care system that provides better quality and experience at lower cost. To measure the potential health impact of the various SIM initiatives, it is necessary to collect and evaluate care quality data from participating providers. This will be done with a combination of clinical and claims data. It is the responsibility of participants to send insufficient supplemental clinical data to MiHIN.

A.2 Roles

MiHIN is responsible for establishing secure connections, completing all necessary legal arrangements, receiving and validating all quality data from all SIM participating organizations, and forwarding to the Data Aggregator. The primary use case for the quality component is the Quality Measure Information (QMI), which enables providers and payers to consolidate and standardize the electronic exchange of quality-related data and performance results.

Michigan Data Collaborative (MDC) is the Data Aggregator and will collect, store and analyze available clinical and claims data. MDC will calculate the specific quality measures selected by SIM and make performance data available to view and download. MDC and the MiPCT Project created a channel for electronic exchange of quality-related data which the SIM project is able to build on and improve for the State of Michigan.

A.3 Data Request

- The file format utilized is the All-Payer Supplemental Data File (APS Format v16 07-16-2018). This is based on the BCN Data Exchange Layout (Version 23-9) with the following changes:
 - SOURCE_OID (first field in the spec) will contain the PO or Practice OID –
Required Field
 - ◆ If you do not have an OID, please contact MiHIN Help Desk at:
<https://mihin.org/requesthelp/>
 - New Fields added at the end of the layout:
 - ◆ PAYER_NAME: The written out name of the patient's primary payer as recorded
 - ◆ MBR_LAST_FOUR_SSN: Last 4 digits of patient's Social Security number
 - ◆ MBR_ZIP_CODE: 5-digit ZIP code of patient's home address
 - ◆ COMMON_KEY: MiHIN assigned Common Key value, if available

- After sending successful test files as referenced in the core implementation guide, the first production APS file submitted by participants should be a historical file with a measure-specific look-back period
 - **Note:** This look-back period is one year greater than the measure typically requires in order to establish baseline metrics
- After the initial historical file, participants should send monthly update files containing new data for the preceding 30-day period
- Note that if newly identified SIM participants are included in monthly submissions, full historical data for those patients must be included in the submission
- Participants will work with MiHIN Onboarding staff to complete all testing, error handling, and miscellaneous troubleshooting. To engage MiHIN Onboarding, please submit a ticket at <https://mihin.org/requesthelp/>
- Please adhere to data file format requirements as outlined in the specification document
- First row of file should contain the sending organization OID, file creation date, and total record count. See “header row” tab of specification.
- Participants will receive two forms of feedback on submitted data:
 - **Summary Report** will contain general figures regarding number of patients and how many records were validated and matched
 - **Error File** will contain all rejected records, with the specific reason for rejected appended as an extra field on the end

A.3.1 Quality Measures

Below is a list of SIM quality measures that will utilize clinical data. Note that there are other measures that will be calculated and may be used in evaluation, but will use only claims data. All SIM participants must provide as much clinical data relevant to these measures as possible. Please see the “2018 HEDIS CODE REF” tab of the All-Payer Supplemental (APS) specification document for a comprehensive list of all relevant codes and values.

Please note the following:

- Measures will be calculated using a one calendar year measurement period from the anchor date, which is the file creation date. Measures are calculated on a rolling basis, with calculations taking place approximately every three months. Please use your file creation date as the anchor date for all measure-specific look-back periods. Note that sending data outside that range or from further back in time is acceptable and will not negatively impact calculations.
- Diabetes HbA1c: must send associated HbA1c results
- Controlling High Blood Pressure and Diabetes Blood Pressure Control: send associated paired diastolic and systolic readings
- Screening for Depression and Follow-up Using PHQ-9: PHQ is a new service code that some organizations are still incorporating; MDP may be used in the interim
- The below table lists associated service code abbreviations for each SIM measure
 - For each patient record, you may send either just the service code abbreviation or the original LOINC/CPT/etc. code if available

- For best performance results, you must send all available data elements and codes requested by each of the service code categories below
- Note that there are new service code abbreviations and associated code elements to support quality measures beyond what is currently collected by MiPCT and the usual BCN / BCBSM supplemental data process.
- Please reference the “2018 HEDIS CODE REF” tab of the PPQC APS Format specification document for complete listing of codes and data elements
- Note that there are service codes and elements in the specification document relating to quality measures not collected by SIM. These do not have to be provided for SIM purposes but will not negatively impact the validation or SIM data submission process if that data is sent as part of your submission.

Measure Name	Measure Description and Notes	Associated Service Codes	Historical File Look-Back Period
Controlling High Blood Pressure	<ul style="list-style-type: none"> ■ Percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90mmHg) during the measurement period. ■ Denominator Exclusions: <ul style="list-style-type: none"> ● Patients with evidence of end stage renal disease (ESRD), dialysis or renal transplant before or during the measurement period. Also exclude patients with a diagnosis of pregnancy during the measurement period. <p>Note: Must send associated systolic and diastolic reading values in the RESULT_NUM field (2 separate records with same date of service)</p>	DP SP	Measurement year
Cervical Cancer Screening	<ul style="list-style-type: none"> ■ % of women who were screened for cervical cancer using either of the following criteria: <ul style="list-style-type: none"> ● 21-64 Cervical cytology performing within 3 years. ● 30 - 64 Who had cervical/human papillomavirus co-testing within 5 years 	CE HV CEA	Measurement Year and Two Years Prior (Pap); Measurement Year and Four Years Prior w/Co HPV Test; lifetime for exclusions
Breast Cancer Screening	<ul style="list-style-type: none"> ■ % of population that has been screened for breast cancer as well as exclude patients with bilateral or two unilateral mastectomies from the measure 	BR BR3 BRL BRR	Measurement Year and Two Years Prior; lifetime for exclusions
Colorectal Cancer Screening	<ul style="list-style-type: none"> ■ Patients 50 through 75 years of age who had appropriate screening for colorectal cancer 	CN SG FB FT CR3 CR4 GC	10 years colonoscopy; 5 years sigmoidoscopy; measure year FOBT; lifetime for exclusions

Measure Name	Measure Description and Notes	Associated Service Codes	Historical File Look-Back Period
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)	<ul style="list-style-type: none"> Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period <p>Note: Must send associated systolic and diastolic reading values in the RESULT_NUM field</p>	HA	Measurement year
Comprehensive Diabetes Care: Eye Exam (retinal) performed	<ul style="list-style-type: none"> Percentage of patients 18-75 years of age with diabetes who had a retinal or dilated eye exam by an eye care professional during the measurement period or a negative retinal exam (no evidence of retinopathy) in the 12 months prior to the measurement period 	BEE LEE REE EY EYN EYP	Measurement year; and prior to measurement year if the screen was negative for retinopathy
Comprehensive Diabetes Care: Blood Pressure (BP) Control	<ul style="list-style-type: none"> The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who had their most recent BP reading under 140/90 mm Hg. <p>Note: Must send associated systolic and diastolic reading values in the RESULT_NUM field</p>	DP SP	Measurement Year
Comprehensive Diabetes Care: Medical Attention for Nephropathy	<ul style="list-style-type: none"> The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who received a nephropathy screening test or had evidence of nephropathy during the measurement year. 	AC MA MB MC UP	Measurement Year
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing	<ul style="list-style-type: none"> The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who received an HbA1c test during the measurement year. <p>Note: Must include date test performed and result in RESULT_NUM field</p>	HA	Measurement Year
Preventative Care and Screening: Tobacco Use: Screening and Cessation Intervention	<ul style="list-style-type: none"> Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user. 	TB TB2 TB3 TB4 TI TSA TEX	Measurement Year and Year Prior
Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	<ul style="list-style-type: none"> Percentage of patients 3-17 years of age who had an outpatient visit with a primary care physician (PCP) or an OB/GYN and who had evidence of the following during the measurement year: <ul style="list-style-type: none"> Body mass index (BMI) percentile documentation* Counseling for nutrition Counseling for physical activity <p>Note: Must include BMI value in RESULT_NUM field</p>	BM1 BM2 BM3 BM4 NU PA	Measurement Year
Adult Body Mass Index (BMI) Assessment	<ul style="list-style-type: none"> Members age 18-74 who had an outpatient visit with a BMI documented during the measurement year or the year prior <p>Note: Must include BMI value in RESULT_NUM field</p>	BM	Measurement Year and Year Prior

Measure Name	Measure Description and Notes	Associated Service Codes	Historical File Look-Back Period
Chlamydia Screening in Women	■ Percentage of women 16-24 years who were identified as sexually active and who had at least one test for chlamydia during the measurement period	CL	Measurement Year and Year Prior
Lead Screening in Children	■ The percentage of children 2 years of age who had one or more capillary or venous lead blood test for lead poisoning by their second birthday	SL	Measurement Year and Year Prior
Well-Child Visits in the First 15 Months of Life	■ Percentage of patients who turned 15 months old during the measurement year and who had the following number of well-child visits with a PCP during their first 15 months of life.	WV	Measurement Year
Well Child Visits 3-6 Years	■ Percentage of patients 3-6 years of age who received one or more well-child visits with a PCP during the measurement year	WV	Measurement Year
Adolescent Well-Care Visits	■ Members 12-21 years old in the measurement year that have had at least ONE "Well Care" visit (school physical, pap, post-partum visit)	WV	Measurement Year
Prenatal & Postpartum Care	■ The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care. <ul style="list-style-type: none"> ● <i>Rate 1: Timeliness of Prenatal Care.</i> The percentage of deliveries that received a prenatal care visit as a patient of the organization in the first trimester or within 42 days of enrollment in the organization. ● <i>Rate 2: Postpartum Care.</i> The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery. 	PC PP PM	Measurement Year and Year Prior
Screening for Depression and Follow-Up Plan	■ Percentage of patients aged 12 years or older screened for depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen	PHQ DS DSE	Measurement Year

A.3.2 Changes from MiPCT to SIM

- The file format utilized is the All-Payer Supplemental Data File (APS Format v16 07-16-2018). This is based on the BCN Data Exchange Layout (Version 23-9) with the following changes:
 - SOURCE_OID (first field in the layout) will contain the PO or Practice OID
 - ◆ If the sender does not have an OID, they should contact MiHIN onboarding and they will assign one
 - New Fields added at the end of the layout:
 - ◆ PAYER_NAME: The written out name of the patient's primary payer as recorded
 - ◆ MBR_LAST_FOUR_SSN: Last 4 digits of patient's SSN

- ◆ MBR_ZIP_CODE: 5-digit ZIP code of patient's home address
- ◆ COMMON_KEY: Unique patient identifier assigned by MiHIN. Your organization must be participating in the Common Key Service in order to provide this value.
- All of the existing content for MiPCT is needed to support SIM quality measures

A.3.3 File Validation Rules

MiHIN will perform in-depth data validation checks upon receipt of files from POs/ASCs. All errors are expressed as the total number of records in the file and the associated % total that failed the check:

- SOURCE_OID not in the valid list
- CONTRACT_NUM is missing
- MBR_FIRST_NAME is missing
- MBR_LAST_NAME is missing
- GENDER is missing
- BIRTH_DT is missing
- SERVICE_DT is missing unless RECORD_TYPE = 'X'
- BIRTH_DT and SERVICE_DT is invalid:
 - Incorrect format (DD-MMM-YYYY)
 - Less than 11 characters
 - Contain slash "/"
- RECORD_TYPE:
 - Missing
 - Invalid Value (Valid values are S, R, P, M, D, or X)
- BMI checks:
 - Pediatric BMI Service Type and the patient is over 18
 - Pediatric BMI results outside the expected range: Service Type code BM1 with results outside 0-4.9
 - Pediatric BMI results outside the expected range: Service Type code BM2 with results outside 5-84.9
 - Pediatric BMI results outside the expected range: Service Type code BM3 with results outside 85-94.9
 - Pediatric BMI results outside the expected range: Service Type code BM4 with results outside 95-100
 - Adult BMI results outside the expected range: Service Type code BM with results outside 10-200
- Results outside expected ranges:
 - HbA1C: Service Type code HA with results less than 1 or higher than 48 (valid range should be between 1 and 48)
 - LDL: Service Type code LD with results less than 10 or higher than 350 (valid range should be between 10 and 350)
 - Systolic Blood Pressure: Service Type code SP with results less than 60 or higher than 300 (valid range is 60 – 300).
 - Diastolic Blood Pressure: Service Type code DP with results less than 40 or higher than 220 (valid range is 40 – 220)

- Results populated, but Operand is not valid (valid values are >, <, or =)
- Record type indicates that Results should be populated, but Result Text field does not contain a valid value (Valid values 1,2,3,4,5,6 or 7)
- Record Type indicates there should be a value in Result, but Result is missing
- If reporting PHQ-9 LOINC lab code, you must include result in RESULT_NUM field
 - For PHQ-9 results, value must be between 0 and 30

Finally, MiHIN will also perform a row count evaluation on data to determine which specific measures data was submitted for.