COMMMUNITY eHEALTH PLAN – NEEDS ASSESSMENT

REGION: Southeast

COMMUNITY: Metro West and Norwood/Attleboro

PARTICIPATING ORGANIZATIONS: *Beaumont Rehabilitation and Skilled Nursing Facility, Caretenders, Century Health (Natick VNA), Community VNA, Genesis HealthCare, Massachusetts Dental Society, Metro West Accountable Healthcare Organization, Milford Regional Medical Center, Visiting Nurse Associations of New England (VNANE), Wrentham Public Nursing*

DATE REVIEWED / UPDATED: 5/5/15

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 Metro West and Norwood/Attleboro Communities:

Identification of Needs: The most frequently reported business and clinical needs identified by stakeholders in the Metro West and Norwood/Attleboro Communities are the following:

1. Access to Clinical Information
2. Improved Care Quality & Patient Safety
3. Improved Interoperability & Exchange
4. Meet Regulatory/Incentive Requirements

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

Primary Internal Challenges

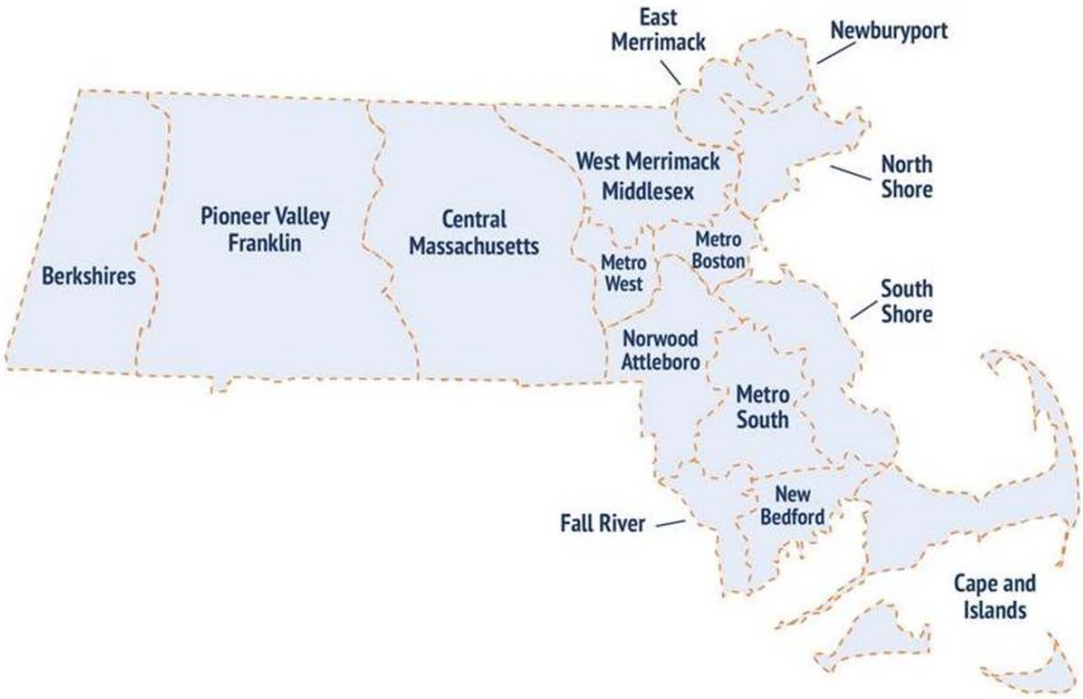
1. Lack of Financial Capital
2. Lack of Staffing Resources
3. Meeting Operations and Training Needs

Primary External Barriers

1. Lack of Interoperability & Exchange Standards
2. Lack of HIE / HIway Trading Partners & Production Use Cases
3. Sensitive Information Sharing and Consent
4. Cost of Technology / Resources

Identification of Path Forward: Stakeholders identified the following initiatives to address needs and barriers:

1. Provide Funding & Resources
2. Increase Education & Awareness
3. Enable Interoperability & Exchange



COMMUNITY DEMOGRAPHIC

Population - Total population of the Metro West and Norwood/Attleboro Communities is approximately 647,466 living in the 582.73 square mile area. The population density is estimated at 1,111.09 persons per square mile which is greater than the national average population density of 88.23 persons per square mile. According to the U.S. Census Bureau Decennial Census, between 2000 and 2010 the population in the Metro West and Norwood/Attleboro Communities grew by 26,430 persons, a change of 4.3%.

Income Per Capita - For the Metro West and Norwood/Attleboro Communities, the income per capita is $40,527. Massachusetts statewide income per capita at $35,763.

Poverty - In the Metro West and Norwood/Attleboro Communities, 15.39% or 97,650 individuals are living in households with income below 200% of FPL and 5.88% or 37,333 individuals are living in households with income below 100% FPL. These two percentage rates are lower than the Massachusetts state rates in the same categories.

Linguistically Isolated Populations – The Metro West and Norwood/Attleboro Communities have a lower percent of linguistically isolated populations at 3.24% than the Massachusetts state average. 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 Metro West and Norwood/Attleboro Communities, this indicator is 5.76% compared to the Massachusetts state indicator of 8.87%.

Population by Race Alone - The racial make-up of the Metro West and Norwood/Attleboro Communities is 87.86% White, 2.87% Black, 4.89% Asian, 0.1% Native American, 0.04% Native Hawaiian, 1.94% Other Race and 2.31% Multiple Races

Information acquired courtesy of Community Commons http://www.communitycommons.org/

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

HEALTHCARE LANDSCAPE

Population Receiving Medicaid - In the Metro West and Norwood/Attleboro Communities, the percent of insured population receiving Medicaid is 82,968, or 13.42% 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%.

Access to Primary Care – The Metro West and Norwood/Attleboro Communities have 109.28 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.

Facilities Designated as Health Professional Shortage Areas (HPSA) – The Metro West and Norwood/Attleboro Communities have a total of 9 HPSA facility designations; 4 in primary care facilities, 2 in mental health facilities and 3 in dental 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.

Federally Qualified Health Centers (FQHCs) – The Metro West and Norwood/Attleboro Communities have a rate of 0.47 FQHCs per 100,000 population with a total of 3 FQHC facilities in the Metro West and Norwood/Attleboro regions. 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 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: Metro West and Norwood/Attleboro Communities *	# Organizations
Hospital, General	9
Community Health Center	1
Long-Term Post-Acute Care	47
Ambulatory, General	46
IDN/Health System/Network	15
Lab/Pharm/Imaging	3
Behavioral Health	18

REPORT OF COMMUNITY NEEDS

MeHI performed a needs assessment of healthcare providers and stakeholders representing the Metro West and Norwood/Attleboro communities. 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	MW-N/A	MA
Access to Clinical Information	29%	21%
Improve Care Quality & Patient Safety	24%	9%
Improved Interoperability & Exchange	10%	9%
Meet Regulatory/ Incentive Requirements	10%	10%
Improve Care Management	5%	9%
Improve Population Health Analytics	5%	7%
Know Patients, where they are & their status	5%	2%
Enhance Remote Patient Management	5%	4%
Enable Interstate Exchange	5%	1%
Remain competitive and grow business	5%	2%
Enhance Alternative Payment Model (APM) Reporting	0%	4%
Enhance Clinical Quality Reporting	0%	3%
Promote Patient- & Family-centered Care	0%	3%
Increase Public Health Reporting	0%	3%
Improve Internal Processes & Operations	0%	13%
Improve Care Transitions	0%	2%

*Identified as a top priority need during community roundtable

The most frequently cited areas of clinical and business needs reported in the Metro West and Norwood/Attleboro community interviews centered on the abilities to *Access to Clinical Information, Improve Care Quality & Patient Safety, meet Regulatory and Incentive Requirements, and Improve Interoperability & Exchange.* These community findings are fairly consistent with the interview findings across the state, with the primary outlier being lack of comment in the Metro West and Norwood/Attleboro communities on the need to Improve Internal Processes & Operations.

Access to Clinical Information

Many community participants commented on the lack of access to clinical information. There is a lack of consistency in receiving patient clinical information for hospital admissions, discharges, and other transfer of care situations. In the cases when clinical information is received following a transfer of care, the method has been through a manual fax process. When inbound faxes are received, some are not readable due to poor transmissions and often times the information contained in the faxed documentation does not meet the clinical needs of the receiving organization. Few organizations in the Metro West and Norwood/Attleboro communities are sending and/or receiving electronic documentation via an HIE in the transition of care process. In the cases where electronic information is received, community member comments have suggested that duplicative fax transmissions with the same information are also being received and used instead of the electronic version.

Improved Care Quality & Patient Safety

Multiple comments were received from community members that focused on the need to improve care quality and patient safety. Participants recognized the fact that access to and receiving clinical information during transitions of care are the primary drivers of increasing care quality and safety. More specifically, there were multiple references to the need for better medication reconciliation for patients based on receiving medication updates from other providers involved in a patient's care. Community participants also indicated the need to exchange care plan information with patient care team members to improve quality and safety by ensuring providers are working toward a common set of goals for the patient. Also, closing the loop on referrals was mentioned as a need to increase patient safety and quality of care. Participants suggested that receiving consultation notes, or even just a notification that a referral was completed, are essential to providing quality care for patients.

Improved Interoperability & Exchange

Commenters indicated many improvement areas related to interoperability and exchange of health information. Post-acute care organizations indicated that insurance eligibility information should be shared in addition to clinical information upon patient transfer. Many organization indicated that the exchanging digital radiology image results was rare but would be provide a great value to providers in guiding patient treatment and ordering follow-up studies. Lack of Interoperability between EHR products was cited as one of the primary barriers to exchange of information, and the general need to improve exchange capabilities is needed to increase the quality of care delivered to patients.

Meet Regulatory/Incentive Requirements

Many community participants indicated that meeting regulatory and incentive requirements have become a high-priority for their organizations. The high focus on meeting requirements has limited organization's ability to focus on expanding HIT capabilities in other areas. The primary requirements mentioned were Meaningful Use attestations, ICD-10 preparation, PQRS & Quality Measure reporting, public health reporting, and preventing hospital readmissions.

Community Priority Needs

The interview respondents and participants in community roundtable discussions reported the following areas of need most frequently. These areas represent a starting point for community oriented activity and an opportunity to establish and improve collaboration among the participating organizations.

The most frequently reported business and clinical needs that stakeholders in the Metro West and Norwood/Attleboro communities are trying to solve with HIT;

1. Access to Clinical Information
2. Improved Care Quality & Patient Safety
3. Improved Interoperability & Exchange
4. Meet Regulatory/Incentive Requirements

Reported Internal Challenges and External Barriers

Internal Challenges

What are your top HIT related challenges within your organization?

Internal Challenges	MW-N/A	MA
Lack of Financial Capital	33%	22%
Lack of Staffing Resources	22%	25%
Meeting Operational and Training Needs	17%	15%
Managing Workflow and Change	11%	14%
Meeting Regulatory Requirements	6%	4%
Lack of Data Integration - Interoperability	6%	3%
Technology Insufficient for Needs	6%	9%
Improve Medication Reconciliation	0%	0%
Sensitive Information Sharing and Consent	0%	3%
Market Competition and Merger Activity	0%	1%
Internet Reliability	0%	1%
Data Relevancy	0%	0%
Leadership Priorities Conflict with IT Needs	0%	2%

*Identified as a top priority need during community roundtable

The most frequently cited internal challenges reported in the Metro West and Norwood/Attleboro community interviews centered on the requirements related to *Lack of Financial Capital, Lack of Staffing Resources, and Meeting Operations and Training Needs*. These findings are consistent with the most commonly reported internal challenges across the state.

Lack of Financial Capital

Most community organizations indicated that lack of financial capital was a primary internal challenge preventing investment in HIT infrastructure and exchange capabilities. Feedback was understandably vague regarding lack of financial capital, with most comments generalizing the challenge to overall financial constraints and low information technology budgets. Some organizations did mention the high costs of EHR implementation and maintenance leave little additional capital for investment in expanding system capabilities. Additionally, participants cited low operating margins in long-term and post-acute care settings as the origin for financial constraints. Participants also mentioned other non-HIT related projects within organizations compete for financial resources and contribute to the challenge.

Lack of Staffing Resources

Lack of staffing resource comments primarily fell into two categories: organizations unable to find and

hire qualified staff to meet operational requirements and organizations with limited staff resources to complete operational requirements but are not looking to hire new staff. Some organizations are actively seeking to hire HIT trained staff to support the advancement of HIT. However, commenters mentioned that finding qualified staff with HIT experience has been a difficult task and contributes to the lack of staff resources. Other organizations are not seeking to hire new HIT experienced staff and the current resources are at capacity supporting current initiatives. Some commenters mentioned that current HIT trained staff are focused on internal use of HIT and meeting regulatory and incentive programs to avoid payment penalties.

Meeting Operational and Training Needs

Many comments on the challenge of meeting operational and training needs were correlated with the lack of staff resources. Participants described ongoing needs to train clinical and administrative on general HIT use and also providing training and guidance to meet new operational objectives involving HIT. These ongoing commitments are a challenge due to non tech-savvy staff in many organizations and some organizations also cited provider and staff resistance to learning more technology workflows.

External Barriers

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

External Barriers	MW-N/A	MA
Lack of Interoperability and Exchange Standards	32%	23%
Lack of HIE / HIway Trading Partners & Production Use Cases	14%	23%
Cost of Technology / Resources	14%	9%
Sensitive Information Sharing and Consent	14%	6%
Meeting Regulatory Requirements	5%	19%
Vendor Alignment	5%	4%
Lack of HIE / HIway Education	5%	6%
Lack of EHR Adoption	5%	1%
Market Confusion	5%	1%
Lack of Reimbursement/Unreliable Payments	5%	2%
Market Competition & Merger Activity	0%	4%
External Attitudes and Perceptions	0%	1%

*Identified as a top priority need during community roundtable

The most frequently cited external barriers reported in the Metro West and Norwood/Attleboro community interviews centered on *the lack of Interoperability and Exchange Standards, lack of HIE/HIway Trading Partners and Production Use Cases*, *Costs of Technology / Resources, and Sensitive Information Sharing and Consent.* These are mostly consistent with the commonly reported external barriers across the state, although Meeting Regulatory Requirements was prominently reported on average throughout the state.

Lack of Interoperability and Exchange Standards

Some participants mentioned that HIT and HIE standards are not truly being adopted in a standardized way. HIT system vendors have interpreted and implemented many standards in different ways, reducing interoperability between disparate systems. Some commenters indicated that disparate systems exist internally within organizations preventing inherent interoperability, let alone externally. Furthermore, the same confusion of implementation of standards has stymied sharing of information through HIEs.

Lack of HIE / HIway Trading Partners & Production Use Cases

A variety of feedback was obtained related to the lack of ability to operationalize HIE trading. Some respondents indicated confusion on how to get started using HIE and developing a "use case" to begin sharing information. Others commented on the lack of available trading partners connected to the Mass HIway for trading. Some organizations that have joined the Mass HIway have expressed difficulty in proceeding to share information because their existing business partners have not yet joined the HIway. Overall, feedback obtained indicated that HIE progress has been slow, but some respondents remain optimistic that Meaningful Use requirements will begin to spur more participation.

Cost of Technology / Resources

Primarily the smaller organizations commented that the cost of technology continues to be a barrier toward HIT progress. Directly related the internal challenge of lack of financial capital, participants indicated that investment in high-cost technology is difficult. Many comments indicated that technology vendors charge organizations each time new technology is required or interface capabilities are developed. Additionally, participants noted the high cost of obtained qualified resources to support HIT. Some participants cited the high market demand for HIT professionals as a factor in the overall cost constraints of hiring resources.

Sensitive Information Sharing and Consent

Many respondents in the community expressed the barriers for obtaining consent to share information electronically, with additional complications in sharing sensitive information. There is a general lack of understanding of policy for obtaining and storing appropriate consent for sharing information electronically. Some respondents indicated that a universal process for obtaining consent to release information electronically would be a great benefit to community organizations. A few respondents indicated that the state's HIE opt-in policy creates gaps in sharing patient information. Furthermore, some respondents suggested that current policies for sharing sensitive information deters organizations for attempting to share important information with other providers.

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;

Primary Internal Challenges

1. Lack of Financial Capital
2. Lack of Staffing Resources
3. Meeting Operational and Training Needs

Primary External Barriers

1. Lack of Interoperability and Exchange Standards
2. Lack of HIE / HIway Trading Partners & Production Use Cases
3. Sensitive Information Sharing and Consent
4. Cost of Technology / Resources

Reported HIT Improvement Ideas

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

HIT Improvement Ideas	MW-N/A	MA
Provide Funding & Resources	35%	10%
Enable Interoperability & Exchange	15%	28%
Increase Education & Awareness	15%	15%
Access to Clinical Information	10%	8%
Enable Population Health Analytics	10%	4%
Improve Care Quality & Patient Safety	5%	6%
Better Align Program / Policy	5%	6%
Expand Consumer Engagement Technologies	5%	3%
Enhance Reporting to State	0%	2%
Promote Costs Savings	0%	3%
Know Patients, where they are & their status	0%	1%
Improve Care Transitions	0%	3%
Enhance Alternative Payment Model (APM) Reporting	0%	0%
Improve Vendor Cooperation	0%	3%
Improve Care Management	0%	6%

*Identified as a top priority need during community roundtable

The most frequently cited improvement ideas centered on *Providing Funding & Resources, Enabling Interoperability & Exchange*, and *Increasing Education & Awareness.* These were fairly consistent with the most commonly reported ideas across the state.

Provide Funding & Resources

There were a variety of suggestions related to funding and resources. Suggestions included the sharing HIT staff resources at the community level to help offset the cost of hiring full-time individuals at each organization. Others mentioned 0% loans from the state that could be used for HIT and EHR adoption and implementation costs. Many commenters suggested that funding and resources would most benefit the smaller organizations because many of the previous funding opportunities had the highest benefit for larger hospitals and practices. A few respondents also cautioned that any funding or resource assistance should be sustainable over time and not simply short term fixes.

Interoperability and Exchange

There were comments regarding the need to establish default pathways for data exchanges. Currently, multiple EHR systems, HIE connections, state, payer and program specific portals create a myriad of pathways for clinical information exchanges, causing complex and indistinct workflows. Community participants are seeking more consolidation of pathways, and more standardization of the way data is collected, stored, and exchanged.

Increase Education & Awareness

Many comments were made about the greater need for education and awareness of HIE in the community and state. Suggestions included general HIE education about what information can be shared through HIE and connection options for the Mass HIway. More comments focused on the need for education on current Mass HIway use cases that are in-place at other organizations to help organizations understand the value of sharing information electronically. Additional comments were made on the need for clarification of state laws requiring EHR adoption, meeting Meaningful Use, and connected to the Mass HIway.

	IDENTIFIED eHEALTH PRIORITY AREAS	
	Selection of specific eHealth priorities to address in the community is a discussion and action area for future community engagement efforts and activity.	

	HIT IMPROVEMENT IDEAS	
1	Provide Funding & Resources	
2	Increase Education & Awareness	
3	Enable Interoperability & Exchange	
4	Access to Clinical Information	
5	Enable Population Health Analytics	

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