2019

Community Health Needs Assessment

CLINTON COUNTY

BUCKTAIL MEDICAL CENTER | 1001 Pine Street, Renovo, PA 17764

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Introduction

The Affordable Care Act requires tax-exempt hospitals to complete a community health needs assessment as least once every three years and to adopt implementation strategies to meet the needs identified. This requirement is effective during tax years beginning after March 23, 2012, and subject to a penalty of a $50,000 excise tax for failure to comply. Bucktail Medical Center has a tax exempt status. This is documented in IRS form 990, Schedule H. The IRS will use the data submitted in the health needs assessment to determine whether the tax exempt status is justified. The health needs assessment should include community input and public health expertise. This assessment will adopt an implementation strategy which will include prioritizing the needs which the assessment identifies.

Bucktail Medical Center (BMC) conducted a Community Health Needs Assessment (CHNA) to identify the unmet health needs in the communities the center serves. With this needs assessment, BMC will establish stronger, long-term relationships with the communities and its leaders. BMC will be better prepared to meet the present and future needs and, therefore, impact and improve community services.

The BMC was first known as the Renovo Hospital. The Renovo Hospital was established in 1909. In 1979 the hospital was rebuilt, relocated to South Renovo, and was renamed The Bucktail Medical Center. The BMC vision is *"To serve humanity through technology and family-oriented interactions with a commitment to a better quality of life"*. The Center includes a sixteen (16) bed acute care hospital, an Emergency Room open 24/7/365, a Basic Life Support (BLS) ambulance service, and a Skilled Nursing Unit with forty-three (43) beds. In 1997 a hospital-based Community Clinic was added. In the Emergency Department, patients are stabilized in the facility and either discharged home, admitted for treatment, or transferred via BLS, ALS, or ALS air to the nearest facility which can meet the patient's needs. BMC also provides the following services: Medical Laboratory, Radiology (limited to X-Rays), BLS Ambulance Service, a Rural Community Health Clinic, Occupational Therapy, Physical Therapy, and Speech Therapy.

Population

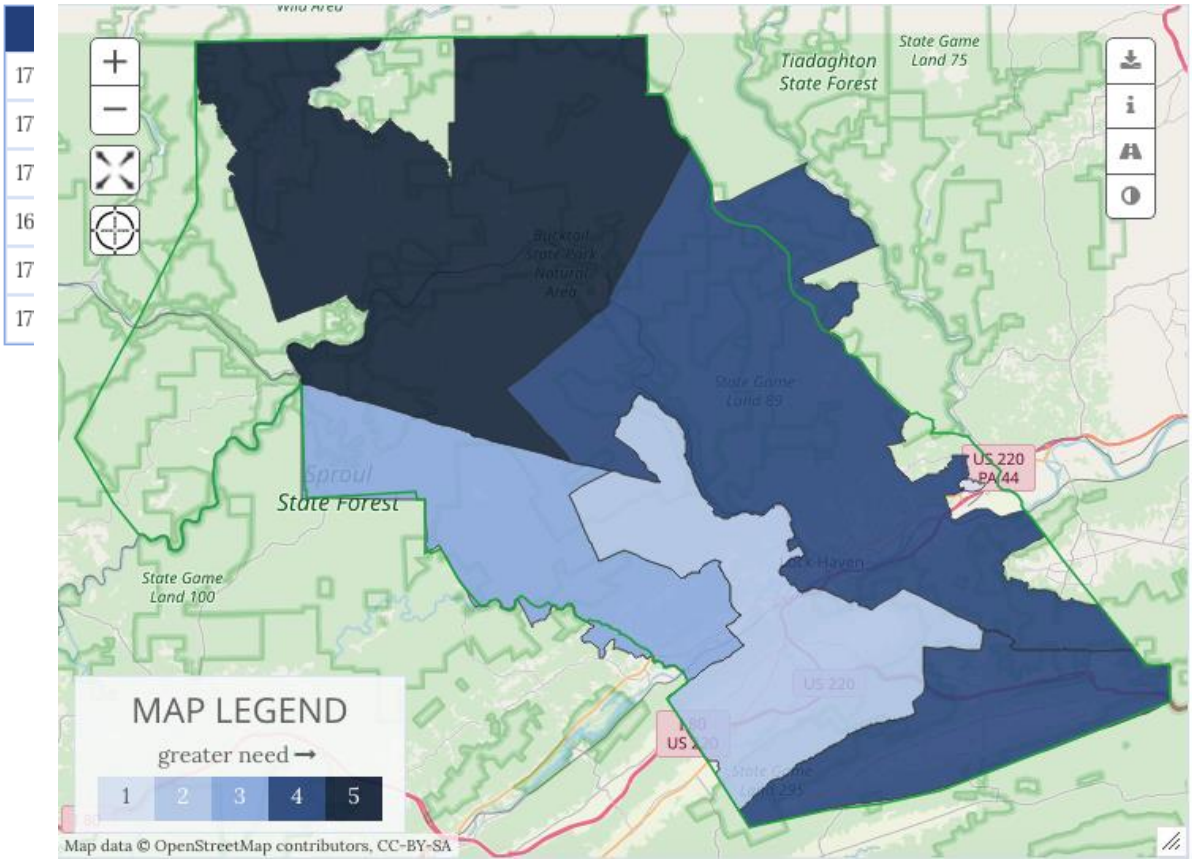
The population of the area it serves is approximately 3,141, which continues to decline, and the square mile area is 515.364. The population per square mile is approximately 6.24. BMC is a Critical Access Hospital located in an isolated area surrounded by PA state parks and game land. The geographic area and the clients served varied due to seasonal activities in the population.

Population by Municipality

	Population	% Change	Households	Families	Population Density per sq./mi.
Renovo Borough	1,205	-1.90	593	333	1,136
South Renovo Borough	426	-3.0	226	141	2,824
Noyes Township	356	0	186	127	4.70
Grugan Township	52		26	17	0.80
Leidy Township	229		117	69	2.40
Chapman Township	849		422	287	10.00
East Keating Township	24		13	7	0.50
Totals	3,141		1,583	981	568.37

All zip codes, counties, and county equivalents in the United States are given an **Index Value** from 0 (low need) to 100 (high need). To help you find the areas of highest need in your community, the selected locations are **ranked** from 1 (low need) to 5 (high need) based on their Index Value.

BMC serves the communities of Renovo, South Renovo, Chapman Township, East Keating Township, Grugan Township, Leidy Township, and Noyes Township.



Percentage Population by Age Group

	under 18	18 - 24	25 - 44	45 - 64	65+	median age	Females to males
Renovo Borough	25.9	8	24.3	21.9	20	40	100/93
South Renovo Borough	22.3	5.6	22.1	22.4	27.6	45	100/88.2
Noyes Township	18.1	4.1	19.6	32.2	26	49	100/98.6
Grugan Township	11.5	0	19.2	44.2	25	56	100/108
Leidy Township	13.5	3.5	19.7	39.3	24	52	100/112
Chapman Township	20.8	6	25.6	27.9	19.6	43	100/97
East Keating Township	4.2	4.2	8.3	62.5	20.8	54	100/166.7
Totals	16.61	4.49	19.83	35.77	23.29	48.43	100/109.07

Percentage Population by Age Race

	White	African American	Native American	Asian/Pacific Islander	Two or More Races	Hispanic and Latino
Renovo Borough	98.94	0.23	0.08	0.08	0.66	0.38
South Renovo Borough	99.82	0.18				
Noyes Township	99.52		0.48			
Grugan Township	98.08		1.92			
Leidy Township	97.8		1.31	0.87		
Chapman Township	99.4	0.1			0.4	0.4
East Keating Township	100					
Totals	99.08	0.073	0.54	0.14	0.15	0.11

The CHNA included both qualitative and quantitative (primary and secondary) components. The qualitative data includes focus group data from various community organizations and data collected and analyzed from observations. The quantitative data includes education and economic measures, morbidity and mortality rates, incidence rates, and other health statistics for Clinton County. BMC developed their assessment based on the qualitative and quantitative data to prioritize public health issues and develop a community health implementation plan focused on meeting community needs.

The secondary data is primarily derived from state and national public secondary data sources such as the U.S. Census Bureau, Center for Disease Control and Prevention (CDC), National Cancer Institute (NCI), the Centers for Medicare and Medicaid Services (CMS).

Once indicators were identified, they were grouped and examined by topic area. These topic areas were identified as community needs. When available, state and national comparison statistics will be provided as benchmarks for the BMC service area.

It should be noted that in some cases, additional secondary data was obtained from the PHC4 Hospital Performance Report and the Medicare Hospital Profile. In these two areas, BMC had too few cases and were not included in the averages. Bucktail Medical Center also participates in patient satisfaction scores in the inpatient and outpatient areas of service, but the low response rates make the results unreliable. Local-level data, therefore, is limited.

Primary Data

Primary data has been collected from various community resources. Several community groups, including PRR (Preserve, Renew, Revitalize) and the CTA (Clinton Tradesman's Association) have been tapped for information and ideas on how BMC can better serve the needs of our communities. Several trends between the groups began to emerge, and those trends have been grouped into a few main categories.

Income

The BMC service area is comprised of more than 87.7% Medicare (MC) and Medicaid (MA) insureds, making it the second highest combined total in the state of Pennsylvania. Elderly and low-income residents often share some of the same struggles. Transportation is an insurmountable hurdle for both low-income families and those over 65. Low income families seldom have reliable transportation; people over 65 either do not have reliable transportation or are unable to safely make a trip of this magnitude independently. While the medical center does provide basic health services to the communities we serve, a patient requiring specialty services must travel between thirty (30) and more than one hundred (100) miles to receive specialty services.

	Median Household Income	Median Family Income	Per Capita Income	Families Below Poverty Line	Population Below Poverty Line	65 and Older Below Poverty Line
Renovo Borough	18,636	23,854	11,709	26	30	12
South Renovo Borough	24,853	34,625	14,751	6.80	10.40	8.90
Noyes Township	28,036	34,318	17,094	13.30	15.70	16.00
Grugan Township	35,625	37,500	20,086	0.00	5.60	0.00
Leidy Township	33,125	37,000	28,279	4.70	8.40	3.40

Chapman Township	29,500	36,458	13,140	9.00	11.20	12.50
East Keating Township	24,375	24,375	13,047	0.00	0.00	0.00
Totals	27,736	32,590	16,872	9	12	8

Pre-Hospital Services

Providing emergency response in western Clinton County is challenging. There are only two (2) Advanced Life Support (ALS) ambulance providers in Clinton County, and both are more than 30 miles away. There are four Basic Life Support (BLS) ambulance services in western Clinton County. An ALS emergency – an emergency requiring a paramedic - initiates a unit from more than thirty (30) miles away being dispatched for the call. If that ALS service is available, it will be at least forty (40) minutes until a paramedic is on scene; Emergency Medical Technicians (EMT)'s – first responders with limited medical training - wait with the patient and provide basic services within their scope of practice. If the ALS provider is already out on another call and does not have a second (or third) crew to respond, the wait time for a paramedic to respond can be well over an hour.

Pre-Hospital Services Implementation Strategies

BMC has implemented routine ambulance service meetings for all three (3) BLS ambulance services located in western Clinton County. Our medical director is currently the medical director for two of these three services. BMC has also gained certification to provide CEU's for local EMT's, allowing for interactive, in-person training for pre-hospital service providers.

Diagnostic Capabilities

BMC has limited diagnostic capabilities. For medical imaging, the only equipment we have is an X-Ray machine that is nearly converted to DR technology. The standard of imaging care both in emergency medicine and treatment of many chronic illnesses is through Computed Tomography (CT). Without this technology, many patients are transferred to a hospital with a CT Scanner; again, this is a trip of at least thirty miles.

Diagnostic Capabilities Implementation Strategies

If the patient is critical, transport with a paramedic is necessary. BMC has initiated the process to bring a CT Scanner to the facility: we have faced a few challenges along the way. The first challenge was to pick a location inside the facility for the CT Scanner. Ultimately, we chose to eliminate two (2) patient rooms at the end of our inpatient hall.

This presented a second and third challenge. Because the CT Scanner will be located in an inpatient area, we needed to address how we will reduce or eliminate the spread of bacteria between outpatients and inpatients; we created and submitted an exception request with a plan to address infection control and confidentiality. The exception was approved. When drawings were submitted to plan review, we learned that the ventilation in the former patient area did not meet the current HVAC requirements for imaging equipment. That exception request has been developed and needs to be submitted. Once approved, the second exception request should allow us to move forward with plans for bringing CT technology to the residents of western Clinton County.

Having the ability to perform CT Scans at BMC will significantly change the care we provide, allowing us role out or confirm specific diagnoses. It will also allow the facility to admit and treat more patients. Bringing this technology to the facility will also improve patient outcomes, especially in the ER. As an example, we will be able to diagnose a stroke in time for the patient to receive clot-busting medications, should that treatment be appropriate.

Telemedicine

While the communities in western Clinton County are smaller than many, BMC still sees the same medical needs; we see cuts and bruises, fractures, cardiac arrest, stroke, pregnancy, cancer, and infections. But we do not see enough of any diagnosis to support specialists in those fields. In the ER, that means the physicians and nurses must be prepared to diagnose and treat anyone that comes through the door, without assistance from a specialist. For our outpatients, this often means traveling for specialty care.

Telemedicine Implementation Strategies

BMC currently has a tele-burn program in place with Lehigh Valley Hospital. Our next goal is to implement psychiatry, first in our Skilled Nursing Facility then maybe to the public. Based on referrals from our community clinic, the five most specialties are, in order, orthopedics, cardiology, podiatry, gastroenterology, and neurology.

Community education on health and wellness are not available in the local community, so many patients do not have an opportunity to hear the latest in treatment options nor do they have the ability to learn from other members of the community. Often they do not have an open line of communication with their care provider either. This leaves many patients trying to find reliable answers on their own. Bringing specialty services through tele-medicine can help educate patients while providing local treatment options.

Secondary Data

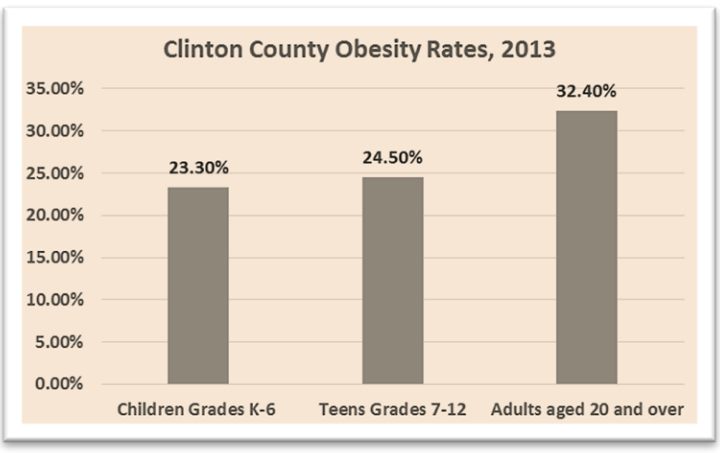
Clinton County's health indicators show major health disparities involving obesity, cardiovascular disease, osteoporosis, arthritis, Lyme disease, depression, tobacco use, and cancer. These indicators can be grouped in the following priority areas: physical activity and nutrition, chronic and infectious disease, mental and behavioral health, and cancer.

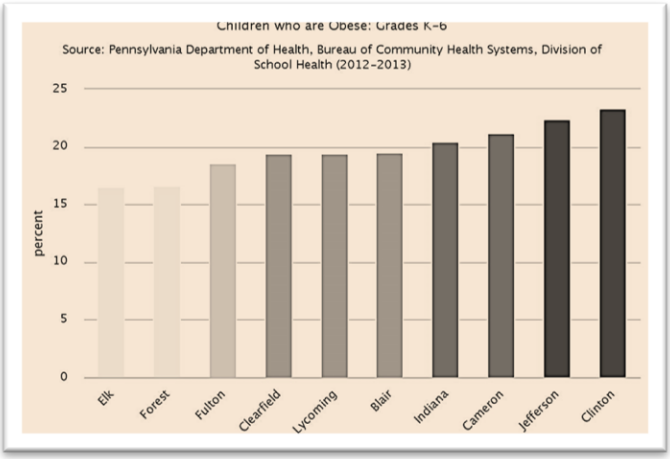
Physical Activity and Nutrition

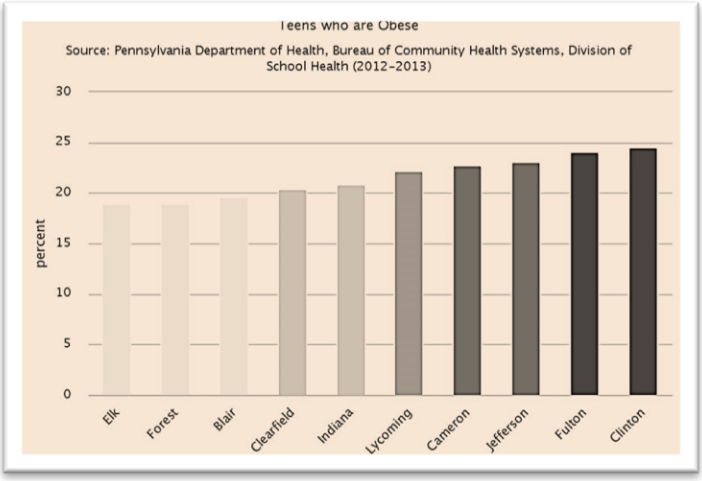
People's assessment of their physical health, which includes physical illness and injury, is a good measure of recent health. Frequent physical distress emphasizes those who are experiencing more severe physical health issues. About 12% of adults in Clinton County stated that their physical health was not good for 14 or more of the past 30 days. This indicates that about 10% of BMC's service area is less likely to feel happy and to participate in their community socially and economically, and more likely to be struggling with weight and obesity.

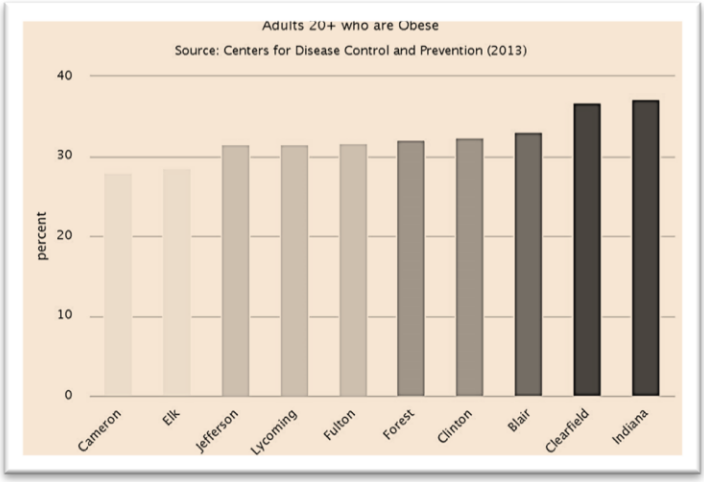
Physical Activity and nutrition		
Adults 20+ who are obese	35.2%	2016
Adults 20+ who are sedentary	17.9%	2016
Child food insecurity rate	20.4%	2017
Children who are obese Grades K-9	23.1%	2016-2017
Children who are overweight or obese grades K-9	39.6%	2016-2017
Teens who are obese	27.7%	2016-2017
Teens who are overweight or obese	44.6%	2016-2017

Each of the obesity rates in Clinton County are over 20%; almost 1 in 4 people in Clinton County are considered obese. Obesity rates are typically higher in rural areas, but Clinton County's rates are among the highest of the 10 Pennsylvanian counties included in PORH's subscription to HCI.









Obese and overweight youth are likely to have risk factors associated with cardiovascular diseases such as high blood pressure, high cholesterol, and Type 2 diabetes. They are at risk for multiple health problems during their youth and are likely to be more severe as adults.

The percentage of obese adults is an indicator of the overall health and lifestyle of a community and carries significant economic costs due to increased healthcare spending and lost earnings. Obesity increases the risk of heart disease, Type 2 diabetes, cancer, hypertension, stroke, liver and gallbladder disease, respiratory problems, and osteoarthritis. Losing weight and maintaining a healthy diet help to prevent and control these diseases.

Physical Activity and Nutrition Implementation Strategies

Education is likely the single most important factor in addressing the benefits of an active lifestyle and good nutrition. BMC will continue an education program where medical students completing a rotation at the medical center will present health education to the community as part of the programming. Telemedicine can also play a role in addressing orthopedics, cardiology, podiatry, gastroenterology, and neurology concerns with specialists

Chronic and Infectious Disease

HCI has data on several forms of heart disease faced by the Clinton County Medicare population: atrial fibrillation, heart failure, hyperlipidemia, hypertension, ischemic heart disease, and stroke. These diseases are listed in the table below alongside the rate of occurrence in Clinton County and the comparisons to state, national, and prior county values.

Chronic and Infectious disease		
Death rate due to influenza and pneumonia	8.8 deaths per 100,000 population	2014-2016
Lyme disease incidence rate	71.8 cases per 100,000	2017

	population	

The worst of these issues in Clinton County is hyperlipidemia. Hyperlipidemia is an increase in the amount of fat (cholesterol and triglycerides) in the blood. Approximately 49.4% - a slight improvement over the past three years - of the Clinton County Medicare population have hyperlipidemia overall. These rates are lower than in previous years but remain higher compared to Pennsylvania and the United States. Hyperlipidemia by itself has no symptoms; therefore, the only way a doctor can diagnose the condition is through laboratory tests. Hyperlipidemia can lead to atherosclerosis, heart disease, and acute pancreatitis. Risk factors for the hyperlipidemia include gender, family history, chronic renal failure, physical inactivity, obesity, and smoking. In many cases, this condition is reversible through healthy eating and regular exercise.

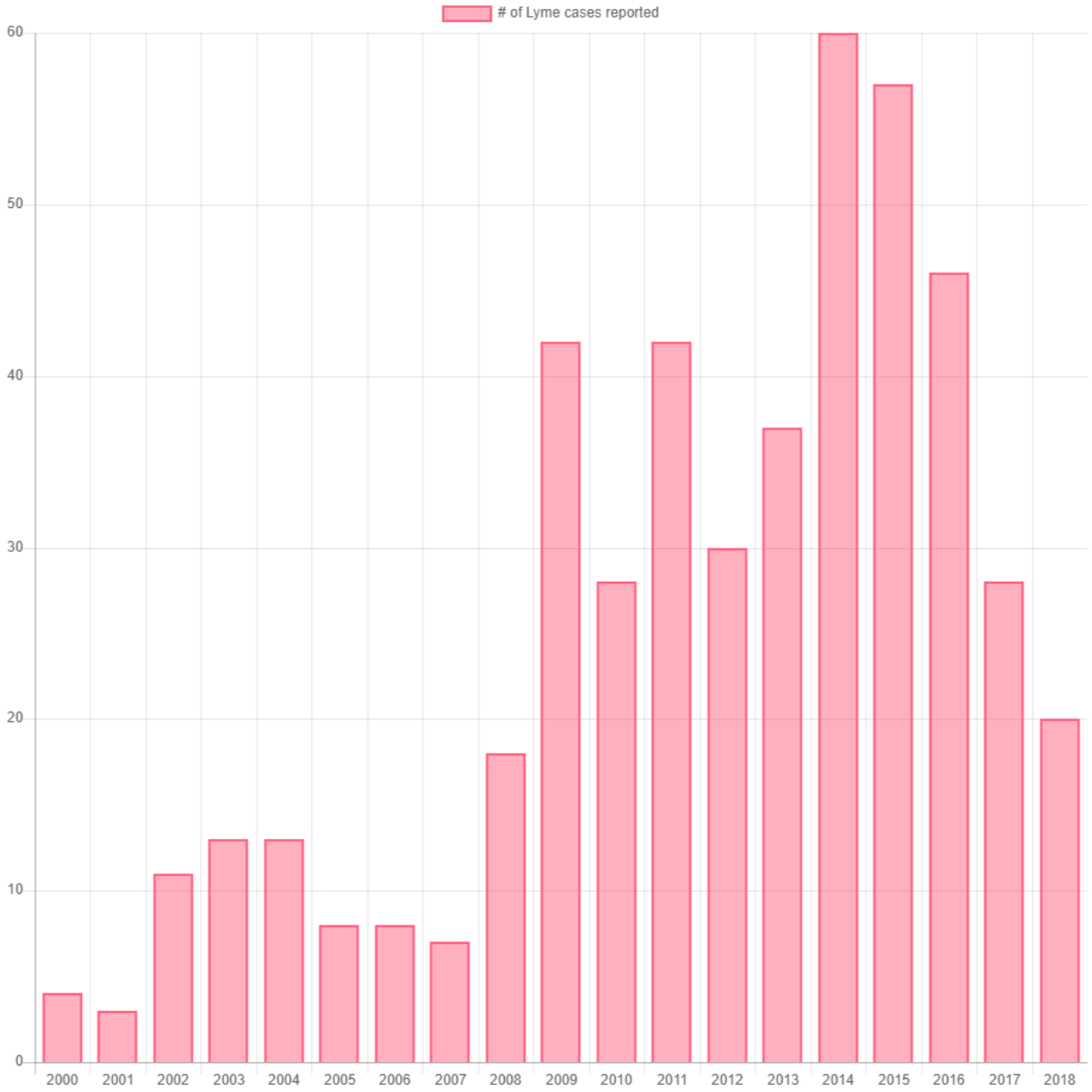
Chronic and Infectious disease - Medicare population		
Atrial fibrillation	9.0%	2017
Heart failure	16.3%	2017
Hypertension	60.2%	2017
Ischemic Heart disease	24.4%	2017
Stroke	3.9%	2017
Hyperlipidemia	49.4%	2017
Osteoporosis	6.5%	2017
Rheumatoid arthritis or Osteoarthritis	35.7%	2017
People 65 and Older	17.6%	2017

Other common diseases present in Clinton County include osteoporosis, rheumatoid arthritis, and osteoarthritis. Osteoporosis is a progressive disease that causes bones to become fragile and more likely to break due to a minor fall or, in serious cases, even when sneezing. Commonly affected bones are the hip, spine, and wrist. The disease often progresses unnoticed over many symptomless years until a fracture occurs. Though there is no cure, healthy lifestyle choices such as healthy diet, exercise, and certain medications can help prevent further bone loss and reduce the risk of fractures. While the osteoporosis rates in Clinton County have not yet met state or national values (6.8% and 5.9%), they have been decreasing steadily since 2010 and currently hover just over 7%.

Rheumatoid arthritis and osteoarthritis rates, on the other hand, have increased. More than one third of Clinton County's Medicare population currently suffer from rheumatoid- or osteoarthritis. Rheumatoid arthritis is a systemic, inflammatory arthritis and an autoimmune disease that typically affects the small joints of the hands and feet. Symptoms include pain, swelling, stiffness and loss of function of the affected joint. The cause of rheumatoid arthritis is not yet known; however, most scientists agree that a combination of genetic and environmental factors is responsible. Treatments include medications, lifestyle changes and surgery. Osteoarthritis is characterized by the

breakdown of the joint's cartilage as well as bony overgrowth, leading to pain and joint stiffness. The joints most commonly affected are the hands, knees, hips, and spine. Disease onset is gradual, and people usually begin to experience symptoms after the age of 40. Common risk factors for OA include genetics, advanced age, obesity, and injury.

Lyme disease is transmitted by the bite of an infected black-legged tick (Ixodes scapularis) which is commonly found in wooded areas. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, the infection can spread to joints, the heart, and the nervous system. As illustrated in the graph below, the incidence rate of Lyme disease in Clinton County in 2018 is still well above the state and national average.



Chronic and Infectious Disease Implementation Strategies

As many of these diseases manifest with few symptoms, routine provider visits and routine testing are among the best ways to detect chronic and infectious diseases. In the clinic setting, emphasis will be placed on timely follow-up and regular visits.

Mental and Behavioral Health

According to the National Comorbidity Survey of Mental Health Disorders, people over the age of 60 have lower rates of depression than the general population — 10.7% of people over the age of 60 compared to 16.9% overall. That is not the case in BMC's service area: 19.9%, up from 19.1% in 2014, of Medicare beneficiaries were treated for depression in Clinton County. Although that is already a worrisome number, it is projected to get higher in the next few years. The elderly senior population is growing expoentially due to the aging of baby boomers. Senior citizens made up 17% of the Pensylvania population in 2015 and made up over 18% of the population in Pennsylvania's rural areas.

Mental and Behavioral Health		
Depression medicare population	19.9%	2017
Adults smoking cigarretes	16%	2017
Inadequate social support	24.4%	2005-2010

The high prevalence of senior depression could be due to frequent mental stress or inadequate social support. Approximately 12.1% of citizens in Clinton County report having "frequent mental stress," which is defined by the HCI as "the percentage of adults who stated that their mental health was not good for 14 or more of the past 30 days." In addition, 24.4% of citizens in Clinton County reported inadequate social support.

Another behavioral issue in Clinton County is the rate of tobacco use. Smoking is a behavior that hinders one's physical, mental, and dental health. Smoking brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects, including cancer, respiratory infections, and asthma. Unfortunately, 16% of adults in Clinton County reported smoking cigarettes in 2017, down from 20% in 2014. This rate is about 9% higher than the Healthy People 2020 target.

Mental and Behavioral Health Implementation Strategies

Western Clinton County is an under served area for mental health services. BMC will work with local county providers to make mental health services more available to the

community, including our own Skilled Nursing Facility. These services could involve in-person appointments with mental health professionals in our own clinic and telehealth services.

Cancer

Cancer is a leading cause of death in the United States and is prevalent in BMC's service area. The overall age-adjusted cancer death rate in Clinton County – 196.6 cases/100,000 population – is 28.1 cases higher than in the United States and 35.2 cases higher than the Healthy People 2020 target.

Although there are over 100 different types of cancer, Clinton County is most effected by colorectal cancer – cancer of the colon or rectum. From 2001-2015, the incidence rate in Clinton County for colorectal, breast, and prostate cancers alone was 249.80 cases/100,000 population; 54.5 of those cases were due to colorectal cancer and approximately 43% of those cases resulted in death. Conversely, only 13% of breast cancer cases and 18% of prostate cancer cases resulted in death in that same time period. Among the colorectal cancer death rates of the eight most rural counties in Pennsylvania, Clinton County has the highest: 22.6 cases/100,000 population.

Incidence Rate Report for Pennsylvania by HSA

Colon & Rectum (All Stages^), 2014-2018

All Races (includes Hispanic), Female, All Ages

Sorted by Rate

Health Service Area	Met Healthy People Objective of 39.9?	Age-Adjusted Incidence Rate‡ cases per 100,000 (95% Confidence Interval)	CI*Rank⋔ (95% Confidence Interval)	Average Annual Count	Recent Trend	Recent 5-Year Trend‡ in Incidence Rates (95% Confidence Interval)
Pennsylvania [6]	Yes	35.3 (34.7, 35.8)	N/A	3,233	falling ↓	-1.7 (-2.2, -1.2)

US (SEER+NPCR) [1]	Yes	33.4 (33.3, 33.5)	N/A	67,826	falling ↓	-1.7 (-2.4, -1.0)
Franklin, PA - Fulton, PA [7]	No	41.9 (36.7, 47.7)	N/A	51	stable →	-1.1 (-2.9, 0.7)
Mercer, PA [7]	No	41.5 (35.5, 48.4)	N/A	38	stable →	-0.9 (-2.7, 0.9)
Washington, PA - Fayette, PA [7]	No	40.9 (37.5, 44.6)	N/A	120	falling ↓	-1.5 (-2.2, -0.9)
Lawrence, PA [7]	No	40.6 (33.9, 48.5)	N/A	30	stable →	-2.1 (-4.2, 0.0)
Schuylkill, PA - Northumberland, PA [7]	No	40.1 (36.5, 44.0)	N/A	104	falling ↓	-2.2 (-3.0, -1.4)
Lycoming (Williamsport), PA - Clinton, PA [7]	No	40.0 (34.6, 46.1)	N/A	44	falling ↓	-1.6 (-3.2, -0.1)
Luzerne (Wilkes-Barre), PA - Columbia, PA [7]	Yes	39.4 (36.2, 42.9)	N/A	126	falling ↓	-1.8 (-3.0, -0.7)
Bradford, PA - Susquehanna, PA [7]	Yes	38.9 (32.7, 46.1)	N/A	32	falling ↓	-1.4 (-2.6, -0.2)
York (York), PA - Adams, PA [7]	Yes	37.6 (34.8, 40.6)	N/A	141	falling ↓	-2.2 (-3.1, -1.3)

Cambria, PA - Blair (Altoona), PA [7]	Yes	37.2 (34.1, 40.7)	N/A	117	falling ↓	-2.2 (-3.2, -1.1)
Crawford, PA [7]	Yes	36.8 (30.2, 44.6)	N/A	24	falling ↓	-3.8 (-6.0, -1.5)
Pike, PA [7]	Yes	36.1 (28.0, 46.3)	N/A	15	stable →	-2.2 (-4.4, 0.2)
Mifflin, PA - Huntingdon, PA [7]	Yes	36.0 (30.2, 42.8)	N/A	31	stable →	-1.9 (-4.0, 0.3)
Dauphin (Harrisburg), PA - Cumberland, PA [7]	Yes	36.0 (33.5, 38.5)	N/A	177	falling ↓	-2.1 (-2.9, -1.4)
Venango, PA - Clarion, PA [7]	Yes	35.8 (29.6, 43.0)	N/A	27	stable →	-1.9 (-4.3, 0.6)
Mc Kean, PA - Potter, PA [7]	Yes	35.4 (28.2, 44.1)	N/A	18	stable →	-0.6 (-3.8, 2.7)
Centre (State College), PA - Clearfield, PA [7]	Yes	34.6 (30.7, 38.9)	N/A	63	falling ↓	-2.3 (-3.4, -1.2)
Lackawanna (Scranton), PA - Wayne, PA [7]	Yes	34.1 (30.4, 38.2)	N/A	70	falling ↓	-3.6 (-4.7, -2.4)
Philadelphia (Philadelphia), PA - Montgomery, PA [7]	Yes	34.1 (33.1, 35.1)	N/A	933	falling ↓	-3.1 (-3.4, -2.7)

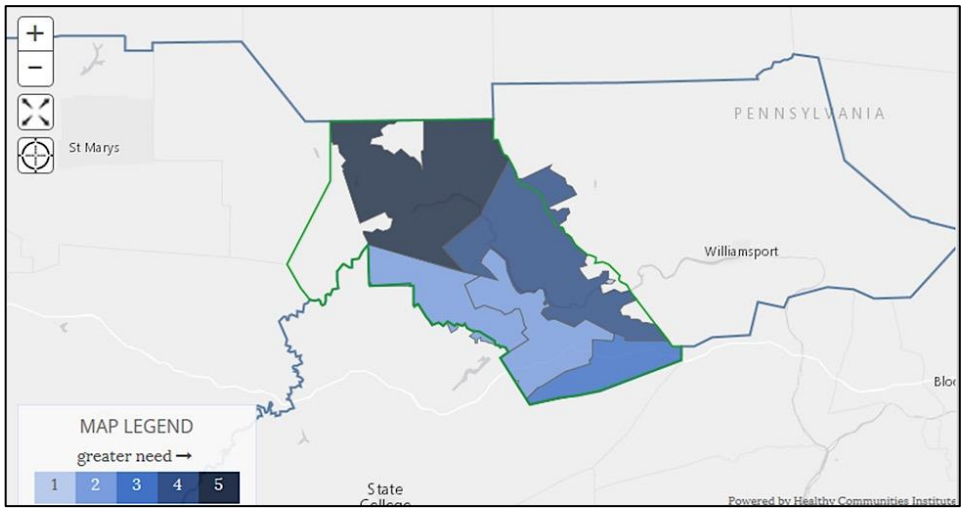
Lehigh (Allentown), PA - Northampton, PA [7]	Yes	34.0 (31.9, 36.2)	N/A	214	falling ↓	-2.2 (-2.9, -1.6)
Elk, PA [7]	Yes	34.0 (24.4, 46.9)	N/A	9	falling ↓	-4.7 (-6.9, -2.4)
Berks, PA [7]	Yes	33.9 (30.8, 37.2)	N/A	95	falling ↓	-2.7 (-3.5, -1.9)
Allegheny (Pittsburgh), PA - Westmoreland, PA [7]	Yes	33.8 (32.5, 35.2)	N/A	555	falling ↓	-3.0 (-3.4, -2.5)
Erie (Erie), PA - Warren, PA [7]	Yes	32.7 (29.3, 36.5)	N/A	73	falling ↓	-3.0 (-4.2, -1.8)
Lancaster, PA [7]	Yes	31.7 (29.0, 34.5)	N/A	116	falling ↓	-3.1 (-4.0, -2.2)
Tioga, PA [7]	Yes	30.3 (22.3, 40.8)	N/A	10	falling ↓	-3.9 (-6.1, -1.5)

Socio-Economic Factors

Socio-Economic status (SES) plays a role in the severity of the health disparities present in Clinton County. The SocioNeeds Index, created by HCI, is a measure of key social and economic factors. The SocioNeeds Index summarizes multiple socio-economic indicators into one composite score for easier identification of high need areas by zip code or county.

All zip codes, counties, and county equivalents in the United States are given an Index Value from 0 (low need) to 100 (high need). To help determine the highest need in a community, the selected locations are ranked from 1 (low need) to 5 (high need) based on their Index Value.

Renovo scores a 5 and is pictured in the dark blue area below. The other shaded areas in Clinton County scored a range of 2-4.



Significant socioeconomic problems in Clinton County include unemployment, poverty, access to the grocery store, and education.

Clinton County's unemployment rate has fluctuated between 5.5% and 7.7% since June 2015. During periods of unemployment, individuals are likely to feel severe economic strain, mental stress, and lose the health insurance coverage that was previously provided by their employer.

Public assistance is available for citizens in the forms of general assistance or Temporary Assistance to Needy Families (TANF). Despite this assistance, individuals in these households may not be able to afford the resources necessary to succeed in school and at work, and in some cases, may defer or decline treatment for health conditions. Approximately 3.6% of citizens in Clinton County receive public assistance. In the same time period, 23.7% of children, 7.2% of seniors, and 15.8% of people overall were living below the poverty level in which the per capita income was $20,803.

Income

	Clinton County	Rank	Pennsylvania	US
Income per capita	**$20,803**	**60th**	**$27,824**	**$27,915**
Income per household	**$39,696**	**60th**	**$51,651**	**$52,762**

	Clinton County	Rank	Pennsylvania	US
Income below poverty line	**15.8%**	**7th**	**12.6%**	**14.3%**

The accessibility, availability, and affordability of healthy and varied food options in the community increase the likelihood that residents will have a balanced and nutritious diet, therefore reducing the risk of chronic disease; however, about 4% of the population in Clinton County lack a mode of transportation to get to the grocery store. This 4% is likely to consume foods that are readily available at convenience stores and fast food outlets.

Education

Clinton County is at a huge disadvantage in regard to both of these outcomes when compared to Pennsylvania and the United States. High school graduation rates in Clinton County do not differ much from those in the state and the nation; however, education attainment rates for bachelor's degrees are significantly lower. Only 13.4% of citizens aged twenty-five and older have a bachelor degree or higher. This is compared to 28.1% in Pennsylvania and 29.3% in the U.S.

SCHOOL ENROLLMENT		
Population 3 years and over enrolled in school	**9,857**	**100.0**
Nursery school, preschool	309	3.1
Kindergarten	415	4.2
Elementary school (grades 1-8)	3,764	38.2
High school (grades 9-12)	1,962	19.9
College or graduate school	3,407	34.6
EDUCATIONAL ATTAINMENT		
Population 25 years and over	**24,701**	**100.0**

Less than 9th grade	1,267	5.1
9th to 12th grade, no diploma	3,582	14.5
High school graduate (includes equivalency)	11,860	48.0
Some college, no degree	3,073	12.4
Associate degree	1,612	6.5
Bachelor's degree	2,073	8.4
Graduate or professional degree	1,234	5.0
Percent high school graduate or higher	80.4	(X)
Percent bachelor's degree or higher	13.4	(X)

Community Health Work

BMC is working to address the concerns identified through both the primary data and the secondary data. A review of both data sets revealed that the issues identified through the secondary data relate very closely with the primary data gathered from the community. Because the depth of these issues, in most cases, lead to base level services, we will address them through the primary data findings.

Transportation and specialty services represent two identified concerns in providing healthcare to the community. To better serve the needs of the community, BMC is working with two local health systems to accommodate specialty physician services at the medical center. An office suite has been established within the hospital to provide an efficient setting for office visits. BMC currently has a podiatrist and a dentist seeing patients on a regular basis. We are still exploring options to access these services. The most likely course will be telehealth services to access most of the specialties. Increased diagnostic abilities will improve the medical centers ability to successfully coordinate specialty physician services: with the proper diagnostic testing available on our campus, patients will be able to have the provider visit and the required testing close to home and without the transportation challenges they face today.

BMC has been working with the Clinton County Department of Emergency Services (CCDES) and the Pennsylvania Department of Health (PA DOH) to develop a county

wide response plan which specifically addresses the challenges faced in western Clinton County. The plan would essentially make the Emergency Department (ED) at BMC an ALS provider. Local BMS ambulance services would be able to transport, with authorization from Medical Command, ALS patients to BMC ED. Now, a patient can be in front of a physician in much less time that it would take a paramedic to respond. While many of these patient may still require treatment at a higher level facility, they can be diagnosed stabilized and stabilized while the ALS unit is in route. Quick intervention will provide better patient outcomes. This plan was also budget neutral: There was no cost to BMC and it also provided an opportunity for additional revenue through increased ER visits.

Two key elements will enhance the diagnostic capabilities of the medical center. Our continued focus has been on the medical laboratory. We have deployed several Point Of Care (POC) analyzers capable of performing many critical tests, enhancing our physicians' ability to better diagnose. The iSTAT is a portable lab analyzer that, once completely correlated, will be able to perform most of the critical blood tests necessary in the ED for initial diagnosis and treatment. This will eliminate the need to wait for an analyzer to be repaired, or to send lab work to another hospital and wait for the results. The total cost to implement this technology was approximately $16,000.00. When we send bloodwork to another facility, we must pay them to conduct the test. By doing the test in our ER, we kept that revenue at the facility, making the cost budget neutral. We have also purchased a POC analyzer to do blood counts with a three part differential and in analyzer capable of doing Flu A, Flu B, and STREP.

The second diagnostic challenge for BMC is medical imaging. Currently there is one (1) CR quality X-Ray machine. A CT scanner will allow a new level in diagnostics and treatment for the medical center. Currently, if a patient requires a CT scan for diagnosis, we must send that patient to another hospital at least thirty (30) miles away. If that patient requires admission, they are admitted at the hospital where the CT scan was performed. An internal study revealed that we generate enough CT scans to cover the cost of a factory refurbished sixteen (16) slice CT Scanner; while not the latest technology, this machine will provide the imaging necessary for diagnosis. While about two thirds of these patients will require treatment at a higher level facility, one third can now be treated here; close to home and family. Most patients prefer to stay here than at another hospital. Every observation or admission made as a result of the CT scanner will produce additional revenue for the medical center. Having a CT scanner on site will also be a draw for specialty physicians and should increase outpatient scans, again providing additional revenue for the facility. A plan was devised to begin the process of acquiring a CT Scanner for the facility. While there will be cost for the machine, service, and maintenance, we started the process of identifying the space. Once we identified the space, we completed demolition. The work was provided by volunteers from the community. Removal of the waste was provided by a local business. There was no charge to the facility. Then we started on the drawings and blueprints; this work was provided at no cost by an architect and an engineer. We were also able to secure a

$25,000.00 donation from a local business to use for the project. Now that we have emerged from Chapter 11, we are moving forward with completing this project. Once in place, BMC will be able to provide quicker diagnosis for patients in our ER, providing an opportunity for better outcomes. The hospital will also benefit by performing, and charging for, CT Scans not only for ER patient but for outpatients as well. We anticipate this will also increase our admissions; doing the scan here will allow us to complete many diagnosis at the facility rather than sending them to another facility. Those patients we are able to treat will be treated here rather than at another facility.

The Medical Director at BMC has implemented a community education program with initial education planned on high blood pressure in September. The presentations will be geared to the community at large so they are easy to understand for non-medical members of the community. They will also provide some common sense advice and warning signs so patients can better manage their care. The second session will focus on diabetes. Other educational sessions will be targeted to other areas of concern for Clinton County. Future sessions may also include new specialists so the community is aware of the services available to them locally. The education was provided by medical students under the supervision of the Medical Director, during clinical rotations here. We contacted local retailers for samples of products that could be used in treating both conditions. Items like automatic blood pressure cuffs and glucose meters were available for review and also for sale at each educational session. Other than some light refreshments, there was no cost to the facility to implement these programs.

Evaluation Of Progress

Healthy People 2020 objectives are set by the US Department of Health and Human Services. These nationwide targets provide a benchmark for all communities to work towards. The most recent data posted on the HCI in the past 3 years shows that Clinton County has met – and exceeded – the following HP 2020 targets:

Indicator	**Clinton County, Current**	**HP 2020 Target**	**Date Measured**
The age-adjusted death rate per 100,000 females due to breast cancer	15.5	20.7	2009-2013
The age-adjusted death rate per 100,000 males due to prostate cancer	18.8	21.8	2009-2013
The percentage of adults who did not participate in any leisure-time activities during the past month	26.8	32.6	2013
The percentage of births in which a newborn weighed less than 2,500	4.9	7.8	2013

grams (5 pounds, 8 ounces)			
The age-adjusted death rate per 100,000 population due to firearms	9.0	9.3	2013
The percentage of adults who reported heavy drinking or binge drinking in the 30 days prior to the survey	18.0	25.4	2013

Clinton County has room for improvement in meeting the remaining HP 2020 targets:

Indicator	**Clinton County, Current**	**HP 2020 Target**	**Date Measured**
*The percentage of adults aged 18-64 years that have health insurance coverage	87.2	100.00	2014
The percentage of children under 19 that have health insurance coverage	93.2	100.00	2014
The age-adjusted death rate per 100,000 population due to cancer	196.6	161.4	2009-2013
The age-adjusted death rate per 100,000 population due to colorectal cancer	22.6	14.5	2009-2013
The age-adjusted death rate per 100,000 population due to lung cancer	57.3	45.5	2009-2013
The age-adjusted incidence rate for colorectal cancer in cases per 100,000 population	51.0	39.9	2009-2013
The age-adjusted death rate per 100,000 population due to cerebrovascular disease and stroke	36.5	34.8	2013
The age-adjusted death rate per 100,000 population due to unintentional injuries	52.3	36.4	2013
The percentage of mothers who breastfed their new baby after delivery	76.3	81.9	2013
The percentage of births that were to mothers who did not smoke during pregnancy	75.9	98.6	2013
The percentage of births to mothers who began prenatal care in the first trimester of their pregnancy	66.3	77.9	2013
The age-adjusted death rate per	11.6	10.2	2013

100,000 population due to suicide			
The percentage of adults who are obese according to the Body Mass Index (BMI)	32.4	30.5	2013
The percentage of students (grades K-6) who are obese	23.3	15.7	2013
*The percentage of students (grades 7-12) who are obese	24.5	16.1	2013
The percentage of adults who currently smoke cigarettes	21.3	12.0	2014
**Two of the indicators listed above, including the number of uninsured adults and the number of obese teens, have decreased since the last CHNA for Clinton County. The uninsured rate for adults in Clinton County was measured to be 12.8% in 2014. This is an improvement from 16% in 2011. The percentage of obese teens in Clinton County (students from grades 7-12) has held steady around 24% from 2011-2013 which is improvement from 38% in 2010.*			

Additional Implementation Strategies

Out of each of the priority areas, the indicators most actionable include heart disease, chronic lower respiratory diseases, Alzheimer's disease, colorectal cancer, and diabetes. Recommendations for BMC to reduce the prevalence of these indicators using the aid of "promising practices" are listed below:

Health Programs for Obesity

- "Mass in Motion" was launched by the Massachusetts Department of Health in 2009 to reduce obesity and promote healthy eating and physical activity. The program's approach is multi-faceted, supporting policy changes to promote healthy diet and exercise in the workplace and in schools, providing grants to cities and communities to build wellness initiatives, and launching its website as an accessible resource for improving eating and exercise routines. The wellness initiatives in communities target the entire population. There are now 52 municipalities across the Commonwealth that are participating in Mass in Motion. Mass in Motion is funded by state, federal, and private foundations.

- The "Farm 2 School Lunch Program" is a partnership between local farmers, food producers and elementary schools. The program aims to improve the health of school children through the consumption of fresh fruits and vegetables, whole grains, grass fed meats, and hormone-free milk. Students learn healthy eating habits and the concept of the farm to table connection. In addition to reinventing the school lunch menu, schools implementing the Farm 2 School program offer a course

entitled, Food is Elementary, which teaches students about cooking and preparing healthy food. The curriculum is fun, interactive, and hands-on. The Farm 2 School Lunch Program is now serving 4000 meals a day and 2000 summer snacks a day to 17 locations in KS & MO.

Health education and screenings

- According to the CDC, more than 21,000 cases of Lyme disease are reported every year, making it the most common illness transmitted by bugs or animals in the United States. Most cases of Lyme disease can be treated successfully with a few weeks of antibiotics. Steps to prevent Lyme disease include using insect repellent, removing ticks promptly, landscaping, and integrated pest management. Some of these prevention techniques are showcased in the "BLAST Lyme Disease Prevention Program." BLAST is an acronym for Bathe after outdoor activity, Look for ticks and rashes, Apply repellent, Spray the yard, and Treat pets. The BLAST program was created with a $50,000 grant from the State of Connecticut and is currently funded by grants and private donations. The program engages health professionals and trained educators to teach the community about the prevention of tick-borne diseases and how to quickly identify early warning signs. BLAST is staffed by trained volunteers and offers its services for free at health fairs, schools, and community events throughout Fairfield County. The BLAST Prevention Program is nationally recognized and was recommended by the CDC in 2008. In 2013, the regional coordinating body, Housatonic Valley Council of Elected Officials (HVCEO), granted $4,000 to train BLAST Lyme Disease prevention educators for health events in the Greater Danbury area.

- The CDC encourages use of the one-on-one-education program for cancer prevention and control. One-on-one education delivers information to individuals about indications for, benefits of, and ways to overcome barriers to cancer screening with the goal of informing, encouraging, and motivating them to seek recommended screening. These messages are delivered by healthcare workers or other health professionals, lay health advisors, or volunteers, and are conducted by telephone or in person in medical, community, worksite, or household settings. The Community Preventive Services Task Force recommends the use of one-on-one education to increase screening for breast and cervical cancers on the basis of strong evidence of effectiveness. The Task Force also recommends the use of one-on-one education to increase colorectal cancer screening with fecal occult blood testing (FOBT) based on sufficient evidence of effectiveness. The CDC estimates that if all adults aged 50 or older had regular screening tests for colon cancer, as many as 60% of the deaths from colorectal cancer could be prevented. While 90% of colorectal cancer cases occur in adults aged 50 or older, it is essential for individuals with risk factors (those with a family history of colorectal cancer, inflammatory bowel disease, or heavy alcohol use) to seek regular screening earlier.

Senior therapy

- Psychological distress can affect all aspects of a patient's life. It is important to recognize and address potential psychological issues before they become critical. Occasional down days are normal, but persistent mental/emotional health problems should be evaluated and treated by a qualified professional. Clinic-based depression care management is an evidence-based practice used to reduce depression among older adults aged 60 or older. It involves active screening for depression, measurement-based outcomes, case management, patient education, antidepressant treatment, and psychotherapy (if necessary). The participants in clinic-based depression care management include depressed patients, trained depression care managers, primary care providers, and psychiatrists. Clinton County community members may benefit from depression care management options in their local clinics and medical centers.

Additional Services

- Further evaluation of primary and secondary data shows that expanded services at BMC will benefit the general health of the community. Imaging capacity needs to be expanded to include CT and possibly ultrasound. Initial plans have been submitted to DAAC for review. A first exemption has been granted for the location of the CT scanner. A second exemption request is in process for the HVAC capabilities of that area.
- Increased medical laboratory testing has been expanded to include point-of-care equipment in the emergency department, providing physicians the ability to gather essential diagnostic data. Once a proper diagnosis is established, physicians are able to better identify the best course of treatment and the need for a higher level of care.

Notes

State Cancer Registries may provide more current or more local data.
Trend
Rising when 95% confidence interval of average annual percent change is above 0.
Stable when 95% confidence interval of average annual percent change includes 0.
Falling when 95% confidence interval of average annual percent change is below 0.

⋔ Results presented with the CI*Rank statistics help show the usefulness of ranks. For example, ranks for relatively rare diseases or less populated areas may be essentially meaningless because of their large variability, but ranks for more common diseases in densely populated regions can be very useful. More information about methodology can be found on the CI*Rank website.

† Rates are for invasive cancer only (except for bladder cancer which is invasive and in situ) or unless otherwise specified. Rates calculated using SEER*Stat. Population counts for denominators are based on Census populations as modified by NCI. The 1969-2018 US Population Data File is used for SEER and NPCR incidence rates.
‡ Incidence data come from different sources. Due to different years of data availability, most of the trends are AAPCs based on APCs but some are APCs calculated in SEER*Stat. Please refer to the source for each area for additional information.

Rates and trends are computed using different standards for malignancy. For more information see malignant.html.

^ All Stages refers to any stage in the Surveillance, Epidemiology, and End Results (SEER) summary stage.
Healthy People 2020 Objectives provided by the Centers for Disease Control and Prevention.

Health Service Areas are a single county or cluster of contiguous counties which are relatively self-contained with respect to hospital care. For more detailed information, please see the Health Service Area information page at http://statecancerprofiles.cancer.gov/hsa.php . Puerto Rico is being treated as a Health Service Area for this data presentation.

[1] Source: National Program of Cancer Registries and Surveillance, Epidemiology, and End Results SEER*Stat Database (2001-2018) - United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute. Based on the 2020 submission.
[6] Source: National Program of Cancer Registries SEER*Stat Database (2001-2018) - United States Department of Health and Human Services, Centers for Disease Control and Prevention.
[8] Source: Incidence data provided by the SEER Program. AAPCs are calculated by the Joinpoint Regression Program and are based on APCs. Data are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ... , 80-84,85+). Rates are for invasive cancer only (except for bladder cancer which is invasive and in situ) or unless otherwise specified. Population counts for denominators are based on Census populations as modifed by NCI. The 1969-2018 US Population Data

Interpret Rankings provides insight into interpreting cancer incidence statistics. When the

population size for a denominator is small, the rates may be unstable. A rate is unstable when a small change in the numerator (e.g., only one or two additional cases) has a dramatic effect on the calculated rate.

Data for United States does not include Puerto Rico.

When displaying county information, the CI*Rank for the state is not shown because it's not comparable. To see the state CI*Rank please view the statistics at the US By State level.