COMMMUNITY eHEALTH ASSESSMENT - NEWBURYPORT

REGION: Northeast

COMMUNITY: Newburyport

PARTICIPATING ORGANIZATIONS:

Organization	Organization Type
Amesbury Psychological Center	Behavioral Health
Anna Jaques	Hospital
Elder Services of Merrimack Valley	Long Term Services and Supports
Excella Home Health	Home Health Care
Home Health VNA, Merrimack Valley Hospice, Home Care Inc.	Home Health Care
Pentucket Medical Associates	Physicians Group
Port Healthcare Center (Whittier Health Network)	Long Term and Post-Acute Care
Whittier IPA	Independent Practice Association

DATE REVIEWED / UPDATED: 5/22/15

EXECUTIVE SUMMARY

Methodology

In order to better understand the health information technology and health information exchange ecosystem at the state and local level – so as to inform Community and Statewide eHealth Plans, MeHI conducted a needs assessment of healthcare stakeholders throughout fifteen communities in Massachusetts. The assessment utilized the semi-structured interview methodology and data collection process to gather information from participants. In addition to organizational and HIT environment information, the interview centered on four domains to better understand the clinical/business needs, internal challenges, external barriers and ideas for improvement. Responses were collected, codified into categories, and then ranked by frequency of reporting.

MeHI held roundtable meetings in each of the communities to present and discuss the interview findings. Through group discourse, categories and themes evolved. Based on feedback and comments from the roundtables, MeHI synthesized the findings to develop focus areas for the Community eHealth Plans.

In addition to shaping the focus areas, the goal of the assessment and group meetings was to identify eHealth priorities and develop actionable plans — at the Community level - that demonstrate value for each community. The assessment findings, interview and meeting feedback, and Community eHealth Plans will inform and be integrated into the Statewide 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 Newburyport Community:

<u>Identification of Needs and eHealth Priority Areas:</u> The primary need identified by stakeholders in the Newburyport region is for increased access to patient data from the acute care settings to the post-acute care providers. Specifically the stakeholders would like the following:

- 1. Increase the number of organizations contributing data to the local Wellport HIE for enhanced data sharing and HIE long-term stability.
- **2.** Greater EHR adoption among SNF, Behavioral Health, LTPAC and small organizations to enhance the exchange of and access to clinical data through an established HIE.
- **3.** Identify providers of the patient's care team, within outside networks, and identify when they get care at outside organizations. Ensure exchange of care plans and goals with the data that is exchanged.

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

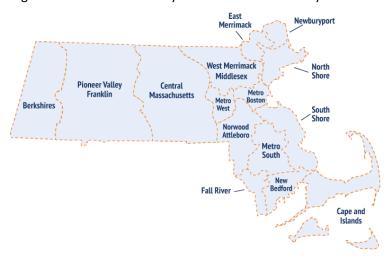
- 1. Lack of funding for technical resources to enhance IT adoption, optimization and training.
- 2. Lack of funding for organizations to join an HIE or optimize IT systems. Small organizations do not have the capital to join the local HIE or hire resources to continue training and optimizing IT workflows.
- **3.** Lack of standards around vendor, local and regional HISPs connecting to the HIway, particularly a lack of Wellport to HIway HISP to HISP connection.
- 4. Lack of electronic health record (EHR) systems at some post-acute care settings
- **5.** Lack of clear standards for HIE opt-in consent and sharing of sensitive patient information.
- **6.** Competing ACOs in the community, making it difficult to track patients and have access to care information.
- **7.** Lack of participation in a regional HIE by community healthcare organizations.

<u>Identification of Path Forward</u>: Stakeholders identified the following ideas to address needs and barriers:

- **1.** Work with organizations in the Newburyport community to support the onboarding and use of the Wellport HIE to enrich data, care transitions and HIE sustainability.
- 2. Provide consulting or technical resources to deploy a shared technical resource among organizations to incentivize small organizations to move forward with adopting EHR technology. Provide efficient and focused interfacing support and training using a "train the trainer" model.
- **3.** Work with the state and MA HIway to create a regional interoperability group for collaboration and idea sharing. Include Vendor, state and local HISPs to discuss a shared strategy for HIE

- connection and exchange requirements.
- **4.** Deploy programmatic staff to support community-wide learning and policy development regarding electronic disclosure of personal health information (PHI) and opt-in consent.

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

The Newburyport community consists of 8 towns within Essex County: Amesbury, Byfield, Merrimack, Newbury, Newburyport, Rowley, Salisbury and West Newbury.

<u>Population</u> - Total population of the Newburyport Community is 65,798 living in the 91.83 square mile area. The population density is estimated at 716.35 persons per square mile which is greater than the national average population density of 88.23 persons per square mile. Between 2000 and 2010 the population in Newburyport grew by 1,116 persons, an increase of 1.74%.

<u>Income Per Capita</u> - For the Newburyport Community the income per capita is \$42,590. This is higher than the Massachusetts statewide income per capita which is \$35,484.

<u>Poverty</u> - In the Newburyport Community, 15.45% or 10,056 individuals are living in households with income below 200% of FPL, which is lower than the Massachusetts average of 24.98%. 6.71% or 4,370 individuals are living in households with income below 100% FPL. This percentage is also lower than the Massachusetts rate of 11.38%.

<u>Linguistically Isolated Populations</u> – The Newburyport Community does not have a significant percent of linguistically isolated populations with less than 1% falling into this category. 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 5.24%.

<u>Population with Limited English Proficiency</u> – 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 Newburyport, this indicator is only 1.38% compared to the Massachusetts state

indicator of 8.84%.

<u>Population by Race Alone</u> - The racial make-up of Newburyport County is 97.36% White, 0.57% Black, 0.79% Asian, 0.02% Native American, 0.00% Native Hawaiian, 0.42% Some Other Race and 0.83% Multiple Races:

Information acquired from Community Commons on April 22, 2015 http://www.communitycommons.org/

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

HEALTHCARE LANDSCAPE

Access to Primary Care —Newburyport has 77.29 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.

<u>Lack of a Consistent Source to Primary Care</u> – 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 Newburyport, this indicator is 9.79%, or 16,489 people. This is slightly below 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.

<u>Facilities Designated as Health Professional Shortage Areas (HPSA)</u> – Newburyport does not have any HPSA facility designations. The state of Massachusetts has a total of 158 HPSA facility designations: 56 in primary care facilities, 51 in mental health care facilities and 51 in dental health care facilities.

<u>Federally Qualified Health Centers (FQHCs)</u> –Newburyport has no FQHCs within the community. The state of Massachusetts has a total of 108 FQHCs with a rate of 1.65 per 100,000 population.

<u>Population Receiving Medicaid</u> – In Newburyport, the percent of insured population receiving Medicaid is 13.03%, or 8,192, 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 lower than the Massachusetts state indicator of 20.53%.

Information acquired from Community Commons on April 22, 2015 http://www.communitycommons.org/

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: **Newburyport** (25 records)*

Organizations

Hospital, General	1
Long-Term Post-Acute Care	14
Ambulatory, General	47
IDN/Health System/Network	1
Lab/Pharm/Imaging	0
Behavioral Health	2
Community Health Centers	0

REPORT OF COMMUNITY NEEDS

Four interviews and two community round tables, among nine organizations, were completed within the Newburyport community for the Connected Communities Program to inform the Community and Statewide eHealth Plans. These discussions included participants from multiple organization types – Hospitals, Long-term and Post-Acute Care, Rehabilitation, Behavioral Health, and small physician group practices. In the interviews and roundtables, organizations were asked to identify the top clinical and business needs that organizations are trying to solve with technology, top obstacles related to Health IT, and top ideas where technology may improve healthcare in Massachusetts. Obstacles related to Health IT were broken down into challenges faced within the organization and barriers perceived in the external healthcare market. The consensus view of stakeholders around community needs, ideas and obstacles is reflected in the Executive Summary section of this document.

Reported Clinical-Business Needs

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

Reporting Area-Frequen

Clinical-Business Needs Newburyport		
Improve Internal Processes & Operations	25%	13%
Improve Population Health Analytics	13%	7%
Promote Patient & Family-centered Care	<mark>13%</mark>	3%
Improve Interoperability & Exchange	13%	9%
Improve Care Quality & Patient Safety	13%	9%
Enhance Clinical Quality Reporting	13%	3%
Access to Clinical Information 13%		21%
Meet Regulatory/Incentive Requirements 0%		10%
Improve Care Management 0%		9%
Enhance Alternative Payment Model (APM)		
Reporting 0%		

Enhance Remote Patient Management	0%	4%	
Increase Public Health Reporting	0%	3%	
Improve Care Transitions	<mark>0%</mark>	<mark>3%</mark>	
Remain Competitive and Grow Business	0%	2%	
Know patients, where they are and their status	0%	<mark>2%</mark>	
Enable Interstate Exchange	0%	<1%	

*Identified as a top priority need during community roundtable

At the Newburyport community roundtables, contributing organizations reviewed statewide and community specific clinical and business needs identified through interviews with individual organizations. The results from the Newburyport community interview findings were compared to the statewide findings for the clinical and business needs category. Priority themes identified through thoughtful discussion around the preliminary interview findings in the first roundtable are highlighted in the blue table above. As you will see, the identified themes are similar across the state and the Newburyport community. Individual organization interviews and multi-organization group roundtable discussions focused on similar themes throughout the data collection and validation process.

The nuance behind the community clinical and business needs for the Newburyport community must be considered with reference to the current Health IT landscape. The Newburyport community has an active regional HIE, Wellport, which enhances interoperability and the sharing of data electronically for participating organizations. Organizations that participate in the regional HIE have access to a clinical data repository (CDR) with information contributed from any participating organization with patients who have consented to have their information shared. This repository allows participating organizations to promote care coordination by providing access to a more complete list of medications, diagnoses, allergies and lab results. This assists with medication reconciliation and promotes a reduction in duplicate lab and imaging testing. While the HIE is an asset to the community, it feeds the communities' top priority clinical and business need: Increase the number of organizations contributing data to the local Wellport HIE for enhanced data sharing and HIE long-term stability. There is a need to continue to grow the data within the HIE to reduce costs for participants, lower the cost of adoption barrier for smaller organizations and enrich the data to better promote a coordinated approach to patient care. Many patients in the Newburyport Community receive some of their care in Haverill, Lawrence and Southern New Hampshire. Ideally, the HIE would include clinical information from their encounters in those communities as well.

To further identify the top clinical and business needs of focus during the second roundtable meeting, the Newburyport community reviewed the needs discussed in the first community round table. The goal was to revisit the multiple needs that face the community organizations to tease out the remaining top areas of focus.

The Newburyport community organizations felt that competing top priority community needs

included a greater EHR adoption among SNF, Behavioral Health, LTPAC and small organizations to enhance the exchange of and access to clinical data through an established HIE. One of the main needs for the community is the availability of data and being able to exchange patient information in real time. Interoperability and sharing of data is currently available to practices in the region who participate with the Wellport Health Information Exchange (HIE). Organizations who do not participate with Wellport do not have patient information readily available and must request patient information. The organization will call the outside facility and have a records faxed. The organizations identified the need to have access to data automatically when it is needed. To do this, more organizations need to adopt EHRs to enhance the sharing of data and increase their ability to connect to Wellport. Then the people who need the information could obtain it at the point of care, when it is needed.

Lastly, the group identified a priority need to identify members of the patient's care team. There is a strong need to know the patient's care team within other networks, when they get care at other organizations and their status or care plan goals. If this information was readily available, organizations involved in the patient's care could share data for care coordination and align treatment goals to clearly direct the patient in managing their care in a unified way.

The three top clinical and business needs are listed below. The group felt that many of the care coordination, medication reconciliation, reduction in duplicate testing, enhanced patient quality and safety needs could be solved with increased adoption in EHRs and HIE or interoperability functionality.

Community Priority Needs

The primary need identified by stakeholders in the Newburyport region is for increased access to patient data from the acute care settings to the post-acute care providers. Specifically the stakeholders would like the following:

- 1. Increase the number of organizations contributing data to the local Wellport HIE for enhanced data sharing and HIE long-term stability, including data from neighboring communities.
- **2.** Greater EHR adoption among SNF, Behavioral Health, LTPAC and small organizations to enhance the exchange of and access to clinical data through an established HIE.
- **3.** Identify providers of the patient's care team, within outside networks, and identify when they get care at outside organizations. Ensure exchange of care plans and goals with the data that is exchanged.

Reported Internal Challenges and External Barriers

Internal Challenges

What are your top HIT related challenges within your organization?

Internal Challenges	Newburyport	MA
Lack of Financial Capital	38%	22%

Meeting Operational and Training Needs	<mark>25%</mark>	<mark>15%</mark>
Managing Workflow and Change	<mark>25%</mark>	<mark>14%</mark>
Technology Insufficient for Needs	13%	9%
Lack of Staffing Resources	0%	25%
Lack of Data Integration - Interoperability	<mark>0%</mark>	<mark>3%</mark>
Market Competition and Merger Activity	0%	1%
Data Relevancy	0%	<1%
Leadership Priorities Conflict with IT Needs	0%	2%
Market Competition and Merger Activity	0%	1%
Internet Reliability	0%	1%
Improve Medication Reconciliation	0%	<1%

*Identified as a top internal issue during community roundtable

The internal challenges identified through interviews completed in the Newburyport community were closely aligned with the challenges faced by those interviewed across the state of Massachusetts. Rising to the top of the list for this community was a lack of financial capital, a need to meet operational and training needs and managing workflow and change. Financial capital is a need that the group felt tied in with the other top identified needs from the interview collection process. It is hard to have resources available to train and assist with operational workflow changes if financial capital is not readily available. Above is a table that details the internal challenges interview results for the Newburyport community and how they align with the interview findings in the state of Massachusetts.

In the first round table the group reviewed the interview findings noted in the table above. There was much discussion around the challenge of funding for additional technical resources. Participants felt that they were not able to fully use the technology functions in their current IT systems. To continue to progress in the adoption of Health IT, the organizations felt that funding for additional resources would help with ongoing training for staff and push the optimization of the EHR and HIE capabilities. A lack of financial capital also affects smaller organizations ability to invest in joining the statewide or community HIE. Small organizations do not have the capital to join an HIE or invest in staffing to train the workforce to create sustainable workflows. Small organizations voiced the challenge that infrastructure and support resources are costly.

In the second roundtable the group worked to further tease out the top internal challenges faced by organizations in the Newburyport community. Through careful review of the identified internal issues from community interviews and the first roundtable, listed below, the discussion continued to focus on a need for financial capital.

- 1. Lack of funding for technical resources
- **2.** Wellport HIE- Increasing the number of users to reduce costs, enhance data and support sustainability
- 3. Workflow- fully using technology functions through ongoing training and optimizing EHR

capabilities.

4. Funding to join an HIE or optimize IT. Small organizations don't have the capital to join an HIE and ongoing infrastructure and support resources are costly.

Lack of financial capital to implement Health IT and workflows was the top internal challenge throughout the data collection process for the Newburyport Community.

External Barriers

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

External Barriers	Newburyport	MA
Meeting Regulatory Requirements	<mark>38%</mark>	19%
Lack of HIE / HIway Trading Partners & Production Use Cases	25%	23%
Market Competition & Merger Activity	<mark>13%</mark>	<mark>4%</mark>
External Attitudes and Perceptions	13%	1%
Lack of Interoperability and Exchange Standards	<mark>13%</mark>	23%
Lack of HIE / HIway Education	0%	6%
Cost of Technology / Resources	0%	9%
Vendor Alignment	<mark>0%</mark>	<mark>4%</mark>
Lack of Reimbursement/Unreliable Payments	0%	2%
Lack of EHR Adoption	0%	1%
Market Confusion	0%	1%
Sensitive Information Sharing and Consent	<mark>0%</mark>	<mark>6%</mark>

^{*}Identified as a top priority external barrier during community roundtable

Community External Barriers

Community organizations face many external challenges that often fracture focus and hinder progress towards Health IT adoption. Five of the top external barriers identified through interviews completed across the state are directly aligned with the top barriers discussed in the Newburyport community interviews. The top areas identified by this community were focused on meeting regulatory requirements, a lack of HIE and HIway trading partners and production use cases, a lack of interoperability and exchange standards and market competition and merger activity. The interview findings, noted in the table above, were leveraged to facilitate discussion in both roundtables around identifying additional barriers and pinpointing the most challenging external barriers for organizations.

The first roundtable focused on the barriers of competing ACOs in the same geography causing market competition and hindering easy sharing of patient care data. The community has three ACOs; Steward, Beth Israel and Partners. The group commented that you can hardly find a patient who receives care in just one ACO network. These groups are working to remain competitive and care for

patients within their network but often there are not formal agreements or rules around sending information to care team members outside of their network. Subscribers of the Wellport HIE or organizations within an ACO have greater access to patient clinical information. Because information is widely shared within those two scenarios, often ACO organizations do not focus on ensuring information is shared with outside networks or with independent clinicians giving care to the same patients. The current system relies on the patient providing the information instead of an automated system to promote real time of information sharing. The community organizations also noted that due to a competitive EHR market, vendors seem resistant to sharing data with healthcare organizations that are not using their products.

Another barrier discussed in the first roundtable was the burden of meeting and complying with regulatory and payment requirements. Physician workload has increased to meet regulations. Health IT adoption and sustained training often takes a back seat to data entry and documentation requirements to remain complaint with programs such as Meaningful Use, PQRS Reporting, Chapter 224, payment coding requirements and Patient Centered Medical Home or ACO documentation needs. The group also pointed out that the regulatory requirements not only affect the providers, but also the patients. Organizations are busy trying to push the use of patient portals to meet Meaningful Use. This fractures the focus from working with patients to understand HIE technology and what it means to consent to opt-in or out of an HIE. The community felt the barrier of complying with regulatory requirements is a difficult barrier to overcome, as community influence to change these state and federal regulations is low.

To continue discussion around the external barriers in the second roundtable, the group reviewed all the items discussed in roundtable one, shown below.

- 1. Regulations for opt-in HIEs
- 2. Vendors resistant to data sharing
- 3. Patients not sharing information with providers
- 4. Meaningful Use regulations around patient engagement
- 5. Consistency of standards and HISP connections
- 6. Physician workload to meet regulations (MU, ACO, PCMH, Chapter 224)
- 7. Rules around sending information received from other organizations
- 8. Three competing ACOs in the same geographic area

Participating community organizations felt as though many of the identified external barriers were "difficult to influence" and the group should focus mainly on the barriers that can be addressed to resolve the top community needs. The group discussion in the second roundtable reiterated the interview findings and discussions from the first roundtable. Organizations felt that physician workload to meet regulations was the highest priority external barrier. In the second roundtable, the group also had a robust discussion around the consistency of standards and HISP connections. Community organizations felt that there is a lack of standards around vendor, local and regional HISPs connecting to the HIway HIE. Opt-in consent requirements for HISPs connecting to the HIE is a contractual barrier. The group felt that the HIway offered an immature provider directory at this time

and there needs to be a Wellport to Hlway HISP to HISP connection and provider directory integration.

Community Priority Barriers

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

- 1. Lack of funding for technical resources to enhance IT adoption, optimization and training.
- 2. Lack of funding for organizations to join an HIE or optimize IT systems. Small organizations do not have the capital to join the local HIE or hire resources to continue training and optimizing IT workflows.
- **3.** Lack of standards around vendor, local and regional HISPs connecting to the HIway, particularly a lack of Wellport to HIway HISP to HIPS connection.
- 4. Lack of electronic health record (EHR) systems at some post-acute care settings
- 5. Lack of clear standards for HIE opt-in consent and sharing of sensitive patient information.
- **6.** Competing ACOs in the community, making it difficult to track patients and have access to care information.
- 7. Lack of participation in the Wellport HIE by more entities in the Newburyport area

Reported HIT Improvement Ideas

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

HIT Improvement Ideas	Newburyport	MA
Enable Interoperability & Exchange	<mark>60%</mark>	28%
Increase Education & Awareness	20%	15%
Improve Care Quality & Patient Safety	20%	6%
Improve Care Management	0%	6%
Better Align Program/Policy	<mark>0%</mark>	<mark>6%</mark>
Promote Costs Savings	0%	3%
Access to Clinical Information	0%	8%
Enable Population Health Analytics	0%	4%
Expand Consumer Engagement Technologies	0%	3%
Provide Funding & Resources	0%	10%
Improve Care Transitions	0%	3%
Improve Vendor Cooperation	0%	<mark>3%</mark>
Enhance Reporting to State	0%	2%
Know Patients, where they are & their status	0%	1%
Enhance Alternative Payment Model (APM) Reporting	0%	<1%

*Identified as a top priority idea during community roundtable

Community Prioritized HIT Improvement Ideas

Discussion of HIT Improvement ideas focused on solutions that would address the priority needs of the Newburyport Community. All of the ideas that were discussed during the Newburyport Community Roundtables are included in the *HIT Improvement Ideas* section below, but the group agreed that the

following ideas should be prioritized, because these ideas directly addressed the clinical and business needs of the community:

- 1. Work with organizations in the Newburyport and Newburyport communities to support the onboarding and use of the Wellport HIE to enrich data, care transitions and program stability.
- 2. Provide consulting or technical resources to deploy a shared technical resource among organizations to incentivize small organizations to move forward with adopting EHR technology. Provide efficient and focused interfacing support and training using a "train the trainer" model.
- **3.** Work with the state and MA HIway to create a regional interoperability group for collaboration and idea sharing. Include Vendor, state and local HISPs to discuss a shared strategy for HIE connection and exchange requirements.
- **4.** Deploy programmatic staff to support community-wide learning and policy development regarding electronic disclosure of personal health information (PHI) and opt-in consent.

	IDENTIFIED eHEALTH PRIORITY AREAS	
1	Increase the number of organizations contributing data to the local Wellport HIE for enhanced data sharing and HIE long-term stability.	
2	Greater EHR adoption among SNF, Behavioral Health, LTPAC and small organizations to enhance the exchange of and access to clinical data through an established HIE.	
3	Identify providers of the patient's care team, within outside networks, and identify when they get care at outside organizations. Ensure exchange of care plans and goals with the data that is exchanged.	

	HIT IMPROVEMENT IDEAS
1	Work with organizations in the Newburyport and Newburyport communities to support the onboarding and use of the Wellport HIE to enrich data, care transitions and program stability.
2	Provide consulting or technical resources to deploy a shared technical resource among organizations to incentivize small organizations to move forward with adopting EHR technology. Provide efficient and focused interfacing support and training using a "train the trainer" model.
3	Work with the state and MA HIway to create a regional interoperability group for collaboration and idea sharing. Include Vendor, state and local HISPs to discuss a shared strategy for HIE connection and exchange requirements.
4	Deploy programmatic staff to support community-wide learning and policy development regarding electronic disclosure of personal health information (PHI) and opt-in consent.

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