COMMMUNITY eHEALTH ASSESSMENT – PIONEER VALLEY

REGION: Western/Central

COMMUNITY: Pioneer Valley

PARTICIPATING ORGANIZATIONS: Behavioral Health Network, Caring Health Center, Holyoke Health Center, Cutchins Programs for Children & Families, Holyoke Medical Center, Loomis Communities, River Valley Counseling Center, Noble Hospital, Baystate Health, Riverbend Medical Group, Community Health Center of Franklin County, Holyoke VNA, Experience Wellness Centers, Clinical & Support Options.

DATE REVIEWED / UPDATED: 5/1/15

EXECUTIVE SUMMARY

Methodology

In order to better understand the health information technology and health information exchange ecosystem at the state and local level, MeHI conducted a needs assessment of healthcare stakeholders throughout the state's fifteen connected communities. The assessment utilized a semi-structured interview guide and data collection process to gather information from participants. In addition to organizational and HIT environment information, the interview centered on four domains which were focused on understanding the clinical/business needs, internal challenges, external barriers and ideas for improvement. Responses were collected, codified into categories and ranked by frequency of reporting.

Community roundtable meetings were held in each of the communities and the interview findings were presented and discussed. Categories and themes were reviewed and evolved through group discourse. Based on feedback and comments from the groups, categories were re-prioritized and focus areas were developed.

The goal of the assessment and group meetings is to shape the data into focus areas, identify eHealth priorities and develop actionable plans that demonstrate value for the community. The assessment findings, interview and meeting feedback and Community eHealth Plans will be integrated into the State eHealth Plan. Additionally, a subset of the identified themes will be incorporated into a community incentive/grant program to ensure alignment between plans and grants.

Findings

The overall findings for the community are found further down in this document in the **Report of Community Needs** section. Below, are the primary findings for the Pioneer Valley Community:

Identification of Needs: The primary need identified by stakeholders in this community is improved care coordination. Several specifically needed improvements are timely care transition notifications such as admission and discharge from hospitals, closed loop referrals, trading partner HIE maturity and telehealth capabilities. Specifically, the stakeholders would like the following:

1. Notifications around patient admissions, discharges and status changes to improve transitions of care.
2. Implement closed loop referrals between primary care providers, specialists and other care settings.
3. Increase trading partner connectivity to local, regional and State HIEs.

4. A "full picture" of the patient record achieved by receiving accurate and consistent information in a timely manner from all care settings.
5. Improvement on adoption and implementation of remote patient management.

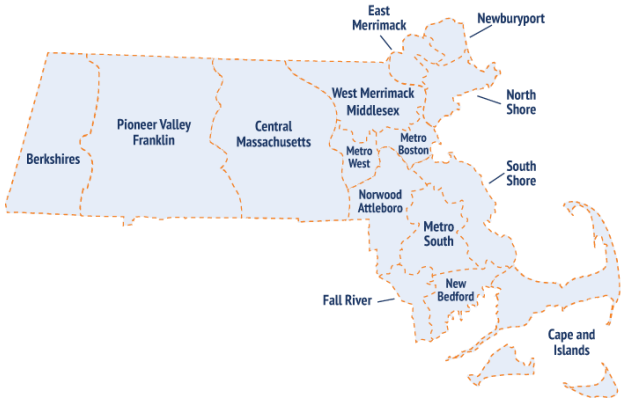
Identification of Internal Challenges and External Barriers: The primary barriers identified by stakeholders to addressing these needs are as follows:

1. The regulatory/consent models required to share sensitive patient information across care settings and organizations is too burdensome and inhibits care coordination, especially as it relates to behavioral health and substance abuse.
2. Lack of interoperability and exchange standards. The Pioneer Valley community has two local HIE efforts underway and they have access to the state HIE yet establishing the connectivity and exchange mechanisms remains a barrier.
3. Lack of compelling business drivers, use cases and collaboration opportunities is a major barrier. Education and awareness on HIE options and value is needed to encourage alignment of projects, resources and funding with the goal of increasing HIT and HIE adoption.
4. Access to capital to fund the further development of exchange and improvement activities.

Identification of Path Forward: Similar to other communities, the path forward will require coordination, collaboration, funding and support to advance. The awareness of HIT and HIE is high in the region and the group was focused on working together in a "high trust" effort to identify the specific use-cases and collective goals of the region to then garner support for advancement. There is a tendency for the default decision / direction to flow from the leading (largest and most prominent) organizations in the area. There is willingness on the part of these organizations to take a lead role in providing, supporting and building the tools and methods of advancing HIT use for healthcare improvement in the identified priority areas. What is needed is collaborative but coordinated planning and leadership across the region to create a universally accepted and endorsed roadmap to those goals. Stakeholders identified the following ideas to address needs and barriers:

1. Define a set of local, regional and state uses of HIT and HIE to meet the goal of improving care coordination, processes and operations. Prioritize these as a community with time, cost and technology scope definitions, then begin from the highest priority in solving challenges.
2. Support and build upon the local exchange platforms to enable more rapid development and adoption by the community.
3. Focus on implementing one clinical use case such as automatic notification of discharges from hospitals.
4. Identify opportunities to leverage or re-use work developed elsewhere or in other communities to help solve local challenges.
5. Share technical resources and best practices among organizations for efficient and focused interfacing support.

Table 1: The fifteen communities comprise the foundational framework for the Connected Communities Program. These are aligned with the Health Policy Commission's Secondary Service Markets.



COMMUNITY DEMOGRAPHIC

Population - Total population of the Pioneer Valley Community is 688,512 living in the 1,522.01 square mile area. The population density is estimated at 452.37 persons per square mile which is lower than the Massachusetts population density of 847.02 persons per square mile. Between 2000 and 2010 the population in the Pioneer Valley Community increased by 12,618 persons, a change of 1.87%.

Income Per Capita - For the Pioneer Valley Community, the income per capita is $26,769. Massachusetts statewide income per capita at $35,763.

Poverty - In the Pioneer Valley Community, 34.24% or 222,460 individuals are living in households with income below 200% of FPL and 16.27% or 105,669 individuals are living in households with income below 100% FPL. These percentage rates are higher than the Massachusetts state rates in the same categories.

Linguistically Isolated Populations – The Pioneer Valley Community has a lower percent than the state of linguistically isolated populations at 4.65%. This indicator reports the percentage of the population aged five and older who live in a home in which no person 14 years old and over speaks only English, or in which no person 14 years and over speaks a non-English language and speak English "very well." The Massachusetts state percentage is 5.19%

Population with Limited English Proficiency – This indicator reports the percentage of population aged five and older who speak a language other than English at home and speak English less than "very well." In the Pioneer Valley Community, this indicator is 7.79% compared to the Massachusetts state indicator of 8.87%.

Population by Race Alone - The racial make-up of the Pioneer Valley Community is 82.03% White, 6.6% Black, 2.66% Asian, 0.28% Native American, 0.03% Native Hawaiian, 6.12% Some Other Race and 2.27% Multiple Races.

Information acquired from **Community Commons** http://www.communitycommons.org/ (as of 4/29/15)

See **Attachment-1** for information on Community Commons, reporting methodology and data sources.

HEALTHCARE LANDSCAPE

Access to Primary Care – The Pioneer Valley Community has an average rate 94.81 primary care physicians per 100,000 population. The Massachusetts state rate is 102.65 per 100,000 population. Doctors classified as "primary care physicians" by AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians age 75 and over and physicians practicing sub-specialties within listed specialties are excluded.

Lack of a Consistent Source to Primary Care – This indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider. For the Pioneer Valley Community, this indicator is 13.36%, or 82,817.35 people. This is higher than the state indicator of 11.53%. This indicator is relevant because access to regular primary care is important to preventing major health issues and emergency department visits.

Facilities Designated as Health Professional Shortage Areas (HPSA) – The Pioneer Valley Community has a total of seventeen HPSA facility designations; six in primary care facilities, six in mental health care facilities and five in dental health care facilities. The state of Massachusetts has a total of 154 HPSA facility designations; 54 in primary care facilities, 50 in mental health care facilities and 50 in dental health care facilities.

Population Receiving Medicaid - In the Pioneer Valley Community, the percent of insured population receiving Medicaid is 29.01%, or 189,215, of the total population for whom insurance status is determined. This indicator reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance). This indicator is higher than the Massachusetts state indicator of 21.41%.

Information acquired from **Community Commons** http://www.communitycommons.org/ (as of 4/29/15)

See **Attachment-1** for information on Community Commons, reporting methodology and data sources.

Healthcare Organizations in the Community

The table below indicates the type and number of healthcare organizations known to MeHI. This is representative and not intended to be a complete inventory or count of healthcare organizations in the region.

Connected Community: Pioneer Valley (180 records)*	# Organizations
Hospital, General	11
Long-Term Post-Acute Care	50
Ambulatory, General	51
Community Health Centers	15
IDN/Health System/Network	10
Behavioral Health	43

REPORT OF COMMUNITY NEEDS

MeHI performed a needs assessment of healthcare providers and stakeholders representing the Pioneer Valley community. The assessment was comprised of stakeholder interviews which followed a semi-structured interview guide and data collection process. In addition to organizational and HIT environment information, the interview centered on four domains which were focused on understanding clinical/business needs, internal challenges, external barriers and ideas for improvement. Responses were collected, codified and prioritized. Community roundtable meetings were held in each of the communities and the interview data was discussed and re-prioritized based on feedback from the roundtable group. Categories and themes were shared at the community roundtables and evolved through group discourse.

During community roundtable sessions, stakeholders were presented with the state and regional interview findings and engaged in a much deeper review, discussion and clarification of categories and themes. The multi-stakeholder review yielded a much richer understanding of the local needs, barriers and the experiences of some of the different care sectors within the community. As such, the group was able to **re-prioritize** certain areas that they felt would be the most essential and valuable to focus on within the community.

Reported Clinical-Business Needs

What clinical or business needs are you trying to solve with technology?

	Reporting Area-Frequency	
Clinical-Business Needs	**Pioneer Valley**	**MA**
Access to Clinical Information *	20%	21%
Improve Internal Processes & Operations *	20%	13%
Improve Interoperability & Exchange *	20%	9%
Improve Care Management *	13%	11%
Meet Regulatory / Incentive Requirements *	10%	10%
Improve Care Quality & Patient Safety	7%	9%
Enhance Remote Patient Management *	3%	4%
Improve Care Transitions *	3%	2%
Know Patients, where they are & their status	3%	2%
Enhance Clinical Quality Reporting	0%	3%
Enable Interstate Exchange	0%	1%
Enhance Alternative Payment Models (APM)	0%	4%
Increase Public Health Reporting	0%	3%
Promote Patient- & Family-centered Care	0%	3%
Remain competitive and grow business	0%	2%
Improve Population Health Analytics	0%	7%

**Identified as a top priority need during community roundtable*

The most frequently cited areas of clinical and business needs reported in the Pioneer Valley community interviews centered on the abilities to improve and enhance *Access to Clinical Information*, *Internal Processes and Operations, Interoperability and Exchange, Care Management* and *Regulatory / Incentive Requirements*. These are mostly consistent with the interview findings across the state.

Care Coordination

There were multiple comments from interviewees surrounding the challenges of *Care Coordination* in general, and it was widely agreed that *Access to Clinical Information*, *Improve Care Management* and *Care Transitions* fell within this category. Examples of these needs included the need for better transitions of care, closed-loop referrals, CCD exchange and the ability to exchange data with trading partners overall. Basically a need to exchange data efficiently and improve accuracy, both internally and externally.

Specific examples centered around the need for closed loop referrals to improve the negative impact on "no-show" rates. Another need mentioned is the desire to receive patient information via HIE or other transfer methods. CCD is a good standard for this but it would be helpful to have the ability for a more actionable data set allowing providers to choose specific information to view, rather than filtering through very large documents. It was suggested that the more valuable data items would be medications, pharmacy communication and diagnostic lab results. Another discussion was around the limitations of privacy and security which reduces the ability to receive the "full picture" on a patient when receiving information. Some providers do not share HIV and behavioral health information because of privacy constraints or "perceived" privacy constraints. A behavioral health organization echoed this need as medical integration becomes more prominent for them. There is a need for better coordination between behavioral health and area acute care organizations. Another behavioral health organization commented on the difficulty of share disability information and the need to improve that transfer of data.

Operations

Several comments were made pertaining to improving operations and workflow and improved privacy and security remained a topic of discussion. Specifically it was mentioned the need for EHR adoption and use for the purposes of paper reduction. One behavioral health organization commented that their staff sometimes have the habit of leaving patient documentation on desks or in non-secure places. Addressing and improving internal processes would reduce and eventually eliminate these occurrences. Another operations comment was the need to increase integration of electronic insurance billing and payments through their EHR, thereby improving the revenue cycle.

Interoperability and Exchange

A significant theme emerged around the need to normalize information from disparate data sources through data standardization and structuring data to make it "more repeatable." This alone would improve exchange capabilities. Currently, content and exchange standards can be interpreted differently by different organizations. This needs to be normalized to improve interoperability between trading partners.

Regulatory / Incentive Requirements

There was also expressed a great need for streamlining the process of meeting Meaningful Use requirements. Complying with these types of incentive programs is a challenge for many of the organizations that were interviewed and attended the roundtable meetings.

Remote Patient Management

Finally, there were a few comments on the need for increasing tele-health capabilities and reducing the costs associated with them. Both a VNA and behavioral health organization expressed the need for improvement in this category. The VNA organization shared that at one point, they had 47 monitors for patients to use in their homes but the maintenance was too costly and they had to discontinue the program.

Community Priority Needs

The Pioneer Valley is somewhat unique and fortunate to have a large, well established base of support and services available in the region. There are several organizations in that community that are leading in HIT and exchange / interoperability. There are two local / regional efforts underway. Baystate Health is leading the PVIX HIE (Pioneer Valley Information Exchange) and Holyoke Medical Center is supporting the eClinicalWorks eHX HIE locally in the Holyoke area. The primary goals of the region are to facilitate access to clinical information and improve processes and operations using HIT. The community indicated that improving interoperability and exchange to achieve improved care coordination as a high priority. A significant barrier cited in the interviews and roundtable meetings is the lack of standards for exchange.

The underlying challenge for the Pioneer Valley is connectivity to the local, regional and State HIEs. There is interest, direction and planning underway in the region for both local and regional exchange, however there is slow uptake with true use case driven, clinical improvement and operational improvement activities. There was a sense that compelling drivers for establishing connectivity and exchange partnerships was not present in enough quantity to drive adoption further. Also observed was some competition among the largest trading partners regarding needs, objectives and trust to establish significant exchange progress. With this as a backdrop to the regional activities, there is sincere interest, activity and progress being made, both with the PVIX HIE and Holyoke Medical HIE. What is needed at this juncture is a regional focus with prioritized use cases and collectively agreed upon objectives to help drive the goals identified for clinical and operational improvements further.

The community group specified the following ***priority needs*** to address;

1. Notifications around patient admissions, discharges and status changes to improve transitions of care.
2. Implement closed loop referrals between primary care providers, specialists and other care settings.
3. Increase trading partner connectivity to local, regional and State HIEs.
4. A “full picture” of the patient record achieved by receiving accurate and consistent information in a timely manner across all care settings.
5. Improvement for adoption and implementation of remote patient management.

Reported Internal Challenges and External Barriers

Internal Challenges

What are your top HIT related challenges within your organization?

Internal Challenges	Pioneer Valley	MA
Lack of Financial Capital *	31%	22%
Lack of Staffing Resources *	21%	25%
Managing Workflow and Change *	14%	14%
Meeting Operational and Training Needs *	11%	15%
Lack of Data Integration – Interoperability *	7%	3%
Technology Insufficient for Needs *	3%	9%
Meeting Regulatory Requirements	3%	4%
Sensitive Information Sharing and Consent	3%	3%
Leadership Priorities Conflict with IT Needs	3%	2%
Internet Reliability	3%	1%
Market Competition and Merger Activity	0%	1%
Data Relevancy	0%	0%
Improve Medication Reconciliation	0%	0%

**Identified as a top priority challenge during community roundtable*

The most frequently cited internal challenges reported in the Pioneer Valley community interviews centered on the issue of lack of *Financial Capital* and *Staffing Resources, Managing Workflow and Change* and *Meeting Operational and Training Needs*. Also mentioned but not as frequently were *Lack of Data Integration – Interoperability* and *Technology Insufficient for Needs*. These internal challenges are consistent with the most commonly reported internal challenges across the state.

Capital and Staffing Resources

Frequently mentioned as an internal challenge was that organizations were lacking monetary resources to meet healthcare IT needs and these financial constraints are often the root of additional challenges. A major theme at the roundtable discussions was the challenge of maintaining adequate staffing. There is a "cause and effect" relationship between lack of monetary resources and lack of staffing resources. One participant commented that they want to keep well-trained staff but are not always able to due to lack of sufficient funds. Another commenter stated that often they are overspending for the staff they are getting. The ideal would be to have staff that have combined IT and healthcare experience but that is difficult to find and afford.

Lack of capital also affects an organization's ability to train clinical staff on EHR systems, purchase necessary hardware and fix problems as they arise. Building and maintaining EHR systems is costly. Some of the smaller organizations pointed out that due to their size, what may be considered a small investment for larger hospitals/practices, has a much bigger impact on their bottom line. These decisions must be taken very seriously as IT investments may become obsolete due to changing regulations and requirements. These smaller organizations "can't afford to make a mistake."

Workflow, Operations and Training

Other categories viewed as priority internal challenges are workflow, operations and training optimization. Several comments were made about the need for clinical staff to be properly trained, and that many are slow to accept the need to use an EHR system. Clinical staff, in general, are resistant to adopting new technologies and processes. One commenter stated that clinical staff should focus on good workflow instead of expecting the EHR to solve issues – the tool isn't the solution without the knowledge to enable the use of the tool. The need for managing and reporting data ties into workflow and staffing issues. Another issue raised was that some organizations have contracted providers who may only work a few hours a week. There isn't enough time for training contracted staff, nor the budget to support it. Also, high turnover of staff negatively affects HIT training efforts.

Interoperability and Insufficient Technology

Lastly, participants discussed challenges they experience with interoperability (or lack of) with trading partners, the need for standardization of data and how their EHR needs are not met due to vendor limitations and high costs. Several commenters felt that EHR systems do not specifically address healthcare needs and are not user-friendly for clinical staff. Behavior health and substance abuse organizations have significant challenges with EHR technology and interoperability and few customizable options.

External Barriers

What are your top environmental (external) HIT-related barriers impeding your progress?

External Barriers	Pioneer Valley	MA
Lack of Interoperability and Exchange Standards *	23%	23%
Lack of HIE / HIway Trading Partners & Production Use Cases *	20%	23%
Cost of Technology / Resources *	20%	9%
Meeting Regulatory Requirements	13%	19%
Lack of HIE / HIway Education *	6%	6%
Vendor Alignment *	6%	4%
External Attitudes and Perceptions	6%	1%
Sensitive Information Sharing and Consent *	3%	6%
Lack of Reimbursement/Unreliable Payments	3%	2%
Market Confusion	0%	1%
Market Competition & Merger Activity	0%	4%
Lack of EHR Adoption	0%	1%

**Identified as a top priority barrier during community roundtable*

The most frequently cited external barriers reported in the Pioneer Valley community interviews centered on lack of *Interoperability and Exchanges Standards, HIE / HIway Trading Partners and Production Use Cases* and *Cost of Technology / Resources*. These are consistent with the most commonly reported external barriers across the state. *Lack of HIE / HIway Education, Vendor Alignment* and *Sensitive Information Sharing and Consent* were additional barriers cited in this community.

Interoperability, HIE / HIway Partners and Costs

The majority of comments about external barriers fell into the category of lack of interoperability, specifically lack of EHR compatibility with trading partners. Commenters felt that data exchange standards are inconsistent and there needs to be efforts to normalize the standards for successful interoperability. Behavioral health has unique data requirements that are often not addressed. Mentioned along with this discussion, was the challenges providers face with State data reporting requirements. It was expressed that, in general, there needs to be statewide coordination of activities.

Also mentioned were difficulties with Mass HIway exchange capabilities and regional HIE challenges with connecting to the HIway. Of concern was HISP to HISP connections and a lack of communication and dedicated technical support. Aligning with this category was the discussion of costs associated with interoperability. Examples were high vendor costs, capacity building costs, costs of interfaces, consultant and support costs, and unknown future costs that are difficult to budget and plan for.

Regulatory and Sensitive Information

The difficulty managing and meeting regulatory, payer and program requirements was cited as a barrier by participants. Discussion ensued around state regulations, HIPAA constraints, highly variable data reporting requirements and difficulty using Virtual Gateway. All were clearly identified as external barriers.

There were also concerns expressed regarding privacy and security as well as consent and disclosure requirements. Organizations discussed the challenges with security of data, warehousing and breach issues. Several behavioral health organizations mentioned their unique consent needs and how most vendors do not focus on Massachusetts compliance needs.

Community Priority Barriers

During the community roundtable sessions, there was some discussion on whether certain items/issues should be reflected as internal challenges or external barriers. It was noted that in some cases, external barriers are realized as internal challenges. And in other cases, the internal challenges in certain organizations and sectors, such as BH and LTPAC, are creating external barriers for other stakeholders.

Internal challenges and external barriers are combined here to mitigate and align these perspectives, and where possible identify barriers that would have the biggest impact for the most stakeholders, if removed.

The community group specified the following ***priority barriers*** to addressing needs;

1. The regulatory/consent models required to share sensitive patient information across care settings and organizations is too burdensome and inhibits care coordination, especially as it relates to behavioral health and substance abuse.
2. Lack of interoperability and exchange standards. The Pioneer Valley community has two local HIE efforts underway and they have access to the state HIE yet establishing the connectivity and exchange mechanisms remains a barrier.

3. Lack of compelling business drivers, use cases and collaboration opportunities is a major barrier. Education and awareness on HIE options and value is needed to encourage alignment of projects, resources and funding with the goal of increasing HIT and HIE adoption.
4. Access to capital to fund the further development of exchange and improvement activities.

Reported HIT Improvement Ideas

What are your top ideas where technology (or technology related policy) may improve healthcare in Massachusetts?

HIT Improvement Ideas	Pioneer Valley	MA
Enable Interoperability & Exchange *	43%	28%
Increase Education & Awareness *	13%	15%
Better Align Program / Policy	13%	6%
Improve Vendor Cooperation *	10%	3%
Improve Care Management *	7%	6%
Provide Funding & Resources	3%	10%
Access to Clinical Information	3%	8%
Promote Costs Savings	3%	3%
Expand Consumer Engagement Technologies	3%	3%
Improve Care Transitions	0%	3%
Enhance Alternative Payment Model (APM) Reporting	0%	0%
Enhance Reporting to State	0%	2%
Know Patients, where they are & their status	0%	1%
Enable Population Health Analytics	0%	4%
Improve Care Quality & Patient Safety	0%	6%

**Identified as a top priority idea during community roundtable*

The most frequently cited improvement idea centered on enabling *Interoperability and Exchange.* Also cited but not as frequently were *Increase Education and Awareness, Better Align Program / Policy* and *Improve Vendor Cooperation*. These were somewhat consistent with the most commonly reported ideas across the state in that *Interoperability and Exchange* was the most frequently cited improvement idea. The Pioneer Valley community differed from the state in its less frequent responses for *Provide Funding and Resources* and *Access to Clinical Information*.

Interoperability and Exchange

There were multiple comments to improve coordination of systems and advance interoperability between trading partners. Of discussion was the need for automatic notifications and / or daily HIE updates, i.e. discharge summaries. Several participants felt that a statewide EHR system would be a

great idea but also acknowledged that it is unlikely to happen. It was suggested that standardization of data would result in the most improvement in EHR to EHR communication.

Education and Awareness

There were also many comments about the need for HIT education and awareness and to provide clear, consistent messaging on HIway / HIE matters. Mentioned was the need for education and support resources where providers can share best practices and learn from each other. There is an overall lack of understanding of HIE. It would be helpful for the State to provide a "roadmap" of functional, step by step schematics for providers. This organizational chart would clearly illustrate all players and their functions, i.e. Mass HIway, other HIE / HISPs, MeHI, government agencies, etc… It was suggested that this chart/schematic provider clear processes and not refer providers to a "bunch of different website links."

Align Program / Policy

Community stakeholders felt that there is a need for policy alignment and clarification and that movement away from the current piecemeal approach is necessary. It was generally believed by the group that fragmented policy inhibits trading partner readiness. It was also suggested that the consent process on the HIway be improved. Some organizations (i.e. community health centers) have transient populations and consent barriers makes referrals very difficult. Finally, it was suggested that grant opportunities focus on improving technology to comply directly with state requirements, and to build a sustainability plan into the award by projecting and recognizing future costs.

	IDENTIFIED eHEALTH PRIORITY AREAS	
1	Notifications around patient admissions, discharges and status changes to improve transitions of care.	
2	Implement closed loop referrals between primary care providers, specialists and other care settings.	
3	Increase trading partner connectivity to local, regional and State HIEs.	
4	A "full picture" of the patient record achieved by receiving accurate and consistent information in a timely manner from all care settings.	
5	Improvement on adoption and implementation of remote patient management.	

	HIT IMPROVEMENT IDEAS	
1	Define a set of local, regional and state uses of HIT and HIE to meet the goal of improving care coordination, processes and operations. Prioritize these as a community with time, cost and technology scope definitions, then begin from the highest priority in solving the challenges.	
2	Support and build upon the local exchange platforms to enable more rapid development and adoption by the community.	
3	Focus on implementing one clinical use case such as automatic notification of discharge summaries.	
4	Identify opportunities to leverage or re-use work developed elsewhere or in other communities to help solve challenges.	
5	Share technical resources and best practices among organizations for efficient and focused interfacing support.	

ATTACHMENT - 1

Community Commons http://www.communitycommons.org/

Community Commons provides public access to multiple, public data sources and allows mapping and reporting capabilities to explore various demographic, social and economic and health indicators for defined areas and communities. Community Commons was specifically used to create custom, geographically defined report areas based on the towns/zip codes within each of the **MeHI Connected Community** regions.

Community Commons generates custom area estimates for the selected indicators using population weighted allocations. These estimates are aggregates of every census tract which falls within the custom area, based on the proportion of the population from the tract which also falls within the area. Population proportions are determined for each census tract by dividing the sum of each census block's population by the total census tract population. In this way, when a custom area contains 50% of the area of a census tract, but contains 90% of that census tract's population, the figure for that census tract is weighted at 90% in the custom area tabulation.

Indicator data was assembled utilizing known, publicly available data sources identified in the table below;

Table – Data Source

Indicator	Data Source
Total Population	US Census Bureau, American Community Survey: 2008-12
Change in Total Population	US Census Bureau, Decennial Census: 2000 – 2010
Income Per Capita	US Census Bureau, American Community Survey: 2008-12
Population in Poverty - 100% FPL	US Census Bureau, American Community Survey: 2008-12
Population in Poverty - 200% FPL	US Census Bureau, American Community Survey: 2008-12
Children in Poverty	US Census Bureau, American Community Survey: 2008-12
Linguistically Isolated Population	US Census Bureau, American Community Survey: 2008-12
Population with Limited English Proficiency	US Census Bureau, American Community Survey: 2008-12
Population Receiving Medicaid	US Census Bureau, American Community Survey: 2008-12
Access to Primary Care	US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File: 2012
Facilities Designated as Health Professional Shortage Areas	US Department of Health & Human Services, Health Resources and Services Administration, Health Professional Shortage Areas: April 2014

Federally Qualified Health Centers	US Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File: June 2014