

Saint Mary's Hospital
**Community Health
Needs Assessment**



Note: Approved and adopted by the Saint Mary's Hospital Board of Directors September 1, 2016

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Executive Summary

In collaboration with the Greater Waterbury Health Improvement Partnership, Saint Mary's Hospital led a comprehensive Community Health Needs Assessment (CHNA) to evaluate the health needs of individuals living in and around Waterbury, Connecticut beginning in 2016. The partnership consisted of Saint Mary's Hospital, Waterbury Hospital, Waterbury Department of Public Health, the City of Waterbury, the StayWell Health Center, the Connecticut Community Foundation, the United Way, and other community partners. The purpose of the assessment was to gather information about local health needs and health behaviors. The assessment examined a variety of indicators including risky health behaviors (alcohol use, tobacco use) and chronic health conditions (diabetes, heart disease).

The completion of the CHNA enabled the Greater Waterbury Health Improvement Partnership to take an in-depth look at its greater community. The findings from the assessment were utilized by the partnership to prioritize public health issues and develop a community health implementation plan focused on meeting community needs. The Greater Waterbury Health Improvement Partnership is committed to the people it serves and the communities where they reside. Healthy communities lead to lower health care costs, robust community partnerships, and an overall enhanced quality of life. This Community Health Needs Assessment serves as a compilation of the overall findings of each research component.

CHNA Data Components

- DataHaven Community Wellbeing Survey (2015)
- Healthy People 2020 Report (2014)
- The ALICE study of Financial Hardship Report (2012)
- US Center for Disease Control and Prevention
 - County Health Rankings and Roadmaps (2016)
- Saint Mary's Hospital Community Health Profile (2015)
- Hospital Implementation Plans (2013)

Prioritized Health Issues

Based on the feedback from community partners including health care providers, public health experts, health and human service agencies, and other community representatives, the Greater Waterbury Health Improvement Partnership plans to focus community health improvement efforts on the following health priorities over the next three-year cycle:

- Access to Care
- Mental Health/Substance Abuse
- Chronic Disease
- Tobacco Use and Asthma
- Health Communications

Documentation

The final report of the CHNA was made public on September 30, 2016 and can be found on the Saint Mary's Hospital website (stmh.org). Paper copies are also available per request. The Saint Mary's Hospital Board of Directors approved the CHNA on September 1, 2016. An implementation plan for community health improvement activities will be created and available by February 15, 2017.

Introduction

Saint Mary's Hospital has served the city of Waterbury since 1907, when it was founded by the Sisters of Saint Joseph of Chambery. The founding of the hospital was made possible by a generous donation by the Right Reverend Monsignor William J. Slocum. In its first year, Saint Mary's Hospital was a 120 bed facility and had a staff of 14. It is now licensed for 347 beds and employs more than 2,100 people. The mission of Saint Mary's Hospital is to provide excellent healthcare in a spiritually enriched environment to improve the health of our community. The vision of Saint Mary's Hospital is to be the leading regional healthcare provider. Saint Mary's Hospital values are:

- Integrity: Commitment to doing what is right
- Caring: Compassionate approach to addressing the healthcare needs of all people
- Accountability: Personal responsibility for the performance of Saint Mary's Health System
- Respect: Respect for the dignity, worth, and rights of others
- Excellence: Working together in pursuit of superior clinical quality and service to others

Saint Mary's Hospital serves the city of Waterbury and 17 surrounding towns. In 2016, Saint Mary's Hospital conducted a comprehensive Community Health Needs Assessment (CHNA) to evaluate the health needs of individuals living in these communities. The CHNA was done in collaboration with The Greater Waterbury Health Improvement Partnership. The partnership consists of Saint Mary's Hospital, Waterbury Hospital, Waterbury Department of Public Health, the City of Waterbury, StayWell Health Center, Connecticut Community Foundation, United Way, and other community organizations. Saint Mary's Hospital views community health improvement as an ongoing effort that requires leadership through example and partnership with other community organizations to improve the health status and quality of life of community residents.

The purpose of the assessment was to gather information about health needs and behaviors. A variety of indicators were examined including risky health behaviors (alcohol use, tobacco use) and chronic health conditions (diabetes, heart disease). The current assessment will guide Saint Mary's ongoing work to improve community health and comply with new requirements for tax-exempt health care organizations to conduct a CHNA and adopt an Implementation Strategy aligned with identified community needs.

Community Health Needs Assessment Summary

Community Health Needs Assessments (CHNA) and implementation strategies are required of tax-exempt hospitals as a result of the Patient Protection and Affordable Care Act. The CHNA and implementation strategies create an important opportunity to improve the health of communities by ensuring that hospitals have the information they need to provide community benefits that meet the needs of their communities. They also provide an opportunity to improve coordination of hospital community benefits with other efforts to improve community health.

Saint Mary's Hospital published its first federal mandated CHNA in 2013 in collaboration with contracted research and consulting firm, Holleran, and The Greater Waterbury Health Improvement Partnership. The 2016 assessment will serve as a starting point for data-based goals and strategies on how to address the needs that have been identified. The health needs acknowledged by the CHNA will be integrated into a three-year community outreach plan and implementation strategy to overcome the issues. By utilizing existing resources, strengthening partnerships and creating innovative programs on both the hospital campus and within the community, Saint Mary's Hospital hopes to make a positive impact on these identified needs.

Report on Progress since 2013 CHNA

Saint Mary's has made meaningful progress during this three-year CHNA cycle as we have opened two new urgent care centers and grown our primary care practices with over twenty new internal medicine providers. Saint Mary's now offers four urgent care centers throughout our service area offering convenient access and extended hours. We continue to offer nurse navigation services for emergency department patients, and for our cardiac program to provide education and coordinate post-acute services. We established the "Pump Club" for cardiac patients who needed additional services to attend rehab sessions and other services. Saint Mary's also established a heart rhythm program during this period, creating easier, local access to electrophysiology services that were previously not available in our community. Saint Mary's continues to support and collaborate with the Malta House of Care, which provides medical services to undocumented and indigent population. We continue to work closely with the Harold Leever Cancer Center to address smoking cessation in our community. We have hosted a series of farmers markets on the hospital campus using our community partner, Brass City Harvest. Through our work with the Greater Waterbury Health Improvement Partnership are working towards the creation of a Community Care Team to provide cross-organization case management for high utilization emergency department visitors.

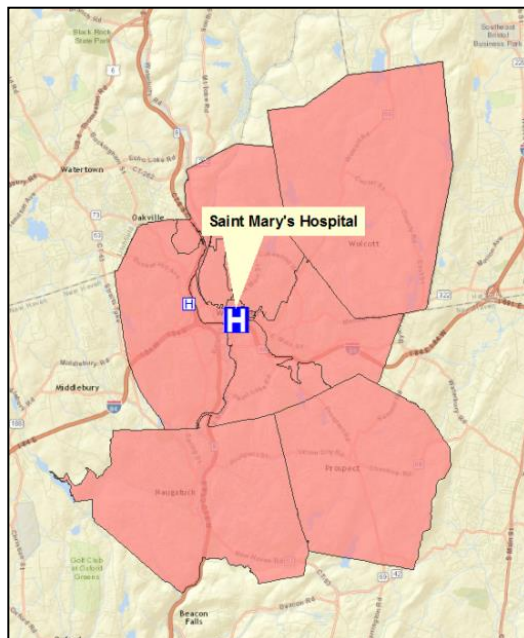
Since 2013 Saint Mary's has continued to work towards maintaining its existing programs while introducing new initiatives as appropriate. We have also continued to fully participate in the Greater Waterbury Health Improvement Partnership (GWHIP) which creates opportunities for collective impact, fosters greater collaboration community-wide, and helps make better use of resources by eliminating duplication of effort wherever possible. In August 2016 Saint Mary's joined Trinity Health, becoming a part of the Trinity Health – New England regional health ministry. Becoming part of a strong national and regional system will provide further opportunities to enhance our ability to meet the needs of our community.

Overview of Hospital Service Area and Facilities

Service Area

Saint Mary's total service area is comprised of 35 zip codes, which include the city of Waterbury and 17 surrounding towns. The primary service area which covers 9 US Census zip code tabulation areas (ZCTAs) includes Waterbury, Naugatuck, Prospect and Wolcott has a population of approximately 168,000. The secondary service area includes Beacon Falls, Bethlehem, Cheshire, Middlebury, Morris, Oxford, Plantsville, Plymouth, Southbury, Thomaston, Watertown and Woodbury has a population of approximately 153,000.

Figure 1. Saint Mary's Primary Service Area Map



2015 Saint Mary's Hospital Community Health Profile, Connecticut Hospital Association

Population

The combined population for these communities is roughly 321,000 residents where the majority of Saint Mary's hospital patients live in the city of Waterbury which is particularly economically distressed. The median household income is \$41,136, which is significantly less than the overall service area, which is approximately \$70,000. The unemployment rate in the city of Waterbury in September 2015 was 10.7%. This is higher than the state of Connecticut unemployment rate of 6.6%. Approximately 31.6% of the population in Waterbury speaks a language other than English in the home. This is higher than the state of Connecticut where 20.8% of the population speaks a language other than English in the home. In addition, 24.2% of families in Waterbury have poverty status compared to 10.5% in Connecticut.

Central Waterbury has been designated a Medically Underserved Area (MUA) and Medically Underserved Population (MUP) by the health resources and services administration (HRSA). HRSA has also designated central Waterbury as a Health Professional Shortage Area (HPSA) for primary medical care, dental care and mental health. In Table 1. CHA Service Area Population Findings, there is a breakdown of population details provided by the US Census (2009-2013) and specifically the Primary Service Area of Saint Mary's Hospital.

Table 1. CHA Service Area Population Findings

Demographic Category	Indicator	Primary Service Area		Connecticut Total	
		Total			
Total Population	Total Population	168,145	100%	3,583,561	100%
Age	Less than 18 Years Old	40,417	24%	802,718	22%
	Over 64 Years Old	22,263	13%	519,616	15%
Race and Ethnicity	White	96,590	57%	2,526,401	70%
	Black	21,484	13%	337,758	9%
	Hispanic	42,329	25%	496,393	14%
	Asian	3,124	2%	140,592	4%
	Other	4,618	3%	81,871	2%
Gender	Male	81,194	48%	1,745,194	49%
	Female	86,951	52%	1,838,367	51%

Source: US Census (2009-2013) and primary service area determined by Connecticut Hospital Association (2015)

Saint Mary's Facilities

Saint Mary's Hospital

Saint Mary's Hospital is a Catholic, not-for-profit, community teaching hospital that has been serving patients in Waterbury, Connecticut since 1909. The hospital offers a wide variety of medical services, educational classes, and patient resources in addition to a Level II Trauma Center, pediatric emergency room, award winning cardiac and stroke care and exceptional surgical services.

Naugatuck Valley Surgical Center

Naugatuck Valley Surgical Center (NVSC) is an outpatient department of Saint Mary's Hospital which offers state-of-the-art operating rooms and post-operative patient care areas for ambulatory surgery. The surgical center staff is experience in a wide variety of specialties including Gastroenterology, General Surgery, Gynecology, Ophthalmology, Oral/Dental Surgery, Orthopedics , Otorhinolaryngology (ENT), Pain Management, Plastic Surgery, Podiatry and Urology

The Harold Leever Regional Cancer Center and Saint Mary's Hospital Oncology Center

The Harold Leever Regional Cancer Center is a joint partnership of Saint Mary's Hospital and Waterbury Hospital offering the highest quality care for cancer patients. In the building sits Saint Mary's Hospital Oncology Center which provides the most up-to-date treatment and protocols for patients right here in our community, and is located right in Waterbury, just off I-84.

Saint Mary's Medical Imaging Center

From X-rays, MRI and CT scans to images taken at a nuclear level, Saint Mary's is dedicated to providing advanced radiology services. Saint Mary's Medical Imaging Center is fully digital, which offers many advantages, including improved image quality and enhanced speed.

Saint Mary's Hospital Urgent Care Centers (Cheshire, Naugatuck, Wolcott, Waterbury)

Saint Mary's has expanded its footprint to offer four urgent care locations that provide a greater access to care for patients in the service area. The urgent care centers offer a wide array of services including x-ray, laboratory services, EKGs, immunizations and vaccines, pediatric care, and work-related injuries.

Community Health Needs Assessment Process

Saint Mary's Hospital's 2016 CHNA is based on data and input from multiple sources.

These include:

- **DataHaven Health and Wellbeing survey:** Saint Mary's participated in this data collection effort through the Greater Waterbury Health Improvement Partnership. The survey was conducted statewide, providing a valuable data set across multiple communities. A separate report was developed focusing on the Waterbury community.
- **GWHIP Steering Committee Strategic Review:** the founding partners of the Greater Waterbury Health Improvement Partnership met to review our collective experience and insights from 2013-2016. We discussed the performance of the various workgroups, initiatives implemented, and the expected impact. Based on this assessment several changes were recommended.
- **CDC Learning Cohort:** Waterbury was one of thirteen communities in the country selected to participate in this learning opportunity. The learning cohort offered access to best practices, insight into what's worked in other communities, and specific coaching
- **Trinity Health Community Health & Well Being:** As Saint Mary's prepared to become a member of Trinity Health, we were afforded the opportunity to have discussions with colleagues from Hartford as well as the system office in Lavonia, Michigan. These discussions, although preliminary in nature, have begun to shape our planning process. We expect that we will gain further benefit as we move ahead once fully integrated in to the Trinity Health regional health ministry.

Each of these inputs contributed a unique perspective to the overall plan.

Additional inputs and resources are listed below.

Community Primary Data Sets

Community Programming Surveys

The data was gathered from information residents who attended Saint Mary's Hospital's community outreach programs specifically with the Spirit of Women Network. This came in the form of post-event surveys and verbal conversations.

Community Leader Discussions/Executive Meeting

In addition to gathering quantitative data, Saint Mary's obtained input from important community stakeholders regarding the health needs of the community. Interviews and informal discussions with community leaders in the Greater Waterbury area were also used to expand the knowledge of the issues affecting the service area. Some if not most of the community leaders that were involved in discussions grew up in the area and represented broad interests in our community including: leaders of medically underserved and low-income populations, persons with expertise or special knowledge in public health, and persons who lead local health agencies. In addition, a comprehensive community executive meeting was held in June 2016 and informal discussions with key informants in regards to Saint Mary's service area were completed.

Community Health Needs Assessment Data Sets

The following data sets were used and analyzed in order to obtain secondary data for Saint Mary's 2016 CHNA.

The ALICE Study of Financial Hardship Report

In 2012, the United Way completed a report titled ALICE (Asset Limited, Income Constrained, and Employed) which represented the growing number of individuals and families who are working, but are unable to afford the basic necessities such as housing, food, child care, health care, and transportation.

State of Connecticut

The official website of the State of Connecticut (ct.gov). Several resources were used from the State of Connecticut's website primarily regarding education and public health datasets for the purposes of expanding the information in this CHNA.

US Center for Disease Control and Prevention

As the leader in the nation's public health concerns, the US Center for Disease Control and Prevention (CDC) provides insights and data on diseases, chronic to acute and curable to preventable.

County Health Rankings and Roadmaps (2016)

These are the data measures adopted by the Centers for Disease Control (CDC) as standard measures of community health by which to assess the nation's health and allows comparisons at national, state and local levels. They have been selected based on their relevance as indices of community health and their general availability for assessments at all levels. The information for this data can be found in Appendix 1 and is often referred to in this CHNA.

Healthy People 2020 (2014)

Healthy People 2020 was developed by the Office of Disease Prevention and Health Promotion to assist in creating societies of residents living long and healthy lives and specifically offers state-by-state data.

Saint Mary's Hospital Community Health Profile (2015)

The Saint Mary's Hospital Community Health Profile (2015) was provided by the Connecticut Hospital Association (CHA). Completed each year by CHA, the document provides data and support for Connecticut hospitals and their community partners particularly with the Community Health Needs Assessment. Within this community profile, data was used from CHA's ChimeData database, US Census, the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance Survey (BRFSS), the Connecticut Department of Public Health, and several other sources.

The 2015 DataHaven Community Health and Wellbeing Survey

The public service organization, DataHaven, completed the DataHaven Community Health and Wellbeing Survey in 2015 as a grassroots and locally based effort to promote regional well-being and quality of life. Using telephone surveys, the company was able to receive data from nearly 17,000 residents of Connecticut of which 610 were surveyed from the City of Waterbury. The information from the survey was heavily used in this CHNA and provided necessary information for prioritization for Saint Mary's.

Research Limitations

It should be noted that the availability of secondary data may represent some research limitations.

Community Health Needs Assessment Findings

Saint Mary's utilized the "Invest in Your Community: 4 Considerations to Improve Health and Wellbeing for All" and the "County Health Rankings Model - Health Factors" as guide and framework for its work. The Centers for Disease Control and Prevention (CDC) created a detailed outline which has been used as the core of the Greater Waterbury Health Improvement Partnership it can be found on page 24 of this CHNA.

Using the CDC's graphic as a model, Saint Mary's focused on the four elements of good health:

- Socioeconomic Factors, which accounts for 40%
- Physical Environment, which accounts for 10%
- Health Behaviors, which account for 30%
- Clinical Care, which accounts for 20%

Socioeconomic Factors

Socioeconomic factors have the largest impact on one's health according to the CDC model of community health and wellbeing accounting for 40% in the described model. Socioeconomic factors that affect good health include a combination of: education, employment, income, and community support. These factors are known as the "social determinants" of health.

Employment & Income

According to the 2012 ALICE (Asset Limited Income Constrained Employment) Report, the state of Connecticut had a poverty rate of 10% and a median household income of \$67,276. These numbers compare well to the U.S. average poverty rate of 15%, and the median household income in U.S. of \$51,371. When looking specifically at the city of Waterbury, one of Connecticut's largest cities the report showed that out of 40,992 households, 23% of the residents were living in poverty and an added 34% fell under the ALICE characterization totaling over 50% of households below the ALICE threshold. Additional information can be seen in Table 2. in regards to the ALICE Report.

Table 2. Key Facts and ALICE Statistics by Municipality, Connecticut, 2012

Municipality	Waterbury, New Haven County
Population	109,915
Households	40,992
Poverty %	23%
ALICE %	34%
Above ALICE Threshold %	43%
Gini Coefficient	0.45
Unemployment Rate	13%
Health Insurance Coverage %	86%
Housing Burden: Owner over 30%	42%
Housing Burden: Renter over 30%	60%

Source: United Way ALICE Report; American Community Survey

Saint Mary's primary and secondary service area as mentioned above encompasses 35 zip codes and 17 towns. On page 11, The ALICE and Poverty Rates by Towns can be seen in Table 3 and include information with the total households and the total % of ALICE and Poverty households pertaining to the specific town.

Table 3. ALICE and Poverty Rates by Town, 2012

Town	Total Households	% ALICE and Poverty
Beacon Falls	2,244	26%
Bethlehem	1,409	17%
Cheshire	9,641	15%
Middlebury	2,797	20%
Morris	967	27%
Naugatuck	12,588	40%
Oxford	4,420	13%
Plymouth	4,739	24%
Prospect	3,280	19%
Southbury	8,022	31%
Thomaston	3,192	27%
Waterbury	40,992	57%
Watertown	8,270	25%
Wolcott	5,947	23%
Woodbury	4,204	24%

Source: United Way ALICE Report, U.S. Department of Housing and Urban Development (HUD), U.S. Department of Agriculture (USDA), Bureau of Labor Statistics (BLS), Internal Revenue Service (IRS) and state Treasury, and ChildCare Aware, 2012; American Community Survey, 1 year estimate.

*Note: Plantsville, Connecticut (zip code: 06479) was not included in the service areas reported

Education

Education is an important social determinant of health. Studies have shown that individuals who are less educated tend to have poorer health outcomes. According to the U.S. Census Bureau, High school and higher education graduation rates are lower in Waterbury (79.6% and 16.0% respectively) than in Connecticut (86.3% and 29.3% respectively).

According to the County Health Rankings in Saint Mary's service area counties the percentage of students who graduate High School in four years from New Haven County is 81%, from Litchfield County is 89%, and Hartford County is 82%. As seen below in Table 4. in Saint Mary's Service area covered by the Connecticut Hospital Association, 20% of the residents have a Bachelor's Degree or higher, whereas 36% of the State of Connecticut hold such education.

Table 4. Socioeconomic Data by CHA Primary Service Area

Demographic Category	Indicator	Primary Service Area Total		Connecticut Total	
Socioeconomics	Below Poverty	29,226	18%	354,348	10%
	Bachelor's Degree or Higher	22,198	20%	886,514	36%

Source: US Census (2009-2013); primary service area determined by Connecticut Hospital Association (2015)

In recent reports from the 2013-2014 Connecticut Department of Education Chronic Absenteeism Report, Waterbury Public Schools are on the top of the list for chronic absenteeism in the district. Over 20% of students in the district fall into the category of chronically absent from school which is defined as any student with a calculated Average Daily Attendance (ADA) of less than or equal to 90%. This number was significantly higher when looking at chronic absenteeism in the Waterbury Public High School rates which were at 33.7% among the highest in the state of Connecticut.

Neighborhood and Community Safety

One of the most significant social determinants of health is the conditions in which residents have a sense of security and community within their geographic location. In order to better understand overall safety in the community in three different levels, data was taken from overall Connecticut respondents, Greater Waterbury and Waterbury. Within that data table below, one can see that overall the results for satisfaction with Greater Waterbury was 78% and in the city of Waterbury was 63%.

Table 5. Neighborhood Satisfaction

Are you satisfied with the city or area where you live?

	Connecticut	Greater Waterbury	Waterbury
Yes	82%	78%	63%
No	17%	22%	36%
Don't Know	1%	1%	1%
Refused	0%	0%	0%

Source: DataHaven Health and Wellbeing Survey

While the overall satisfaction in Greater Waterbury and Waterbury are less than the Connecticut average ranking quite high at 82%, the responses for the safety of residents in their neighborhood merits further examination which can be seen below at staggering rates below the Connecticut's average.

Table 6. Residents Safety

The job done by the police to keep residents safe...

	Connecticut	Greater Waterbury	Waterbury
Excellent	30%	30%	15%
Good	45%	41%	35%
Fair	15%	16%	28%
Poor	6%	9%	16%
Don't know enough about it in order to say	4%	3%	5%
Refused	0%	0%	0%

Source: DataHaven Health and Wellbeing Survey

Table 7. Neighborhood Responses

The information below portrays the percentage of respondents that stated that they “strongly agreed” with the specific questions asked in the DataHaven Health and Wellbeing Survey.

Questions answered with “Strongly Agree”	Connecticut	Greater Waterbury	Waterbury
There are safe sidewalks and crosswalks on most of the streets in my neighborhood.	39%	32%	39%
I do not feel safe to go on walks in my neighborhood at night.	16%	18%	29%
People in my neighborhood can be trusted.	54%	55%	33%
Children and youth in my town generally have the positive role models they need around here.	38%	38%	17%

Source: DataHaven Health and Wellbeing Survey

Transportation

Comparable to state average, the Greater Waterbury service area residents have access to a car or have their own car as the primary means of transportation as seen in Table 8. Public transportation is available in this city of Waterbury and immediate suburban towns but only 8% of respondents in the DataHaven survey said to use it. With a 12% response, most residents in Waterbury would be more apt to get a ride from a friend or relative than to use public transportation as a primary means of transportation.

Table 8. Access to Car

Do you have access to a car when you need it? Would you say you have access...

	Connecticut	Greater Waterbury	Waterbury
Very often	85%	83%	74%
Fairly often	4%	5%	4%
Sometimes	5%	5%	8%
Almost never	1%	1%	3%
Never at all	5%	6%	11%
Don't Know	0%	0%	0%

Source: DataHaven Health and Wellbeing Survey

Physical Environment

According to the CDC model, where you live is one of the greatest predictors of how healthy you will be and accounts for 10% in the “Invest in Your Community” Model. Living in a safe neighborhood that has adequate environmental factors can lead to higher rates in overall wellbeing.

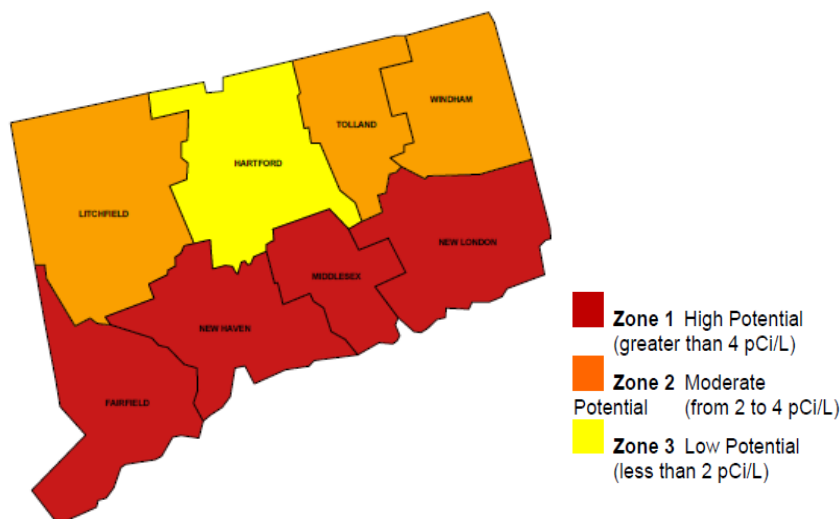
Air Quality

Air Quality Index AQI is a number used by government agencies to communicate to the public how polluted the air is currently or how polluted it is forecast to become. As the AQI increases, an increasingly large percentage of the population is likely to experience increasingly severe adverse health effects including asthma and cardiovascular disease. According to the U.S. Environmental Protection Agency in 2013 the Air Quality Index (AQI) was significantly worse in the city of Waterbury at 106 compared to the United States Index average of 75.

Radon Zones

According to the U.S. Environmental Protection Agency, New Haven County, which occupies Saint Mary's Hospital service area, falls within the EPA's Radon Zone 1 indicating a High Potential for radon exposure for that service area community. As stated by the World Health Organization, radon is the second most important cause of lung cancer in many countries and lung cancer risk rises 16% per 2.7 pCi/L increase in radon exposure.

Figure 2. Map of Radon Zones in Connecticut



Source: US EPA (2013); primary service area determined by Connecticut Hospital Association (2015)

Housing

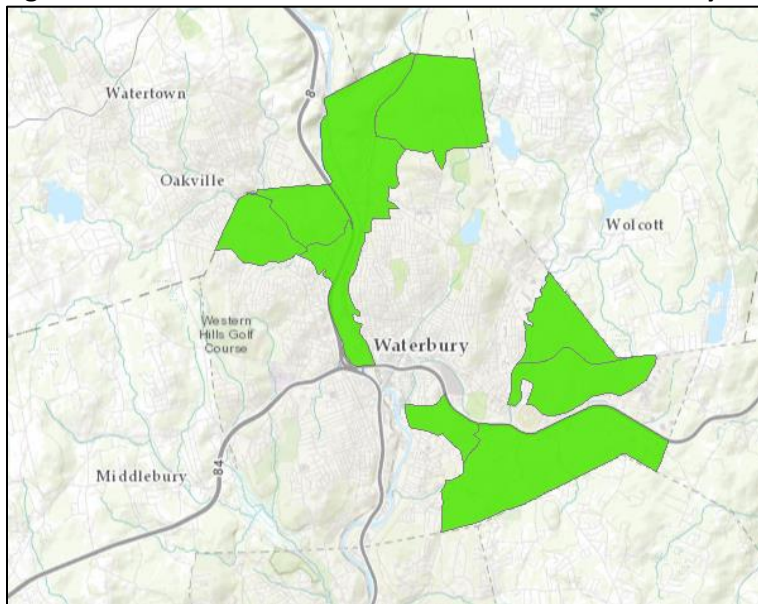
Housing insecurity is an issue that continues to impact Saint Mary's service area residents. Over a third of the population in Saint Mary's service area is housing cost burdened, with rates close to 35% in Waterbury (U.S. Census Bureau, 2010-2014). According to the US Census Bureau, housing cost burden is defined as more than 30% of income going towards housing expenses. A lack of affordable housing can contribute to many factors including homelessness and housing instability and insecurity.

Health Behaviors

The third factor to be discussed is health behaviors that account for 30% of the “Invest In Your Community” Model. This category includes topics such as diet, exercise, and substance use. These can also be defined as daily routines that residents in a community have that play a role in their overall health and wellbeing.

Diet and Exercise

Figure 3. USDA Food Atlas Food Desert Areas in Waterbury



Source: USDA Food Access Research Atlas; accessed 8/17/16

The USDA Food Access Research Atlas identifies low income and low access census tracts in order to greater understand the ability for members of the population to have access to a supermarket for nourishing and healthy food options. Places which have a great distance to a supermarket is known as a food desert. As seen in Figure 3 in green, Waterbury has several identified areas that are considered food deserts.

Table 9. Weekly Exercise

In an average week, how many days per week do you exercise?

	Connecticut	Greater Waterbury	Waterbury
None	17%	20%	26%
One	6%	5%	6%
Two	13%	10%	10%
Three	19%	20%	17%
Four	12%	10%	8%
Five	12%	12%	12%
Six	5%	4%	2%
Seven	16%	17%	17%
Don't Know	1%	1%	1%
Refused	1%	1%	1%

Source: DataHaven Health and Wellbeing Survey

**Table 10. Body Mass Index
BMI (Based on Q24 Weight and Q25 Height DataHaven Survey)**

	Connecticut	Greater Waterbury	Waterbury
Underweight	2%	2%	2%
Normal weight	37%	33%	27%
Overweight	36%	37%	37%
Obese	26%	28%	33%

Source: DataHaven Health and Wellbeing Survey

Alcohol and Substance Use

Substance use in the state of Connecticut and specifically in the city of Waterbury has been a large public health concern with the rising rates overdose cases. As one of the top five conditions for Saint Mary's Emergency Department non-admission rates, substance use and abuse remains a problem in particular with prescription and opioid based medications.

Tobacco Use

Tobacco use is a major concern in Waterbury especially with the number of residents who currently smoke on a daily basis. According to the DataHaven Health and WellBeing Survey 45.0% of Waterbury respondents have smoked at least 100 cigarettes in their lifetime compared to 40.0% across the state. In addition, more than half (55.0%) of the respondents who initiated smoking at some point in their lifetime still smoke every day or some days compared to the state (37.0%). A positive finding is that respondents are more likely to have attempted to quit smoking during the past 12 months by not smoking for 24 hours or more.

**Table 11. Current Tobacco Use
(If smoked 100 cigarettes in entire life) Do you currently smoke cigarettes every day, some days or not at all?**

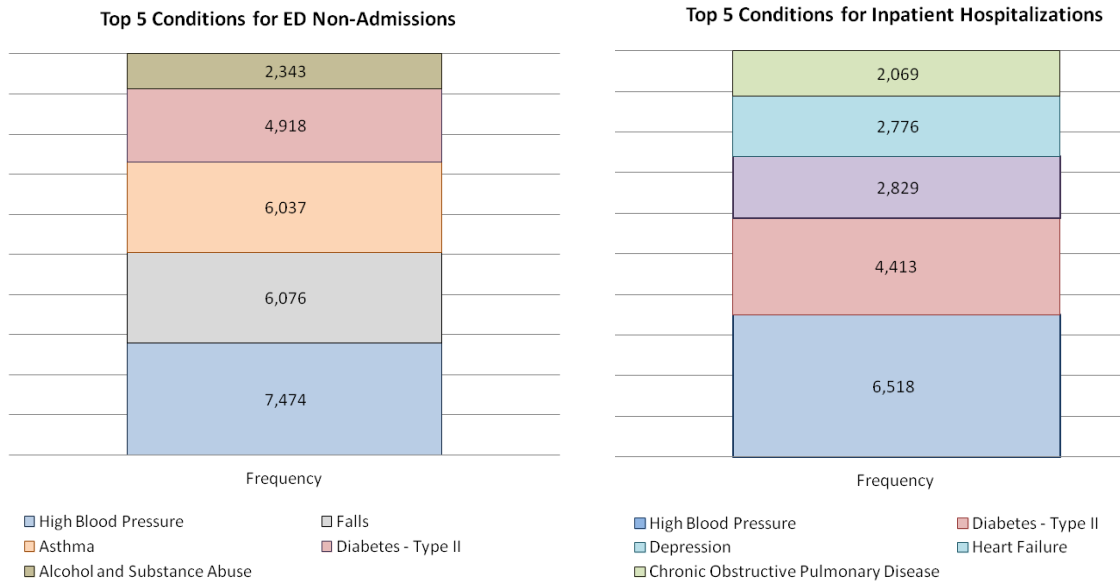
	Connecticut	Greater Waterbury	Waterbury
Every day	26%	29%	40%
Some days	11%	11%	15%
Not at all	63%	60%	45%
Don't know	0%	0%	0%
Refused	0%	0%	0%
Smoking Prevalence (based on several questions in DataHaven Survey)	15%	17%	25%

Source: DataHaven Health and Wellbeing Survey

Clinical Care

The last factor that is mentioned in the CDC model is clinical care, which accounts for 20% of good health. To better understand this for Saint Mary's primary service area several data sets have been used from the Connecticut Hospital Association in order to better understand the access to care as well as the quality of care given to patients.

Figure 4. Inpatient Hospitalizations and Conditions for ED Non-Admissions

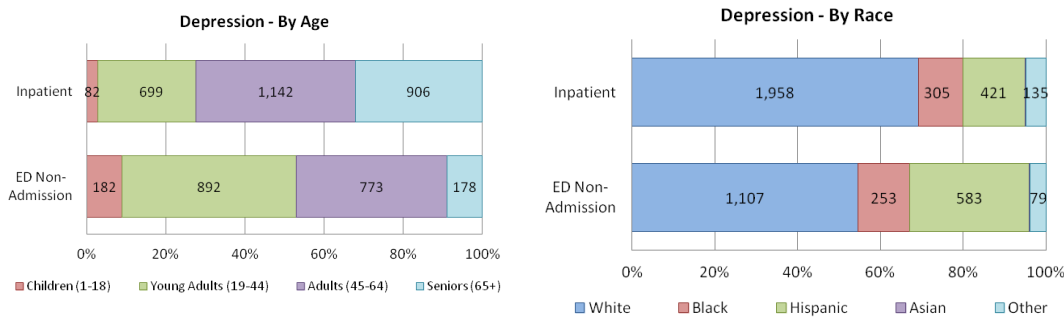


Source: 2015 Saint Mary's Hospital Community Health Profile, Connecticut Hospital Association

Mental Health

Mental and Behavioral Health continue to have a dramatic impact on the overall health of residents in the Saint Mary's service area. Feeling physically unwell can impact a person's emotional wellbeing and if not taken seriously can lead to depression and anxiety. As seen in the figures below, the largest group of patients at Saint Mary's were white adults age 45 to 64 according to the 2015 Saint Mary's Hospital Community Health Profile, Connecticut Hospital Association.

Figure 5. Depression by Age and Race



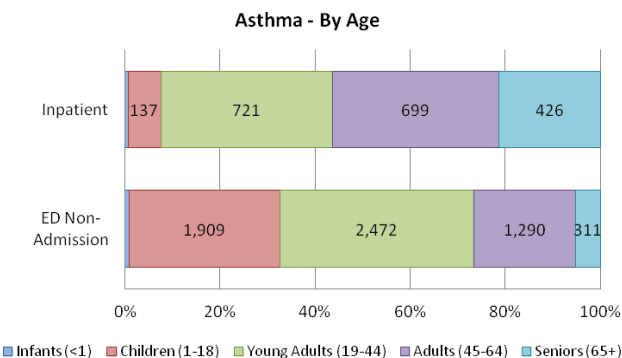
Source: 2015 Saint Mary's Hospital Community Health Profile, Connecticut Hospital Association

In addition to depression, suicide and self-inflicted injuries were an increasing health concern for the hospital with 243 ED non-admission patients of which 142 were insured with Medicaid (Connecticut Hospital Association, 2015).

Asthma

In Greater Waterbury there are far too many area children and adults that have poorly managed asthma which results in significant amounts of emergency department visits and potential inpatient admissions. Both pediatric and adult asthmatics have potential gaps in the education of management of asthma and its potential life threatening symptoms. Despite being in line with the Connecticut average of respondents having Asthma in the Greater Waterbury Area and City of Waterbury, of the respondents that answered "yes" to having Asthma the rate was double the Connecticut average at (12% and 16% respectively) for having an Asthma attack at least once a day and using a prescription inhaler (DataHaven Health and Wellbeing Survey, 2015).

Figure 6. Asthma by Age



Source: 2015 Saint Mary's Hospital Community Health Profile, Connecticut Hospital Association

Oral Health

According to the American Dental Association, most dental Emergency Room visits can be reduced or eliminated by regular visits to a dentist. In the DataHaven Health and Wellbeing Survey, almost 1 in 3 residents of Waterbury reported not have been to a dentist for more than a year (2015). In addition, Emergency Department visits for dental conditions were proportionally overrepresented among blacks and Hispanics in Saint Mary's service area.

Cancer

Cancer affects Waterbury residents at an (age-adjusted) rate of 491.1 per 100,000 and is the second leading cause of death. Overall, the total cancer incidence rate of 491.1 is similar to or lower than that of peer cities such as Hartford and New Haven which can be seen in Table 13.

Table 12. Cancer Incidence in Waterbury per 100,000 (2010)

Primary Cancer Site	Crude Rate	Age-Adjusted Rate
Breast (Female)	139.0	128.9
Colorectal*	60.0	57.6
Lung & Bronchus*	77.4	74.8
Prostate	115.4	120.8
All sites	506.3	491.1

Source: Connecticut Tumor Registry, Health Statistics & Surveillance Section, CT Department of Public Health

*Denotes that State-Town Comparison rates are higher than the state rate.

Table 13. Cancer Incidence by City per 100,000 (2010)

	Connecticut	Waterbury	Hartford	New Haven
All sites (Age-adjusted)	489.3	491.1	472.5	515.9

Source: Connecticut Tumor Registry, Health Statistics & Surveillance Section, CT Department of Public Health

The mortality rate per 100,000 for all cancer types is 146.7 in Connecticut which is surpassing the Healthy People 2020 target of 161.4 (2014).

Table 14. Overall Cancer Deaths by Total in Connecticut

	2010	2011	2012	2013	2014
Total*	163.4	158.4	151.9	148.4	146.7

Source: Healthy People 2020 (2014), State-Level Data: Connecticut

*Total (Age adjusted, per 100,000 population)

Diabetes

Not only in the Saint Mary's service area and the state of Connecticut has diabetes been a major health concern but across the United States. According to the Center for Disease Control, 29 million Americans have diabetes and 86 million American adults aged 20 years and older have prediabetes. As seen below, residents in Waterbury have been told by a doctor more frequently that they have diabetes than in the Greater Waterbury area and in Connecticut. The unease with this number is that residents that have diabetes are at higher risk for serious health complications including: blindness, kidney failure, heart disease, stroke, and potential loss of extremities.

Table 15. Have you ever been told by a doctor or health professional that you have diabetes?

Connecticut	Greater Waterbury	Waterbury
9%*	11%*	13%*

Source: DataHaven Health and Wellbeing Survey

*percentage of respondents that answered yes

Cardiovascular Disease

According to the Connecticut Hospital Association, high blood pressure was the most prevalent condition among inpatient and Emergency Department Non-Admission settings. A total of 35% of residents in Waterbury responded “yes” to having been told by their doctor or health professional that they had high blood pressure or hypertension which are contributing factors to (other than obesity and lack of physical exercise) to more serious cardiovascular disease.

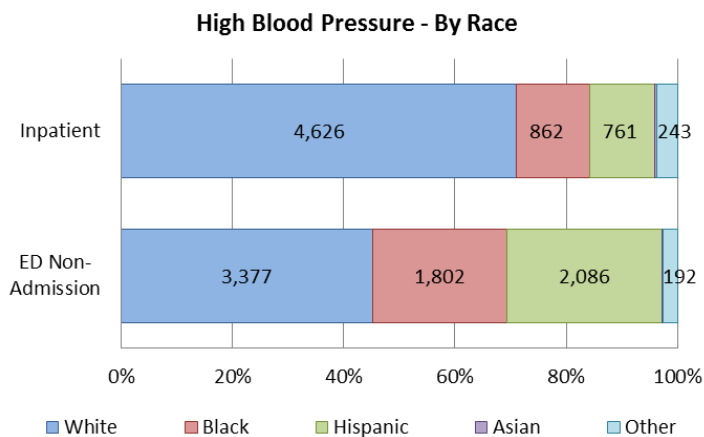
Table 16. Have you ever been told by a doctor or health professional you have high blood pressure or hypertension?

Connecticut	Greater Waterbury	Waterbury
28%*	32%*	35%*

Source: DataHaven Health and Wellbeing Survey

*percentage of respondents that answered yes

Figure 7. High Blood Pressure by Race



Source: 2015 Saint Mary's Hospital Community Health Profile, Connecticut Hospital Association

Barriers to Care

Access to care remains one of the top concerns for Saint Mary's and its patients in the community. The tables below report access to services, insurance and prescription medications from the DataHaven Health and Wellbeing Survey.

Table 17. During the past 12 months, was there any time when you didn't get the medical care you needed?

	Connecticut	Greater Waterbury	Waterbury
Yes	7%	9%	10%
No	92%	91%	89%
Don't know	0%	0%	0%
Refused	0%	0%	1%

Source: DataHaven Health and Wellbeing Survey

Table 18. And was there any time during the past 12 months when you put off or postponed getting medical care you thought you needed?

	Connecticut	Greater Waterbury	Waterbury
Yes	21%	20%	22%
No	79%	80%	77%
Don't know	0%	0%	0%
Refused	1%	0%	0%

Source: DataHaven Health and Wellbeing Survey

Table 19. If postponed or medical care not given, what was the reasoning?

	Connecticut	Greater Waterbury	Waterbury
Cost	49%	45%	45%
Health insurance was not accepted (Doctor's office or Hospital)	16%	12%	14%
Health insurance did not cover treatment	28%	33%	35%
Appointment was not in a reasonable amount of time	25%	27%	30%
The medical problem did not seem serious enough	46%	43%	39%

Source: DataHaven Health and Wellbeing Survey

Strategies to Address Community Health Needs

Selection of the Community Health Priorities and Future Planning

In May 2016, individuals from healthcare organizations, community agencies, social service organizations, and area non-profits gathered to review the results of the GWHIP data and planning for the future. The meeting was initiated by partners of the Greater Waterbury Health Improvement Partnership, including Saint Mary's Hospital. The goal of the meeting was to discuss the commitment to the Greater Waterbury area and discuss future prioritizations of the organization and its members.

The objectives of the session were:

- To review recently compiled DataHaven Community Health and Wellbeing data and highlight key research findings;
- To gather feedback from community representatives about community health needs;
- To prioritize the community health needs based on select criteria.

Prioritization Process

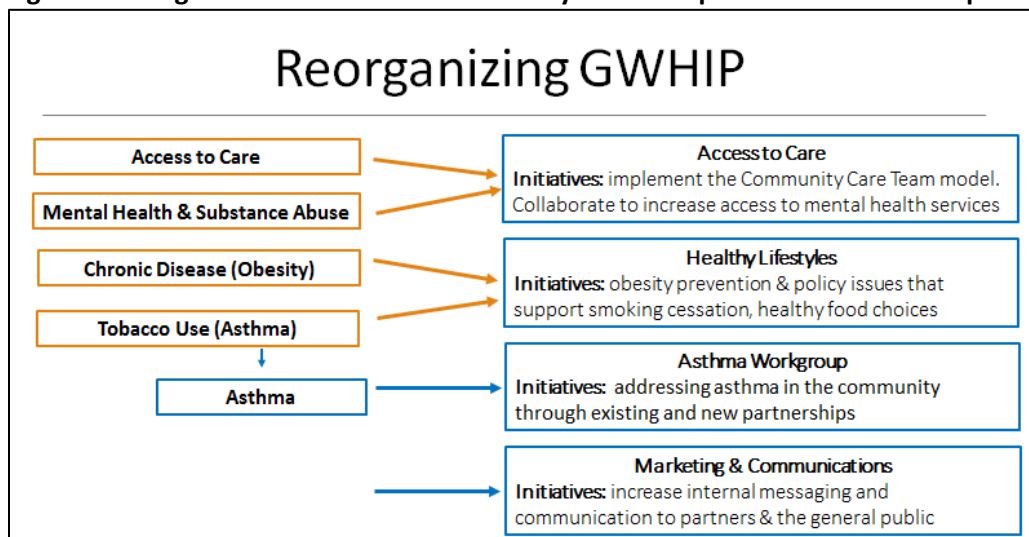
Executive leaders of the Connecticut Community Foundation, City of Waterbury Health Department, and Greater Waterbury Health Improvement Partnership facilitated the prioritization session. The meeting began with an abbreviated research overview, including the results of the primary and secondary research and key findings of the CHNA.

Following the research overview of the DataHaven Health and Wellbeing Data, meeting participants were provided with information regarding the prioritization process, criteria to consider moving forward with key areas of focus, and other aspects of health improvement planning. In a large-group format, attendees were asked to share openly what they perceived to be the needs and areas of opportunity in the community and how they would fit into the prioritization areas.

Identified Health Priorities

Attendees reviewed the findings from the voting and discussed cross-cutting approaches to further hone the priority areas. Ultimately, the following four priority areas for Waterbury were adopted in order to touch on several health initiatives:

Figure 8. Reorganization of Greater Waterbury Health Improvement Partnership



Strategies to Address Community Health Needs

Saint Mary's Hospital will develop an Implementation Strategy to illustrate the hospital's specific programs and resources that support ongoing efforts to address the identified community health priorities. This work will be completed by February 15, 2017 and is supported by community-wide efforts and leadership from the executive team and board of directors.

Rationale for Community Health Needs Not Addressed

Saint Mary's Hospital plans to address all of the prioritized community health needs identified through the 2016 Community Health Needs Assessment and prioritized by community representatives.

Invest in Your Community Template

INVEST IN YOUR COMMUNITY

4 Considerations to Improve Health & Well-Being *for All*

WHAT Know What Affects Health

40% SOCIOECONOMIC FACTORS
20% CLINICAL CARE
30% HEALTH BEHAVIORS
10% PHYSICAL ENVIRONMENT

www.countyhealthrankings.org

WHERE Focus on Areas of Greatest Need

Your zip code can be more important than your genetic code. Profound health disparities exist depending on where you live.

WHO Collaborate with Others to Maximize Efforts

HOW Use a Balanced Portfolio of Interventions for Greatest Impact

- Action in one area may produce positive outcomes in another.
- Start by using interventions that work across all four action areas.
- Over time, increase investment in socioeconomic factors for the greatest impact on health and well-being for all.

Four ACTION Areas

SOCIOECONOMIC FACTORS

PHYSICAL ENVIRONMENT

HEALTH BEHAVIORS

CLINICAL CARE

→ VISIT www.cdc.gov/CHInav FOR TOOLS AND RESOURCES TO IMPROVE YOUR COMMUNITY'S HEALTH AND WELL-BEING

CENTERS FOR DISEASE CONTROL AND PREVENTION

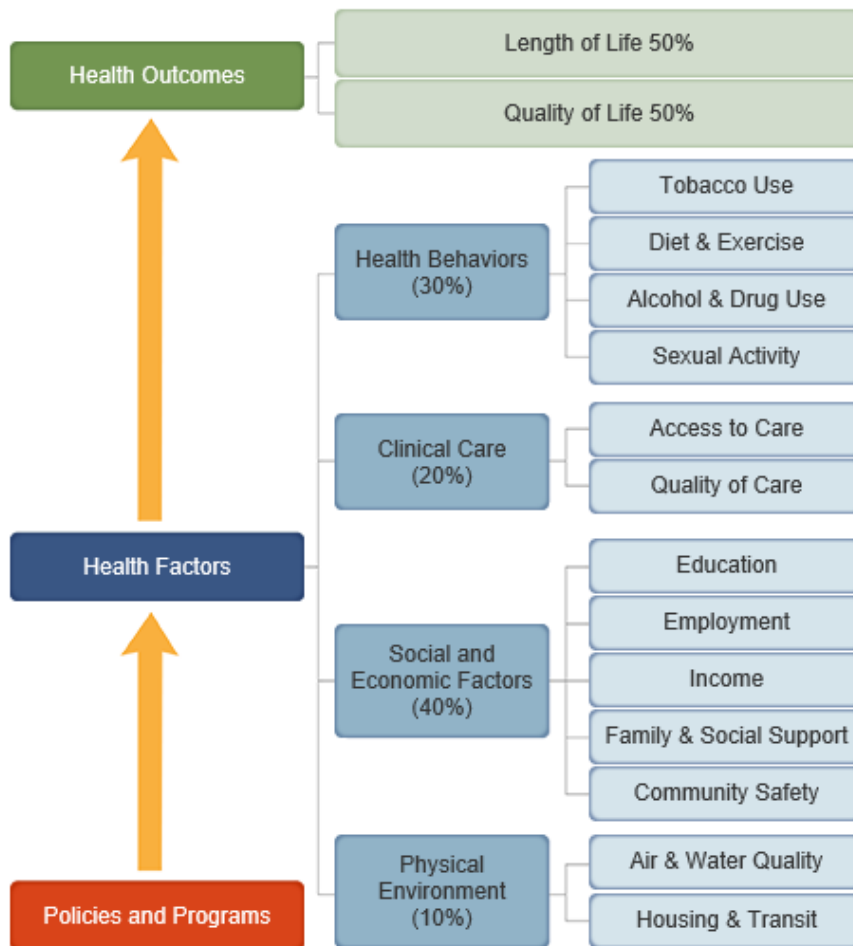
NATIONAL PREVENTION STRATEGY

Robert Wood Johnson Foundation

MARCH 2015

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County Health Rankings Model - Health Factors



Appendices

Appendix 1. Community Health Rankings

Saint Mary's Hospital County Health Rankings

Health Outcomes Rank of 6 (out of 8 counties)

Health Factors Rank of 7 (out of 8 counties)

Measures	New Haven County	Litchfield County	Hartford County	State
Health Outcomes				
<i>Length of Life</i>				
Premature death /100,000	5800	5500	5700	5300
<i>Quality of Life</i>				
% Adults reporting fair or poor health	13%	9%	13%	14%
Avg. physically unhealthy days/month	2.9	2.5	3.1	3.2
Avg. mentally unhealthy days/month	3.5	3.2	3.4	3.7
% Live births with low birth weight <2500g	8%	7%	9%	8%
Health Factors				
<i>Health Behaviors</i>				
% Adults report currently smoking cigarettes	14%	13%	13%	15%
% Adults reporting BMI >= 30	26%	23%	27%	25%
Food environment index	7.6	8.5	7.7	7.9
% Adults 20+ reporting no leisure-time physical activity	23%	21%	23%	22%
% Pop. with adequate access to locations for physical activity	96%	90%	96%	94%
% Adults reporting binge drinking	16%	19%	17%	18%
% Alcohol-impaired driving deaths	28%	28%	37%	33%
Chlamydia rate /100,000	440.3	174.4	418.9	355.8
Teen birth rate /1,000 female pop., ages 15-19	22	11	24	19
<i>Clinical Care</i>				
% Pop. under age 65 without health	11%	10%	10%	11%
Ratio of pop. to primary care physicians	1060: 1	1570: 1	1070: 1	1170: 1
Ratio of pop. to dentists	1360: 1	1650: 1	1000: 1	1230: 1
Ratio of pop. to mental health providers	270: 1	490: 1	230: 1	300: 1
Preventable hospital stays /1,000 Medicare	53	49	51	50
% Diabetic Medicare enrollees receiving	85%	88%	87%	86%
% Female Medicare enrollees receiving mammography	65%	65%	68%	67%
<i>Social & Economic Factors</i>				
% Students who graduate HS in 4 years	81%	89%	82%	86%
% Adults, age 25-44 with some college	65%	66%	68%	68%
% Pop. age 16+ unemployed but seeking work	7.2%	5.9%	6.9%	6.6%
% Under age 18 in poverty	18%	9%	18%	15%
% Adults without social/emotional support	N/A	N/A	N/A	N/A
% Children in single parent households	36%	21%	37%	31%
Violent crime /100,000	406	111	323	279
Injury mortality /100,000	57	57	56	53
<i>Physical Environment</i>				
Avg. daily fine particulate matter in micrograms/cubic meter (PM2.5)	10.5	10.7	10.5	10.5
% Pop. potentially exposed to water exceeding a violation limit /yr	N/A	N/A	N/A	N/A
% Households with severe housing problems	22%	16%	18%	19%
% Workforce driving alone to work	79%	83%	81%	79%
% Commuting 30+ mins to work, driving alone	32%	38%	27%	32%