#### COMMMUNITY eHEALTH PLAN - NEEDS ASSESSMENT

**REGION:** Southeast

COMMUNITY: Cape and Islands

PARTICIPATING ORGANIZATIONS: Bayada Home Health Care, Cape & Islands EMS System, Cape Cod Economic Development Council, Cape Obstetrics & Gynecology, Community Health Center of Cape Cod, Duffy Health Center, Open Cape, Outer Cape Health Services, Spaulding Rehab Hospital Network

DATE REVIEWED / UPDATED: 5/19/15

#### **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 Cape and Islands community.

<u>Identification of Needs</u>: The primary clinical and business needs related to HIT identified by stakeholders in the Cape and Islands community centered on the following categories;

- Meet Regulatory / Incentive Requirements
- Access to Clinical Information
- Improve Interoperability & Exchange
- Improve Care Management
- Improve Internal Processes & Operations

Following group discussion and review, stakeholders in the Cape and Islands community identified the

## following specific priority needs;

- 1. Improve access and exchange of clinical information and simplify exchange capabilities. Many community organizations are trying to work with each other to share more information, but there is a need for standardization of data, exchange protocols and technology.
- Improve the integration of EMS with local healthcare organizations. Specifically, the need for EMS to
  exchange information when receiving / delivering the patient to and from healthcare organizations.
   EMS needs the ability to pre-register patients at hospitals and subsequently transfer information
  electronically.
- 3. Organizations need ability to identify a patient's care team, especially for behavioral health patients and EMS services.
- 4. Improve access to Advance Directives information (MOLST, DNR, healthcare proxy, etc.). More often than not, healthcare organizations and EMS do not know advance directive orders unless the information is communicated from other organizations or the patient directly.

<u>Identification of Internal Challenges and External Barriers</u>: The primary challenges and barriers reported by stakeholders are centered around the following categories;

#### <u>Internal Challenges</u>

- Meeting Operational and Training Needs
- Lack of Staffing Resources
- Lack of Financial Capital
- Managing Workflow and Change

## **External Challenges**

- Lack of HIE / HIway Trading Partners & Production Use Cases
- Lack of Interoperability and Exchange Standards
- Meeting Regulatory Requirements
- Sensitive Information Sharing and Consent

Following group discussion and review, stakeholders in the Cape and Islands community identified the following specific challenges and barriers;

- 1. Many healthcare organizations in the community have different EHRs and/or information systems that do not capture data elements in the same format and lack of interoperability are barriers to exchanging clinical information.
- 2. The need of different types of organizations to receive varying clinical data sets on patients. The trend has been attempts to share large amounts of clinical data between organizations. However, it was noted that a hospital or specialty practice may actually want or prefer only 3-4 primary data points. Too much general information is being shared with little focus on what data the receiving organization would like to have.
- 3. Lack of consistent data exchange is costly for organizations. Organizations are faced with dedicating staff just to track down results and information on patient referrals, tests, and procedures.
- 4. Regulatory/incentive requirements force changes in healthcare information systems. Organizations are unsure of how to make changes without the resources up-front to complete the necessary work.

- Incentives dry-up over time and organizations are expected to maintain the changes without new payment models or funding to financially support.
- 5. High costs of HIT investment, from vendors in particular. Meaningful Use (MU) continues to be a driver of these high costs as vendors know organizations must meet MU and will pay the vendor to implement the required technology.
- 6. Too many small projects utilizing "point-to-point" connections between healthcare organizations are costly and do not have "high community value". It was suggested that larger efforts, such as the Mass HIway or a community HIE which connect multiple organizations, provide the "biggest bang for the buck"

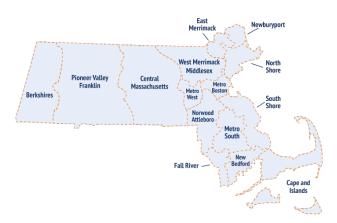
## <u>Identification of Path Forward</u>:

It was noted that the Cape and Islands Community has a unique healthcare environment that may aid in advancing interoperability. The Cape has only 1 primary hospital system, a few ACOs, and 6-7 EMS organizations in the community. The low number of primary connection points reduces the complexity of connecting community healthcare organizations to the major end-points. The role of Cape Cod Healthcare is critical in the equation, and can drive interoperability in the community.

Stakeholders identified the following initiatives to address needs and barriers:

- 1. Complete a community inventory of healthcare organizations, determine trading partner connection points and identify HIE options for exchanging clinical information.
- 2. Leverage opportunity and eagerness for community EMS to enter patient information exchange loops and bridge information gaps.
- 3. Utilize the Mass HIway as the exchange platform between community healthcare organizations, or develop a local HIE option.
- 4. Select a specific data set to exchange, such as sharing medication lists, as a starting point.
- 5. Implement closed loop referrals between primary care providers, specialists and other care settings

**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

<u>Population</u> - Total population of the Cape & Islands region is approximately 243,976 living in the 409.76 square mile area. The population density is estimated at 595.41 persons per square mile which is greater than the national average population density of 87.55 persons per square mile. According to the U.S. Census Bureau Decennial Census, between 2000 and 2010 the population in the Cape & Islands region dropped by 3,945 persons, a change of -1.59%.

<u>Income Per Capita</u> - For the Cape & Islands region, the income per capita is \$36,373. Massachusetts statewide income per capita at \$35,484.

<u>Poverty</u> - In the Cape & Islands region, 22.41% or 53,871 individuals are living in households with income below 200% of FPL and 9.42% or 22,648 individuals are living in households with income below 100% FPL. The percent population under age 18 in poverty is 14.52% or 5,971 individuals. These three percentage rates are lower than the Massachusetts state rates in the same categories.

<u>Linguistically Isolated Populations</u> – The Cape & Islands region has a low percent of linguistically isolated populations at 1.49%. 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%.

<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 the Cape & Islands region, this indicator is 2.7% compared to the Massachusetts state indicator of 8.87%.

<u>Population by Race Alone</u> - The racial make-up of the Cape & Islands region is 92.94% White, 2.5% Black, 1.14% Asian, 0.45% Native American, 0.0% Native Hawaiian, 1.16% Some Other Race and 1.81% Multiple Races

Information acquired from Community Commons <a href="http://www.communitycommons.org/">http://www.communitycommons.org/</a>

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

## HEALTHCARE LANDSCAPE

<u>Population Receiving Medicaid</u> - In the Cape & Islands region, the percent of insured population receiving Medicaid is 18.71%, or 42,682, 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 meanstested public health insurance). This indicator is lower than the Massachusetts state indicator of 20.53%.

Access to Primary Care – The Cape & Islands region has 92.84 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>Facilities Designated as Health Professional Shortage Areas (HPSA)</u> – The Cape & Islands region has 16 HPSA facility designations; 6 in primary care facilities, 5 in mental health facilities and 5 in dental health facilities. 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> – The Cape & Islands region has a rate of 3.27 FQHCs per 100,000 population with a total of 8 FQHC facilities in the Cape & Islands region. The state of Massachusetts has a total of 108 FQHCs with a rate of 1.65 per 100,000 population.

Information acquired courtesy of Community Commons <a href="http://www.communitycommons.org/">http://www.communitycommons.org/</a>

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: Cape & Islands (102 records)	# Organizations
Hospital, General	4
Community Health Center	12
Long-Term Post-Acute Care	25
Ambulatory, General	39
IDN/Health System/Network	7
Lab/Pharm/Imaging	5
Behavioral Health	10

#### REPORT OF COMMUNITY NEEDS

MeHI performed a needs assessment of healthcare providers and stakeholders representing the Cape and Islands 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	SE Region	MA
Meet Regulatory/ Incentive Requirements	17%	10%
Access to Clinical Information	13%	21%
Improved Interoperability & Exchange	11%	9%
Improve Care Management	10%	9%
Improve Internal Processes & Operations	10%	13%
Improve Care Quality & Patient Safety	10%	9%
Increase Public Health Reporting	4%	3%
Enhance Alternative Payment Model (APM) Reporting	4%	4%
Enhance Remote Patient Management	4%	4%
Remain competitive and grow business	3%	2%
Enhance Clinical Quality Reporting	3%	3%
Improve Population Health Analytics	3%	7%
Improve Care Transitions	3%	2%
Enable Interstate Exchange	1%	1%
Know Patients, where they are & their status	1%	2%
Promote Patient- & Family-centered Care	1%	3%

<sup>\*</sup>Identified as a top priority need during community roundtable

The most frequently cited areas of clinical and business needs reported in the Southeast region community interviews centered on meeting *Regulatory/Incentive Requirements*, increase *Access to Clinical Information*, and to improve *Interoperability & Exchange* and *Care Coordination* These are mostly consistent with the interview findings across the state, although improving Internal Processes & Operations was reported more frequently across the state.

#### **Regulatory and Incentive Requirements**

Similar to findings from the Southeast region, Cape and Islands stakeholders had multiple comments on the need to meet regulatory and incentive requirements and to avoid penalties. And focus areas, such as Meaningful Use *Transfer of Care*, and *View, Download, Transmit* requirements, as well as pending ICD-10 transitions were consistent with priorities identified across the state.

#### Access to Clinical Information

Improving Access to Clinical Information was reported frequently and was a major discussion point of the Community roundtable session. Comments included improving home visit information and increased tele-monitoring and the need to increase integration with rural providers.

A specific area of focus emerged on improving the integration of EMS with local healthcare organizations. Commenters noted the need for EMS to exchange information both when receiving and delivering the patient to and from healthcare organizations. It was noted the EMS needs the ability to pre-register patients at hospitals and subsequently transfer information electronically. The ability to transfer information electronically would help with turn-around time for EMS and the receiving hospital, especially for patient registration and transfer of medical information.

Also noted, was the need to improve access to Advance Directive information (MOLST, DNR, healthcare proxy, etc.). More often than not, healthcare organizations and EMS do not know advance directive orders unless the information is communicated from other organizations or the patient directly.

#### **Care Coordination**

Consistent with priorities reported in other areas of the state, the need to close referral loops with specialists and other care settings was identified as a primary clinical need by stakeholders. And, there were many comments and discussion on the organizations ability to identify a patient's care team. Especially, behavioral health patients who have contacted EMS but may not need transport to the ED, the patient just needs to be in touch with a member of the care team. Currently, there is no way to find out who the care team/case manager is unless patient tells them.

It was suggested by participants that there is an opportunity for EMS to obtain accurate patient information electronically to improve patient care during the transport process, but also to act as an information conduit between organizations. Also, EMS has unique insight into patients' homes, who may not be compliant with personal healthcare or are seeing multiple providers. EMS can document information on patients, such as home conditions and medications found in the home that may not be available to traditional healthcare providers.

## Interoperability and Exchange

Multiple commenters mentioned the need to improve clinical information exchange. It was noted that many community organizations are trying to work with each other to share more information, but there is a need for standardization of data and exchange protocols. Other commenters noted the need to simplify electronic exchange capabilities. One participant noted the use of "bump" technology (user accepted proximity transfer) developed for mobile devices as an example of a simple communication option.

## **Community Priority Needs**

Following group discussion and review, stakeholders in the Cape and Islands community identified the following specific priority needs;

- 1. Improve access and exchange of clinical information and simplify exchange capabilities. Many community organizations are trying to work with each other to share more information, but there is a need for standardization of data, exchange protocols and technology.
- 2. Improve the integration of EMS with local healthcare organizations. Specifically, the need for EMS to exchange information when receiving / delivering the patient to and from healthcare organizations. EMS needs the ability to pre-register patients at hospitals and subsequently transfer information electronically.
- 3. Organizations need ability to identify a patient's care team, especially for behavioral health patients and EMS services.
- 4. Improve access to Advance Directives information (MOLST, DNR, healthcare proxy, etc.). More often than not, healthcare organizations and EMS do not know advance directive orders unless the information is communicated from other organizations or the patient directly.

#### Reported Internal Challenges and External Barriers

#### **Internal Challenges**

What are your top HIT related challenges within your organization?

Internal Challenges	SE Region	MA
Meeting Operational and Training Needs	23%	15%
Lack of Staffing Resources	19%	25%
Lack of Financial Capital	19%	22%
Managing Workflow and Change	17%	14%
Technology Insufficient for Needs	7%	9%
Meeting Regulatory Requirements	4%	4%
Sensitive Information Sharing and Consent	4%	3%
Lack of Data Integration - Interoperability	4%	3%
Market Competition and Merger Activity	1%	1%
Leadership Priorities Conflict with IT Needs	1%	2%
Internet Reliability	0%	1%
Data Relevancy	0%	0%
Improve Medication Reconciliation	0%	0%

<sup>\*</sup>Identified as a top priority need during community roundtable

The most frequently cited internal challenges reported in the Southeast region community interviews centered on the abilities to meet *Operational and Training Needs*, a general lack of *Staffing Resources and Financial Capital* and ability to manage *Workflow and Change*. These are consistent with the most commonly reported internal challenges across the state, although lack of *Staffing Resources* and *Financial Capital* were cited more frequently. Roundtable participants agreed that the Internal Challenges listed above resonate with the community and reflect challenges faced by many types of organizations in the healthcare spectrum.

## Operations, Staffing Resources and Financial Capital

Most of the comments and feedback from participants centered on challenges meeting operational needs and a lack of staff resources and financial capital. There were specific comments regarding the high costs of HIT investment, from vendors in particular. Some commented that Meaningful Use (MU) has been a driver of these high costs as vendors know organizations must meet MU and will pay the vendor to implement the required technology.

A few commenters noted that the "lack of consistent data exchange" is costly for organizations. One community health center has had to hire staff just to track down results and information on patient referrals, tests and procedures.

Also, a few participants acknowledged that there are too many small projects utilizing "point-to-point" connections between healthcare organizations, which are costly and do not have "high community value". It was suggested that larger efforts which connect multiple organizations provide the "biggest bang for the buck"

#### Data Integration and Interoperability

The participants emphasized the need of different types of organizations to receive varying clinical data

sets on patients. A few participants observed that the trend has been attempts to share large amounts of clinical data between organizations. However, it was noted that a hospital or specialty practice may actually want or prefer only 3-4 primary data points. Too much "general" information is being shared with little focus on what data the receiving organizations would like to have.

Also noted by some respondents, was the need to increase functionality of Patient Portals to meet current and future MU requirements. And, one respondent suggested consent and privacy concerns as a gating factor to increasing exchange and integration.

#### **External Barriers**

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

External Barriers	SE Region	MA
Lack of HIE / HIway Trading Partners & Prod Use Cases	26%	23%
Lack of Interoperability and Exchange Standards	26%	23%
Meeting Regulatory Requirements	15%	19%
Sensitive Information Sharing and Consent	9%	6%
Cost of Technology / Resources	9%	9%
Lack of HIE / HIway Education	4%	6%
Vendor Alignment	3%	4%
Market Confusion	3%	1%
Lack of EHR Adoption	3%	1%
Lack of Reimbursement/Unreliable Payments	1%	2%
Market Competition & Merger Activity	0%	4%
External Attitudes and Perceptions	0%	1%

<sup>\*</sup>Identified as a top priority need during community roundtable

The most frequently cited external barriers reported in the Southeast region community interviews centered on the lack of *Interoperability and Exchanges Standards*, lack of *HIE/HIway Trading Partners and Production Use Cases*, the abilities to meet *Regulatory Requirements* and the ability to manage and meet *Sensitive Information Sharing and Consent* requirements. These are consistent with the most commonly reported external barriers across the state. Roundtable participants agreed that the External Barriers listed above resonate with the community and reflect barriers perceived by many types of organizations in the healthcare spectrum.

#### Interoperability and Exchange

There were many comments regarding the fragmented nature of the EHRs. A few respondents noted that the primary difficulty is essentially "a matter of getting records where they need to go". And, there were comments on the limited electronic exchange options with specialist offices and the need to close referral loops.

Many healthcare organizations have different EHRs and/or information systems that do not capture data elements in the same format and lack interoperability which are barriers to exchanging clinical information. Participants noted that the primary hospital system in the community has multiple EHR systems at each location despite being one organization.

#### Regulatory and Incentive Requirements

Commenters acknowledged that regulatory and incentive requirements are forcing changes in healthcare information systems. But, organizations are unsure of how to make the transition without the resources "up-front" to complete the necessary changes. And, incentives dry-up over time and organizations are expected to maintain changes without new payment models or funding to support.

And finally, one commenter noted the "who benefits, who pays" question becomes complicated quickly with competing interests from many organizations.

## Community Priority Internal Challenges and External Barriers

Following group discussion and review, stakeholders in the Cape and Islands community identified the following specific challenges and barriers;

- 1. Many healthcare organizations in the community have different EHRs and/or information systems that do not capture data elements in the same format and lack interoperability which are barriers to exchanging clinical information.
- 2. The need of different types of organizations to receive varying clinical data sets on patients. The trend has been attempts to share large amounts of clinical data between organizations. However, it was noted that a hospital or specialty practice may actually want or prefer only 3-4 primary data points. Too much general information is being shared with little focus on what data the receiving organization would like to have.
- 3. Lack of consistent data exchange is costly for organizations. Organizations are faced with dedicating staff just to track down results and information on patient referrals, tests, and procedures.
- 4. Regulatory/incentive requirements force changes in healthcare information systems.

  Organizations are unsure of how to make changes without the resources up-front to complete the necessary work. Incentives dry-up over time and organizations are expected to maintain the changes without new payment models or funding to financially support.
- 5. High costs of HIT investment, from vendors in particular. Meaningful Use (MU) continues to be a driver of these high costs as vendors know organizations must meet MU and will pay the vendor to implement the required technology.
- 6. Too many small projects utilizing "point-to-point" connections between healthcare organizations are costly and do not have "high community value". It was suggested that larger efforts which connect multiple organizations provide the "biggest bang for the buck"

#### Reported HIT Improvement Ideas

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

HIT Improvement Ideas	SE Region	MA
Enable Interoperability & Exchange	26%	28%
Provide Funding & Resources	20%	10%
Increase Education & Awareness	18%	15%
Better Align Program / Policy	8%	6%

Enable Population Health Analytics	8%	4%
Access to Clinical Information	6%	8%
Enhance Reporting to State	5%	2%
Improve Care Management	3%	6%
Improve Care Quality & Patient Safety	2%	6%
Improve Vendor Cooperation	2%	3%
Promote Costs Savings	2%	3%
Improve Care Transitions	2%	3%
Expand Consumer Engagement Technologies	2%	3%
Enhance Alternative Payment Model (APM) Reporting	0%	0%
Know Patients, where they are & their status	0%	1%

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

The most frequently cited improvement ideas from stakeholders in the Southeast region centered on enabling *Interoperability & Exchange*, increasing *Funding* and increasing *Education and Awareness*. These were consistent with the most commonly reported ideas across the state.

#### **Education and Awareness**

There were multiple comments to increase education and awareness of programs and to provide clear, consistent messaging on requirements of state and federal programs and their relationships to each other. Also, specific areas noted were around consent education and procedures to inform patients on data sharing and exchange. And, improved HIway-HIE education and support resources was mentioned by community stakeholders.

# Align Program and Policy

There were a few suggestions to improve the alignment of various programs and their requirements. It was noted that different programs have different requirements for similar functions or for similar patient populations. And, one respondent suggested that there should be a better framework to allow for more robust data sharing. There was also a suggestion made for increasing the state standards for EHR vendors that operate in Massachusetts.

Finally, it was noted that the Cape and Islands Community has a unique healthcare environment that may aid in advancing interoperability. The Cape has only 1 primary hospital system, a few ACOs, and 6-7 EMS organizations in the community. The low number of primary connection points reduces the complexity of connecting community healthcare organizations to the major end-points. The role of Cape Cod Healthcare is critical in the equation, and can drive interoperability in the community.

IDENTIFIED eHEALTH PRIORITY AREAS	
Improve access and exchange of clinical information and simplify exchange capabilities.	
Improve the integration of EMS with local healthcare organizations. Specifically, the need for	

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EMS to exchange information when receiving / delivering the patient to and from healthcare organizations.	
Organizations need ability to identify a patient's care team, especially for behavioral health patients and EMS services.	
Improve access to Advance Directive information (MOLST, DNR, healthcare proxy, etc.).	

	HIT IMPROVEMENT IDEAS	
1	Complete a community inventory of healthcare organizations, determine trading partner connection points and identify HIE options for exchanging clinical information.	
2	Leverage opportunity and eagerness for community EMS to enter patient information exchange loops and bridge information gaps.	
3	Utilize the Mass HIway as the exchange platform for community healthcare organizations, or develop a local HIE option.	
4	Select a specific data set to exchange, such as sharing medication lists, as a starting point.	
5	Implement closed loop referrals between primary care providers, specialists and other care settings	

# **ATTACHMENT - 1**

Community Commons <a href="http://www.communitycommons.org/">http://www.communitycommons.org/</a>

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