Medical Society of the State of New
Physician Practice Support Organization Initiative

Introduction

The Medical Society of the State of New York (MSSNY) has been retained by the New York State Department of Health (DOH) to work with the Adirondack Health Institute to implement a pilot program for Physician Practice Support Organizations (PPSO).

A PPSO is intended to bring solo and small practice physicians together to build organizational and care management capacity in order to systematically improve the efficiency and effectiveness of health care consistent with the health IT vision and strategy being deployed by DOH. Specifically, goals and objectives include:

1. Performance reporting capabilities and interoperable health IT capacity connecting patients, clinicians and payers and leveraging health information exchange among the stakeholders;
2. Readily available evidence-based care guidelines and decision support tools;
3. Improved access to care; and
4. Enhanced practice level quality of care evaluation and improvement.

Background

The Adirondack Health Institute (AHI) has been developed to serve (among other things) in concert with the three PPSOs in New York's Adirondack / North Country Region.

The three PPSOs incorporate 33 primary care practices and five hospitals.

AHI has sheparded the development of an infrastructure and support processes that will facilitate the PPSO's to achieve the quality goals and objectives articulated within DOH's health IT vision and strategy. Specifically AHI has/will:

1. Support its members EHR implementation and connectivity to an HIE, supporting achievement of NCQA PCMH Level II or III;
2. Establish both a payer data warehouse and a clinical data warehouse;
3. Provide “integrator services” linking data from both warehouses to develop and distributed metrics describing performance at the provider, practice, PPSO and AHI levels.
4. Serve as the focal point for PPSO members negotiating alternate payment methodologies focusing on quality supported by quantifiable metrics.

Data Request

Part of MSSNY's engagement with DOH is to provide an operational framework and options for solo physicians and small practices to guide future PPSO development in additional communities and settings.

Sharing your insights and expertise in providing the type(s) of services outlined above would be greatly appreciated. It is anticipated that there are multiple ways to approach the provision of the types of services described above and cataloging the various approaches will be very valuable.
1. Who are your current data contributors? Please list by type (ie. payers, hospitals, outpatient practices, laboratories, pharmacy, etc)
   a. Payers
      i. State of New York – Medicaid
      ii. Fidelis
      iii. State of New York – the Empire Plan
      iv. Excellus
      v. Empire Blue
      vi. BSNENY - HealthNow
      vii. MVP
      viii. CDPHP
     ix. Medicare pending
   b. Hospitals
      i. Adirondack Medical Center (Saranac Lake, NY)
      ii. Champlain Valley Physicians Hospital (Plattsburgh, NY)
      iii. Glens Falls Hospital
      iv. Alice Hyde Medical Center (Malone, NY)
      v. Elizabethtown Community Hospital
      vi. Inter-Lakes Health / Moses-Ludington Hospital (Ticonderoga, NY)
   c. Physician and Specialty Practices
      i. 33 Primary Care Practices
      ii. 2 Glens Falls Hospital Specialty Practices
          1. Endocrinology
          2. Nephrology

2. What payers (beyond those listed in #1) do you plan to receive data from and what is the associated timeline(s)? If you do not currently have access to payer claims data, what is your timeline for having such data available?
   a. At this time, no additional payers are anticipated to provide data. Treo Solutions is the subcontractor for the Claims Data Warehouse. We anticipate starting to receive data by the 3rd quarter of 2011.

3. Do you currently provide data (clinical and claims) aggregation services? If not, do you have plans to do so and within what timeframe? How do you envision these services will be structured?
   a. Payor claims data and EHR data are currently planned to be stored in two separate data warehouses. The aggregation of the claims data and the EHR data will be completed within the PPSO’s after the deployment of the data warehouses.

4. How are you making aggregated data available to physician practice users? (ie. directly into their EHRs, via a portal(s), hard-copy, etc)?
   a. Via portals (Clinical Quality Portal and Claims Portal), as represented within the Abstract View of the ADK Technical Architecture diagram below.
**HEAL 10: Abstract View**

**Clinical Transaction Content**
- ADT, Meds, Lab/rd/departmental reports (HL7 content)
- Clinical summary info (C32 content)

**Clinical Transaction Content Detail**

<table>
<thead>
<tr>
<th></th>
<th>Hospital-to-HIXNY</th>
<th>Practice-to-HIXNY</th>
<th>HIXNY-to-practice</th>
<th>HIXNY-to-QDC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADT, Meds, Lab/rd/departmental reports (HL7 content)</strong></td>
<td>• ADT</td>
<td>• NA</td>
<td>• C32 content will be available to Practice EHR's for consumption</td>
<td>• NA</td>
</tr>
<tr>
<td></td>
<td>• Lab/path/micro results</td>
<td>• City specific medication</td>
<td>• EHR vendor consumption capabilities are vendor-specific</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Imaging reports</td>
<td>• Departmental reports (availability may vary by hospital)</td>
<td>• Lab/path/micro results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Current and prescribed medications</td>
<td>• Discharge summaries</td>
<td>• Imaging reports</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical summary info (C32 content)</strong></td>
<td>• NA</td>
<td>• City specific medication</td>
<td>• C32 content / HIXNY Patient Record</td>
<td>• NA</td>
</tr>
<tr>
<td></td>
<td>• Patient demographics</td>
<td>• Available through HIXNY portal</td>
<td>• Patient demographics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Language spoken</td>
<td></td>
<td>• Language spoken</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Health care provider info</td>
<td></td>
<td>• Health care provider info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Health insurance info</td>
<td></td>
<td>• Health insurance info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Allergy/drug sensitivity</td>
<td></td>
<td>• Allergy/drug sensitivity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Problem/condition</td>
<td></td>
<td>• Problem/condition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Medications</td>
<td></td>
<td>• Medications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Pregnancy</td>
<td></td>
<td>• Pregnancy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Information source</td>
<td></td>
<td>• Information source</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advance directive</td>
<td></td>
<td>• Advance directive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Immunizations</td>
<td></td>
<td>• Immunizations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vital signs</td>
<td></td>
<td>• Vital signs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Results</td>
<td></td>
<td>• Results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Encounter type</td>
<td></td>
<td>• Encounter type</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Procedures</td>
<td></td>
<td>• Procedures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Social history</td>
<td></td>
<td>• Social history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Comment</td>
<td></td>
<td>• Comment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Plan of care</td>
<td></td>
<td>• Plan of care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Family support</td>
<td></td>
<td>• Family support</td>
<td></td>
</tr>
</tbody>
</table>

*Note: C32 content for Practice-to-HIXNY exchange is per HITSP-harmonized standard. HIXNY version may differ slightly.*
5. What metrics are you routinely reporting to your physician practices that could/is being utilized to monitor the quality (and cost) of care being provided? At what level is the data made available (ie. individual physician vs. practice vs. community of care)?
   a. The metrics being reported to physician practices to monitor quality and cost of care include:

<table>
<thead>
<tr>
<th>Proposed Measures from AHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHI Metric Type*</td>
</tr>
<tr>
<td>Pharmacy</td>
</tr>
<tr>
<td>Pharmacy</td>
</tr>
<tr>
<td>Pharmacy</td>
</tr>
<tr>
<td>Pharmacy</td>
</tr>
<tr>
<td>ER Utilization</td>
</tr>
<tr>
<td>Quality: ER Utilization</td>
</tr>
<tr>
<td>Quality: Inpatient</td>
</tr>
<tr>
<td>Inpatient</td>
</tr>
<tr>
<td>Quality: Inpatient</td>
</tr>
<tr>
<td>Quality: Re-admissions</td>
</tr>
<tr>
<td>Quality: Re-admissions</td>
</tr>
<tr>
<td>Utilization</td>
</tr>
<tr>
<td>Utilization</td>
</tr>
<tr>
<td>Utilization</td>
</tr>
<tr>
<td>Financial</td>
</tr>
<tr>
<td>Financial</td>
</tr>
</tbody>
</table>

   * AHI recommended that each category should be broken down into condition or and or diagnosis
   
   (1) AHI recommended that these elements be required by each payer
   
   (2) AHI recommended that these elements need to be defined

   Slide 1

b. This data is being made available to AHI, the PPSO’s (a.k.a Pods), and to each practice and provider.

6. What strategies have you deployed to combine available data with clinical decision support tools for use by your physician practices? If none are yet available, what is your timeline for making these available and in what form will they be deployed?
   a. The business intelligence tools that will be used in the data warehouses contain decision support tools, thus the information presented from the data warehouses will be augmented with such tools at the time of viewing thru the portals.

7. What strategies / approaches are you utilizing to integrate these clinical decision support recommendations directly into the provider’s EHR?
   a. In the future, when the information is available from the data warehouses, that information will be used to improve the care delivered. Multiple methodologies will likely be utilized including leveraging the clinical decision support systems in the EHR’s.
8. What quality programs (ie. PCMH, P4P, etc) are you currently supporting for your physician practice members?
   a. The quality programs that will be supported with the functional warehouse will include both PCMH and P4P.

Additionally, HIXNY provided the following answers to the original questionnaire:

1. Please describe the architecture design and attach a diagram including narrative describing the Model Type (Federated vs. Centralized) and the Exchange engine and Vendor, and value-added benefits incurred by selection of said Vendor (advantages over other vendors).

Architecture diagrams for the Adirondack Medical Home project are attached to this survey. These diagrams are typical of the architecture employed by HIXNY in its use of the InterSystems HealthShare platform for data exchange.

The HIXNY architecture is a combination of Centralized and Federated, with federated edge servers being deployed to sites with higher transaction volume (usually hospitals, such as CVPH and Adirondack Medical in the AMH project) and a central bank of servers, located in the greater Capital Region supporting data exchange for all others. The direct interchange of data with physician practices is supported through the central server facility.

The interchange of data is accomplished through HIXNY’s receipt and processing of HL7 transactions sent by hospitals, and by using the NYS CHIxP web services interchange standard, which includes a CCD payload, for physician practices. Access to data within the HIXNY system can be achieved either by viewing a web portal or by the physician EHR system generating a query to HIXNY, and receiving a C32-based CCD in return. Few physician EHR systems are currently advanced enough to support a CHIxP/CCD-based exchange at this time, though most state they are developing this capability.

One hospital (Inter-Lakes) has decided to forego further HL7 development, and provide additional data via CCD. Inter-Lakes is already providing HL7 ADT and Lab ORU transactions to HIXNY, so the CCD will be used to supplement these with additional required data.

The InterSystems HealthShare platform was chosen for the following reasons:

- The InterSystems Enterprise Service Bus architecture is an exact match with the architecture designed for the State Health Information Network – New York (SHIN-NY)
- The InterSystems architecture makes interface development from the HIXNY side extremely efficient. The HIXNY portion of a basic interface can be developed, implemented, and put into testing, in a matter of hours. This efficiency allows HIXNY to develop and support its own interfaces, at a cost considerably below that of vendor development and/or support.
• The InterSystems platform has been selected for use at a number of other RHIOs in New York, so the system has considerable familiarity and compliance with NYS requirements (consent, etc.)

2. Please describe the following:

• Technology Interfaces for connectivity to/from physician practices and Vendors selected including costs:

As discussed above, HIXNY and the AMH project comply with the NYS CHIxP/CCD standard for interfaces between HIXNY and physician practices. The EHR vendors participating in the AMH project are ECW, Medent, Athena, GE, STI, Sage, Encounter Pro and Allscripts. Costs of these interfaces on the vendor side are not yet known as the contracts between the vendors and practices are in final development at this time. As part of its other initiatives within the region, HIXNY is also in the process of connecting with Greenway and Nextgen EHR systems.

The hospital systems used at the hospitals providing data to HIXNY as part of the project are Siemens, Meditech (2), CPSI and HMS. Each hospital has chosen different interface vendors to connect these systems to HIXNY. Interface vendors chosen include Summit Healthcare, Iatric Systems, CPSI and HMS (using their Connex product)

• Interfaces used for moving data to/from physician practices and to/from other external entities (hospitals, labs, Sure Scripts, Medicaid, etc.); describe types of data being moved (eg. CCD, Quality metrics, Lab, eRX, etc.); indicate vendor responsible for development:

The interfaces used to move data between HIXNY and both hospitals and physician practices are described above.

The HealthShare system used at HIXNY has a seamless connection to the InstantDx e-prescribing system (this system is also offered to the community by HIDXNY as a standalone ERx system for clinicians that have not yet implemented an EHR with e-prescribing). Through this connection, HealthShare accesses and displays prescription history data from SureScripts. The system also receives prescription data from hospitals using the HL7 Pharmacy Order transaction and from physician practices using the CCD.

The HIXNY system also receives HL7 ORU lab results from the hospital labs involved in the project (CVPH, Adirondack Medical, Alice Hyde and Inter-Lakes). HIXNY connections to the major national lab players are planned for the future, but the technical details of these have yet to be specified.

As part of an earlier HIXNY HEAL project, HIXNY plans to connect with and import NYS Medicaid data, and include Medicaid data in the virtual health record the HIXNY system builds for each patient. The specifications of that connection have yet to be specified, but will be determined by Medicaid.
**Describe security model (VPN, Secure eMail, encryption level, etc.):**

HIXNY uses VPN to ensure security on all transactions sent to or received from its Data Providers. HIXNY also requires compliance with the HIPAA password rules, both for password administration on its own system and for any password administration on any other system that HIXNY authorizes for single sign on.

**Describe Electronic Health Record Vendors/Products that connect to your infrastructure, the interfaces they developed, for what processes/data and associated expenses to the organization and/or physician practice**

The EHR vendors listed above have committed to connect to HIXNY according to NYS standards. In addition, NextGen and Greenway have committed to connect local practices to HIXNY, using these standards.

ECW, Medent, and Greenway seem closest to having a connection in production. All three of these seem to be within a few months of being ready to implement.
HEAL 10 Technical Architecture: Infrastructure View

Payors

Claims warehouse

MAeHC QDC

CIS

5 HIXNY edge servers*
- 3 for data stored by hospitals
- 1 for practice data
- 1 for QDC

Pod 1
Pod 2
Pod 3

3 practices
3 practices
26 practices

Adirondack Medical Center
Glens Falls Hospital
Inter-Lakes Health
Champlain Valley PH
Alice Hyde Medical Center
Elizabeth-town Hospital

*Edge server location is subject to change based on technical requirements

2/18/2011

18
HEAL 10 Technical Architecture: Pod 1 View

*Edge server location is subject to change based on technical requirements*
HEAL 10 Technical Architecture: Pod 2 View

Payors

Claims warehouse

Clinical portal

MAeHC QDC

Clinical quality portal

Clinical care portal

HIXNY

HIXNY-hosted edge servers*

PPSO 2

AMI

HMS

AthenaHealth

3 practices

Glens Falls Hospital

Interlakes Hospital

*Edge server location is subject to change based on technical requirements

Not participating in PCMH project

2/18/2011
HEAL 10 Technical Architecture: Pod 3 View

*Edge server location is subject to change based on technical requirements

2/18/2011