

*Community Health Needs Assessment
Fiscal Year Ending June 30, 2019*



Jane Todd Crawford Hospital



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Consultants' Report

Mr. Rex A. Tungate, CEO
Jane Todd Crawford Hospital
202 Milby Street #206
Greensburg, KY 42743

On behalf of Jane Todd Crawford Hospital (Hospital), we have assisted in conducting a Community Health Needs Assessment (CHNA) consistent with the scope of services outlined in our engagement letter dated February 12, 2019. The purpose of our engagement was to assist the Hospital in meeting the requirements of Internal Revenue Code §501(r)(3) and Regulations thereunder. We also relied on certain information provided by the Hospital, specifically certain utilization data, geographic HPSA information and existing community health care resources.

Based upon the assessment procedures performed, it appears the Hospital is in compliance with the provisions of §501(r)(3). Please note that we were not engaged to, and did not, conduct an examination, the objective of which would be the expression of an opinion on compliance with the specified requirements. Accordingly, we do not express such an opinion.

We used and relied upon information furnished by the Hospital, its employees and representatives and on information available from generally recognized public sources. We are not responsible for the accuracy and completeness of the information and are not responsible to investigate or verify it.

These findings and recommendations are based on the facts as stated and existing laws and regulations as of the date of this report. Our assessment could change as a result of changes in the applicable laws and regulations. We are under no obligation to update this report if such changes occur. Regulatory authorities may interpret circumstances differently than we do. Our services do not include interpretation of legal matters.

BKD, LLP

June 26, 2019

Introduction

Internal Revenue Code (IRC) Section 501(r) requires health care organizations to assess the health needs of their communities and adopt implementation strategies to address identified needs. Per IRC Section 501(r), a byproduct of the *Affordable Care Act*, to comply with federal tax-exemption requirements, a tax-exempt hospital facility must:

- ✓ Conduct a community health needs assessment every three years.
- ✓ Adopt an implementation strategy to meet the community health needs identified through the assessment.
- ✓ Report how it is addressing the needs identified in the community health needs assessment and a description of needs that are not being addressed with the reasons why such needs are not being addressed.

The community health needs assessment must take into account input from persons who represent the broad interest of the community served by the hospital, including those with special knowledge of or expertise in public health. The hospital must make the community health needs assessment widely available to the public.

This community health needs assessment, which describes both a process and a document, is intended to document Jane Todd Crawford Hospital (Hospital) compliance with IRC Section 501(r). Health needs of the community have been identified and prioritized so that the Hospital may adopt an implementation strategy to address specific needs of the community.

The process involved:

- ✓ An evaluation of the implementation strategy from the previous needs assessment which was adopted by the Hospital's Board of Directors in 2016.
- ✓ Collection and analysis of a large range of data, including demographic, socioeconomic, health statistics and health care resources.
- ✓ Interviews with key stakeholders who represent a) broad interests of the community, b) populations of need or c) persons with specialized knowledge in public health.

This document is a summary of all the available evidence collected during community health needs assessments conducted in fiscal year June 30, 2019. It will serve as a compliance document as well as a resource until the next assessment cycle. Both the process and document serve as the basis for prioritizing the community's health needs and will aid in planning to meet those needs.

Summary of Community Health Needs Assessment

The purpose of the community health needs assessment is to understand the unique health needs of the community served by the Hospital and to document compliance with new federal laws outlined above.

The Hospital engaged **BKD, LLP** to conduct a formal community health needs assessment. **BKD, LLP** is one of the largest CPA and advisory firms in the United States, with approximately 2,700 partners and employees in 40 offices. BKD serves more than 1,000 hospitals and health care systems across the country. The community health needs assessment was conducted during 2019.

Based on current literature and other guidance from the treasury and the IRS, the following steps were conducted as part of the Hospital's community health needs assessment:

- ✓ An evaluation of the impact of actions taken to address the significant health needs identified in the fiscal year June 30, 2016, community health needs assessment was completed and an implementation strategy scorecard was prepared to understand the effectiveness of the Hospital's current strategies and programs.
- ✓ The "community" served by the Hospital was defined by utilizing inpatient and outpatient data regarding patient origin. This process is further described in Community Served by the Hospital.
- ✓ Population demographics and socioeconomic characteristics of the community were gathered and reported utilizing various third parties (see references in Appendices). The health status of the community was then reviewed. Information on the leading causes of death and morbidity information was analyzed in conjunction with health outcomes and factors reported for the community by countyhealthrankings.org. Health factors with significant opportunity for improvement were noted.
- ✓ Community input was provided through key stakeholder interviews of six stakeholders. Results and findings are described in the Key Stakeholder section of this report.
- ✓ Information gathered in the steps above was analyzed and reviewed to identify health issues of uninsured persons, low-income persons and minority groups and the community as a whole. Health needs were ranked utilizing a weighting method that weighs: 1) the size of the problem (How many people are affected by the issue), 2) the seriousness of the problem (What are the consequences of not addressing the issue), 3) the prevalence of common themes and 4) the alignment with the Hospital's Resources.
- ✓ An inventory of health care facilities and other community resources potentially available to address the significant health needs identified through the CHNA was prepared and collaborative efforts were identified.

General Description of Hospital

Jane Todd Crawford Hospital is a critical access 25-bed facility located in Greensburg, Kentucky. Currently, the medical staff has two Family Practice Physicians, a Primary Care Physician, an Internal Medicine Physician, a Family Practice Nurse Practitioner, and a full-time Radiologist. The Hospital also operates a Specialty Clinic, which offers the monthly services of two Orthopedists, a Nephrologist, and a Cardiologist. The emergency room has three patient rooms with capability to expand to five rooms during busier parts of the day. Films are read immediately by the radiologist. Transfers are generally made to nearby Campbellsville, Glasgow, or Elizabethtown, with more serious cases going to Louisville.

Jane Todd Crawford Hospital contracts with the Inspire Medical group. Inspire Medical is a physician-owned Emergency Department Management and Staffing Group with a solid network of Kentucky physicians committed to staffing physicians for emergency rooms in rural Kentucky hospitals.



Mission Statement

“Jane Todd Crawford Hospital has as its primary goal the provision of quality hospital services to the citizens of Green County and the surrounding areas. Through its Quality Improvement, Utilization Review and Risk Management Programs, we pledge to assure a consistently acceptable level and quality of service in the Hospital and Rural Health Clinics and to reduce the risk of injury to patients, visitors and employees. Organizational performance will be constantly reviewed and improved by effective processes, functions and services measured through continuous efforts by Quality Team(s) and activities such as staff, patient and community education.”

Evaluation of Prior Implementation Strategy

Jane Todd Crawford Hospital Priorities	Goals
Lack of education on health issues	<ol style="list-style-type: none"> 1. To increase awareness of health issues 2. To create community outreach programs aimed at educating patients
Future health care	<ol style="list-style-type: none"> 1. Increase access to specialists 2. Continue efforts to build new hospital facility

The Hospital made progress in each of the priority areas during the last three years. Goals and strategies for each priority area are summarized below.

PRIORITY 1: Lack of Education on Health Issues

Goal 1: To increase awareness of health issues

- A. Meet with area physicians to determine urgent health issues and ways to offer education on treatment and prevention of said issues.
 - *Met with Dr. Gary Partin, Medical Director at Green County Primary Care, in March 2019 to determine urgent health issues, which include diabetes, Hepatitis A, obesity and hypertension. We are working on having various medical providers write informational and educational articles on these issues to publish in the Greensburg Record Herald. Also discussing reviving a radio ad series on “Wellness Wednesdays” that we did in 2012 where medical providers spoke on various health topics.*
- B. Refocus goal of annual Health Fair to include more emphasis on health education and preventive care.
 - *We have made a more concentrative effort to include health-related vendors that have not participated in the annual Health Fair. New vendors have included those focused on healthy meal preparations to combat obesity; various aspects of therapy, such as occupational and speech; and mental health issues.*
- C. Take a more active role in community on health issues through media involvement.
 - *Providers at Green County Primary Care were recorded for a series of radio ads in February 2019, which were aired on two local stations. A corresponding newspaper ad is planned for publication in April or May 2019.*
 - *Jane Todd Crawford Hospital’s new website also went live in May 2017. Within the site is an area on Health Information, where information on various health issues such as diabetes, heart disease, flu, infection prevention, stroke awareness and skin cancer can be found.*

Goal 2: To create community outreach programs aimed at educating patients

- A. Work with the Green County Wellness Coalition to promote preventive health care and provide educational assistance.
 - *Partnered with the Green County Health Department to distribute information regarding “Freedom from Smoking” classes in January 2017, 2018 and 2019.*
 - *Participated in “Project Echo” in June 2018 by offering staff the opportunity to join in video classes on palliative care, which was offered through the GCWC.*
 - *Dr. Adil Mouhiddin, a physician at Green County Primary Care, was a guest speaker in March 2019 at a GCWC meeting, discussing the topic of obesity prevention.*
- B. Offer educational programs to the elderly through Green County Senior Citizens Center and other available facilities.
 - *Presented a program at the Green County Senior Citizens Center in 2016 regarding Chronic Care Management facilitated by Rebecca Higginbotham, Director of Quality Improvement. Another program regarding Jane Todd Crawford Hospital’s IOP program and the services it provides – which are targeted to the elderly – is scheduled for April 18, 2019, to be facilitated by the IOP staff.*

PRIORITY 2: Future Health Care

Goal 1: Increase access to specialists

- A. Increase marketing and promotion of current specialists at Jane Todd Specialty Clinic.
 - *Current specialists at Jane Todd Specialty Clinic include Dr. Brian Elmlinger and Dr. Barrett Lessenberry, orthopedists from Glasgow, Ky., with Dr. Elmlinger seeing patients every fourth Monday of the month, and Dr. Lessenberry seeing patients every other Friday; Dr. Shafic El-Hindi, a nephrologist from Elizabethtown, who sees patients every third Tuesday; and Dr. Crishnan Challappa, a cardiologist from Elizabethtown, seeing patients every other Thursday. Providers at Green County Primary Care, as well as other medical facilities in Greensburg, refer patients to the Specialty Clinic. We will have some new handouts made to distribute at various medical offices to promote the specialists.*
- B. Determine the need for types of specialists in the community and work with medical staff to bring those services to local clinics.
 - *Other specialists needed in the community include pain management, psychiatry, pediatrics, and a pulmonologist. Our medical staff is reaching out to these types of specialists, hoping to partner with larger facilities. Meanwhile, new primary care physicians have joined, or will be joining, the staff at Green County Primary Care as Dr. Adil Mouhiddin came in May 2018, and Dr. Hope Henson will join the staff in April 2019.*

Goal 2: Continue efforts to build new hospital facility

- *Work continues along this vein. The hospital applied for grants in August 2018 and again in January 2019 to clean up the property, including demolition of old structures, on the site of a new proposed hospital. Jane Todd's Board of Directors also met with Congressman Brett Guthrie in August 2018 regarding potential funding for a new medical facility.*

Summary of 2019 Needs Assessment Findings

The following health needs were identified based on the information gathered and analyzed through the community health needs assessment conducted by the Hospital. These needs have been prioritized based on information gathered through the community health needs assessment.

Identified Community Health Needs

1. Obesity
2. High cost of health care/deductibles
3. Lack of primary care physicians
4. Lack of health knowledge

These identified community health needs are discussed in greater detail later in this report.

Community Served by the Hospital

The Hospital is located in Greensburg, Kentucky, in Green County, and is about 80 miles south of Louisville. The Hospital is located off US highway 68. The Hospital serves residents in and around the city of Greensburg.

Defined Community

A Community is defined as the geographic area from which a significant number of the patients utilizing hospital services reside. While the community health needs assessment considers other types of health care providers, the Hospital is the single largest provider of acute care services. For this reason, the utilization of hospital services provides the clearest definition of the Community.

Based on the patient origin of acute care discharges from July 1, 2017, through June 30, 2018, management has identified the community to include the corresponding Counties listed in *Exhibit 1*.

Exhibit 1
Summary of Inpatient Discharges & Outpatient Visits by Zip Code
7/1/2017 – 6/30/2018

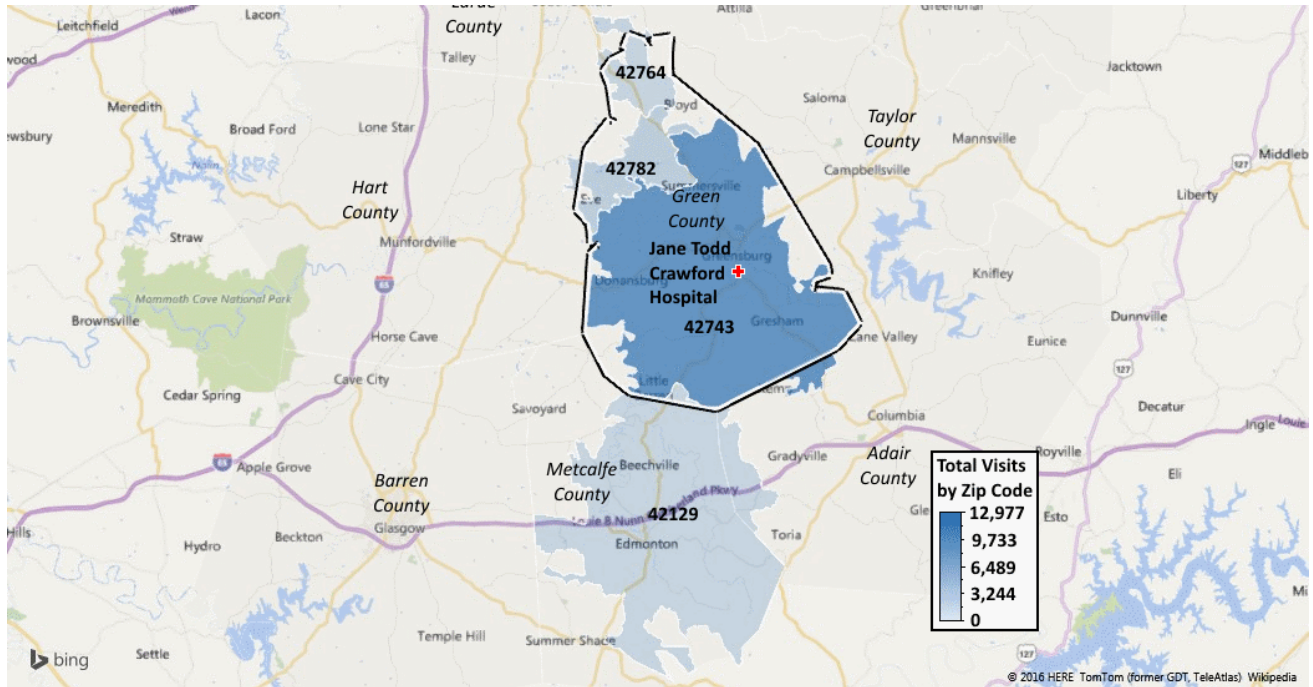
Zip Code	City	County	Inpatient	Outpatient	Total	Percent of Total
42743	Greensburg	Green	246	10,569	10,815	70.3%
42782	Summersville	Green	27	1,055	1,082	7.0%
Total Community			273	11,624	11,897	77.4%
All others outside Green Co.			211	3,271	3,482	22.6%
Total			484	14,895	15,379	100.0%

Source: Jane Todd Crawford Hospital

Community Details

Identification and Description of Geographical Community

The following map geographically illustrates the Hospital's community by showing the community zip codes shaded by number of inpatient discharges. The map below displays the Hospital's geographic relationship to the community, as well as significant roads and highways.



Community Population and Demographics

The U.S. Bureau of Census compiled population and demographic data based on the American Community Survey 2013 – 2017, 5 year estimates data sets. *Exhibit 2* below shows the total population of the community. It also provides the breakout of the community between male and female population, age, race/ethnicity and Hispanic population.

Exhibit 2 Demographic Snapshot Jane Todd Crawford Hospital						
DEMOGRAPHIC CHARACTERISTICS						
	Total Population					Green County
Green County	11,044					
Kentucky	4,424,376	Total Male Population				5,356
United States	321,004,407	Total Female Population				5,688
POPULATION DISTRIBUTION						
Age Distribution Age Group	Green County	Total	Kentucky	Percent of Total Kentucky	United States	Percent of Total US
0 - 4	563	5.10%	274,140	6.20%	19,853,515	6.18%
5 - 17	1,971	17.85%	854,775	19.32%	62,377,283	19.43%
18 - 24	579	5.24%	309,262	6.99%	22,501,965	7.01%
25 - 34	1,196	10.83%	569,513	12.87%	44,044,173	13.72%
35 - 44	1,328	12.02%	557,561	12.60%	40,656,419	12.67%
45 - 54	1,594	14.43%	602,145	13.61%	43,091,143	13.42%
55 - 64	1,599	14.48%	584,274	13.21%	40,747,520	12.69%
65+	2,214	20.05%	672,706	15.20%	47,732,389	14.87%
Total	11,044	100.00%	4,424,376	100.00%	321,004,407	100.00%
Race/Ethnicity Distribution						
Race/Ethnicity	Green County	Percent of Total	Kentucky	Percent of Total Kentucky	United States	Percent of Total US
White Non-Hispanic	10,425	94.40%	3,764,473	85.08%	197,277,789	61.46%
Hispanic	66	0.60%	152,072	3.44%	56,510,571	17.60%
Black Non-Hispanic	339	3.07%	348,472	7.88%	39,445,495	12.29%
Asian & Pacific Island Non-Hispanic	37	0.34%	59,254	1.34%	16,989,540	5.29%
All Others	177	1.60%	100,105	2.26%	10,781,012	3.36%
Total	11,044	100.00%	4,424,376	100.00%	321,004,407	100.00%

Data Source: US Census Bureau, American Community Survey. 2013-17.

Note that the age category that utilizes health care services the most, 65 years and over, is an estimated 20.05 percent of the population in Green County. The number of persons age 65 or older is relevant because this population has unique health needs, which should be considered separately from other age groups.

While the relative age of the community population can influence community health needs, so can the ethnicity and race of a population. The population of the community by race and ethnicity illustrates different categories such as, white, black, Asian, Hispanic, and other. *Exhibit 3* reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban. This table helps to understand how access to care can be limited.

Exhibit 3 Jane Todd Crawford Hospital Urban/Rural Population		
	Percent Urban	Percent Rural
Green County	0.0%	100.0%
Kentucky	58.4%	41.6%
United States	80.7%	19.3%
<i>Data Source: US Census Bureau, Decennial Census. 2010.</i>		

Socioeconomic Characteristics of the Community

The socioeconomic characteristics of a geographic area influence the way residents access health care services and perceive the need for health care services within society. The economic status of an area may be assessed by examining multiple variables within the community. The following exhibits are a compilation of data that includes household per capita income, employment rates, uninsured population poverty and educational attainment for the community. These standard measures will be used to compare the socioeconomic status of the community to Kentucky and the United States.

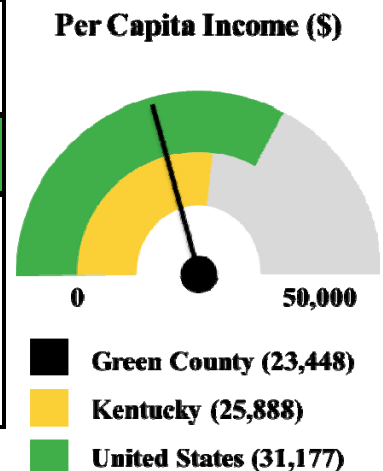
Income and Employment

Exhibit 4 presents the per capita income for the community. This includes all reported income from wages and salaries as well as income from self-employment, interest or dividends, public assistance, retirement and other sources. The per capita income in this exhibit is the average (mean) income computed for every man, woman and child in the specified area.

Per capita income in Green County has risen from \$19,465 in the previous CHNA to \$23,448 in the current, but remains below Kentucky and U.S. averages.

Exhibit 4 Jane Todd Crawford Hospital Per Capita Income			
	Total Population	Aggregate Household Income (\$)	Per Capita Income (\$)
Green County	11,044	\$ 246,514,200	\$ 23,448
Kentucky	4,424,376	\$ 111,119,964,500	\$ 25,888
United States	321,004,407	\$ 9,658,475,311,300	\$ 31,177

Data Source: US Census Bureau, American Community Survey. 2013-17.



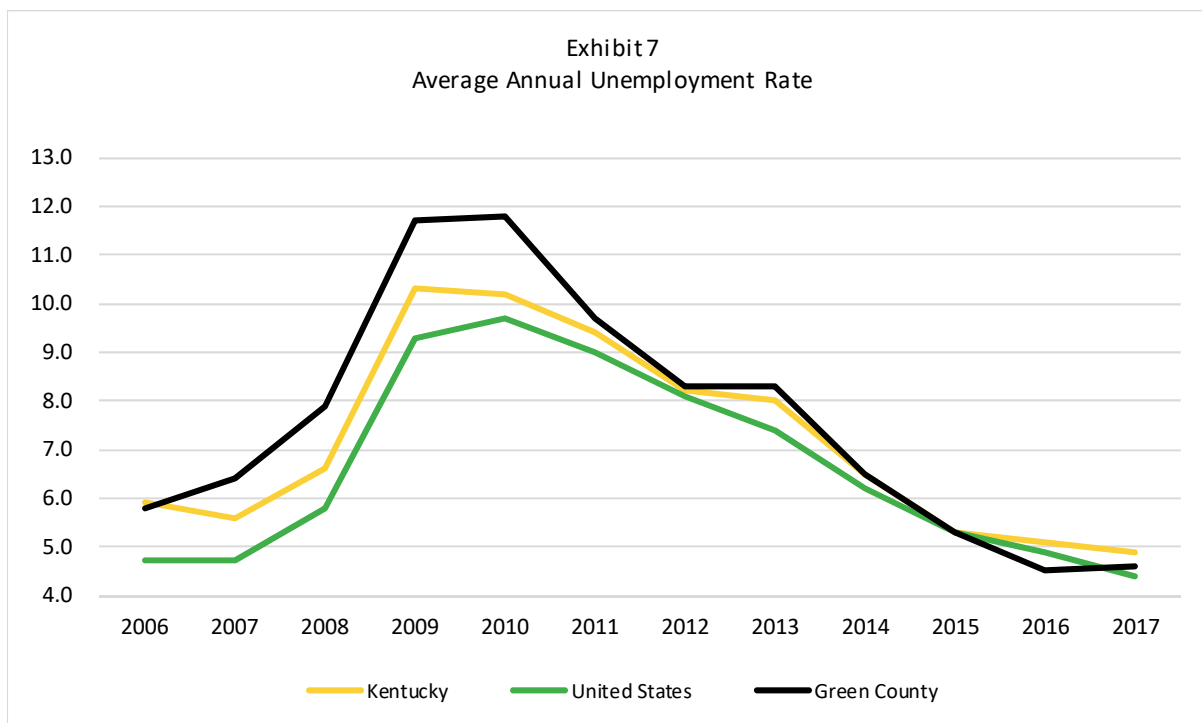
Green County is supported by major industries including healthcare and education. *Exhibit 5* summarizes employment by major industry for Green County and compares Green County to the U.S.

Exhibit 5 Jane Todd Crawford Hospital Employment by Major Industry – 2017				
Major Industries	Green County	%	US Total	US %
Government				
Federal Government	19	1.1%	2,729,632	2.0%
State Government	53	3.1%	4,545,134	3.3%
Local Government	457	27.0%	13,770,762	10.1%
Goods-producing				
Natural resources and mining	-	0.0%	2,071,941	1.5%
Construction	39	2.3%	6,106,715	4.5%
Manufacturing	42	2.5%	12,155,092	8.9%
Service-providing				
Trade, transportation and utilities	269	15.9%	26,098,433	19.1%
Information	15	0.9%	2,732,503	2.0%
Financial activities	90	5.3%	7,673,433	5.6%
Professional and business services	71	4.2%	19,073,009	14.0%
Education and health services	459	27.1%	20,568,785	15.1%
Leisure and hospitality	148	8.7%	14,625,406	10.7%
Other services (& Unclassified)	31	1.8%	4,452,277	3.3%
Total employment	1,693	100.0%	136,603,122	100.0%
Source: U.S. Department of Labor, Bureau of Labor Statistics				

Unemployment Rate

Exhibit 6 presents the average annual resident unemployment rates for the Green County, Kentucky, and the United States. *Exhibit 7* illustrates that unemployment rates for Green County had risen and peaked in 2010. The following years depicted a decline and shows the rate is now comparable with the state and national rates.

Exhibit 6 Jane Todd Crawford Hospital Average Annual Unemployment Rate												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Green County	5.8	6.4	7.9	11.7	11.8	9.7	8.3	8.3	6.5	5.3	4.5	4.6
Kentucky	5.9	5.6	6.6	10.3	10.2	9.4	8.2	8.0	6.5	5.3	5.1	4.9
United States	4.7	4.7	5.8	9.3	9.7	9.0	8.1	7.4	6.2	5.3	4.9	4.4
Data Source: US Department of Labor, Bureau of Labor Statistics. 2018 - August												



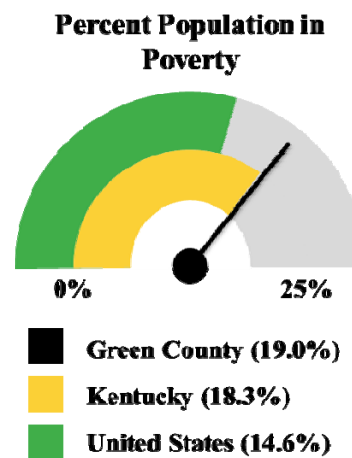
Poverty

Exhibit 8 presents the percentage of total population below 100 percent (Federal Poverty Level) FPL for Green County, Kentucky, and the United States. Poverty is a key driver of health status and is relevant because poverty creates barriers to access including health services, healthy food and other necessities that contribute to poor health status.

Low-income residents often postpone seeking medical attention until health problems become aggravated, creating a greater demand on a given community's medical resources. This includes reliance upon emergency room services for otherwise routine primary care. Often uninsured, the low-income demographics' inability to pay for services further strains the medical network. Low-income residents are also less mobile, requiring medical services in localized population centers, placing additional pressure on those providers already in high demand.

Exhibit 8 Jane Todd Crawford Hospital Population Below 100% FPL			
	Population (for Whom Poverty Status is Determined)	Population in Poverty	Percent in Poverty
Green County	10,903	2,068	19.0%
Kentucky	4,287,887	783,586	18.3%
United States	313,048,563	45,650,345	14.6%

Data Source: US Census Bureau, American Community Survey. 2013-17.

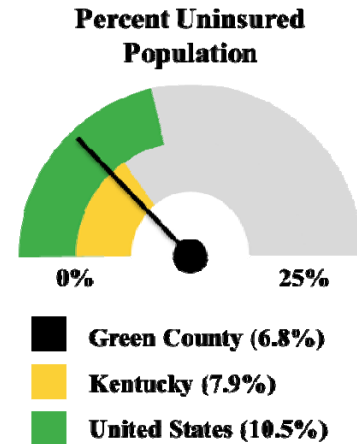


Uninsured

Exhibit 9 reports the percentage of the total civilian noninstitutionalized population without health insurance coverage for Green County, Kentucky, and the United States. This indicator is relevant because lack of insurance is a primary barrier to health care access including regular primary care, specialty care and other health services that contributes to poor health status. The lack of health insurance is considered a key driver of health status.

Exhibit 9 Jane Todd Crawford Hospital Health Insurance Coverage Status by Age			
	Population (Civilian Noninstitutionalized)	Total Uninsured	Percent Uninsured
Green County	10,924	746	6.8%
Kentucky	4,340,343	341,351	7.9%
United States	316,027,641	33,177,146	10.5%

Data Source: US Census Bureau, American Community Survey. 2013-17.



Medicaid

Exhibit 10 reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance). This is relevant because it assesses vulnerable populations, which are more likely to have multiple health access, health status and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Exhibit 10 Jane Todd Crawford Hospital Health Insurance Coverage Status			
	Total Population	Population Receiving Medicaid	Percent Receiving Medicaid
Green County	11,044	3,825	34.6%
Kentucky	4,468,000	1,355,198	30.3%
United States	327,200,000	65,564,683	20.0%

Data Source: US Census Bureau, American Community Survey. 2012-16.
Kentucky Dept for Medicaid Services, Data Warehouse.

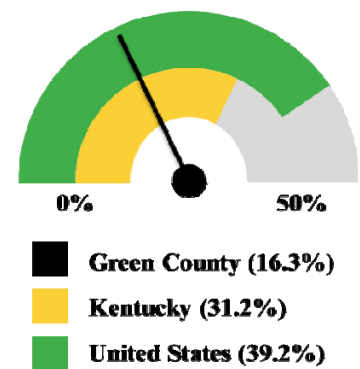
Education

Exhibit 11 presents educational attainment with an associate's level degree or higher for Green County, Kentucky, and the United States. This is relevant because educational attainment has been linked to positive health outcomes.

Exhibit 11 Jane Todd Crawford Hospital Educational Attainment of Population Age 25 and Older			
	Total Population Age 25 and Older	Population with Associate's Degree or Higher	Percent with Associate's Degree or Higher
Green County	7,931	1,290	16.3%
Kentucky	2,986,199	930,628	31.2%
United States	216,271,644	84,805,084	39.2%

Data Source: US Census Bureau, American Community Survey. 2013-17.

**Percent Population Age
25+ with Associate's
Degree or higher**



Physical Environment of the Community

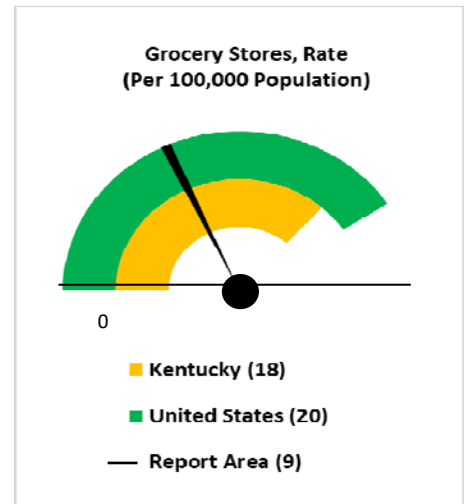
A community's health also is affected by the physical environment. A safe, clean environment that provides access to healthy food and recreational opportunities is important to maintaining and improving community health. This section will touch on a few of the elements that relate to some needs mentioned throughout the report.

Grocery Store Access

Exhibit 12 reports the number of grocery stores per 100,000-population. Grocery stores are defined as supermarkets and smaller grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish and poultry. Included are delicatessen-type establishments. Convenience stores and large general merchandise stores that also retail food, such as supercenters and warehouse club stores are excluded. This is relevant because it provides a measure of healthy food access and environmental influences on dietary behaviors.

Exhibit 12 Jane Todd Crawford Hospital Grocery Store Access			
	Total Population	Number of Establishments	Establishments Rate per 100,000
Green County	11,044	1	9.1
Kentucky	4,424,376	796	18.0
United States	321,004,407	65,399	20.4

*Data Source: Population data: US Census Bureau, American Comm Survey.2013-17.
Number of Establishments data: US Census Bureau, County Business Patterns
Additional data analysis by CARES. 2016.*

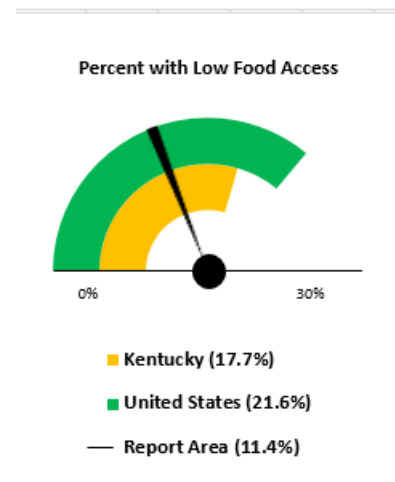


Food Access/Food Deserts

Exhibit 13 reports the percentage of the population living in census tracts designated as food deserts. A food desert is defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. This is relevant because it highlights populations and geographies facing food insecurity.

Exhibit 13 Jane Todd Crawford Hospital Population with Low Food Access			
	Total Population	Population with Low Food Access	Percent with Low Food Access
Green County	11,044	1,254	11.4%
Kentucky	4,424,376	782,548	17.7%
United States	321,004,407	69,266,771	21.6%

*Data Source: Total population data: US Census Bureau, American Comm Survey. 2013-17.
Population with low food access data: US Dept of Agriculture, Economic Research Service,
USDA - Food Access Research Atlas. 2015.*

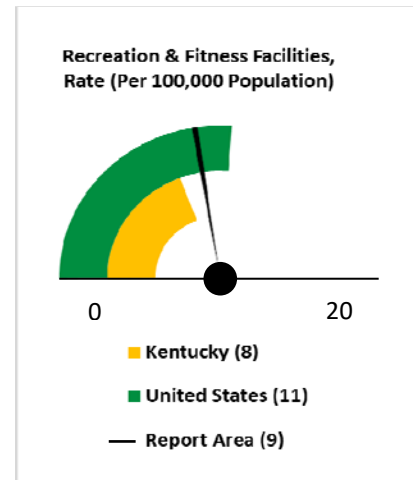


Recreation and Fitness Access

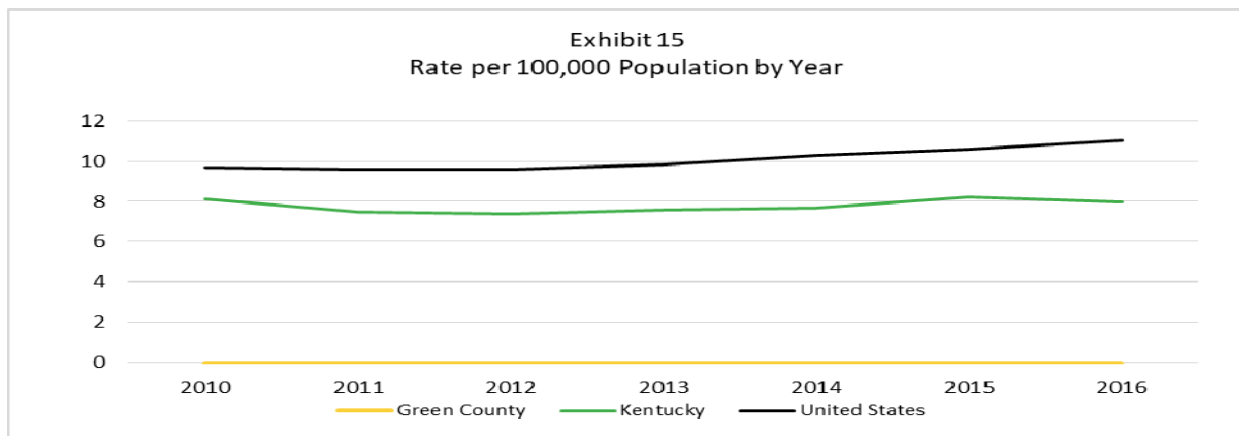
Exhibit 14 reports the number per 100,000-population of recreation and fitness facilities as defined by North American Industry Classification System (NAICS) Code 713940. It is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

Exhibit 14 Jane Todd Crawford Hospital Recreation and Fitness Facility Access			
	Total Population	Number of Establishments	Establishments Rate per 100,000
Green County	11,044	1	9
Kentucky	4,424,376	345	7.8
United States	321,004,407	33,980	10.6

Data Source: Total population data: US Census Bureau, American Comm Survey. 2013-17.
Number of establishments data: US Census Bureau, County Business Patterns
Additional data analysis by CARES. 2016.



The trend graph below (*Exhibit 15*) shows the number per 100,000-population of recreation and fitness facilities by year for the community and compared to Kentucky and the United States. Since 2010, Green County has not had any recreation and fitness facilities.



Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion 2013.

Clinical Care of the Community

A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsurance, financial hardship, transportation barriers, cultural competency and coverage limitations affect access.

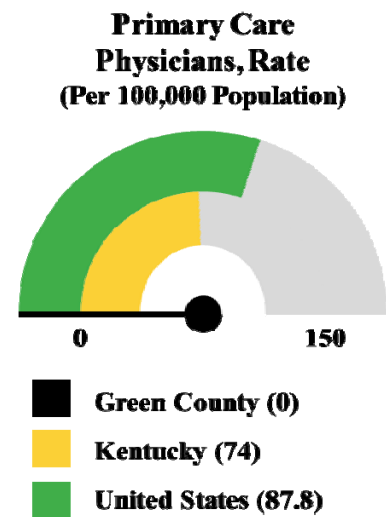
Rates of morbidity, mortality and emergency hospitalizations can be reduced if community residents access services such as health screenings, routine tests and vaccinations. Prevention indicators can call attention to a lack of access or knowledge regarding one or more health issues and can inform program interventions.

Access to Primary Care

Exhibit 16 reports the number of primary care physicians per 100,000-population. Doctors classified as “primary care physicians” by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians age 75 and over and physicians practicing subspecialties within the listed specialties are excluded. This is relevant because a shortage of health professionals contributes to access and health status issues.

Exhibit 16 Jane Todd Crawford Hospital Access to Primary Care			
	Total Population 2014	Primary Care Physicians 2014	Primary Care Physicians Rate per 100,000
Green County	11,043	-	-
Kentucky	4,313,457	3,264	74.0
United States	318,857,056	279,871	87.8

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2014.



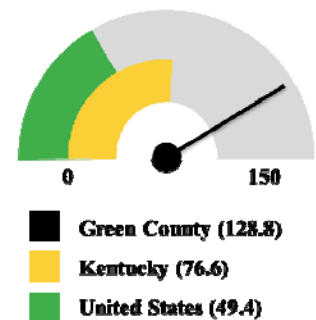
Preventable Hospital Events

Exhibit 17 reports the discharge rate (per 1,000 Medicare enrollees) for conditions that are ambulatory care sensitive (ACS). ACS conditions include pneumonia, dehydration, asthma, diabetes and other conditions, which could have been prevented if adequate primary care resources were available and accessed by those patients. This indicator is relevant because analysis of ACS discharges allows demonstrating a possible “return on investment” from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources.

Exhibit 17 Jane Todd Crawford Hospital Preventable Hospital Events			
	Total Medicare Part A Enrollees	Ambulatory Care Sensitive Condition Hospital Discharges	Ambulatory Care Sensitive Condition Discharge Rate
Green County	1,137	146	128.8
Kentucky	340,140	26,041	76.6
United States	22,488,201	1,112,019	49.4

Data Source: Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2015.

**Preventable Hospital Events,
Age-Adjusted Discharge Rate
(Per 1,000 Medicare Enrollees)**



Health Status of the Community

This section of the assessment reviews the health status of the Community with comparisons to the state of Kentucky. This in-depth assessment of the mortality and morbidity data, health outcomes, health factors and mental health indicators of the county residents that make up the community will enable the Hospital to identify priority health issues related to the health status of its residents.

Good health can be defined as a state of physical, mental and social well-being, rather than the absence of disease or infirmity. According to Healthy People 2020, the national health objectives released by the U.S. Department of Health and Human Services, individual health is closely linked to community health. Community health, which includes both the physical and social environment in which individuals live, work and play, is profoundly affected by the collective behaviors, attitudes and beliefs of everyone who lives in the community. Healthy people are among a community's most essential resources.

Numerous factors have a significant impact on an individual's health status: lifestyle and behavior, human biology, environmental and socioeconomic conditions, as well as access to adequate and appropriate health care and medical services. The interrelationship among lifestyle/behavior, personal health attitude and poor health status is gaining recognition and acceptance by both the general public and health care providers. Some examples of lifestyle/behavior and related health care problems include the following:

Lifestyle	Primary Disease Factor
Smoking	Lung cancer Cardiovascular disease Emphysema Chronic bronchitis
Alcohol/drug abuse	Cirrhosis of liver Motor vehicle crashes Unintentional injuries Malnutrition Suicide Homicide Mental illness
Poor nutrition	Obesity Digestive disease Depression
Driving at excessive speeds	Trauma Motor vehicle crashes
Lack of exercise	Cardiovascular disease Depression
Overstressed	Mental illness Alcohol/drug abuse Cardiovascular disease

Studies by the American Society of Internal Medicine conclude that up to 70 percent of an individual's health status is directly attributable to personal lifestyle decisions and attitudes. Persons who do not smoke, who drink in moderation (if at all), use automobile seat belts (car seats for infants and small children), maintain a nutritious low-fat, high-fiber diet, reduce excess stress in daily living and exercise regularly have a significantly greater potential of avoiding debilitating diseases, infirmities and premature death.

Health problems should be examined in terms of morbidity as well as mortality. Morbidity is defined as the incidence of illness or injury and mortality is defined as the incidence of death. However, law does not require reporting the incidence of a particular disease, except when the public health is potentially endangered.

Due to limited morbidity data, this health status report relies heavily on death and death rate statistics for leading causes in death in the community, along with the state of Kentucky. Such information provides useful indicators of health status trends and permits an assessment of the impact of changes in health services on a resident population during an established period of time. Community attention and health care resources may then be directed to those areas of greatest impact and concern.

Leading Causes of Death

Exhibit 18 reflects the leading causes of death for Green County residents and compares the rates, per hundred thousand, to Kentucky and national average rates, per hundred thousand.

Exhibit 18						
Jane Todd Crawford Hospital						
Selected Causes of Resident Deaths: Number and Crude Death Rate						
	Green County		Kentucky		United States	
Cancer	33	293.1	10,207	231.4	590,634	185.3
Coronary Heart Disease	25	228.4	5,616	127.3	367,306	115.3
Lung Disease	9	82.7	3,264	74.0	149,886	47.0
Motor Vehicle Accident	4	36.0	786	17.8	37,053	11.6
Stroke	8	68.3	2,044	46.4	134,618	42.2
Suicide	2	18.0	737	16.7	42,747	13.4
Unintentional Injury	8	73.7	2,806	63.6	140,444	44.1
* Data is suppressed due to insufficient source data						
Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2012-16.						

Health Outcomes and Factors

An analysis of various health outcomes and factors for a particular community can, if improved, help make that community a healthier place to live, learn, work and play. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment. This portion of the community health needs assessment utilizes information from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

The County Health Rankings model is grounded in the belief that programs and policies implemented at the local, state and federal levels have an impact on the variety of factors that, in turn, determine the health outcomes for communities across the nation. The model provides a ranking method that ranks all 50 states and the counties within each state, based on the measurement of two types of health outcomes for each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by programs and policies at the local, state and federal levels.

Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Those having high ranks, *e.g.* 1 or 2, are considered to be the "healthiest." Counties are ranked relative to the health of other counties in the same state on the following summary measures:

- Health Outcomes – rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
- Health Factors – rankings are based on weighted scores of four types of factors:
 - Health behaviors (six measures)
 - Clinical care (five measures)
 - Social and economic (seven measures)
 - Physical environment (four measures)

A more detailed discussion about the ranking system, data sources and measures, data quality and calculating scores and ranks can be found at the website for County Health Rankings (www.countyhealthrankings.org).

As part of the analysis of the needs assessment for the community, Green County will be used to compare the relative health status to Kentucky as well as to a national benchmark as seen in Exhibits 19. The current year information is compared to the health outcomes reported on the prior community health needs assessment and the change in measures is indicated. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment.

Health Outcomes – rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures. The following table shows Green County's morbidity outcomes have improved, while the mortality outcome has worsened.

The following tables in *Exhibits 19* and *19.1* include the 2015 and 2018 indicators reported by County Health Rankings for Green County. The arrows compare the health indicator numbers from 2015 to 2018. A green arrow indicates progress in a positive direction since 2015, a red arrow indicates the ranking has worsened since 2015 and a black dash indicates no change.

Exhibit 19 Jane Todd Crawford Hospital County Health Rankings – Health Outcomes					
	Green County 2015	Green County 2018		KY 2018	Top US Performers 2018
Mortality	*	10	51		
Premature death – Years of potential life lost before age 75 per 100,000 population (age-adjusted)	7,100	9,400		9,000	5,300
Morbidity	*	38	26		
Poor or fair health – Percent of adults reporting fair or poor health (age-adjusted)	23%	19%		21%	12%
Poor physical health days – Average number of physically unhealthy days reported in past 30 days (age-adjusted)	4.9	4.5		4.8	3.0
Poor mental health days – Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	4.2	4.3		4.8	3.1
Low birth weight – Percent of live births with low birth weight (<2500 grams)	8.0%	8.0%		9.0%	6.0%
* Rank out of 120 Kentucky counties Source: Countyhealthrankings.org					

EXHIBIT 19.1 GREEN COUNTY Jane Todd Crawford Hospital County Health Rankings – Health Factors					
	Green County 2015	Green County 2018		KY 2018	Top US Performers 2018
Health Behaviors	*	38	60		
Adult smoking – Percent of adults that report smoking at least 100 cigarettes and that they currently smoke	24.0%	21.0%		24.0%	14.0%
Adult obesity – Percent of adults that report a BMI >= 30	33.0%	38.0%		34.0%	26.0%
Food environment index [^] – Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	7.5	7.6		7.0	8.6
Physical inactivity – Percent of adults aged 20 and over reporting no leisure time physical activity	31.0%	34.0%		28.0%	20.0%
Access to exercise opportunities [^] – Percentage of population with adequate access to locations for physical activity	48.0%	37.0%		72.0%	91.0%
Excessive drinking – Percent of adults that report excessive drinking in the past 30 days	11.0%	14.0%		16.0%	13.0%
Alcohol-impaired driving deaths – Percent of motor vehicle crash deaths with alcohol involvement	13.0%	18.0%		28.0%	13.0%
Sexually transmitted infections – Chlamydia rate per 100K population	282.8	289.8		395.2	145.1
Teen births – Female population, ages 15-19	44.0	41.0		38.0	15.0
Clinical Care	*	94	85		
Uninsured adults – Percent of population under age 65 without health insurance	22.0%	8.0%		7.0%	6.0%
Primary care physicians – Number of population for every one primary care physician	N/A	N/A		1,510	1,030
Dentists – Number of population for every one dentist	2,760	2,770		1,560	1,280
Mental health providers – Number of population for every one mental health provider	850	690		520	330
Preventable hospital stays – Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	108.0	129.0		77.0	35.0
Diabetic screening [^] – Percent of diabetic Medicare enrollees that receive HbA1c screening	85.0%	87.0%		86.0%	91.0%
Mammography screening [^] – Percent of female Medicare enrollees that receive mammography screening	54.0%	59.0%		59.0%	71.0%

EXHIBIT 19.1 Continued GREEN COUNTY Jane Todd Crawford Hospital County Health Rankings – Health Factors					
	Green County 2015	Green County 2018		KY 2018	Top US Performers 2018
Social & Economic Factors	*	30	31	↑	
High school graduation[^] – Percent of ninth grade cohort that graduates in 4 years	98.0%	93.0%	↓	89.0%	95.0%
Some college[^] – Percent of adults aged 25-44 years with some post-secondary education	39.0%	46.0%	↑	60.0%	72.0%
Unemployment – Percent of population age 16+ unemployed but seeking work	6.6%	4.4%	↓	5.0%	3.2%
Children in poverty – Percent of children under age 18 in poverty	30.0%	29.0%	↓	24.0%	12.0%
Income inequality – Ratio of household income at the 80th percentile to income at the 20th percentile	5.2	5.0	↓	5.1	3.7
Children in single-parent households – Percent of children that live in household headed by single parent	24.0%	20.0%	↓	35.0%	20.0%
Social associations[^] – Number of membership associations per 10,000 population	17.9	18.2	↑	10.7	22.1
Violent Crime Rate – Violent crime rate per 100,000 population (age-adjusted)	53.0	47.0	↓	215.0	62.0
Injury deaths – Number of deaths due to injury per 100,000 population	75.0	99.0	↑	88.0	55.0
Physical Environment	*	16	16	—	
Air pollution-particulate matter days – Average daily measure of fine particulate matter in micrograms per cubic meter	13.5	9.8	↓	10.0	6.7
Severe housing problems – Percentage of household with at least 1 of 4 housing problems: overcrowding, high housing costs or lack of kitchen or plumbing facilities	12.0%	13.0%	↑	14.0%	9.0%
Driving alone to work – Percentage of the workforce that drives alone to work	78.0%	80.0%	↑	82.0%	72.0%
Long commute, driving alone – Among workers who commute in their car alone, the percentage that commute more than 30 minutes	43.0%	71.0%	↑	29.0%	15.0%
* Rank out of 120 Kentucky counties ^ Opposite Indicator signifying that an increase is a positive outcome and a decrease is a negative. Note: N/A indicates unreliable or missing data Source: Countyhealthrankings.org					

A number of different health factors shape a community's health outcomes. The County Health Rankings model includes four types of health factors: health behaviors, clinical care, social and economic and the physical environment. The following summary shows some of the major improvements from the prior community health needs assessment to current year and challenges faced by the Hospital's community. The improvements/challenges shown below in *Exhibit 20* were determined using a process of comparing the rankings of the community health outcomes in the current year to the rankings in the prior community health needs assessment.

Exhibit 20 Jane Todd Crawford Hospital Green County Improvements and Challenges	
Improvements	Challenges
Adult Smoking – percent decreased from 24% to 21%	Premature Death – number increased from 7,100 to 9,400
Some College Education – percent increased from 39% to 46%	Access to Exercise Opportunities – percent decreased from 48% to 37%
Uninsured Adults – percent decreased from 23% to 12.7%	Preventable Hospital Stays – rate increased from 108 to 129
Children in Single-Family Households – percent decreased from 24% to 20%	Sexually Transmitted Infections – rate increased from 282.8 to 289.8
Violent Crime Rate – rate decreased from 53 to 47	Adult Obesity – Percent increased from 33% to 38%

As can be seen from the summarized table above, there are numerous areas that have room for improvement when compared to the state statistics. However, there are also significant improvements made within Green County from the prior community health needs assessment.

The following exhibits show a more detailed view of certain health outcomes and factors for the Green County community, Kentucky, and the United States.

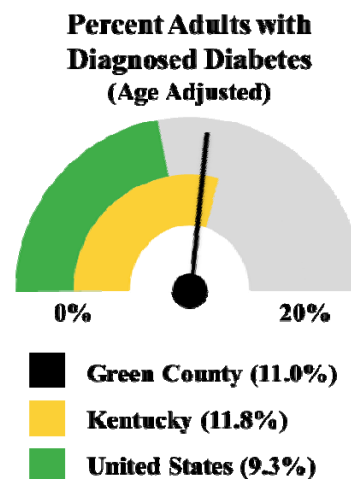
Diabetes (Adult)

Exhibit 21 reports the percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes. This is relevant because diabetes is a prevalent problem in the U.S.; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Exhibit 21 Jane Todd Crawford Hospital Population with Diagnosed Diabetes			
	Total Population Age 20 and Older	Population with Diagnosed Diabetes	Percent* with Diagnosed Diabetes
Green County	8,492	1,155	11.0%
Kentucky	3,299,853	430,988	11.8%
United States	241,492,750	24,722,757	9.3%

* Age-adjusted Rate

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2015.



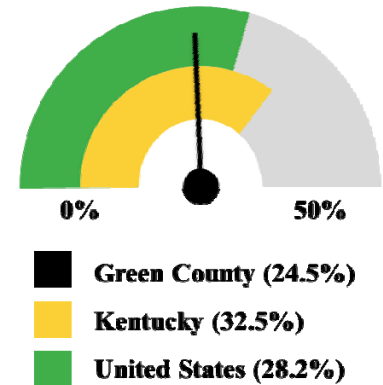
High Blood Pressure (Adult)

Exhibit 22 reports the percentage of adults aged 18 and older who self-report that they have ever been told by a doctor, nurse or other health professional that they had high blood pressure.

Exhibit 22 Jane Todd Crawford Hospital Population with High Blood Pressure			
	Total Population Age 18 and Older	Population with High Blood Pressure	Percent with High Blood Pressure
Green County	8,790	2,154	24.5%
Kentucky	3,294,652	1,070,762	32.5%
United States	232,556,016	65,476,522	28.2%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-12.

Percent Adults with High Blood Pressure



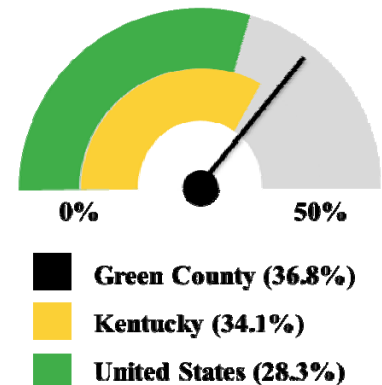
Obesity

Exhibit 23 reports the percentage of adults aged 20 and older who self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese). Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Exhibit 23 Jane Todd Crawford Hospital Population with Obesity			
	Total Population Age 20 and Older	Population with BMI > 30.0 (Obese)	Percent with BMI > 30.0 (Obese)
Green County	8,471	3,109	36.8%
Kentucky	3,298,508	1,127,164	34.1%
United States	238,842,519	67,983,276	28.3%

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2015.

Percent Adults with BMI > 30.0 (Obese)



Key Stakeholder Interviews

Interviewing key stakeholders (community stakeholders) is a technique employed to assess public perceptions of the county's health status and unmet needs. These interviews are intended to ascertain opinions among individuals likely to be knowledgeable about the community and influential over the opinions of others about health concerns in the community.

Methodology

Six key stakeholder interviews were conducted. Interviewees were determined based on their a) specialized knowledge or expertise in public health, b) their affiliation with local government, schools and industry or c) their involvement with underserved and minority populations.

All interviews were conducted by BKD personnel using a standard questionnaire. A copy of the interview is included in the Appendices. A summary of the opinions is reported without judging the truthfulness or accuracy of their remarks. Leaders provided comments on various issues, including:

- ✓ Health and quality of life for residents of the primary community
- ✓ Barriers to improving health and quality of life for residents of the primary community
- ✓ Opinions regarding the important health issues that affect Green County residents and the types of services that are important for addressing these issues
- ✓ Delineation of the most important health care issues or services discussed and actions necessary for addressing those issues

Themes in the data were identified and representative quotes have been drawn from the data to illustrate the themes. Interviewees were assured that personal identifiers such as name or organizational affiliations would not be connected in any way to the information presented in this report. Therefore, quotes included in the report may have been altered to preserve confidentiality.

This technique does not provide a quantitative analysis of the leaders' opinions, but reveals some of the factors affecting the views and sentiments about overall health and quality of life within the community.

Key Stakeholder Profiles

Key stakeholders from the community (see the Appendices for a list of key stakeholders) worked for the following types of organizations and agencies:

- ✓ Social service agencies
- ✓ Local city and county government
- ✓ Public health agencies
- ✓ Medical providers

Key Stakeholder Interview Results

The interview questions for each key stakeholder were identical. The questions on the interview instrument are grouped into four major categories for discussion:

1. General opinions regarding health and quality of life in the community
2. Underserved populations and communities of need
3. Barriers
4. Most important health and quality of life issues

This section of the report summarizes what the key stakeholders said without assessing the credibility of their comments. Paraphrased quotes are included to reflect some commonly held opinions and direct quotes are employed to emphasize strong feelings associated with the statements.

Summarized Interview Results

1. General opinions regarding health and quality of life in the community

The key stakeholders were asked to rate the health and quality of life in Green County. They were also asked to provide their opinion whether the health and quality of life had improved, declined or stayed the same over the past few years. Lastly, key stakeholders were asked to provide support for their answers.

The key stakeholders rated the health and quality of life on a scale of 1-10, with 1 being the lowest quality of health and life score and 10 being the highest. The scores given by the key stakeholders ranged from five to seven and averaged to 5.9.

Key stakeholders were asked whether the health and quality of life had improved, declined or stayed the same since the last assessment. Three stakeholders reported that the health and quality of life had stayed about the same since the last assessment and three stakeholders reported that the health and quality of life had declined since the prior assessment. When asked why they thought the health and quality of life had either declined or stayed the same, half of the stakeholders (three out of six) noted poor job market/lack of jobs and suppressed economic development as key contributing factors. Stakeholders also identified smoking, poor diet and exercise habits, little access to grocery stores, poverty and provider shortages as factors that contributed negatively to their assessment of the current quality of life.

Three key stakeholders reported that access to health services has improved in the past three years. Stakeholders who believed access to health services had improved noted more Nurse Practitioners in the area, more facilities are accepting walk-ins and that the provider shortage has been recognized. Two key stakeholders indicated that access to health services remained about the same as it was during the prior CHNA.

2. Underserved populations and communities of need

Key stakeholders were asked to provide their opinions regarding specific populations or groups of people whose health or quality of life may not be as good as others. The key stakeholders were also asked to provide their opinion as to why they thought these populations were underserved or in need.

All six key stakeholders identified the elderly population as a group that is both underserved and at-risk. Stakeholders noted the elderly face challenges with getting to doctors' appointments as well as accessing healthy food. A majority of key stakeholders identified low income individuals and families as an underserved population in the community. Lack of financial resources can prevent individuals from seeking and being able to afford medical care. Two key stakeholders mentioned single parent families and low income families with children as a vulnerable population. It was noted that children in these families may be falling through the cracks.

Key stakeholders noted that these vulnerable populations lack an awareness of the resources available to help them. Others have poor attitudes toward their health and are not diligent when it comes to making and keeping appointments. Some lack the financial means to afford medical care.

3. Barriers

The key stakeholders were asked what barriers or problems keep community residents from obtaining necessary health services and improving health in their community. Responses to this question varied. Multiple stakeholders noted poverty as a major barrier to both obtaining health services and improving health.

Several stakeholders mentioned that limited options for care, such as a lack of specialists, are a barrier for community residents. One key stakeholder noted the opioid epidemic and its effects on the community as a barrier. Additional barriers identified include rural areas, lack of safe places to be active, lack of personal motivation to improve one's health, and high cost of care.

Multiple stakeholders mentioned that a new hospital facility is needed in the community. Stakeholders felt that the Hospital will continue to have problems attracting and retaining physicians, specialists and providers with the current facility. One stakeholder noted the current facility causes a negative perception and contributes to younger people moving out of the county.

Lack of participation in wellness and healthy lifestyles were also seen as barriers. Some individuals, as mentioned above, are not motivated to fix the unhealthy habits they have formed, especially the elderly who have been living their lives certain ways for an extended period of time. Health education can help teach individuals about the adverse effects of unhealthy behaviors.

4. Most important health and quality of life issues

Key stakeholders were asked to provide their opinion as to the most critical health and quality of life issues facing the county. Four of the key stakeholders indicated the top three needs identified in the prior CHNA – lack of primary care physicians, high cost of health care/deductibles and adult obesity – continue to be the most important and pressing health issues in Green County.

Stakeholders also noted that tobacco usage is prevalent in Green County and that substance abuse/drug use is also a problem. Additional issues identified include cancer, respiratory illnesses and cardiac disease.

Stakeholders felt the best way to address these needs was through patient education and awareness, improved transportation services in the area, collaboration with the local health department to address needs and a smoke free ordinance. Multiple stakeholders indicated a new facility would be pivotal in attracting physicians and improving health and quality of life.

The key stakeholders were also asked to identify the most critical issues the Hospital should address over the next three to five years. Responses included:

- New hospital facility
- Increase community engagement, promotion of community events, increase awareness of services the hospital offers
- Decrease waiting time in the ER
- Engage the community by being more visible
- Continue to work on access to funding that would allow a new facility to be built
- Efforts should be made to recruit physicians

Even though the status of health in the area was a mixed response, with many areas that need attention and improvement, nearly all key stakeholders noted the Hospital strives to provide quality patient care.

“The Hospital has improved as a community partner, but still needs to focus on community involvement and investing in the community.”

“I have received excellent care at the Hospital, staff is very good.”

“Doing the best we can with what we have.”

Key Findings

A summary of themes and key findings provided by the key stakeholders follows:

- Adult obesity, high cost of healthcare/deductibles and lack of primary care physicians continue to be noted as critical health issues within Green County.
- In Green County, poverty and lack of financial resources is a major barrier to better health.
- Health education and awareness could be improved in the community. The residents of Green County could benefit from community outreach programs that target prevalent health issues, preventative care and the importance of healthy eating/maintaining an active lifestyle.
- Several underserved populations exist in Green County, most notably the elderly population and low income individuals and families.

Health Issues of Vulnerable Populations

According to Dignity Health’s Community Need Index (see Appendices), the Hospital’s community has a moderate-level of need. The CNI score is an average of five different barrier scores that measure socioeconomic indicators of each community (income, cultural, education, insurance and housing). The zip codes in the community that have the highest need in the community are listed in *Exhibit 24*.

Exhibit 24			
Jane Todd Crawford Hospital			
Zip Codes with Highest Community Need Index			
Zip Code	CNI Score*	City	County
42782	3.4	Summersville	Green
42743	3.2	Greensburg	Green
* Scale of 1 (Lowest Need) to 5 (Highest Need)			
Source: Dignity Health Community Need Index			

Information Gaps

This assessment was designed to provide a comprehensive and broad picture of the health in the overall community served by the Hospital; however, there may be a number of medical conditions that are not specifically addressed in this report due to various factors, including but not limited to, publically available information or limited community input.

In addition, certain population groups might not be identifiable or might not be represented in numbers sufficient for independent analysis. Examples include homeless, institutionalized persons, undocumented residents and members of certain ethnic groups who do not speak English or Spanish. Efforts were made to obtain input from these specific populations through key stakeholder interviews.

Prioritization of Identified Health Needs

Priority setting is a required step in the community benefit planning process. The IRS regulations indicate that the needs assessment must provide a prioritized description of the community health needs identified through the assessment, and include a description of the process and criteria used in prioritizing the health needs.

Using findings obtained through the collection of primary and secondary data, the Hospital completed an analysis of these to identify community health needs. The following data was analyzed to identify health needs for the community:

Leading Causes of Death

Leading causes of death for the community and the death rates for the leading causes of death for each county within the Hospital community were compared to U.S. adjusted death rates. Causes of death in which the county rate compared unfavorably to the U.S. adjusted death rate resulted in a health need for the Hospital community.

Health Outcomes and Factors

An analysis of the County Health Rankings health outcomes and factors data was prepared for each county within the Hospital's community. County rates and measurements for health behaviors, clinical care, social and economic factors and the physical environment were compared to state benchmarks. County rankings in which the county rate compared unfavorably (by greater than 30 percent of the national benchmark) resulted in an identified health need.

Primary Data

Health needs identified through key stakeholder interviews were included as health needs. Needs for vulnerable populations were separately reported on the analysis in order to facilitate the prioritization process.

Health Needs of Vulnerable Populations

Health needs of vulnerable populations were included for ranking purposes.

To facilitate prioritization of identified health needs, a ranking process was used. Health needs were ranked based on the following four factors. Each factor received a score between 0 and 5, with a total maximum score of 20 (indicating the greatest health need).

- 1) **How many people are affected by the issue or size of the issue?** For this factor, ratings were based on the percentage of the community who are impacted by the identified need. The following scale was utilized:
 - i. >25% of the community = 5
 - ii. >15% and <25% = 4
 - iii. >10% and <15% = 3
 - iv. >5% and <10% = 2
 - v. <5% = 1

- 2) **What are the consequences of not addressing this problem?** Identified health needs, which have a high death rate or have a high impact on chronic diseases, received a higher rating.
- 3) **Prevalence of common themes.** The rating for this factor was determined by how many sources of data (Leading Causes of Death, Primary Causes for Inpatient Hospitalization, Health Outcomes and Factors and Primary Data) identified the need.
- 4) **Alignment with Hospital's resources.** The rating for this factor was determined by whether or not the need fits within the Hospital's strategic plan, as well as the Hospital's ability to address the need. Rating of one (least) through five (greatest) was given to the need, based on management assessment.

Each need was ranked based on the four prioritization metrics. As a result, the following summary list of needs was identified:

Exhibit 25 Jane Todd Crawford Prioritization of Health Needs						
	How Many People Are Affected by the Issue?	What Are the Consequences of Not Addressing This Problem?	What is the Impact on Vulnerable Populations?	How Important is it to the Community?	Alignment with hospital's resources	Total Score *
Obesity	5	5	4	5	5	24
High Cost of Health Care/Deductibles	5	4	5	5	4	23
Lack of Primary Care Physicians	5	4	4	5	5	23
Lack of Health Knowledge	4	4	5	4	5	22
Healthy Behaviors/Lifestyle Changes	4	4	4	5	4	21
Lack of Mental Health Providers	3	4	5	4	3	19
High Blood Pressure	5	4	3	3	4	19
Adult Smoking	4	4	3	4	3	18
Substance Abuse	3	4	4	4	4	19
Cancer	4	4	4	3	3	18
Physical Inactivity/Access to parks	5	4	3	3	3	18
Transportation	3	3	5	3	3	17
Poverty/Lack of Financial Resources/Children in Poverty	3	4	3	3	3	16
Heart Disease	3	4	3	3	4	17
Uninsured	2	4	3	3	3	15
Lung Disease	3	3	3	3	4	16
Preventable Hospital Stays	4	3	2	1	3	13
Motor Vehicle Accident/Alcohol Impaired Driving Deaths	2	3	3	2	2	12
Excessive Drinking	3	3	2	2	2	12
Stroke	2	2	2	2	2	10
Teen Birth Rate	2	2	2	1	1	8
Sexually Transmitted Infections	1	2	2	1	1	7
Lack of Dentists	1	2	2	1	1	7
Mammography Screenings	1	2	2	1	3	9
Unintentional Injury	1	2	1	1	1	6
High Housing Costs	1	1	1	1	1	5

Management's Prioritization Process

For the health needs prioritization process, the Hospital engaged a leadership team to review the most significant health needs reported on the prior needs assessment, as well as in *Exhibit 25* using the following criteria:

- Current area of Hospital focus.
- Established relationships with community partners to address the health need.
- Organizational capacity and existing infrastructure to address the health need.

Based on the criteria outlined above, the health needs that scored 22 or more (out of a possible 25) were identified as a priority area that will be addressed through Jane Todd Crawford Hospital's Implementation Strategy for fiscal year 2020 through 2022. These include the following:

1. Obesity
2. High cost of health care/deductibles
3. Lack of primary care physicians
4. Lack of health knowledge

Health Care Resources

The availability of health resources is a critical component to the health of a county's residents and a measure of the soundness of the area's health care delivery system. An adequate number of health care facilities and health care providers is vital for sustaining a community's health status. Fewer health care facilities and health care providers can impact the timely delivery of services. A limited supply of health resources, especially providers, results in the limited capacity of the health care delivery system to absorb charity and indigent care as there are fewer providers upon which to distribute the burden of indigent care. This section addresses the availability of health care resources to the residents of Green County.

Hospitals and Health Centers

The Hospital has 25 acute beds and is the only hospital located in the county. Residents of the community also take advantage of services provided by hospitals in neighboring counties. *Exhibit 26* summarizes acute care and critical access Hospital services available to the residents of Green County.

Exhibit 26 Jane Todd Crawford Hospital Summary of Local Hospitals					
		County	Miles from Greensburg	Bed Size*	Facility Type
Taylor Regional Hospital	1700 Old Lebanon Rd., Campbellsville, KY 42718	Taylor	11.5	90	Short Term/Acute
TJ Health Columbia Hospital	901 Westlake Dr., Columbia, KY 42728	Adair	15.9	16	Short Term/Acute
The Medical Center at Caverna	1501 South Dixie St., Horse Cave, KY 42749	Hart	24.4	25	Critical Access
Spring View Hospital	320 Loretto Rd., Lebanon, KY 40033	Marion	25.1	63	Short Term/Acute
Russell County Hospital	153 Dowell Rd., Russell Springs, KY 42642	Russell	27.7	25	Critical Access
TJ Samson Community Hospital	1301 North Race St., Glasgow KY 42141	Barren	28.2	117	Short Term/Acute
* Includes subprovider beds, excludes skilled nursing facility beds					
Source: Costreportdata.com 2017 data					

Other Health Care Facilities and Providers

Short-term acute care hospital services are not the only health services available to members of the Hospital's community. *Exhibit 27* provides a listing of community health centers and rural health clinics within the Hospital's community.

Exhibit 27 Jane Todd Crawford Hospital Summary of Other Health Care Facilities				
		County	Miles from Jane Todd	Facility Type
Green County Primary Care	310 Industrial Park Rd., Greensburg, KY 42743	Green	0.5	Rural Health Care
T J Health Greensburg Clinic	603 Columbia Highway, Greensburg, KY 42743	Green	0.8	Rural Health Clinic
Greensburg Family Medical	1911 Campbellsville Rd., Greensburg, KY 42743	Green	3.5	Federally Qualified Health Center
Greensburg Healthcare	2680 Campbellsville Rd., Greensburg, KY 42743	Green	4.3	Federally Qualified Health Center
TJ Health Edmonton	1704 W. Stockton St., Edmonton, KY 42129	Metcalfe	25.7	Rural Health Clinic
LaRue Family Medical Center	215 E Main St., Hodgenville, KY 42748	LaRue	29.8	Federally Qualified Health Center
Source: Health Resources & Services Administration, 2018.				

Health Departments

The community is governed by the Lake Cumberland District Health Department, which offers a large array of services to patients, including assessments and screenings, as well as education and wellness resources for children, personal, teen and in the workplace, in order to help individuals take a proactive approach toward healthy living.

Some of these services include child and adult immunizations, well child exams, fluoride varnishing, family planning (birth control), prenatal care (limited service areas), Women, Infants & Children food program (WIC), medical nutrition therapy, diabetes screening and counseling, HIV and STD screenings and breast and cervical cancer screenings. They also offer non-clinical services such as disaster preparedness and environmental services.

Services are provided by medical professionals – physicians, nurse practitioners, registered nurses, LPNs, and registered dietitians – who adhere to the guidelines set forth by the Department of Public Health, ensuring that care is provided at the highest professional standard.

Many of the services are covered by Medicare, Medicaid and other insurances. In the case individuals are uninsured or their insurance doesn't pay for the service, the majority of the services are offered on a sliding fee scale basis.

APPENDICES

APPENDIX A
ANALYSIS OF DATA

Jane Todd Crawford Hospital
Analysis of CHNA Data
Analysis of Health Status – Leading Causes of Death

	(A)		(B)		
	U.S. Crude Rates	Kentucky Crude Rates	County Rate	10% Increase of Kentucky Crude Rate	If (A)>(B), then "Health Need"
Green County:					
Cancer	185.3	231.4	293.1	254.5	Health Need
Coronary Heart Disease	115.3	127.3	228.4	140.0	Health Need
Lung Disease	47.0	74.0	82.7	81.4	Health Need
Unintentional Injury	44.1	63.6	73.7	70.0	Health Need
Stroke	42.2	46.4	68.3	51.0	Health Need

The crude rate is shown per 100,000 residents. Please refer to Exhibit 18 for more information.

Analysis of Health Outcomes and Factors

	(A)		(B)		
	National Benchmark	30% of National Benchmark	County Rate	County Rate Less National Benchmark	If (B)>(A), then "Health Need"
Green County:					
Adult Smoking	14.0%	4.2%	21.0%	7.0%	Health Need
Adult Obesity	26.0%	7.8%	38.0%	12.0%	Health Need
Food Environment Index	8.6	3	7.6	1	
Physical Inactivity	20.0%	6.0%	34.0%	14.0%	Health Need
Access to Exercise Opportunities	91.0%	27.3%	37.0%	54.0%	Health Need
Excessive Drinking	13.0%	3.9%	14.0%	1.0%	
Alcohol-Impaired Driving Deaths	13.0%	3.9%	18.0%	5%	Health Need
Sexually Transmitted Infections	145	44	290	145	Health Need
Teen Birth Rate	15	5	41	26	Health Need
Uninsured	6.0%	1.8%	8.0%	2.0%	Health Need
Dentists	1280	384	2770	1490	Health Need
Mental Health Providers	330	99	690	360	Health Need
Preventable Hospital Stays	35	11	129	94	Health Need
Diabetic Screen Rate	91.0%	27.3%	87.0%	4.0%	
Mammography Screening	71.0%	21.3%	59.0%	12.0%	
Violent Crime Rate	62	19	47	-15	
Children in Poverty	12.0%	3.6%	29.0%	17.0%	Health Need
Children in Single-Parent Households	20.0%	6.0%	20.0%	0.0%	

Analysis of Primary Data – Key Informant Interviews

Substance Abuse
Tobacco use
Cost of Health Care
Transportation
Obesity
Lack of Physicians
Lack of Health Knowledge/Education

***Issues of Uninsured Persons, Low-Income Persons
and Minority/Vulnerable Populations***

Population	Issues
Uninsured/Working Poor Population	<p>Transportation</p> <p>Access to primary care physicians</p> <p>High cost prevents needs from being met</p> <p>Healthy lifestyle and health nutrition education</p> <p>Lack of mental health services</p>
Elderly	<p>Transportation</p> <p>Lack of health knowledge regarding how to access services</p> <p>Cost of prescriptions</p> <p>Healthy behaviors/lifestyle choices</p>

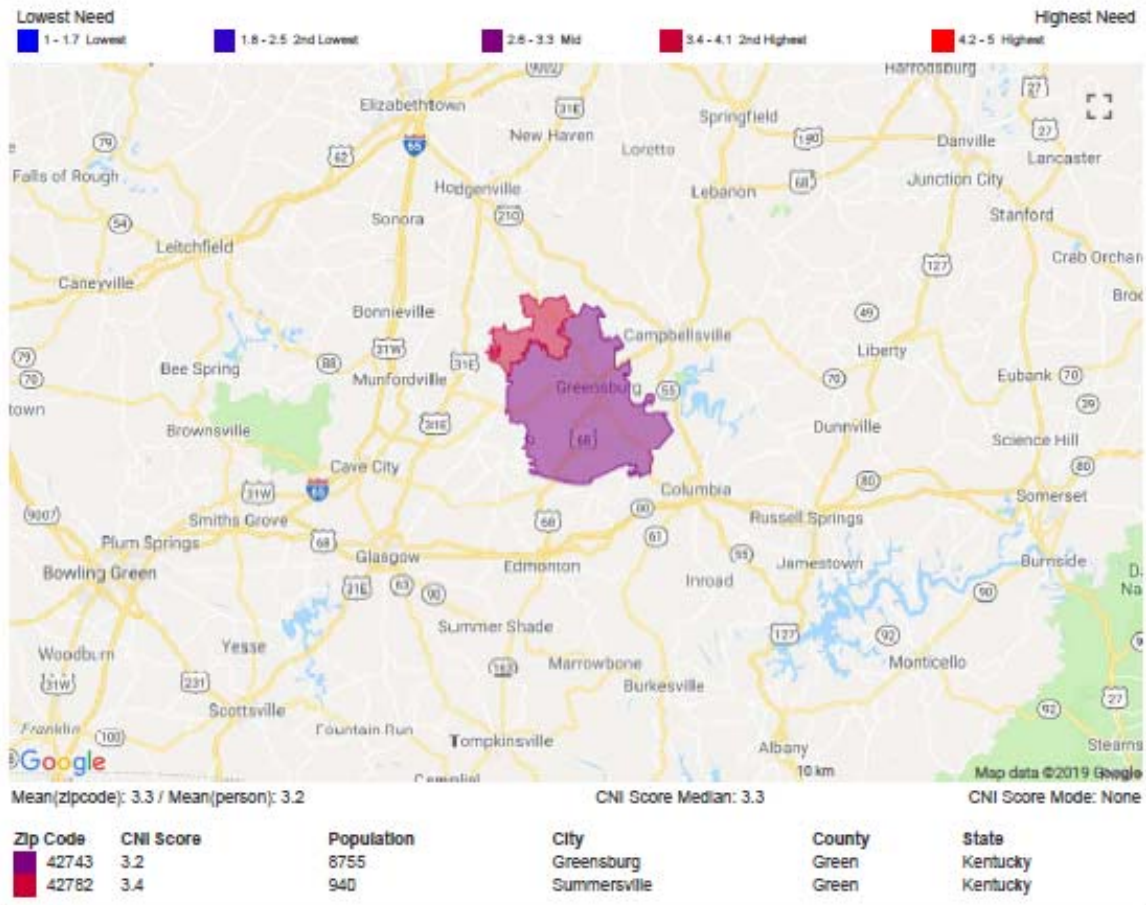
APPENDIX B

SOURCES

DATA TYPE	SOURCE	YEAR(S)
Discharges by Zip Code	Jane Todd Crawford Hospital	FY 2018
Community Details: Population & Demographics	American FactFinder via American Community Survey https://factfinder.census.gov/	2013-2017
Community Details: Urban/Rural Population	American FactFinder via American Community Survey https://factfinder.census.gov/	2010
Socioeconomic Characteristics: Income	American FactFinder via American Community Survey https://factfinder.census.gov/	2013-2017
Socioeconomic Characteristics: Employment by Major Industry	US Department of Labor, Bureau of Labor Statistics http://www.bls.gov/cew/datatoc.htm	2017
Socioeconomic Characteristics: Top Employers by County	Kentucky Cabinet for Economic Development http://www.thinkkentucky.com	2019
Socioeconomic Characteristics: Unemployment	Cares Engagement Network via US Department of Labor https://engagementnetwork.org/	2006-2017
Socioeconomic Characteristics: Poverty	American FactFinder via American Community Survey https://factfinder.census.gov/	2013-2017
Socioeconomic Characteristics: Uninsured	American FactFinder via American Community Survey https://factfinder.census.gov/	2013-2017
Socioeconomic Characteristics: Medicaid	Cares Engagement Network via American Community Survey https://engagementnetwork.org/	2012-2016
Socioeconomic Characteristics: Education	American FactFinder via American Community Survey https://factfinder.census.gov/	2013-2017
Physical Environment: Grocery Store Access	Cares Engagement Network via US Census Bureau https://engagementnetwork.org/	2016
Physical Environment: Food Access/Food Deserts	Cares Engagement Network via US Department of Agriculture https://engagementnetwork.org/	2015
Physical Environment: Recreation/Fitness Access	Cares Engagement Network via US Census Bureau https://engagementnetwork.org/	2016
Clinical Care: Access to Primary Care	Cares Engagement Network via US Department of Health & Human Services https://engagementnetwork.org/	2014
Critical Care: Preventable Hospital Events	Cares Engagement Network via Dartmouth College Institute for Health Policy https://engagementnetwork.org/	2015
Leading Causes of Death	Cares Engagement Network via Centers for Disease Control and Prevention https://engagementnetwork.org/	2012-2016
Health Outcomes and Factors	County Health Rankings http://www.countyhealthrankings.org/	2015 & 2018
Health Outcome Details	Cares Engagement Network https://engagementnetwork.org/	2006-2015
Health Care Resources: Hospitals	US Hospital Finder http://www.ushospitalfinder.com/	2019
Health Care Resources: Hospitals Cost Reports	Cost Report Data https://www.costreportdata.com/	2017
Health Care Resources: Community Health Centers	Health Resources & Services Administration https://www.hrsa.gov/	2018
Zip Codes with Highest CNI	Dignity Health Community Needs Index http://cni.chw-interactive.org/	2018

APPENDIX C
DIGNITY HEALTH COMMUNITY NEED INDEX
(CNI) REPORT

GREEN COUNTY



APPENDIX D
KEY STAKEHOLDER INTERVIEW QUESTIONS
& ACKNOWLEDGEMENTS

**Jane Todd Crawford Hospital
Community Health Needs Assessment
Key Stakeholder Interview Questions**

1. In general, how would you rate health and quality of life in the area?
2. In your opinion, has health and quality of life in the area improved/declined/stayed the same over the past few years?
3. Why do you think it has (based on answer from previous question: Improved/declined/stayed the same)?
4. What other factors have contributed to the health and quality of life [improving, declining or staying the same] (based on answer to question 2)?
5. What barriers, if any, exist to improving health and quality of life in the area?
6. In your opinion, what are the most critical health and quality of life issues in the area?
7. What needs to be done to address these issues?
8. Do you think access to Health Services has improved over the last 3 years?
9. In your opinion, what is the reason why people are not able to access health services (medical, dental, mental health)? Please describe the challenges that keep individuals from seeking health care services.
 - ☐ Lack of Health Insurance
 - ☐ Inability to afford co-pays and/or deductibles
 - ☐ Transportation
 - ☐ Physicians refuse to take insurance or Medicaid
 - ☐ People don't know how to find a doctor
 - ☐ Fear
 - ☐ Too long to wait for an appointment
 - ☐ Inconvenient hours/locations
 - ☐ Other
10. Please provide your thoughts on the accessibility of Mental Health services for residents of the community.
11. Please describe your familiarity and/or perceptions regarding educational programs provided by Jane Todd Crawford Hospital.
12. Are there any specialists (physicians) which are needed in the community? If so, what specialties are needed?
13. What groups of people in the community do you believe have the most serious unmet health care needs? Describe the causes? What should be done to address the needs of these persons?
14. What is the most important issue that the hospital should address in the next 3–5 years?

Key Stakeholders

Thank you to the following individuals who participated in our key stakeholder interview process:

Cheryl Blakeman, Manager of Green County Food Bank

John Fulton, Ph.D., Jane Todd Crawford Hospital

Kimberly Probus, Executive Director of Nursing, Jane Todd Crawford Hospital

Jackie Hodges, Health Educator, Lake Cumberland Area Health Dept.

John Shuffett, Mayor, City of Greensburg

Valerie Perkins, Secretary, Jane Todd Crawford Hospital