Cumberland County Hospital
2018 Community Health Needs Assessment

CPAs / ADVISORS

blue

June 2019

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LETTER FROM THE CEO

To Our Community Members:

Cumberland County Hospital is committed to providing high quality healthcare and exemplary customer services. The hospital is a Kentucky, nonprofit organization, located in Burkesville, Kentucky. A board of directors governs the Hospital and ensures that the strategic direction of the hospital. The organization consistently meets the health care needs of the people which it serves.

Our goal with the attached Community Health Needs Assessment (CHNA) is to better understand the range of issues affecting community health needs including local healthcare services provided and any gaps that may exist in meeting those needs. Moreover, through this assessment process, report and subsequent actions, we hope to strengthen the understanding and working relationships among and between the hospital and the other various health care, social service, and community providers that all play a role in shaping the health status of our community. In the new era of population health management, it will be imperative that various providers and organizations work together in a collaborative fashion to better serve patients and provide care and service that is more focused on prevention, health promotion and wellness than ever.

The significance of better understanding our community's needs was highlighted with the Patient Protection and Affordable Care Act requirements passed on March 23, 2010. New requirements for tax-exempt hospitals were added to the Internal Revenue Code mandating hospitals to conduct a community health needs assessment every three years and to adopt an implementation strategy to address applicable needs detected during the assessment process.

During 2018, a CHNA was conducted by Cumberland County Hospital for communities we serve. We will be developing an implementation strategy for the applicable needs addressed and the results will be summarized in a separate report approved by Cumberland County Hospital Governing Board.

We are pleased to present this comprehensive CHNA which represents a comprehensive assessment of health care needs in our community. We look forward to working with you and others in the community to optimize community health and continue meeting Cumberland County Hospital mission through serving the healthcare needs, and improving the health, of the people in our community.

Chief Executive Officer

April 2019

CUMBERLAND COUNTY HOSPITAL'S MISSION

"To provide high quality outpatient and inpatient healthcare services to Cumberland County communities."

EXECUTIVE SUMMARY

On behalf of Cumberland County Hospital (the "Hospital"), a community health needs assessment (CHNA) was conducted in 2019 primarily to identify the major health needs, both met and unmet, within the surrounding community. The community's geographic area is comprised primarily of Cumberland County (Pop. 6,706), including the town of Burkesville, KY. The primary service area of the Hospital is Cumberland County, and approximately 15% of the bordering counties, those include patients from Adair County (Pop. 19,485), Clinton County (Pop. 10,276, Metcalf County (Pop. 10,107), Monroe County (Pop. 10,659) and Russell County (Pop. 17,775). The total population of these five bordering counties totals just over 68,000.

The primary objectives of the CHNA were to: 1) identify major health needs within the community in an effort to improve the health of the area's residents and facilitate collaboration among local healthcare providers, and 2) satisfy the federal guidelines within the Patient Protection and Affordable Care Act (PPACA) of 2010.

Data for this CHNA was collected from primary and secondary sources to identify key findings and gaps that may exist between health needs and services provided within the community. The method of collection for primary data were personal interviews. Several secondary data sources were reviewed and analyzed to identify key findings with strategic implications and for benchmarking of the Hospital's Cumberland County.

Finally, it is important to note that our data collection did not include a statistically representative sample of the community, in that members of disadvantaged populations were less likely to participate via a web-based survey. These individuals may include immigrants, the homeless, as well as individuals with low education and income levels. Focus groups were conducted with community leaders and others who work directly with members of disadvantaged populations in order to consider broad interests of the community served.

Highlighted, subsequently, are important findings identified through the data collection, analysis and assessment process:

- Increasing primary care physicians,
- Increasing educational awareness programs,
- Increasing the number of mental healthcare providers and professionals in the community,
- Increasing substance abuse prevention,
- Expanding transportation services to/from treatment services, and
- Increasing access to pain management services for treatment.

Cumberland County Hospital has identified the above needs for its community and prioritized them based on the order above. The section later in this report titled "SURVEY RESULTS FROM PERSONAL INTERVIEWS" will go through all of the health needs identified during the CHNA process.

ORGANIZATIONAL BACKGROUND

Cumberland County Hospital

Located in Burkesville, KY, Cumberland County Hospital (the Hospital) is a critical access hospital that provides inpatient, outpatient, in-home and emergency care to area residents assuring patients of a continuity of quality care all within a few minutes' drive from home. The Hospital is dedicated to serving the healthcare needs, and improving the health of the people in the community. The Hospital is a not-for-profit hospital and accepts all patients regardless of their ability to pay.

The Board of Directors of Cumberland County Hospital is a body elected to serve as the policy making body for the Hospital. The Directors volunteer in committee meetings, educational meetings, fund raising, community meetings, and of course, the regular monthly board meetings where decisions are made. The Directors are entrusted with the responsibility of seeing that the hospital achieves its Mission of providing outstanding health care to the community. Cumberland County Hospital has a rich heritage of Director leadership, which has resulted in a Hospital for the community, which has consistently addressed the health care needs of the community and provided outstanding care and service. The current Board is no different. Citizens of Cumberland County should be comforted in the knowledge that their Hospital Board members are engaged in overseeing the operations of the Hospital and defining the strategic direction of the enterprise so that it consistently meets the health care needs of the people.

History

Located in the beautiful south central Kentucky town of Burkesville, overlooking the majestic Cumberland River. As of the 2017 census, the population of Burkesville was 1,481. The county was formed in 1798 and named for the Cumberland River, which in turn may have been named after the Duke of Cumberland or the English county of Cumberland.

Cumberland County Hospital Mission is to provide high quality outpatient and inpatient healthcare services to Cumberland County communities.

Today, the Hospital is a 25-bed, not-for-profit with a Cumberland County consisting primarily of Cumberland County, KY. The hospital is one of the largest employers in the community employing more than 115 full-time and part-time staff members. The Hospital is governed by 11 Board Members. One of the Hospital Governing Board members is a physician.

During the cost report period ending June 30, 2018, the Hospital had total patient revenue of just over $33 million with 549 discharges and 3,316 patient days equating to an average daily inpatient census of just over nine patients per day.

In partnership with area physicians, the Hospital provides a full range of medical services to meet the healthcare needs of the community it proudly serves. Services offered by the Hospital include:

- Dietary
  - Nutritional Consults and Counseling
  - Cafeteria meals for adult daycare and non-patients

- Radiology & Diagnostic Services
  - CT and Digital Imaging
  - Fluoroscopy
  - EKG
  - Ultrasound
  - EEG
  - Laboratory Services
  - Bone Densitometry

- Medical Services
  - Cardiology
  - Emergency Department
  - Blood Bank Services
  - Internal Medicine
  - Orthopedics
  - Family Medicine
  - Pulmonary Medicine
  - Rural Health Clinics
  - Long Term Care (Swing Beds) Services

- Specialty Services
  - Pharmacy Services (Inpatient)
  - Physical Therapy Services
  - Home Sleep Study
  - Occupational Therapy
  - Pastoral Care
  - Ambulance Services
  - Respiratory Therapy
  - Social Services
  - Speech Therapy
  - Chronic Care Mgmt.

SERVICE AREA

SERVICE AREA AND COMMUNITY OF THE HOSPITAL

The CHNA was conducted by the Hospital during 2019 on behalf of the approximately 6,706 (2017 US Census) residents Cumberland County, as well as the patients served by the Hospital from neighboring communities. Additionally, the Hospital provides services to members of the bordering counties of Adair County, Metcalf County, Monroe County and Russell County.

The Hospital's primary service area includes Cumberland County a rural area which covers roughly 311 square miles, with the local economy and surrounding areas focused on manufacturing, healthcare and social assistance, education, agriculture, and retail activities

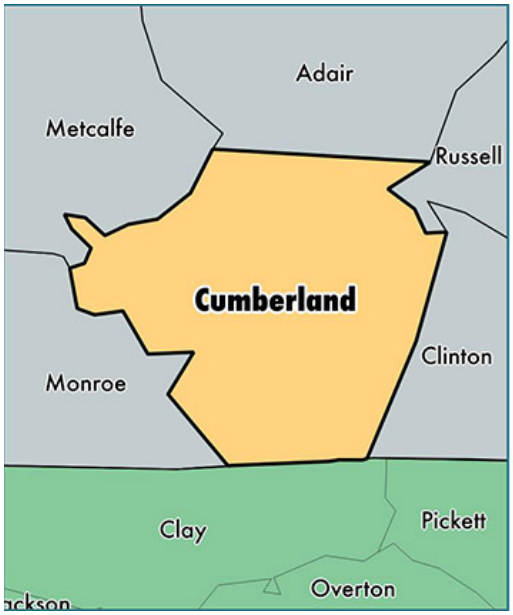
2017 Census data also reports that the median age in Cumberland County is 44.3 years. The median age for the United States is 37.4 years. The number of persons per household in Cumberland County is 2.5 the U.S. average number of persons per household is 2.6. Race in Cumberland County: 94.8% of residents are white, 3.4% are black and 0.3% claim Hispanic Ethnicity. Persons 65 years and older represent 21.4% of the population and persons under the age of 18 years represent 21.7% of the population in the county.

There are 59 physicians per 100,000 population in Cumberland County. The US average is 210 per 100,000 people.

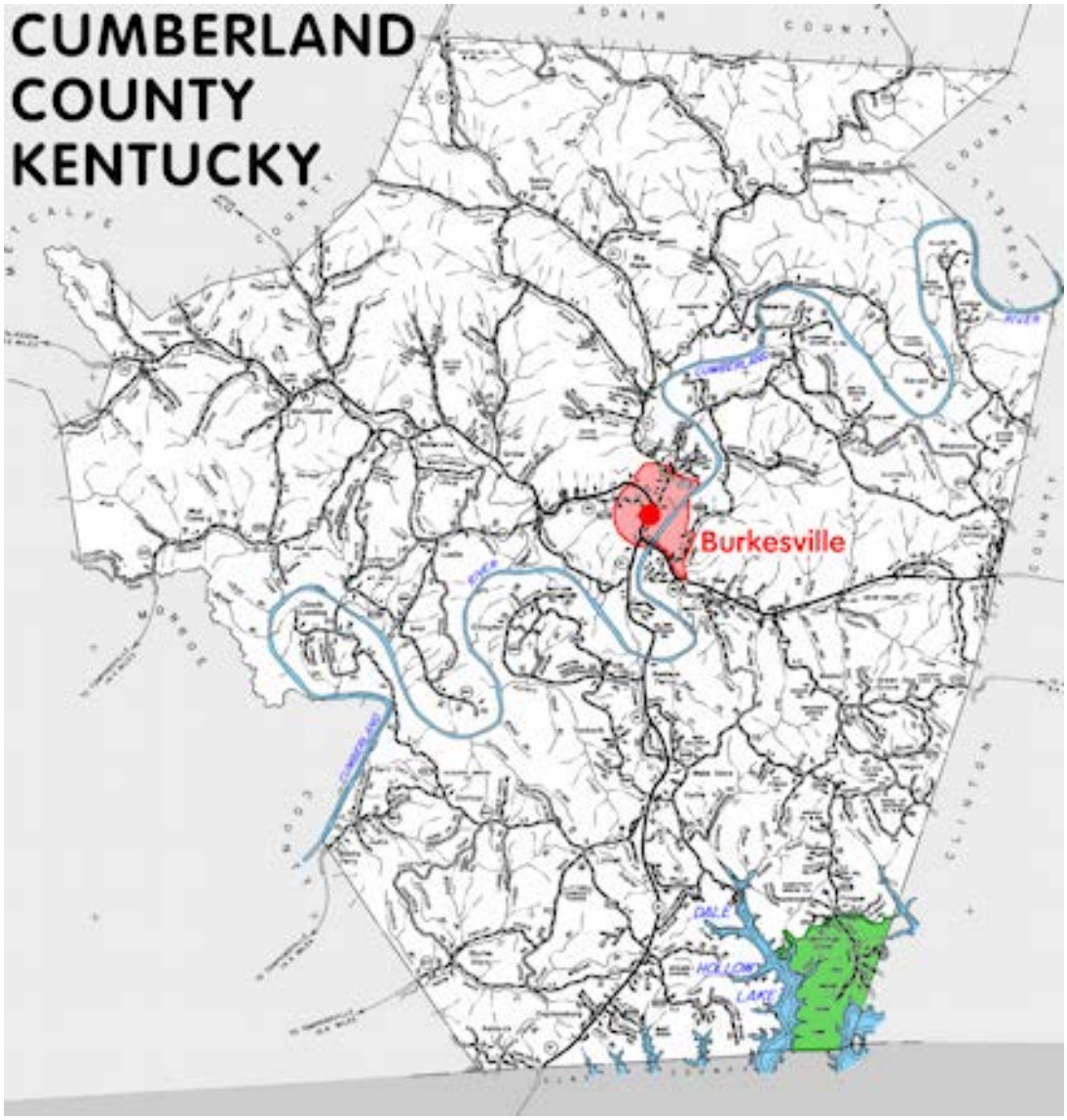
The defined communities served within this report did not exclude the medically underserved, low-income, or minority populations who live in the below geographic areas. In addition, the report did not exclude patients based on whether (or how much) they or their insurers pay for the care received or whether they are eligible for assistance under the hospital facility's financial assistance policy.

SERVICE AREA MAPS

Cumberland County is located in south Kentucky and borders Tennessee. The surrounding counties include; Adair, Metcalf, Monroe, Russell and Clinton.



Cumberland County has a total area of 311 square miles, this includes shorelines of both the Cumberland River and Dale Hollow Lake.



CONDUCTING THE ASSESSMENT

OVERVIEW

The Hospital engaged Blue & Co., LLC (Blue) to assist the Hospital in conducting a CHNA and analyzing the data for the CHNA requirements set forth in section 9007 of the Patient Protection and Affordable Care Act (PPACA) of 2010. Blue is a Certified Public Accounting firm that provides, among other services, tax consulting and compliance to the healthcare industry. The Hospital provided all of the financial support for the assessment process.

The CHNA requirements were effective starting taxable years beginning after March 23, 2002. On December 29, 2014, the Treasury Department and the IRS published final regulations for section 501(r) located in 26 CFR part 1, 53, and 602. The Hospital is licensed by the Kentucky Cabinet for Health and Family Services as a hospital facility and is required to be in compliance with 501(r)(3)(B).

The assessment was developed to identify the significant health needs in the community and gaps that may exist in services provided. It was also developed to provide the community with information to assess essential healthcare, preventive care, health education, and treatment services. This endeavor represents the Hospital's efforts to share information that can lead to improved healthcare and quality of care available to the community, while reinforcing and augmenting the existing infrastructure of services and providers.

COMMUNITY HEALTH NEEDS ASSESSMENT GOALS

The assessment had several goals which included identification and documentation of:

- Community health needs,
- Quantitative analysis of needed physicians by specialty in the service area,
- Health services offered in the Hospital's service area,
- Significant gaps in health needs and services offered, and
- Barriers to meeting any needs that may exist.

Other goals of the assessment were:

- Strengthen relationships with local community leaders, health care leaders and providers, other health service organizations, and the community at large, and
- Provide quantitative and qualitative data to help guide future strategic, policy, business and clinical programming decisions

EVALUATION OF 2015 CHNA

The table below provides an evaluation of the impact of actions that were taken, since the hospital facility finished conducting its 2015 CHNA, to address the significant health needs identified in the 2015 CHNA:

Health Need Identified	Actions Taken
Prevention and Management of Chronic Diseases - Heart Disease	- Cumberland County Hospital provides and will continue to provide community education regarding heart disease at the Hospital sponsored Community Health Fair in September. Literature, information and patient education is provided on heart health and heart disease processes such as atrial fibrillation, arrhythmia, high cholesterol, high blood pressure, and warning signs of heart attack. Tools are also available to help monitor blood pressure and cholesterol. Free blood pressure checks are offered. Screening lab draws for Complete blood count, lipid profile, and comprehensive metabolic panel is offered at a nominal fee of $15 for more than $400 in tests. This past year we had 79 persons to take advantage of this screening blood draw. This is an extremely successful event provided to the community that is always sought after and has a large attendance. - Cumberland County Hospital has weekly cardiology clinic with Dr. Frank Schwender and also offers Echocardiograms and cardiac stress tests for patients locally. Services will continue to be added as they seem feasible. This is a very successful clinic because patients do not have to travel outside of the community to receive this care.
Prevention and Management of Chronic Diseases - Cancer	- Cumberland County Hospital provides educational information and literature on a variety of different cancers. Informational booths are set up on skin cancer, breast cancer, and colon cancer. Facial sun damage detection is available as well as self-breast exam reference guides. - At the hospital sponsored community health fair the screening lab draws, listed above, are also available with the option for male participants to have a PSA test for a nominal fee of $5. Out of the 79 participants approximately 25 took advantage of the PSA test. - Cumberland County Hospital will continue to educate and add as many preventative services as possible. - The hospital supports Relay for Life and sponsors an Annual 5K for breast cancer awareness called Pacin' in Pink. The hospital is a long time sponsor of many Relay for Life and WE Care activities that cancer victims and bring awareness to the community.
Access to Care	- Updates regarding preventive care for elderly: Home visits for elderly or disabled patients that are not able to travel to physician's office has been implemented and will continue to be implemented. This has been successful because it is provided care for individuals that need it where as if the patient had to travel to the clinic he/she may opt to not receive care therefore foregoing proper healthcare. - We have weekly cardiology clinic with Dr. Frank Schwender and also offer Echocardiograms and cardiac stress tests for our patients locally. We also offer orthopedic clinic biweekly and pulmonary clinic weekly. This allows patients to be able to receive specialized care locally instead of having to travel out of the county.

Health Need Identified	Actions Taken
Access to Care (Continued)	- Recruitment of primary care physicians: Dr. Robert Flowers Jr. The addition of Dr. Robert Flowers, Jr. has allowed the Cumberland County Hospital to see a larger patient base therefore providing more care to patients. - Cumberland County Hospital has added a Kynect Advisor to the staff. This employee seeks uninsured individuals and assists him or her in acquiring insurance. This helps allow those patients to seek the proper medical care/treatment and keeps the cost to those patients down. This has been very successful and is still a very sought out service provided. The employees in the department help assist individuals in securing proper insurance to provide the patients better care, and without the help the patients would likely not have insurance. - Cumberland County Hospital did add the Chronic Care Management. This has helped ensure that patients follow through with the whole treatment process with the assistance of Cumberland County Hospital.
Healthy Living	- Cumberland County Hospital will continue to educate those individuals in the community through the Community Health fair. The Community health fair reached out to over 200 persons with 79 taking advantage of screening blood draws. 24 booths were set up with a vast amount of health care and preventative activities including, blood pressure screening, glucometer checks, oxygen saturation monitoring, balance testing, body fat analysis, and facial sun damage detection. - Educational information about smoking and the risks are provided at the Community Health Fair. Each inpatients and outpatients are screened for smoking and smoking cessation education is given as indicated. - The Cumberland County Hospital Community Health Fair hosted 13 different health care providers from the community along with 11 different booths provided by the hospital. 24 booths were set up along with literature at the welcome table on advanced directives, and patient portal access. - Cumberland County Hospital has teamed up with the local gym in offering discounted monthly memberships to employees who choose to do so through payroll deductions. Hopefully by encouraging employees to participate in gym activities others will be encouraged also.

INFORMATION GAPS

The data collection process did not include a statistically representative sample of the community, in that members of disadvantaged populations were less likely to participate. In addition, participant responses provided can contain biases due to individuals' views. Finally, a challenge encountered was the inconsistency in years available for statistical data collection. The most current statistical data has been used where available and the years available have been documented throughout the report.

The service area includes Cumberland County; the Kentucky health ranking data for this county shows it ranks 59th in Health Outcomes and 75th in Health Factors out of the 120 counties in the Commonwealth. The surrounding county rankings are listed in Exhibit B on pages 37 – 42.

PROCESS & METHODOLOGY

Documenting the healthcare needs of a community allows healthcare organizations to design and implement cost-effective strategies that improve the health of the population served. A comprehensive data-focused assessment process can uncover key health needs and concerns related to education, prevention, detection, diagnosis, service delivery and treatment. Blue used an assessment process focused on collection of primary and secondary data sources to identify key areas of concern.

Using Blue's interview questions, the hospital conducted conversations with community leaders as well as members of the hospital's medical staff, social services, clinical and professional staff. The community outreach data collection strategy was targeted at engaging a cross-section of residents from the community as discussed above.

Once data had been collected and analyzed, meetings with hospital leadership were held to discuss key findings as well as refine and prioritize the comprehensive list of community needs, services and potential gaps.

PRIMARY DATA COLLECTION METHODS

The primary data was collected, analyzed, and presented with the assistance of Blue. The Hospital contacted and arranged the interviews with local officials, public health experts, physicians, and other key participants which were all facilitated by Blue personnel. No written comments were received on Cumberland County Hospital's 2015 Community Health Needs Assessment and Implementation Strategy

Personal interviews were conducted by hospital with a total of six participants during October of 2018, with each session lasting approximately 20 minutes each. These sessions were conducted with members from the communities being served by the Hospital including community leaders, health experts, public officials, physicians, hospital employees, and other health professionals and providers including those associated with the Hospital. These individuals represented the following organizations: Cumberland Valley Manor (Nursing Home), Cumberland Valley Apartments (Section 8 housing), Cumberland County Hospital Executive Leadership and BFT Rural Health Clinic. Chelsey Anderson, Agent of the Cumberland County Extension Office, was also interviewed to represent the state, local, tribal, or regional government public health department (or equivalent department or agency) or a State Office of Rural Health in regards to their knowledge, information, or expertise relevant to the health needs of the community. These interviews included members of the medically underserved, low-income and minority populations, or individuals or organizations serving or representing the interests of such populations. The primary objective was to solicit perceptions regarding health needs and services offered in the community, along with any opportunities or barriers that may exist to satisfy needs. The results of the survey can be found in the Key Findings section of the report

SECONDARY DATA SOURCES

Blue reviewed secondary statistical data sources including: Deloitte 2018 Survey of Health Care Consumers in the United States to identify health factors with strategic implications. The health factors identified were supported with information from additional sources including US Census Quick Facts, County Health Rankings, and the Kentucky State Department of Health. In addition, hospital-specific data provided by the Hospital was reviewed. (See Attachment E for a complete list of citations.)

KEY FINDINGS

AREAS OF CONCERN

The following represents key findings generated from the data collection and analysis process:

Financial Resources and Funding

Financial resources and funding for healthcare services are limited, thus preventing providers from meeting identified unmet health needs in the community.

- There is growing concern about the increasingly limited funding and financial resources available for healthcare services from both public and private sources.

Professional Shortages

Shortage of critical healthcare workforce decreases needed access to healthcare services.

- There is a shortage of critical healthcare manpower in a number of areas including physicians in specialties such as family practice, internal medicine, OB/Gyn, pediatrics, cardiology and ophthalmology in the community.
- There is also a significant need for mental health and substance abuse providers including psychiatrists, therapists, and counselors in the community.

Limited Access to Healthcare Services

Access to healthcare services is limited, particularly for various at-risk populations.

- Transportation services are limited, particularly in more of the outlying, rural areas, which in turn limits access to needed healthcare services for at-risk populations.
- Access to mental health and substance abuse services for at-risk populations was noted as a particular problem.

Limited Access Substance Abuse and Addiction Services

Access to Substance Abuse and Addictions services is limited, particularly for various at-risk populations; therefore, the offering of new or expanded mental health services is needed to meet these needs.

- Availability and access to alcohol and substance abuse providers and services are severely limited.
- Improvement is needed with interfacing, coordinating and communication among healthcare and social service providers, particularly those impacting low income and other at-risk populations.

- Although services are being provided for at-risk populations, these services are limited. This is especially true as it relates to services for detox, adult alcohol and drug abuse, co-occurring disorders, child and adolescent alcohol and drug abuse populations.

Community Perception of Accessibility of Health Education, Promotion, and Preventive Services

There is a perception the community suffers from a shortage of education, promotion, and preventive services.

- There is a need for a resource board or shared services system listing to provide information about health services in the community as well as additional education for the Medicaid and Medicare enrollees.
- There is a need for additional and more effective health education, health promotion and prevention services specifically targeted at low-income and at-risk populations in some regions of the service area.
- Topics for education, promotion, and preventive services needed included: diabetes, smoking, nutrition, substance abuse, mental health and women's health.
- There is a need for education on health risks of smoking in Cumberland County and throughout the service area including targeted education of school age children and youth.
- There is a need for increased programs for smoking cessation programing and campaigning in Cumberland County and throughout the service area.

COMMUNITY INTERVIEW QUESTIONS

Participants in the six interviews included providers of care, county leaders, private industry leaders and hospital representatives.

The following are the survey questions used during the data collection and analysis process:

1. In general, how would you rate health and quality of life in Cumberland County?
2. In your opinion, has health and quality of life in Cumberland County improved, stayed the same or declined over the past few years?
3. Why do you think it has (based on answer from previous question: improved, declined or stayed the same)?
4. What other factors have contributed to the (based on the answer to question 2: improvement, decline or to health and quality of life staying the same)?
5. Are there people or groups of people in Cumberland County whose health or quality of life may not be as good as other?
    a. Who are these persons or groups (whose health or quality of life is not as good as others?
    b. Why do you think their health/quality of life is not as good as others?
6. What barriers, if any, exist to improving health and quality of life in Cumberland County?
7. In your opinion, what are the most critical health and quality of life issues in Cumberland County?
8. What needs to be done to address these issues?
9. Do you think access to health services has improved over the last three years?
10. What is your familiarity with various outreach efforts of Cumberland County Hospital regarding Heart Disease, Cancer and Stroke? Do you think outreach is helpful and effective? Do you have any suggestions for additional outreach opportunities?
11. Please provide insight and observations regarding certain health behaviors in the community surrounding obesity, physical inactivity, drug abuse and tobacco use. Have any noticeable improvements been made in these areas in the last three years? What organizations are addressing these issues and what are they doing? What do you think is the best way to change behaviors in these areas?
12. What is the most important issue the hospital should address in the next 3-5 years?

COMMUNITY INTERVIEW RESULTS

Participants in the six interviews included providers of care, county leaders, private industry leaders and hospital representatives. The names of the individuals interviewed are confidential.

1. In general, how would you rate health and quality of life in Cumberland County?
   The answers from participants ranged from the following:
   - *Poor*
   - *Fair*
   - *Average*
   - *Good*
   - *Very Good*

2. In your opinion, has health and quality of life in Cumberland County improved, stayed the same or declined over the past few years?
   The majority of respondents felt like the quality of life had stayed the same, while the minority thought it had improved.

3. Why do you think it has (based on answer from previous question: improved, declined or stayed the same)?
   The answers from participants who thought that the quality of life had stayed the same were:
   - *Lack of employment opportunities*
   - *Few opportunities*
   - *Low potential for growth*
   - *Not many new businesses*

   The answers from the participants who thought quality of life had improved were:
   - *Local hospital is growing to accommodate the county*
   - *Access has improved*
   - *More individuals have healthcare*

4. What other factors have contributed to the (based on the answer to question 2: improvement, decline or to health and quality of life staying the same)?
   The answers from participants varied:

   "Staying the same" due to:
   - *No new industry or population growth*
   - *No demand for new services*
   - *Cost of living is outpacing wages*
   - *Same conditions*
   - *Same providers*

   "Improvement" due to:
   - *Increases in knowledge*
   - *Beautiful county to be outdoors*

5. Are there people or groups of people in Cumberland County whose health or quality of life may not be as good as other?
The answers from participants were consistently "yes."

a. Who are these persons or groups (whose health or quality of life is not as good as others?
The "yes" answers from participants focused on persons in the following areas:
- *Seniors/Elderly*
- *Illegal drug users*
- *Lower wage earners*
- *Those who cannot afford adequate healthcare*
- *Smokers*

b. Why do you think their health/quality of life is not as good as others?
The persons listed in the follow-up question "a" identified the following factors:
- *Unhealthy habits/lifestyle choices*
- *Employers able to offer better healthcare coverage*
- *Ability of elderly to get to providers/transportation*
- *Seniors have lack of understanding of Medicaid and Medicare coverage*
- *Elderly have limited incomes and cannot access all they need*

6. What barriers, if any, exist to improving health and quality of life in Cumberland County?
The participants identified the following "barriers to improving health and the quality of life…"
- *Lack of transportation*
- *Lack of opportunity for young people making it easy to turn to drugs/crime*
- *People not understanding the process to get help*
- *Low wages in the community*

7. In your opinion, what are the most critical health and quality of life issues in Cumberland County?
The participants identified the following "…most critical health and quality of life issues…"
- *Diabetes*
- *Drugs*
- *Care for the elderly*
- *Obesity*
- *Lack of exercise / poor food choices*
- *Poverty*
- *High blood pressure*
- *Heart Disease*
- *Help for the middle class and elderly*
- *Knowledge of preventative care*

8. What needs to be done to address these issues?
The participants identified the following that "can be done to address the issues" in #7:
- *Better access to fresh produce*
- *Address both prescription and illegal drug use*
- *Community leaders work to bring more employment opportunities into the county*
- *Improve education to the public*

- *Education of how Medicaid works*
- *Increase funding for community services*
- *Community education of healthcare options*
- *More education for parents*

9. Do you think access to health services has improved over the last three years?
   The participant's answers varied:
   - *Yes, people have increased options of health care providers*
   - *Somewhat*
   - *No, the services remain the same*
   - *No, other services are available in surrounding communities*
   - *No, it's the same*
   - *No, the community has the same providers*
   - *Yes, the local hospital has expanded*

10. What is your familiarity with various outreach efforts of Cumberland County Hospital regarding Heart Disease, Cancer and Stroke? Do you think outreach is helpful and effective? Do you have any suggestions for additional outreach opportunities?
    The participant's answers varied:
    - *Only know of one outreach effort*
    - *I'm not familiar with outreach efforts*
    - *Outreach is helpful*
    - *Somewhat helpful*
    - *Outreach is helpful and somewhat effective*
    - *Improving the education to the community by healthcare workers would be helpful*
    - *Incorporating education with hospital assistance to the community*

11. Please provide insight and observations regarding certain health behaviors in the community surrounding obesity, physical inactivity, drug abuse and tobacco use. Have any noticeable improvements been made in these areas in the last three years? What organizations are addressing these issues and what are they doing? What do you think is the best way to change behaviors in these areas?
    The participant's answers varied:
    - *Cumberland County Health Coalition is working to increase access to fresh produce and physical activity for the community*
    - *I haven't seen improvements in any of these areas*
    - *Being active in life and education*
    - *Placing value on one's life and others*
    - *I'm not familiar with any*
    - *Smoking tobacco rates have decreased*

12. What is the most important issue the hospital should address in the next 3-5 years?
    The participant's answers varied:
    - *The need for additional physicians in the community*
    - *Hospital's financial and operations viability*

- *Providing a "clinic" that is open seven days a week and has later hours*
- *Recruitment of physicians to replace retiring providers*
- *Stability of nursing homes in the county*
- *Lifestyle changes*
- *Obesity*
- *Tobacco use / smoking cessation*
- *Improved diets*
- *Substance abuse (alcohol, prescription drugs and illegal drugs)*

Participants were given the opportunity to share any additional thoughts or concerns that they wanted to add to the interview.

- *There were no additional comments from the participants.*

NATIONAL, STATE, AND COUNTY TRENDS

NATIONAL HEALTHCARE TRENDS SYNOPSIS

Healthcare spending continues to slowly grow at the national level each year. The following data describes the recent trends in national healthcare, and was obtained from the Centers for Medicare & Medicaid Services, the American Health Rankings 2018 Edition, the United States Census Bureau, and the Deloitte 2018 Survey of Health Care Consumers in the United States, the American Hospital Association 2018 Environmental Scan, and Healthy People 2020.

2017 Health Expenditures

- Total health expenditures increased 3.9% to $3.5 trillion from 2016.
- Healthcare represents 17.9% of the Gross Domestic Product (GDP).
- Health expenditures reached $10,739 per capita.

As a nation, there has been a strong awareness on the impact our lifestyles have on our health. The following data obtained from America's Health Rankings 2018 Edition represents the improvements and challenges in healthcare factors for 2018.

2018 National Health Highlights

- In the past three years, drug deaths increased 25% from 13.5 to 16.9 deaths per 100,000 population
- In the past year, obesity increased 5% from 29.9% to 31.3% of adults
- In the past 15 years, air pollution decreased 36% from 13.2 to 8.4 micrograms of fine particles per cubic meter
- In the past year, HPV immunization among males aged 13 to 17 increased 18% from 37.5% to 44.3%
- In the past five years, children in poverty decreased 19% from 22.6% to 18.4% of children aged 0 to 17
- In the past year, mental health providers increased 8% from 218.0 to 234.7 per 100,000 population
- In the past two years, primary care physicians increased 8% from 145.3 to 156.7 per 100,000 population
- In the past three years, cardiovascular deaths increased 2% from 250.8 to 256.8 deaths per 100,000 population

2018 National Health Highlights (continued)

- In the past two years, frequent mental distress increased 7% from 11.2% to 12.0% of adults
- In the past five years, premature death increased 6% from 6,981 to 7,432 years lost before age 75 per 100,000 population

The Deloitte Center for Health Solutions' report titled *2018 Survey of Health Care Consumers in the United States: The performance of the health care system and health care reform* provided the following national health related data:

Deloitte Consumers & Health Care System 2018 Survey Results

- 53 percent said they were likely to use a tool to look up quality ratings for specific physicians or hospitals, but only 23 percent did so in the past year, and though 50 percent said they were likely to use a tool to look up pricing in the future, only 27 percent did so in the past year.
- 35 percent of Participants were interested in using a virtual assistant to identify symptoms and direct them to a physician or nurse.
- 31 percent were interested in connecting with a live health coach that offers 24/7 text messaging for nutrition, exercise, sleep, and stress management.
- 29 percent were interested in using an app that uses voice-recognition software to recognize depression or anxiety from changes in the tone of voice.
- 51 percent are comfortable using an at-home test to diagnose infections (such as strep throat and urinary tract infection) before going to the doctor for treatment.
- 45 percent are comfortable using an at-home genetic test to identify existing or future health risks.
- 44 percent are comfortable using an at-home blood test (a quick prick with a fine needle) that connects to an app to track overall health trends (for instance, cholesterol, fasting blood glucose, inflammation, triglycerides).
- 41 percent are comfortable sending/mailing a stool sample to a laboratory service that identifies gut bacteria, which in turn can help guide nutritional choices.
- Slightly more than half of consumers are willing to share health data for emergency situations (to alert either family members or emergency responders).
- 40 percent are willing to share their data for health care research or to improve the device.

Deloitte Consumers & Health Care System 2018 Survey Results (continued)

- Across the board, chronically ill consumers are more willing to share their tracked health information.
- Consumers vary in their interest in and use of tools. Care providers and technology/software developers should recognize the importance of targeting different segments, not only by age, but also by health condition and perceived health status.
- Organizations should facilitate the use of consumer information (for example, from fitness devices) that goes to physicians and care teams. Technology/software developers should make it easy for care teams to use the data, and organizations may need to train consumers and professionals on how to use the tools and interpret the data. Physician adoption of new technologies could depend on the company's ability to convince them of the tool's efficiency or cost-effectiveness and whether it is integrated with providers' EHR systems and workflows.
- Different users/customers seek different benefits: Consumers seek convenience, health improvements, and cost savings, with variation based on consumer segments.
- Physicians want ease of use/simplification of workflow and/or improvement in outcomes and efficiency of care, and accuracy and reliability of data from these devices.
- Health systems look for efficiency of care, lower cost, cybersecurity, and ease of integration with HIT systems.
- The growth of at-home diagnostic tests and genetic tests, coupled with increasing use of wearables and tools to measure health and fitness goals, can provide a wealth of consumer-generated information that can be used to better understand the patient journey. This data can support discovery, development, and commercialization.
- All stakeholders have an opportunity to build trust through transparency, efficiency, and delivery of value. In addition, partnerships with physicians and health systems may help overcome consumers' lack of trust for organizations who have low levels of trust.
- Organizations should pay attention to the areas where consumers are asking for advocates the most and how they can consider digital means or other tools to support those needs.
- All stakeholders developing tools should provide meaningful and easy-to-understand data and access to care and care support such that consumers can recognize the benefit of technology engagement.
- There will be a growing expectation for physicians and health systems to take in all these additional data streams and determine what to do with them. Partnerships with technology companies (including EHR vendors) could potentially help this effort. There also may be additional opportunities for health plans to be data brokers/data aggregators.

American Hospital Association (AHA) Environmental Scan (2018)

The 2018 American Hospital Association Environmental Scan provides insight and information about market forces that have a high probability of affecting the healthcare field. It was designed to help hospitals and health system leaders better understand the healthcare landscape and the critical issues and emerging trends their organizations will likely face in the future. The Scan provided the following information:

Access: Coverage

- In 2016, 28.1 million people were uninsured, and the uninsured rate fell to a record low of 8.8%.
- 20.5 million people have gained health insurance since 2010.
- About 12 million people bought health insurance through the ACA's insurance markets for 2017, and 7 million of them (58%) qualified for Cost Sharing Reduction payments.

Economic Forces

- Total annual spending on prescription drugs has reached $309 billion, the fastest growing segment of the U.S. health care economy. The price of drugs, not utilization, is the predominant contributor to the increase.
- 38.7% growth in inpatient drug spending on a per admission basis over a two-year period.
- More than 90% of hospitals said spending on pharmaceuticals was of moderate or severe concern.
- Four in 10 (43%) adults with health insurance say they have difficulty affording their deductible, and roughly a third say they have trouble affording their premiums and other cost sharing; all shares have increased since 2015.
- Three in 10 (29%) Americans report problems paying medical bills. Of this group, seven in 10 (73%) report cutting back spending on food, clothing or basic household items.
- Half of the public says they are at least somewhat worried they will not be able to afford needed health care services.

Physicians

- The nation faces a shortage of between 40,800 and 104,900 physicians by 2030.
- First-year enrollment at U.S. medical schools has increased by 28% since 2002, with 22 new schools accounting for nearly 40% of the growth.
- ACGME-accredited, entry-level residency positions are continuing to grow at a rate of about 1% per year. Federal caps on Medicare-funded residency training positions remain effectively frozen at 1996 levels.
- 49% of physicians often or always experience feelings of burnout.

Healthy People 2020

HealthyPeople.gov provides 10-year national objectives for improving the health of all Americans by 2020. The topics are the result of a multiyear process with input from a diverse group of individuals and organizations. Eighteen federal agencies with the most relevant scientific expertise developed health objectives to promote a society in which all people live long, healthy lives. The primary goals for Healthy People 2020 are:

Goals for Healthy People 2020

- Eliminate preventable disease, disability, injury, and premature death.
  - Emphasize the importance of prevention and health promotion.
  - Address "all hazards" preparedness as a public health issue.
  - Create a multi-sectoral approach with a strong public health workforce and infrastructure.
- Achieve health equity, eliminate disparities, and improve the health of all groups.
  - Achieve health equity and eliminate health disparities.
  - Measure health equity and health disparities over time.
- Create social and physical environments that promote good health for all.
  - Create an ecological approach to health promotion.
  - Address the social and physical environments effecting health.
- Promote healthy development and healthy behaviors across every stage of life.
  - Recognize the importance of life stages and developmental stages to health.
  - Tailor a clustering of life stages and population metrics for healthy development.

The 2020 topics are organized into 42 areas with measurable and developmental objectives maintained by the Office of Disease Prevention and Health Promotion within the U.S. Department of Health and Human Services. The objectives relevant for this assessment are as follows:

Healthy People 2020 Objectives

Adolescent Health

- Increase educational achievement of adolescents and young adults.
- Reduce the proportion of adolescents who have been offered, sold, or given an illegal drug on school property.
- Increase the proportion of adolescents whose parents consider them safe at school.

Access to Health Services

- Increase the proportion of persons with health insurance.
- Increase the proportion of persons with a usual primary care provider.
- Increase the number of practicing primary care providers.
- Increase the proportion of persons who have a specific source of ongoing care.
- Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines.

Education

- Increase the proportion of preschool Early Head Start and Head Start programs that provide health education to prevent health problems in the following areas: unintentional injury; violence; tobacco use and addiction; alcohol or other drug use; unhealthy dietary patterns; and inadequate physical activity, dental health and safety.
- Increase the proportion of elementary, middle, and senior high schools that provide comprehensive school health education to prevent health problems in the following areas: unintentional injury; violence; suicide; tobacco use and addiction; alcohol or other drug use; unintended pregnancy, HIV/AIDS, and STD infection; unhealthy dietary patterns; and inadequate physical activity.
- Increase the proportion of elementary, middle, and senior high schools that have health education goals or objectives which address the knowledge and skills articulated in the National Health Education Standards (high school, middle, and elementary).

- Increase the proportion of elementary, middle, and senior high schools that provide school health education to promote personal health and wellness in the following areas: hand washing or hand hygiene; oral health; growth and development; sun safety and skin cancer prevention; benefits of rest and sleep; ways to prevent vision and hearing loss; and the importance of health screenings and checkups.
- Increase the proportion of worksites that offer an employee health promotion program to their employees.
- Increase the number of community-based organizations providing population-based primary prevention services.

Health Communication and Health Information Technology

- Improve the health literacy of the population.
- Increase the proportion of patients whose doctor recommends personalized health information resources to help them manage their health.
- Increase individuals' access to the Internet.
- Increase social marketing in health promotion and disease prevention.

Immunization & Infectious Disease

- Reduce, eliminate, or maintain elimination of cases of vaccine-preventable diseases.
- Achieve and maintain effective vaccination coverage levels for universally recommended vaccines among young children.
- Increase the percentage of children and adults who are vaccinated annually against seasonal influenza.
- Increase the percentage of providers who have had vaccination coverage levels among children in their practice population measured within the past year.

Injury & Violence Prevention

- Reduce physical violence by current or former intimate partners.
- Reduce sexual violence by current or former intimate partners.
- Reduce psychological abuse by current or former intimate partners.
- Reduce children's exposure to violence.
- Increase the number of States and the District of Columbia that link data on violent deaths from death certificates, law enforcement, and coroner and medical examiner reports to inform prevention efforts at the State and locallevels.

Mental Health

- Increase the proportion of children who receive treatment of their mental health problems.
- Increase the proportion of juvenile residential facilities that screen admissions for mental health problems.
- Increase the portion of persons who receive treatment for co-occurring substance abuse and mental disorders.
- Increase depression screening by primary care providers.
- Increase the proportion of homeless adults who receive mental health services for their mental health problems.
- Reduce the proportion of adolescents aged 12 to 17 years who experience major depressive episodes (MDEs).

Substance Abuse

- Reduce average alcohol consumption.
- Decrease the rate of alcohol-impaired driving.
- Reduce steroid use amongadolescents.
- Reduce past-year nonmedical use of prescription drugs.
- Reduce the number of deaths attributable to alcohol.
- Reduce the proportion of adolescents who use inhalants.

STATE HEALTHCARE TRENDS SYNOPSIS

In Kentucky, the overall health ranking reported in the 2018 America's Health Ranking was 45 out of 50 decreasing from 42nd in 2017. The strengths for the state are low violent crime rate, high percentage of high school graduation and low incidence of chlamydia and low disparity of health status. The challenges faced by the Kentucky population are high rates of cancer death, high prevalence of frequent mental distress and high prevalence of smoking.

2018 Kentucky Highlights

- In the past three years, excessive drinking increased 27% from 13.6% to 17.3% of adults
- In the past 10 years, air pollution decreased 41% from 13.8 to 8.2 micrograms of fine particles per cubic meter
- In the past five years, the percentage uninsured decreased 65% from 15.0% to 5.3% of the population
- In the past two years, frequent mental distress increased 17% from 13.8% to 16.2% of adults
- Since 1990, cancer deaths increased 11% from 211.6 to 234.9 deaths per 100,000 population
- In the past four years, diabetes increased 22% from 10.6% to 12.9% of adults

COUNTY HEALTH CARE TRENDS SYNOPSIS

According to County Health Rankings, the citizens of the service area are predominantly white (93.8%) and made up of 51% female. The age of Cumberland County population is older compared to the state of Kentucky, with 21.4% of Cumberland County population 65 and older compared to 16% for the state of Kentucky. Cumberland County is 100% in rural which is significantly higher than the state at 41.6 %. Roughly 60% of residents have some level of college education; similar to the state of Kentucky at 61%. The median household income of $31,700 is marginally below the state level of $48,300. The state of Kentucky had reported unemployment rate of 4.9% and Cumberland County is slightly higher at a 5.3 % unemployment rate. The percentage of children living in poverty Cumberland County is 33% which is higher than the state at 22%. Children in Cumberland County living in single-parent households is also 33% which is on par with the state at 34%. Approximately 100% of the children residing in Cumberland County are eligible for a free school lunch, compared to 59% in the state of Kentucky.

Approximately 7% of the population in Cumberland County does not have health insurance, as compared to 6% in the state of Kentucky. Approximately 4% of children age 19 or below do not have some form of health insurance in Cumberland County as compared to 3% in the state of Kentucky. The number of people in relation to the number of dentists in Cumberland County is 1,680 to one dentist, compared to the state of Kentucky at 1,530 to one. The number of people in relation to the number of mental health providers in Cumberland County is 450 to one compared to 490 to one in the state of Kentucky. The ratio for population to primary care physicians in Cumberland County is approximately 1,300 to one individuals to one primary care physician; compared to 1,520 to one in the state of Kentucky.

The percentage of adults who are obese is at 36% in Cumberland County versus 34% in the state of Kentucky. The percentage of adults with diabetes is higher in Cumberland County at 17% versus 13% in the state of Kentucky. There is less access to physical exercise equipment, facilities and other opportunities for physical exercise in Cumberland County (11%) vs. the state of Kentucky at 71%. The percentage of residents that are physically inactive is 33% versus 27% in the state of Kentucky. Motor vehicle deaths are much higher in Cumberland County as compared to the state of Kentucky at 36 per 100,000 population compared to 17 per 100,000 population. The number of preventable hospital stays, which is the number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees in the county is 12,660 versus 6,168 for Kentucky. Life expectancy in Cumberland County is 74.0 years while it is higher in Kentucky at 75.4 years. Premature death is defined as the "years of potential life lost before age 75 per 100,000 population (age-adjusted).

Health Status Synopsis

After reviewing secondary data for Cumberland County and surrounding counties, it was noted that the Health Outcomes ranking is right at in the middle at 59 out of 120 counties (Adair is 49, Clinton is 64, Metcalf is 82, Monroe is 90 and Russell is 77). On average, the national and state benchmark data are better than the service area. (See Attachment B).

	Cumberland County	Adair County	Clinton County	Metcalf County	Monroe County	Russell County	State of Kentucky
Health Outcomes							
Length of Life							
Premature Death*	10,500	9,100	10,700	11,600	12,000	10,500	9,700
Quality of Life							
Poor physical health days	5.0	5.0	4.9	5.0	5.5	5.3	4.8
Low birth weight	8%	8%	8%	8%	9%	9%	9%
Health Factors							
Health Behaviors							
Adult smoking	22%	23%	25%	26%	24%	24%	24%
Adult obesity	36%	38%	37%	32%	35%	32%	34%
Physical inactivity	33%	36%	34%	31%	31%	33%	27%
Alcohol impaired driving deaths	50%	21%	20%	6%	33%	43%	27%
Sexually transmitted infections	148	257.5	88.5	413.8	103.1	243.5	413
Teen births	43	26	55	59	40	61	36
Clinical Care							
Uninsured adults	8%	8%	9%	8%	10%	9%	7%
Primary care physicians	2,250:1	2,750:1	2,540:1	5,010:1	2,120:1	2,950:1	1,520:1
Preventable hospital stays**	12,660	5,036	10,626	6,334	15,183	5,333	6,168
Flu Vaccinations	15%	26%	35%	37%	38%	35%	43%
Mammography screening	26%	38%	27%	30%	23%	36%	38%

**Years of potential life lost before age 75 per 100,000 population (age-adjusted)*

***Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees*

Worse than State of Kentucky

Better than State of Kentucky

Source: www.countyhealthrankings.org

CONCLUSION

COMMUNITY RESOURCES IDENTIFIED

The assessment identified few community assets (See Attachment A) including the Hospital and its community benefit programs.

In addition to the Hospital, community resources identified were numerous religious congregations, primary care physicians and advanced practice clinicians, and a public school system with active home and school associations.

OVERALL OBSERVATION

Priorities for the key areas will be assessed by the Hospital's Board of Directors and documented in the implementation strategy report.

Overall priorities determined to be significant:

1. Increasing primary care physicians (family practice, internal medicine and pediatrics)
2. Increasing educational awareness programs,
3. Increasing the number of substance abuse/addictions providers and professionals,
4. Increasing substance abuse prevention,
5. Expanding transportation services to/from treatment services, and
6. Increasing access to pain management services for treatment.

CONTACT

This assessment summary is published on the website of Cumberland County Hospital, www.cchospital.org Additionally, a copy may be obtained by contacting the Hospital's Administration office at (806) 665-3721 or in writing to the Hospital's mailing address: Attn: Administration, Cumberland County Hospital, 299 Glasgow Road, Burkesville, KY 42717.

ATTACHMENT A:
AVAILABLE COMMUNITY RESOURCES

(Cumberland County) Burkesville, Kentucky (Population in County 6,706)

- Amedisys Home Health Care
- B.F. Taylor Clinic
- Cumberland County Health Department
- Cumberland County Hospital
- Cumberland Family Medical Center (Medical, Dental and Counseling)
- Cumberland Valley Manor
- Dale Hollow Chiropractic
- Doghouse Gym
- Flowers Rural Health Clinic
- Just Family Adult Day Health Care
- Lifeline Home Health Care
- Michael Osborne, DC
- Melissa Stalcup, PT - Physical Therapist
- Rachel Flannagan, DC - Chiropractor
- Serenity Counseling Services

(Clinton County) Albany, Kentucky (Population in County 10,276)

- Adanta Group (mental health clinic)
- Clinton County Health Department
- Amedisys Home Health
- American Health Management – Nursing Home
- CBT Mental Health Services
- Clinton County Care and Rehabilitation Center
- Clinton Family Medical Center
- Albany Family Medical Center
- Foothill Family Healthcare
- Lifeline Healthcare of Clinton – Home Health
- Genesis Family Medical Center
- Horizon Adult Health Care Center
- Intrepid USA Healthcare Services – Home Health
- Medical Center at Albany
- Sherry Jones, MD – Primary Care
- Merlyn Medical Services
- Medical Center Health Surgical Specialists
- Taylor Rural Health Clinic
- Debbie Ping, APRN

- New Path Medical Center
- Way to Recovery Medical Clinic
- TJ Samson Emergency Room

(Adair County) Columbia, Kentucky (Population in County 19,485)

- Adanta Group (mental health clinic)
- Adair County Health Department
- Personal Touch Home Care of KY
- Amedisys Home Health
- Signature Health at Summit Manor – Nursing Home
- CBT Mental Health Services
- Family First Healthcare
- Somerset Mental Health
- Genesis Family Medical Center
- Westlake Behavioral Health
- Intrepid USA Healthcare Services – Home Health
- Taylor Rural Health Clinic
- Way to Recovery Medical Clinic
- TJ Health Columbia – Primary Care
- TJ Samson Columbia Hospital

(Metcalfe County), Edmonton, Kentucky (Population in County 10,107)

- Edmonton Primary Care
- Metcalfe County Health Department
- Metcalfe Health Care Center – Nursing Home
- Heartland Rehabilitation Services of KY
- Adult Day Health Services
- Golden Years Adult Health Daycare
- Whitlow Family Vision Centers
- Harpers Home for the Aged
- Lifeskills Center – Behavioral Health, Addition, Disability
- Edmonton Senior Center
- James Pasley – Psychologist
- Paul Dunn, MD – Family Doctor

(Monroe County), Kentucky (Population in County 10,659)

- Adanta Group (mental health clinic)
- Monroe County Health Department
- Monroe County Medical Center (hospital)
- Monroe Family Medical Center
- Signature Healthcare of Monroe County – Nursing Home

- Lifeline Home Health
- Monroe Health and Rehab Center
- Monroe County Home Health Agency
- Monroe Healthcare Facility – Nursing Home
- Tompkinsville Primary Care

(Russell County), Russell Springs and Jamestown, Kentucky (Population in County 17,775)

- Associates in Eye Care
- Family Practice Associates of Russell County
- Russell Adult Day Care
- Jerry Westerfield, MD
- Patterson Eye Care Center
- Lifeline Home Health Care
- Russell County Primary Care
- Jamestown Family Medical Center
- Russell Family Medical Center – Russell Springs
- Russell County Health Department
- Russell County Hospital – Russell Springs
- Kentucky Breast Care – Russell Springs
- Westlake Primary Care – Russel Springs
- Tri County MRI
- Fair Oaks Health Systems Physical Therapy – Russell Springs

ATTACHMENT B: DEMOGRAPHIC DATA

EXPLANATIONS & DEFINITIONS FOR SELECTED CHARTS/GRAPHS THAT FOLLOW

TITLE OF CHART/GRAPH	EXPLANATIONS & DEFINITIONS
Health Outcomes	Health Outcomes ranking is based upon the length of life and quality of life rates.
Length of Life	Length of Life ranking is based on the premature death rate.
Premature Death	Years of potential life lost before age 75 per 100,000 population (age adjusted)
Quality of Life	Indicates poor health and the prevalence of disease in 4 separate categories which include poor or fair health, poor physical health days, poor mental health days and low birth weight.
Poor or Fair Health	Percent of adults reporting fair or poor health (age adjusted) by county.
Poor Physical Health Days	Average number of physically unhealthy days reported in past 30 days (age adjusted).
Poor Mental Health Days	Average number of mentally unhealthy days reported in past 30 Days (age adjusted).
Low Birth Weight	Percent of live births with low birth weights (<2,500 grams).
Health Factors	Weighted measures of health behaviors, clinical care, social and economic and physical environment factors within each county.
Health Behaviors	An aggregate of a number of variables that include adult smoking, adult obesity, food environment index, physical inactivity, access to exercise opportunities, excessive drinking, alcohol-impaired driving deaths, sexually transmitted infections and teen births.
Life Expectancy	Average number of years a person is expected to live.
Adult Smoking	Percent of adults who report smoking >= 100 cigarettes and are currently smoking.
Adult Obesity	Percent of adults who report a Body Mass Index (BMI) >= 30.
Food Environment Index	Index of factors that contribute to a healthy food environment by weighing two indicators equally, one being the access to healthy foods by of low income and the other being the food insecurity of the population.
Physical Inactivity	Percent of adults 20 years or older reporting no leisure time physical activity.
Access to Exercise Opportunities	Percent of the population with adequate access locations where they can engage in physical activity.
Excessive Drinking	Includes both binge and heavy drinking.
Alcohol-Impaired Driving Deaths	Percent of driving deaths caused by alcohol
Sexually Transmitted Infections	Chlamydia rate per 100,000 population.

TITLE OF CHART/GRAPH	EXPLANATIONS & DEFINITIONS
Teen Birth Rate	Teen birth rate per 1,000 female population, ages 15 to 19.
Clinical Care	Aggregate of several variables including percentage of uninsured, primary care physicians-to-population, preventable hospital days; diabetic screening, and mammography screening.
Uninsured	Percentage of the population under age 65 used in the clinical care factors ranking.
Primary Care Physicians	Ratio of population to Primary Care Physicians.
Dentists	Ratio of population to Dentists.
Mental Health Providers	Ratio of population to Mental Health Provider.
Preventable Hospital Stays	Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees.
Diabetic Monitoring	Percent of diabetic Medicare enrollees who receive HbA1c monitoring.
Mammography Screening	Percent of female Medicare enrollees who receive mammography screening.
Social & Economic Factors	Aggregate of factors including education level, unemployment rate, children in poverty, inadequate social support, children in single parent households, and violent crime rate.
High School Graduation	Percent of ninth graders who graduate in 4 years.
Some College	Percent of adults age 25 to 44 years with some post-secondary education.
Unemployment	Percent of population 16+ unemployed but seeking work.
Children in Poverty	Percent of children under age 18 in poverty.
Income Inequality	Ratio of income at the 80th percentile to the 20th percentile.
Children in Single-Parent Households	Percent of children who live in a household headed by a single parent.
Social Associations	Number of membership associations per 10,000 population.
Violent Crime Rate	Annual crimes per 100,000 in population.
Injury Deaths	Number of deaths caused from injuries per 100,000 population.
Physical Environment	Aggregate of several weighted variables including air pollution, drinking water violations, severe housing problems, driving alone to work and long commute - driving alone.
Air Pollution - Particulate Matter	Average density of fine particulate matter in micrograms per cubic meter per day.
Drinking Water Violations	Percent of population who may be exposed to water that does not meet safe drinking water standards.
Severe Housing Problems	Percent of households with at least one of the following problems: overcrowding, high housing costs, lack of kitchen or plumbing.

Source: www.countyhealthrankings.org

TITLE OF CHART/GRAPH	EXPLANATIONS & DEFINITIONS
Driving Alone to Work	Percent of workforce that drives to work alone
Long Commute - Driving Alone	Percent of the workforce whose commute exceeds 30 minutes.
Additional Measures	Additional parameters identified in each category. These parameters are included as a valuable source of data to help gain a better understanding of the community. These measures are not used to determine the ranking of each category unless no other data is available.
Population	Number of individuals who reside in a county.
% Below 18 Years of Age	Percentage of the population who are younger than 18 years of age.
% 65 and Older	Percentage of the population who are 65 or older.
% Non-Hispanic AfricanAmerican	Percentage of the population who are not Hispanic African American.
% American Indian & Alaskan Native	Percentage of the population who are of American Indian and Alaskan Native descent.
% Asian	Percentage of the population who are of Asian descent.
% Native Hawaiian/Other Pacific Islander	Percentage of the population who are of Native Hawaiian or other Pacific Island descent.
% Hispanic	Percent of the population who are Hispanic.
% Non-Hispanic White	Percent of the population who are white and not of Hispanic descent.
% Not Proficient in English	Percent of the population, age 5 or older, who report as not speaking English “well”.
% Females	The percent of the population that are female.
% Rural	Percentage of the population living in a rural area.
Diabetes	Percentage of adults aged 20 or older who have been diagnosed with having diabetes.
HIV Prevalence	Number of people per 100,000 population diagnosed with HIV.
Premature Age-Adjusted Mortality	Number of deaths under 75 years old per 100,000 population (age-adjusted).
Infant Mortality	Number of babies who died within 1 year of birth per 1,000 live births.
Child Mortality	Number of children (under age 18) who died per 100,000.
Food Insecurity	Percent of population who lack adequate access to food.
Limited Access to Healthy Foods	Percent of population who are low income and do not live close to a grocery store.
Motor Vehicle Crash Deaths	Number of deaths caused by motor vehicle crashes per 100,000 population.
Drug Poisoning Deaths	Number of deaths caused by drug overdose per 100,000 population.
Uninsured Adults	Percent of the population under age 65 without health insurance.

TITLE OF CHART/GRAPH	EXPLANATIONS & DEFINITIONS
Uninsured Children	Percent of the population under the age of 18 without health insurance.
Healthcare Costs	The amount of price-adjusted Medicare reimbursements per enrollee.
Could Not See Doctor Due to Cost	Percent of the population who were unable to see a doctor because of cost.
Other Primary Care Providers	Ratio of population per primary care providers other than physicians.
Median Household Income	The income at which half the households earn more and half earn less.
Children Eligible for Free Lunch	Percentage of children enrolled in public schools that are eligible for free lunch.
Homicides	Number of deaths caused by assault per 100,000 population.

Source: www.countyhealthrankings.org

CUMBERLAND COUNTY ANALYSIS

	Kentucky	Cumberland County	Adair County	Clinton County	Metcalf County	Monroe County	Russell County
Health Outcomes Rankings by County (of 120 counties)		59	49	64	82	90	77
Length of Life (Rank)		61	28	67	83	91	63
Premature death	9,700	10,500	9,100	10,700	11,600	12,000	10,500
Quality of Life		57	69	64	82	86	88
Poor or fair health	21%	23%	23%	23%	26%	25%	25%
Poor physical health days	4.8	5	4.9	5	5.5	5.3	5.3
Poor mental health days	4.8	4.6	4.7	4.6	4.9	5	4.6
Low birthweight	9%	8%	8%	8%	8%	9%	9%
Health Factors (Rank)		75	73	90	81	84	87
Health Behaviors (Rank)		65	75	81	78	68	67
Adult smoking	24%	22%	23%	25%	26%	24%	24%
Adult obesity	34%	36%	38%	37%	32%	35%	32%
Food environment index	6.9	7.8	7.4	7.8	8.1	7.8	7.6
Physical inactivity	27%	33%	36%	34%	31%	33%	29%
Access to exercise opportunities	71%	11%	70%	30%	54%	46%	84%
Excessive drinking	16%	13%	15%	13%	13%	13%	13%
Alcohol-impaired driving deaths	27%	50%	21%	20%	6%	33%	43%
Sexually transmitted infections	413.2	148	257.5	88.5	413.8	103.1	243.5
Teen births	36	43	26	55	59	40	61
Clinical Care (Rank)		115	70	113	90	120	83
Uninsured	6%	7%	7%	8%	7%	9%	8%
Primary care physicians	1,520:1	2,250:1	2,750:1	2,540:1	5,010:1	2,120:1	2,950:1
Dentists	1,530:1	1,680:1	4,870:1	5,140:1	5,050:1	1,520:1	3,560:1
Mental health providers	490:1	450:1	540:1	570:1	1,010:1	1,520:1	990:1
Preventable hospital stays	6,168	12,660	5,036	10,626	6,334	15,183	5,333
Mammography screening	38%	26%	38%	27%	30%	23%	36%
Flu vaccinations	43%	15%	26%	35%	37%	38%	35%
Social & Economic Factors (Rank)		50	76	85	68	29	91
High school graduation	90%	98%	97%	98%	94%	99%	97%
Some college	61%	60%	49%	42%	46%	55%	53%
Unemployment	4.90%	5.30%	6.30%	6.60%	4.10%	3.80%	7.20%
Children in poverty	22%	33%	34%	35%	35%	33%	32%
Income inequality	5.1	5.1	5.1	4.1	4.6	5.7	5.3
Children in single-parent households	34%	33%	25%	23%	28%	25%	41%
Social associations	10.6	10.4	4.7	7.9	8	9.4	9.6
Violent crime	222	37	40	54	66	29	70
Injury deaths	91	127	89	126	106	94	115
Physical Environment (Rank)		1	16	36	70	85	92
Air pollution - particulate matter	10.7	9.9	10.4	9.7	10.5	10.2	10.1
Drinking water violations		No	No	Yes	Yes	Yes	Yes
Severe housing problems	14%	10%	12%	12%	11%	14%	14%
Driving alone to work	82%	83%	85%	83%	81%	82%	86%
Long commute - driving alone	30%	27%	25%	18%	37%	32%	28%

CUMBERLAND COUNTY ANALYSIS (continued)

	Kentucky	Cumberland County	Adair County	Clinton County	Metcalf County	Monroe County	Russell County
Length of Life							
Life expectancy	75.4	74	76.4	73.8	73.3	72.1	73.8
Premature age-adjusted mortality	470	510	440	520	580	590	550
Child mortality	60		80				
Infant mortality	7						
Quality of Life							
Frequent physical distress	16%	15%	15%	16%	17%	16%	17%
Frequent mental distress	15%	14%	15%	15%	16%	15%	15%
Diabetes prevalence	13%	17%	17%	14%	16%	17%	14%
HIV prevalence	180	158	55	129		56	41
Health Behaviors							
Food insecurity	16%	16%	16%	16%	15%	15%	17%
Limited access to healthy foods	6%	1%	5%	0%	1%	1%	0%
Drug overdose deaths	32			39			30
Motor vehicle crash deaths	17	36	25	25	29	25	33
Insufficient sleep	39%	37%	36%	39%	38%	39%	40%
Clinical Care							
Uninsured adults	7%	8%	8%	9%	8%	10%	9%
Uninsured children	3%	4%	4%	4%	4%	5%	5%
Other primary care providers	817:1	745:1	1,624:1	2,055:1	2,527:1	1,777:1	1,616:1
Social & Economic Factors							
Disconnected youth	8%						
Median household income	$48,300	$31,700	$35,000	$29,600	$33,100	$32,500	$33,600
Children eligible for free or reduced price lunch	59%	78%	67%	76%	76%	71%	70%
Residential segregation - Black/White	61	45	67			57	
Residential segregation - non-white/white	51	45	59	50	24	43	58
Homicides	5						
Firearm fatalities	16		12		22		16
Physical Environment							
Homeownership	67%	70%	76%	70%	76%	73%	74%
Severe housing cost burden	12%	12%	10%	9%	8%	10%	11%
Demographics							
Population	4,454,189	6,706	19,485	10,276	10,107	10,659	17,775
% below 18 years of age	22.70%	21.70%	20.40%	22.60%	24.20%	22.70%	22.60%
% 65 and older	16.00%	21.40%	17.90%	19.00%	18.20%	18.70%	19.90%
% Non-Hispanic African American	8.10%	2.80%	3.00%	0.50%	1.80%	2.10%	0.80%
% American Indian and Alaskan Native	0.30%	0.20%	0.30%	0.20%	0.30%	0.20%	0.60%
% Asian	1.60%	0.10%	0.40%	0.30%	0.30%	0.30%	0.50%
% Native Hawaiian/Other Pacific Islander	0.10%	0.00%	0.00%	0.40%	0.00%	0.00%	0.00%
% Hispanic	3.70%	1.30%	1.90%	2.90%	1.90%	3.10%	3.70%
% Non-Hispanic white	84.60%	93.80%	93.20%	95.00%	94.80%	93.20%	93.70%
% not proficient in English	1%	0%	0%	0%	0%	1%	1%
% Females	50.70%	51.10%	50.20%	50.60%	50.40%	50.10%	50.90%
% Rural	41.60%	100.00%	75.50%	100.00%	100.00%	100.00%	100.00%

Note: Blank values reflect unreliable or missing data

Kentucky Overall Health Outcomes (by Rank, in order)

1.	Oldham	2.	Boone	3.	Shelby	4.	Spencer	5.	Calloway
6.	Hardin	7.	Scott	8.	Lyon	9.	Bullitt	10.	Fayette
11.	Trigg	12.	Hancock	13.	Warren	14.	Woodford	15.	Campbell
16.	Larue	17.	Hickman	18.	Edmonson	19.	Meade	20.	Daviess
21.	Anderson	22.	Logan	23.	Jessamine	24.	Nelson	25.	Pendleton
26.	McCracken	27.	Marshall	28.	Barren	29.	Henry	30.	Kenton
31.	Graves	32.	Boyle	33.	Ballard	34.	Jefferson	35.	Owen
36.	Madison	37.	Greenup	38.	Crittenden	39.	Muhlenberg	40.	Green
41.	Washington	42.	Breckinridge	43.	Caldwell	44.	Franklin	45.	Bourbon
46.	Todd	47.	Garrard	48.	Clark	49.	Adair	50.	Marion
51.	Christian	52.	Carlisle	53.	Hopkins	54.	Ohio	55.	Mercer
56.	Hart	57.	Taylor	58.	Harrison	59.	Cumberland	60.	Simpson
61.	Grant	62.	Pulaski	63.	Laurel	64.	Clinton	65.	Mason
66.	Trimble	67.	Henderson	68.	Butler	69.	Fleming	70.	Montgomery
71.	Union	72.	Allen	73.	McLean	74.	Boyd	75.	Morgan
76.	Livingston	77.	Russell	78.	Grayson	79.	Carter	80.	Gallatin
81.	Elliot	82.	Metcalfe	83.	Bath	84.	Nicholas	85.	Webster
86.	Rowan	87.	Robertson	88.	Lincoln	89.	Menifee	90.	Monroe
91.	Wayne	92.	Lewis	93.	Fulton	94.	Carroll	95.	Lawrence
96.	Rockcastle	97.	Magoffin	98.	Jackson	99.	Johnson	100.	Estill
101.	Pike	102.	Casey	103.	Bracken	104.	Letcher	105.	Powell
106.	Knott	107.	Knox	108.	Clay	109.	Martin	110.	Lee
111.	Whitley	112.	Harlan	113.	Wolfe	114.	Floyd	115.	Leslie
116.	McCreary	117.	Bell	118.	Breathitt	119.	Perry	120.	Owsley

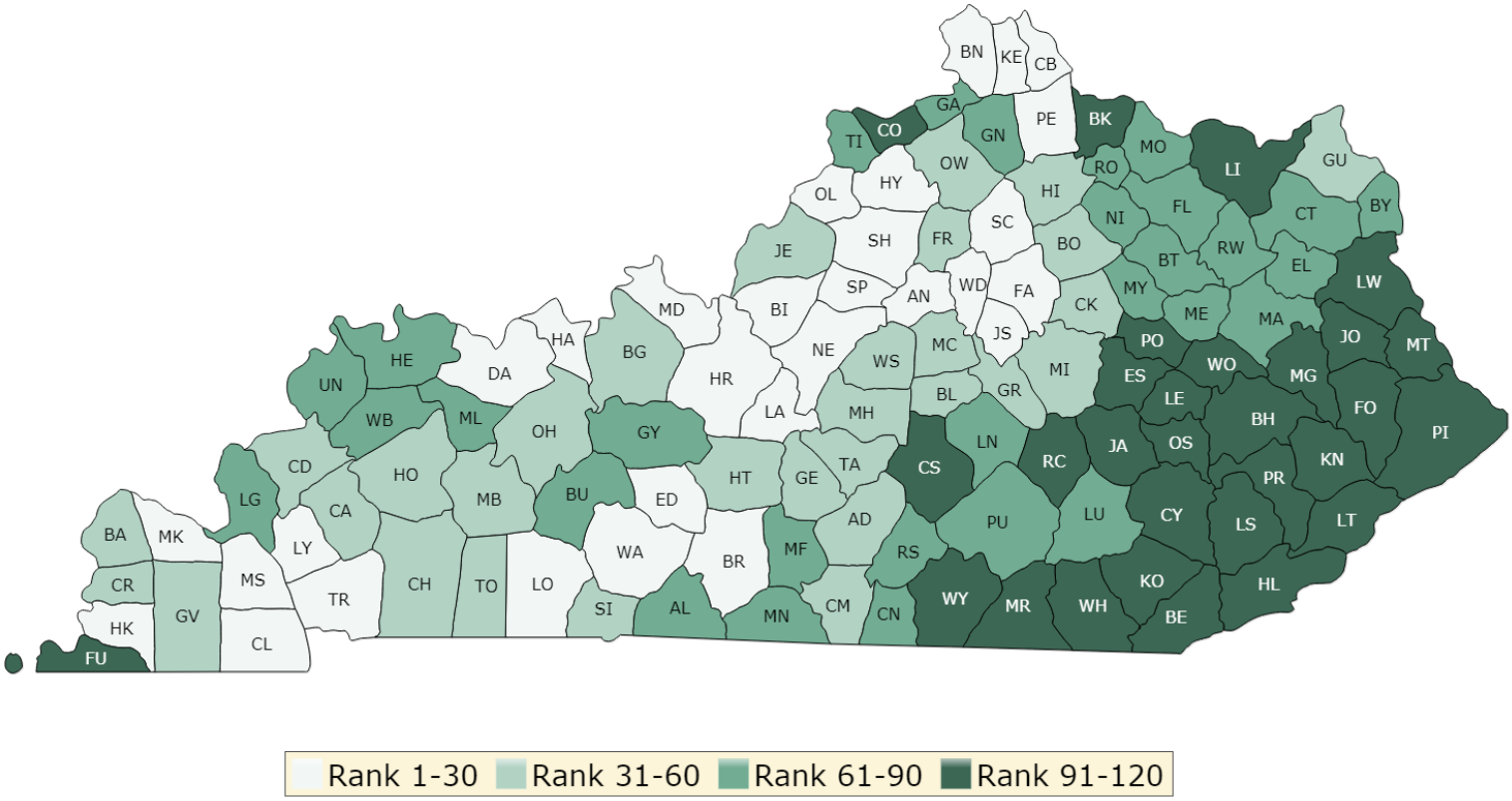
(Service Area for this Community Health Needs Assessment Shaded)

Health Outcomes is a Counties Health Ranking representing how long people live and how healthy people feel while alive. The health outcomes represent the health of the county by measuring the length and quality of life within each county. 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the best and 120 representing the least healthy county.

(Source: www.countyhealthrankings.org)

Kentucky Overall Health Outcomes (County rank by color code)

(Source: www.countyhealthrankings.org)



Kentucky Overall Health Factors (by Rank in order)

1.	Oldham	2.	Boone	3.	Woodford	4.	Campbell	5.	Scott
6.	Spencer	7.	Anderson	8.	Boyle	9.	Warren	10.	Fayette
11.	Marshall	12.	Nelson	13.	Shelby	14.	Clark	15.	Kenton
16.	Hancock	17.	Madison	18.	Lyon	19.	Jessamine	20.	Hardin
21.	Washington	22.	Bullitt	23.	Daviess	24.	Calloway	25.	McCracken
26.	Mercer	27.	Franklin	28.	Bourbon	29.	Caldwell	30.	Henderson
31.	Hopkins	32.	Larue	33.	Greenup	34.	Owen	35.	Marion
36.	Robertson	37.	Pendleton	38.	Henry	39.	Mason	40.	Rowan
41.	Carlisle	42.	Jefferson	43.	Taylor	44.	Harrison	45.	Garrard
46.	Barren	47.	Trigg	48.	Meade	49.	Simpson	50.	Trimble
51.	Green	52.	Todd	53.	Montgomery	54.	Christian	55.	Edmonson
56.	McLean	57.	Ballard	58.	Hickman	59.	Boyd	60.	Bracken
61.	Breckinridge	62.	Fleming	63.	Allen	64.	Logan	65.	Livingston
66.	Pulaski	67.	Graves	68.	Butler	69.	Grant	70.	Rockcastle
71.	Hart	72.	Crittenden	73.	Adair	74.	Gallatin	75.	Cumberland
76.	Ohio	77.	Whitley	78.	Lincoln	79.	Nicholas	80.	Muhlenberg
81.	Metcalf	82.	Union	83.	Laurel	84.	Monroe	85.	Carroll
86.	Webster	87.	Russell	88.	Johnson	89.	Wayne	90.	Clinton
91.	Fulton	92.	Pike	93.	Lawrence	94.	Perry	95.	Casey
96.	Grayson	97.	Carter	98.	Estill	99.	Powell	100.	Bath
101.	Menifee	102.	Morgan	103.	Knott	104.	Lewis	105.	Elliott
106.	Letcher	107.	Floyd	108.	Jackson	109.	Leslie	110.	Martin
111.	Magoffin	112.	McCreary	113.	Knox	114.	Breathitt	115.	Bell
116.	Wolfe	117.	Lee	118.	Harlan	119.	Owsley	120.	Clay

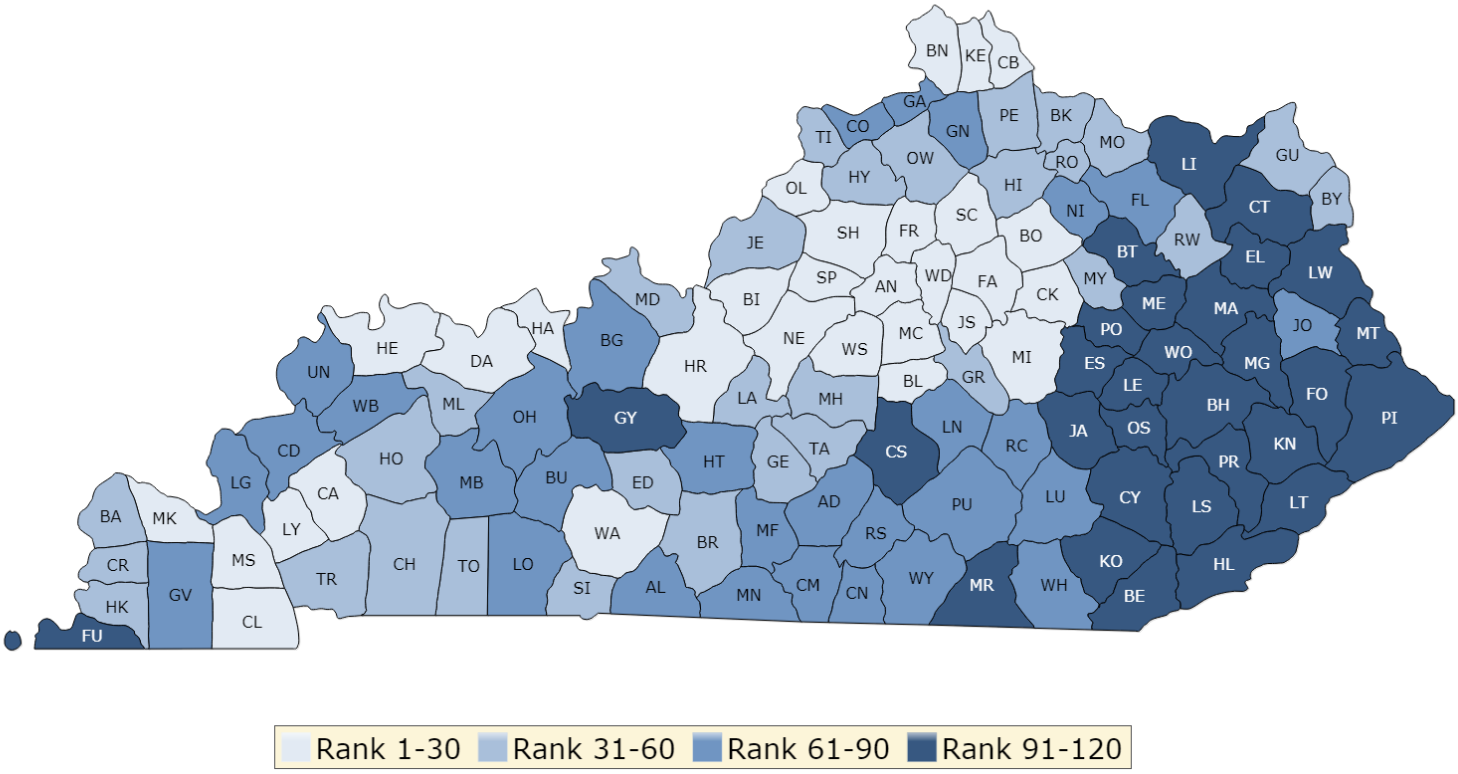
(Service Area for this Community Health Needs Assessment Shaded)

Health Factors is a County Health Ranking representing what influences the health of a county. The health factors are weighted measures of health behaviors, clinical care, social and economic, and physical environment factors within each county. The 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the best health factors and 120 representing the lowest composite score.

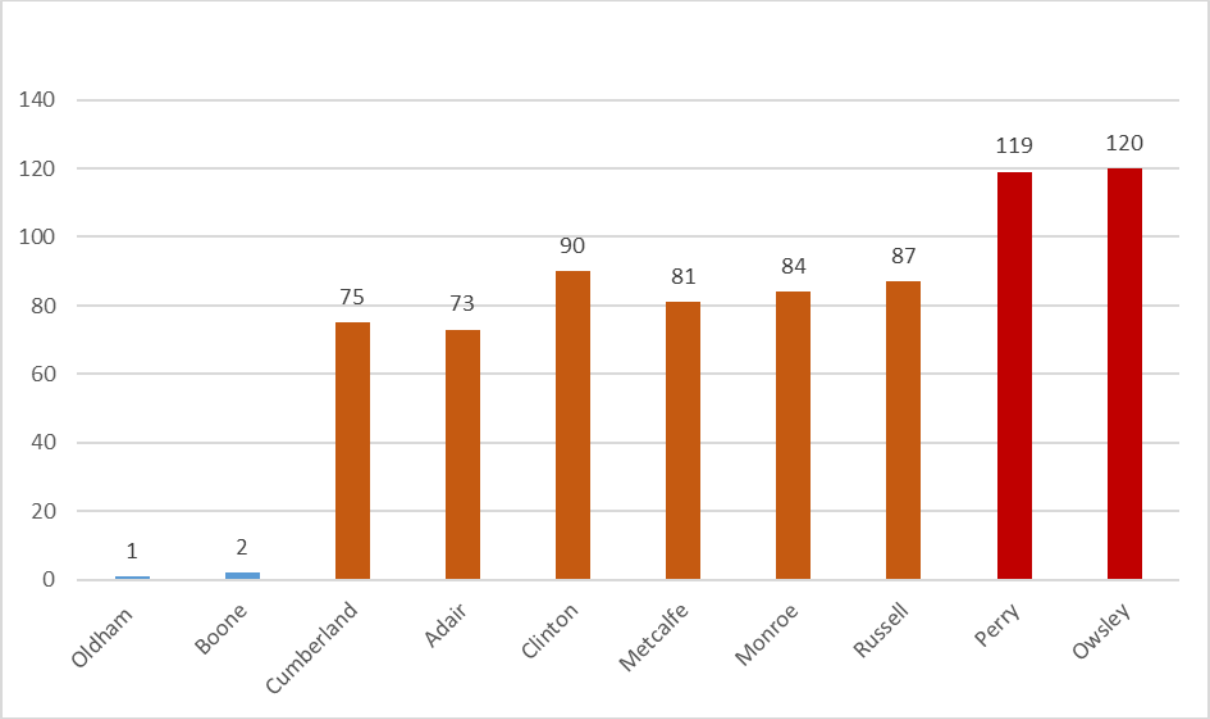
(Source: www.countyhealthrankings.org)

Kentucky Overall Health Factors (County rank by color code)

(Source: www.countyhealthrankings.org)



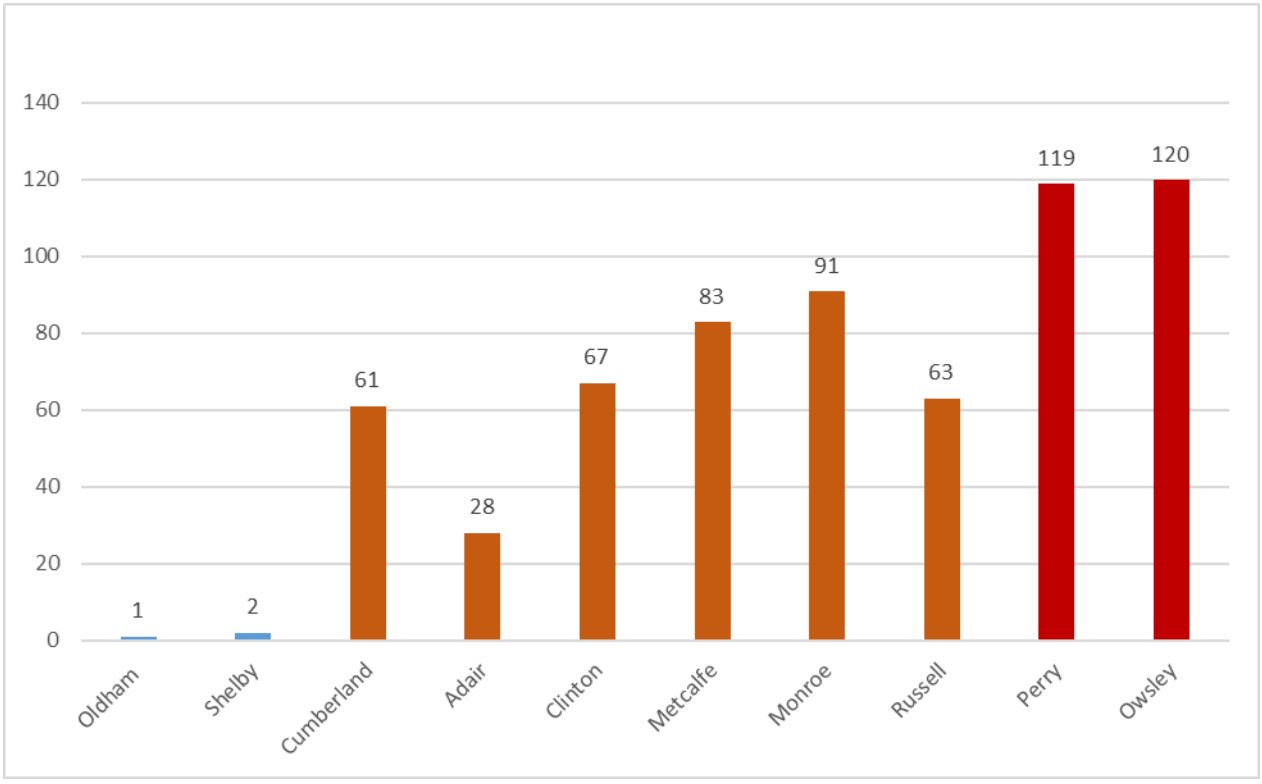
2018 Health Outcomes Overall Rank
Best and Worst Counties in Kentucky



Health Outcomes is a Counties Health Ranking representing how long people live and how healthy people feel while alive. The health outcomes represent the health of the county by measuring the length and quality of life within each county. 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the best and 120 representing the least healthy county. Oldham and Boone Counties are #1 and #2, while Perry and Owsley Counties are #119 and #120 respectively. The Hospital service area counties are labeled with their state rank. None of the counties in the service area are in the top half of the state of Kentucky.

(Source: www.countyhealthrankings.org)

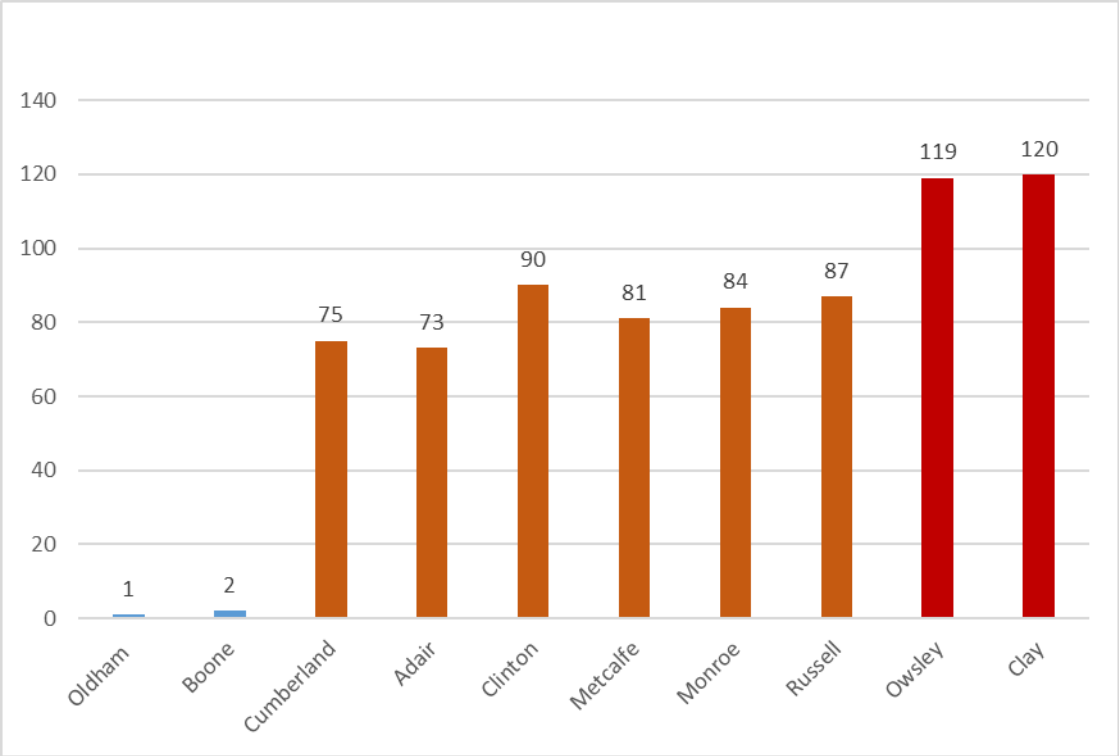
2019 Health Outcomes – Length of Life



The length of life ranking representing how long people live is based on the premature death rate in the county. 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the best and 120 representing the least length of life by county. Oldham and Shelby Counties are #1 and #2, while Perry and Owsley Counties are #119 and #120 respectively. The Hospital service area counties are labeled with their state rank. None of the counties in the service area are in the top half of the state of Kentucky.

(Source: www.countyhealthrankings.org)

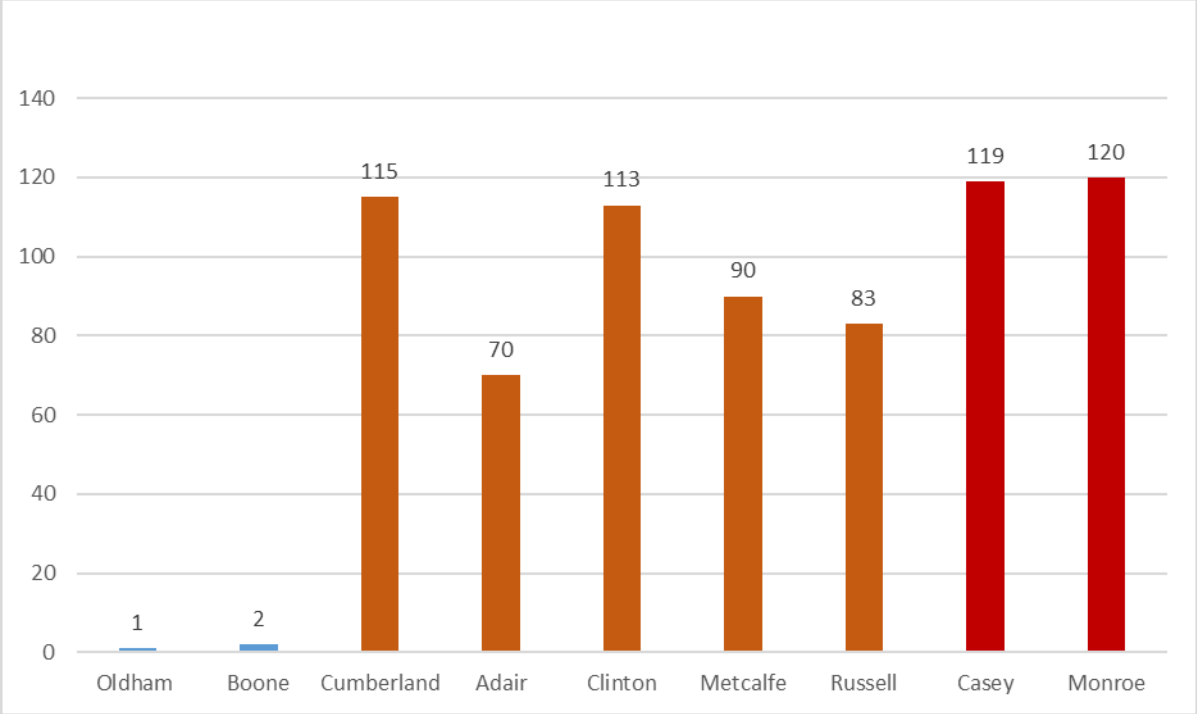
2018 Health Factors Overall Rank
Best and Worst Counties in Kentucky



Health Factors is a County Health Ranking representing what influences the health of a county. The health factors are weighted measures of health behaviors, clinical care, social and economic, and physical environment factors within each county. The 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the best health factors and 120 representing the lowest composite score. Oldham and Boone Counties are #1 and #2, while Owsley and Clay Counties are #119 and #120 respectively. The Hospital service area counties are labeled with their state rank. None of the counties in the service area are in the top half of the state of Kentucky.

(Source: www.countyhealthrankings.org)

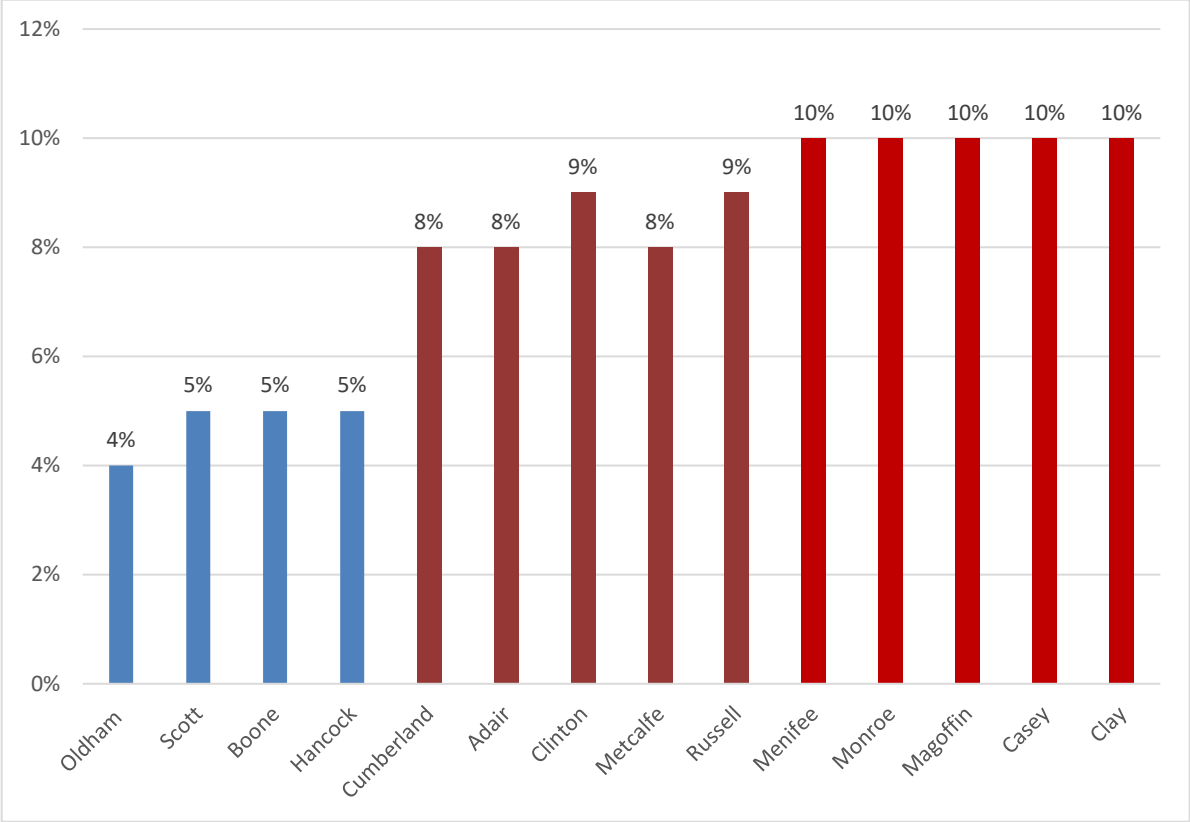
2018 Health Factors – Clinical Care



Clinical care is comprised of two weighted factors for each county: access to care and quality of care. All 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the highest and 120 representing the lowest score. The clinical care score is a factor in calculating a county's overall health factor ranking. Oldham and Boone Counties are #1 and #2, while Case and Monroe Counties are #119 and #120 respectively. The Hospital service area counties are also labeled with their state rank. None of the counties in the service area are in the top half of the state of Kentucky.

(Source: www.countyhealthrankings.org)

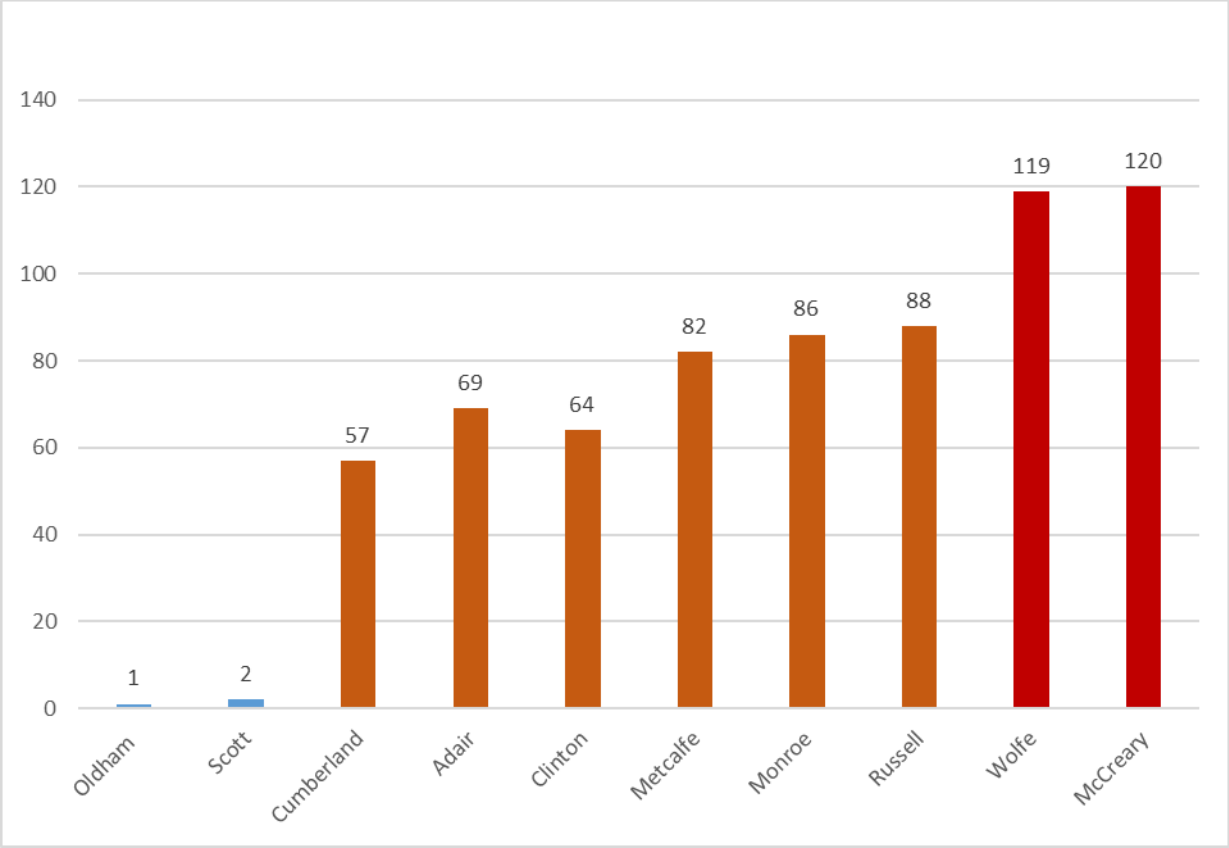
2018 Health Factors – Uninsured



Uninsured represents a significant barrier to accessing needed health care due to lack of health insurance coverage that continues to increase. The value reported for each county is the estimated percent of the population under age 65 without health insurance coverage. The uninsured percentage is a factor in calculating a county's overall clinical care ranking. All 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the highest and 120 representing the lowest score. The clinical care score is a factor in calculating a county's overall health factor ranking. Oldham, Scott, Boone and Hancock Counties are #1 and #2 (tie), while Menifee, Monroe, Magoffin, Casey and Clay Counties are tied for poorest unemployment rate. The Hospital service area counties are also labeled with their state rank.

(Source: www.countyhealthrankings.org)

2018 Health Factors – Quality of Life



Quality of Life - Indicates poor health and the prevalence of disease in 4 separate categories which include poor or fair health, poor physical health days, poor mental health days and low birth weight. All 120 counties in Kentucky have been ranked from 1 to 120, with 1 representing the highest and 120 representing the lowest score. The score is a factor in calculating a county's ranking. Oldham and Scott Counties are #1 and #2, while Wolfe and McCreary Counties are #119 and #120 respectively. The Hospital service area counties are also labeled with their state rank.
(Source: www.countyhealthrankings.org)

ATTACHMENT C:
PHYSICIAN NEEDS ASSESSMENT

Physician Specialties: GMENAC Goodman Hicks & Glenn Solucient

SPECIALTIES	CURRENT NUMBER OF PHYSICANS WITHIN PRIMARY SERVICE AREA	SURPLUS (SHORTAGE) IN PRIMARY SERVICE AREA	Population of 100,000 GMENAC	GOODMAN	HICKS & GLENN	SOLUCIENT	AVERAGE	POPULATION BASED UPON HOSPITAL PRIMARY SERVICE AREA: POPULATION OF 16,906
Primary Care								
Family Practice	4.00	0.40	25.20	N/A	16.20	22.53	21.31	3.60
Internal Medicine	1.00	(2.33)	28.80	N/A	11.30	19.01	19.70	3.33
Pediatrics	0.00	(1.93)	12.80	N/A	7.60	13.90	11.43	1.93
Total Primary Care	5.00	(3.87)	66.80	N/A	35.10	55.44	52.45	8.87
Medical Specialties								
Allergy/Immunology	0.00	(0.22)	0.80	1.30	N/A	1.72	1.27	0.22
Cardiology	0.20	(0.34)	3.20	3.60	2.60	3.41	3.20	0.54
Dermatology	0.00	(0.37)	2.90	1.40	2.10	2.38	2.20	0.37
Endocrinology	0.00	(0.14)	0.80	N/A	N/A	0.80	0.80	0.14
Gastroenterology	0.00	(0.37)	2.70	1.30	N/A	2.50	2.17	0.37
Hematology/Oncology	0.00	(0.39)	3.70	1.20	N/A	1.99	2.30	0.39
Infectious Disease	0.00	(0.15)	0.90	N/A	N/A	0.90	0.90	0.15
Nephrology	0.00	(0.17)	1.10	N/A	N/A	0.92	1.01	0.17
Neurology	0.00	(0.33)	2.30	2.10	1.40	1.90	1.93	0.33
Psychiatry	0.00	(1.49)	15.90	7.20	3.90	8.18	8.80	1.49
Pulmonology	0.20	(0.04)	1.50	1.40	N/A	1.40	1.43	0.24
Rheumatology	0.00	(0.11)	0.70	0.40	N/A	0.81	0.64	0.11
Physical Medicine & Rehab	0.00	(0.23)	1.30	N/A	N/A	1.40	1.35	0.23
Other Medical Specialties	0.00	(0.34)	N/A	N/A	N/A	2.01	2.01	0.34
Surgical Specialties								
General Surgery	0.00	(1.25)	9.70	9.70	4.10	6.01	7.38	1.25
Cardio/Thoracic Surgery	0.00	(0.12)	N/A	0.70	N/A	N/A	0.70	0.12
Neurosurgery	0.00	(0.15)	1.10	0.70	N/A	N/A	0.90	0.15
OB/GYN	0.50	(1.04)	9.90	8.40	8.00	10.17	9.12	1.54
Ophthalmology	0.00	(0.69)	4.80	3.50	3.20	4.71	4.05	0.69
Orthopedic Surgery	0.20	(0.75)	6.20	5.90	4.20	6.12	5.61	0.95
Otolaryngology	0.00	(0.48)	3.30	2.40	N/A	2.8	2.83	0.48
Plastic Surgery	0.00	(0.28)	1.10	1.10	2.30	2.22	1.68	0.28
Urology	0.00	(0.45)	3.20	2.60	1.90	2.86	2.64	0.45
Other Surgical Specialties	0.00	(0.37)	N/A	N/A	N/A	2.20	2.20	0.37
Hospital-based								
Emergency	1.50	0.17	8.50	2.70	N/A	12.40	7.87	1.33
Anesthesiology	0.00	(1.29)	8.30	7.00	N/A	N/A	7.65	1.29
Radiology	0.00	(1.43)	8.90	8.00	N/A	N/A	8.45	1.43
Pathology	0.00	(0.82)	5.60	4.10	N/A	N/A	4.85	0.82
Pediatric Cardiology	0.00	(0.03)	N/A	N/A	N/A	0.20	0.20	0.03
Pediatric Neurology	0.00	(0.02)	N/A	N/A	N/A	0.12	0.12	0.02
Pediatric Psychiatry	0.00	(0.08)	N/A	N/A	N/A	0.45	0.45	0.08
Other Pediatric Subspecialties	0.00	(0.15)	0.89	N/A	N/A	N/A	0.89	0.15
TOTALS	**7.60**	-17.76						25.36

Physician Needs Assessment Analysis

A quantitative physician needs assessment analysis was completed for Cumberland County and portions of the bordering counties considered to be the primary service area. The physician needs assessment analysis uses a nationally-recognized quantitative methodology to determine the need for physicians by physician specialty for a given geographic population area being assessed. This need for physicians by specialty is then compared to the current supply of physicians practicing in that given geographic population. For purposes of this CHNA, the service area population of 16,906 specifically, were analyzed by physician need vs. supply by physician specialty. Gaps of physician supply vs. needs were then identified.

It should be noted there are a myriad of qualitative factors that impact the need, supply and gaps for physicians by specialty in any particular geographic region. These needs include, but are not limited to, the age of current practicing physicians; quality or service issues with a given physician or practice; the number of practicing mid-level providers; full time vs. part time availability expressed in terms of a full time equivalent (FTE); hospital emergency department coverage; coverage for vacations, continuing medical education, or personal time off; patient outmigration; the geographical referral area for the given specialty; waiting times for appointments; insurance plans accepted by the physician practice; the growing national shortage of physicians; the length of time it can take to successfully recruit a physician to the community and begin practicing; and other important qualitative factors.

For purposes of additional analysis, the physician needs assessment analysis of Cumberland County only reveals a need for physicians in a variety of specialties, and are discussed below. The primary qualitative factor accounted for in this analysis was the age of the practicing physicians in Cumberland County, and the identification of any physician considered to be in the "retirement zone", or 63 years of age or older. It was assumed that any physician in the retirement zone could retire from his/her medical practice at any time and therefore that position must be considered as one possibly needing to be replaced and part of any physician recruitment plan for the future.

Based on the quantitative physician needs assessment analysis completed, the top six physician needs in Cumberland County by specialty are as follows:

- Internal Medicine – 2.33 FTEs
- Pediatrics – 1.93 FTEs
- Psychiatrist – 1.0 FTE
- OB/GYN – 1.0 FTE
- Orthopedic Surgery – .95 FTE
- Pathology – 1.11 FTEs

Qualitative Factors to be Assessed

1. Age of current physicians practicing in Cumberland County—by specialty. For those at age 60 and above it should be assumed they are in the possible retirement zone and their position should be accounted for in recruitment planning. This is especially true given the length of time successful recruitment can take.
2. Quality or service issues that may cause the physician to be asked to leave or be replaced.
3. Waiting times for new patientappointments.
4. Full-time vs. part-time status (FTE count).
5. Emergency department call coverage and any gaps that may exist.
6. Coverage for vacations, continuing medical education time off, personal time off, etc.
7. The specialty of "Hospitalist" is a newer specialty, and therefore the four national physician need models do not account for this specialty.
8. Patient outmigration by specialty.
9. Patient satisfaction by physician.
10. Size of individual physician practices/approximate patient counts and patients seen per day on average.

ATTACHMENT D: CITATIONS

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