

Use Case Summary

NAME OF UC:

HEALTH PROVIDER DIRECTORY – ADVANCED QUERY AND DATA EXTRACT

Sponsor(s): MiHIN / MDCH _____

Date: 11/11/14 _____

The purpose of this Use Case Summary is to allow Sponsors, Participants, and other readers to understand the purpose of the Use Case (UC), the value proposition the UC represents, and what the Use Case does, requires, and how the UC operates at a high level. The summary is intended to assist the HIE and HIT Community understand where this UC fits within the overall roadmap for statewide sharing of health information.

This UC Summary has several sections allowing readers to understand the impact of this UC in the following areas: health outcomes, regulation, cost and revenue, implementation challenges, vendor community, and support.

Executive Summary

In this section provide a brief (3-5 sentence) summary of the UC's function and purpose. Also include a brief description of the importance and highlight the expected positive impact from implementation of this UC.

New models of care have necessitated the need for health professionals need to be able to send and receive health information electronically and securely. For example, Medicare requires primary care providers to follow-up with patients within 30 days of hospital discharge and Meaningful Use requires eligible providers and hospitals to securely exchanging patient information with other providers to improve patient outcomes and quality of care.

The electronic exchange of health information requires a provider to know where health information is to be sent. Health professionals now have electronic addresses such as Direct Secure Messaging (DSM). The endpoints for electronically sharing information with healthcare providers are collectively called Electronic Service Information (ESI). One health professional needs the ESI of another health professional to share information electronically. Today it is difficult to efficiently locate and/or maintain accurate and reliable Electronic Service Information for contacting health care organizations and health professionals electronically. This challenge hinders the ability to securely exchange health information to improve the quality and efficiency of patient care while decreasing costs.

The statewide HPD contains data from multiple sources including Active Care Relationship files directly from Physicians Organizations, provider data from commercial payers, State and Federal provider data, provider data from HIE Qualified Organizations and other data sources. Commercial data was purchased and utilized in the past but this practice has been discontinued as the data received directly from Physicians Organizations is of much greater quality and does not cost anything. The data from various

sources is updated monthly and is de-duplicated, mapped to the Provider Object Modal (which supports all standards for HPDs), and the data is then imported into the statewide HPD. Data from these sources is obtained using HPD Plus standards as well as by flat file submissions. The HPD also has “read” and “write” application programming interfaces (API) for real-time transactional updates – using these APIs, the HPD is now integrated with the National Plan and Provider Enumeration System (NPPES) for bi-directional, transactional update ability.

The Health Provider Directory (HPD) Advanced Query and Data Extract use case supports more streamlined and automated processes for eligible hospitals/critical access hospitals and eligible providers to meet Meaningful Use requirements for securely exchanging patient information with other providers. The value of Direct Secure Messaging supported with provider directory includes care coordination across organizational boundaries, interoperability of information (exchange without interfaces), and electronic exchange of structured clinical information. Furthermore, this use case facilitates more robust analytics to support clinical quality metrics reporting, tying together clinical data, patient outcomes and care setting information to allow for causal relationships and best practices to emerge.

The goal of the statewide HPD Advanced Query and Data Extract service is for Michigan Health Information Network Shared Services (HIN) to offer, on a limited pre-approved basis, tools for Data Sharing Organizations (DSO) and their participants that permit query access to and storage of the HPD data. As such a user of this service have permissions to access and store data that is beyond the capabilities provided with the Basic Search service. These permissions include:

- Ability of a user to see additional data elements that are not part of the Basic Query service,
- Extensive query capability, data retrieval of multiple records from the statewide HPD, and
- Capability for DSOs to store the results for analysis internal to their organization.

HPD Advanced Query and Data Extract methods can be accomplished via web-based user interface or through an application programming interface (API) that the HIN has specifically developed for those DSOs and/or their participants whose needs for health care organization and health professional data exceed those offered with the Basic Query Access Methods. Both Advanced Query Access Methods enable advanced query, data retrieval and storage of HPD data for the purpose of analysis by the DSOs.

The statewide HPD contains data from multiple sources, including State and Federal provider data, sub-state provider data, (for example, HIEs, RHIOs and other states’ organizations) and commercial data sources. This data has been imported, mapped and de-duplicated. Data from these sources is obtained using HPD Plus standards as well as by flat file. Future state includes write API for interface-based updates.



Diagram

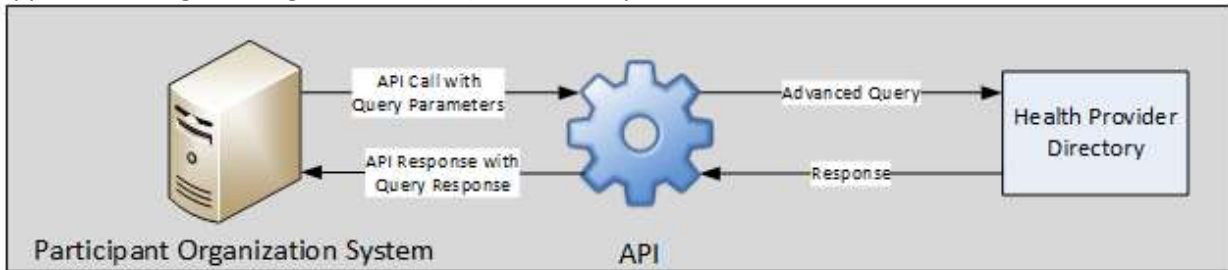
In this section, provide a diagram of the information flow for this UC. The diagram should include the major senders and receivers involved and types of information being shared.

HIN provides two methods for DSOs to perform Advanced Query to the statewide HPD:

Web User Interface based Query



Application Programming Interface (API) based Query



Regulation

In this section, describe whether this UC is being developed in response to a federal regulation, state legislation or state level administrative rule or directive. Please reference the precise regulation, legislation, or administrative act such as Public Law 111-152 (Affordable Care Act), Public Law 111-5; Section 4104 (Meaningful Use), 42 CFR 2 (substance information), MCL § 333.5431 (Newborn Screening), PA 129 (standard consent form), etc.

Additionally, provide information if this UC allows Eligible Professionals/Providers (EP) or Eligible Hospitals (EH) to meet an attestation requirement for Meaningful Use.

Legislation/Administrative Rule/Directive

- Yes
 No
 Unknown

[Name or number of legislation, rule, directive, or public act]

Public Law 111-152 (Affordable Care Act)
Public Law 111-5; Section 4104 (Meaningful Use)

Meaningful Use:

- Yes
 No
 Unknown

Transitions of Care; CQM Reporting

Cost and Revenue

In this section provide an estimate of the investment of time and money needed or currently secured for this UC. Be sure to address items such as payer incentives, provider incentives, revenues generated (e.g. SSA transaction payments) or cost savings that could be realized (i.e. reduction of administrative burden).

As information is known or available, provide information on the resources and infrastructure needed to move this UC into production.

Participation in the HPD is by named users who receive portal accounts requiring agreement to an End-User License Agreement or via API accounts for system-system integration.

Fees

The HIN provides accounts for accessing the HPD to participants in this use case for an annual fee that is slightly above HIN's cost for licensing the accounts. The fees established in the Health Provider Directory (HPD) account price list apply to this UC. Monthly fees are based on user accounts for the following user roles/services:

- Population Administrator (portal account) – approximately \$300/account/month or lower
- Organization Administrator (portal account) - approximately \$75/account/year or lower
- Individual Provider (portal account)- approximately \$25/account/year or lower
- API Account (system to system account) - approximately \$300/account/month or lower

Hourly fees may apply to time associated with building custom reports.

Fees between the HIN and the Data Sharing Organization and associated payment terms are defined in a Statement of Work between HIN and the Data Sharing Organization.

Implementation Challenges

In this section, as information is known or available, describe challenges that may be faced to implement this UC. Be sure to address whether the UC leverages existing infrastructure, policies and procedures, ease of technical implementation, or impacts current workflows (short term and long term).

Several so-called “HPD” standards are available and each has a different data model. For the statewide HPD, a “superset” data model was developed which harmonizes all of these standards into one model to support the population of a statewide HPD. The standards used and improved upon include HPD Plus, ModSpec and Federated HPD standards – these standards are not fully finalized and have limited adoption rates in the industry; however the statewide HPD “superset” model closes gaps in these standards.

ModSpec-based federation is technically challenging, time consuming, expensive and inefficient. Furthermore, ModSpec-based federation does not easily scale to large numbers of directories. To mitigate this problem, the HIN has developed and offers this low cost federation capability called the HPD Search Service described in this Search HPD Use Case Summary.

The goal for most organizations is to have a federated provider directory that supports submission, update and query of information on health care organizations and health professionals with other directories. The statewide HPD has the ability to federate. Systems and services with API capabilities can connect to the statewide HPD via published APIs; systems and services without API capabilities can interact with the HPD via flat-file exchange. People can interact with the HPD using portal/GUI accounts which are assigned to named, trusted users.

Vendor Community Preparedness

In this section, address the vendor community preparedness to readily participate in the implementation of this UC. Speak to whether this UC utilizes current or future technical capabilities of the vendor products. If this UC requires new functionality at the vendor level provide information as known to the timeliness of when product updates may be available and any potential costs to the HIE community.

Multiple competing Healthcare Provider Directory (HPD) standards are under development and have criteria for how such data is stored and shared in EHRs.

Utilization of Federated provider directories is nascent. Products used to update and access directories via Federation may not have the necessary capabilities to enable users to query for data outside the standard data model. Vendor display capabilities may also be limited.

Products supporting Federated provider directories are likely to be more broadly supported in 2015 to early 2016 based on typical vendor product development cycles.

Support Information

In this section, provide known information on the support for this UC.

Support can come from multiple levels (Governor, Federal or State Legislative, MI HIT Commission, Michigan State Departments, CMS/ONC/CDC, MiHIN Board, Qualified Organizations, Payer Community, Interest Group [ex: MSMS, MHA], or Citizen support).

Please note any concerns or oppositions with the Use Case.

Political Support:

- Governor
- Michigan Legislature
- HIT Commission
- MDCH or other SOM Department
- CMS/ONC
- CDC
- MiHIN Board

Other: Other states who are interested in participating in the HIN statewide HPD service

Concerns/Oppositions: None noted.

Sponsor(s) of Use Case

Who are the major sponsors of the use case?

MDCH
MiHIN Shared Services
Data Sharing Organizations
Payers/Health Plans

Metrics of Use Case

In this section, define metrics for the Use Case to be successful.

Number of Data Sharing Organizations participating in Advanced HPD services
% Change in adoption of Advanced HPD services among Data Sharing Organizations
Number of HPD advanced queries conducted
% change in advanced queries over time

Other Information

This section is to afford the sponsor(s) an opportunity to address any additional information with regard to this UC that may be pertinent to assessing its potential impact.