This Community Health Needs Assessment (CHNA) Implementation Strategy was prepared for Appalachian Regional Healthcare by the Community and Economic Development Initiative of Kentucky (CEDIK) at the University of Kentucky.

CEDIK works with stakeholders to build engaged communities and vibrant economies. If you have questions about the assessment process, contact Melody Nall, CEDIK Extension Specialist: melody.nall@uky.edu or (859) 218-5949.
Dear ARH Service Area Resident,

Thank you for your interest in the 2018-2019 ARH Community Health Needs Assessment (CHNA). The data reflected in this report was collected from surveys, focus groups, and key informant interviews conducted in your local ARH community. These results are being reported along with an update about how we utilized the results from our previous needs assessment from three years ago. The unique design of this CHNA permits an examination of the diverse aspects of each of our 12 ARH communities.

The assessment results from each ARH community demonstrate the desire for individual and community health improvement. These results provide valuable information that will be used by ARH for planning purposes, service improvements and community outreach. Special thanks to the CHNA Community Steering Committees in each of our 12 communities for giving of their valuable time and guiding this community health needs assessment process.

ARH in partnership with our communities will use this assessment to identify respective health concerns, measure the impact of current public health efforts and guide the appropriate use of local resources. We also hope that together, we can improve the health and well-being of the residents of Eastern Kentucky and Southern West Virginia.

Sincerely,

Joseph L. Grossman
ARH President and Chief Executive Officer
Appalachian Regional Healthcare

Appalachian Regional Healthcare is a not-for-profit health system serving 350,000 residents across Eastern Kentucky and Southern West Virginia. Operating 12 hospitals, multi-specialty physician practices, home health agencies, HomeCare Stores and retail pharmacies, ARH is the largest provider of care and single largest employer in southeastern Kentucky and the third largest private employer in southern West Virginia. The ARH system employs more than 5,000 people and has a network of more than 600 active and courtesy medical staff members representing various specialties. ARH is firmly committed to its mission of improving the health and promoting the well-being of all people in Eastern Kentucky and Southern West Virginia.

Today we operate hospitals in Barbourville, Harlan, Hazard, Hyden, McDowell, Martin, Middlesboro, Morgan County, South Williamson and Whitesburg, Kentucky, and Beckley and Summers County, West Virginia. ARH has always responded to the changing demands of rural healthcare. Over the years, we have built and acquired new facilities as well as invested in new technology and medical capabilities.

Mission

To improve health and promote well-being of all the people in Central Appalachia in partnership with our communities.

Vision

To provide unparalleled experience as the most trusted home for healthcare.

Value Statement

Patient and family experience is our number one priority.
CHNA Background

Appalachian Regional Healthcare contracted with the Community and Economic Development Initiative of Kentucky (CEDIK) in the fall of 2018 to conduct a Community Health Needs Assessment (CHNA) in accordance with the Affordable Care Act (ACA). The Affordable Care Act (ACA), enacted March 23, 2010, added new requirements that hospital organizations must satisfy in order to be described in section 501(c)(3), as well as new reporting and excise taxes.

The IRS requires hospital organizations to complete a CHNA and adopt an implementation strategy at least once every three years. This CHNA was the third prepared by CEDIK for this organization; prior reports were completed in 2013 and 2016. Here is an overview of the CHNA process that CEDIK uses based on the IRS guidelines:

Community Health Needs Assessment (8-12 months)
- Meet with the hospital administration steering committee to provide an overview of the CHNA process
- Work with hospital to create community steering committee

Data Compilation
- Meet with community steering committee
- Conduct focus group with steering committee
- Disseminate surveys
- Conduct additional focus groups
- Compile community economic and health profile
- Collect hospital utilization data
- Debrief with community steering committee

Needs and Prioritization
- Identify needs from surveys, focus group discussions, health and hospital data
- Work with hospital steering committee to prioritize needs
- Facilitate discussion about implementation strategies
- Create final CHNA report
- Bring to Board of Directors for approval
2016 community health needs... addressed!

✓ Goal: Provide educational programming on chronic diseases, healthy lifestyles, pregnancy prevention, STDs, physical activity and preventive screening access.

Hundreds of residents were given colon cancer and skin cancer education and screenings, stroke risk assessments and education.

Offered monthly community-based “Lunch & Learn” programs on several health topics, such as kidney disease, kidney stones, coronary risk, diabetes management, wound treatment, food choices and infection control.

Social media updated daily, local media articles published by hospital staff on healthy lifestyle and prevention topics.

✓ Goal: Recruitment of specialty physicians and improve access to specialty care.

Recruitment of a podiatrist, nephrologist and multiple hospitalists; will have a pulmonologist in summer 2019.

Several nurse practitioners and physician assistants were hired as extenders supporting specialist practices, including two surgeons, a urologist, and a cardiologist.

ACS-COC accreditation survey of cancer program scheduled for July 2019.

Internal Medicine Residency program with Lincoln Memorial University--DeBusk College of Osteopathic Medicine begins July 2019.

Our greatest success...

Over the past three years our recruitment efforts, service improvements, and communication activities have flowed directly from the community priorities identified by the 2016 CHNA, quality initiatives related to CMS and DNV accreditation, as well as the needs expressed by our community partners.
Goal: Establish a health navigator position.

Patient navigator hired for the cancer/oncology program in the spring of 2017. A second patient navigator was hired in 2018 to focus on medical imaging studies related to tumors and cancer.

Goal: Increase promotion of healthy lifestyles.

Our focus has been working with youth in our community: we coordinate an annual fitness assessment of elementary students; an opioid summit at Harlan County High School in fall 2018; and a summer scrubs camp & medical explorers club programs for high school & junior high students.

Our hospital conducts a Community Health Needs Assessment every three years. We are excited to share our progress from the last assessment, as we prioritize our next goals based on recent community input.

Thank you for your continued support of Harlan ARH.

Donnie Fields
Harlan ARH Community CEO
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Introduction

Harlan ARH Hospital

Harlan ARH Hospital is a state-licensed, 150-bed, acute-care facility. We continue to build upon our over 60-year reputation as a regional healthcare center providing specialty medical services and community-based care. Harlan ARH was recognized as one of America’s “100 Top Hospitals” in 1998, 2007, and 2011.

Services

- Anesthesiology
- Behavioral Health
- Cancer Care
- Clinics
- Ear, Nose and Throat
- Emergency
- Heart Care
- HomeCare Store
- Home Health
- Imaging
- Nephrology
- Neurology
- Obstetrics and Gynecology
- Ophthalmology
- Oral Surgery
- Orthopedics
- Pathology
- Pediatrics
- Pharmacy
- Rehabilitation Therapy
- Surgery
- Urology
- Wound Treatment Center
A Portrait of the Community Served by Harlan ARH Hospital

• Harlan is located in west-central Harlan County at the junction of the Clover Fork and Martin’s Fork rivers.

• The county’s higher education institution is Southeast Kentucky Community and Technical College. The county has two K–12 public school districts.

• Harlan County is well known in folk and country music, having produced many prominent musicians.

• Kentucky’s highest natural point, Black Mountain (4,145 feet) is in Harlan County.

• Popular points of interest for Harlan County are Black Mountain Off-Road Adventure Area, Cranks Creek Lake, Kentucky Coal Mining Museum, Kingdom Come State Park, Martins Fork Lake, and Pine Mountain Settlement School.

Map created with Google Maps, 2019
Assessment Process

The assessment process included collecting secondary data related to the health of the community. Social and economic data as well as health outcomes and providers data were collected from secondary sources to help provide context for the community (see below). In addition, CEDIK compiled hospital utilization data to better understand who was using the facility and for what services (next section). Finally, with the assistance of the Community Steering Committee, input from the community was collected through focus group discussions and surveys.

First we present the demographic, social, economic and health outcomes data that were compiled through secondary sources. These data that follow were retrieved from County Health Rankings February 2019. For data sources see appendix.

Demographics

<table>
<thead>
<tr>
<th>Indicator (2017)</th>
<th>Harlan County</th>
<th>Kentucky</th>
<th>National Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 Population Estimate</td>
<td>26,713</td>
<td>4,454,189</td>
<td>323,127,513</td>
</tr>
<tr>
<td>Percent Population Change, 2010-2017</td>
<td>-8.8%</td>
<td>2.6%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Percent of Population under 18 years</td>
<td>22.7%</td>
<td>22.7%</td>
<td>22.80%</td>
</tr>
<tr>
<td>Percent of Population 65 year and older</td>
<td>18.0%</td>
<td>16.0%</td>
<td>15.20%</td>
</tr>
<tr>
<td>Percent of Population Non-Hispanic White</td>
<td>95.1%</td>
<td>84.6%</td>
<td>61.3%</td>
</tr>
<tr>
<td>Percent of Population African American</td>
<td>2.1%</td>
<td>8.1%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Percent of Population Hispanic</td>
<td>1.0%</td>
<td>3.7%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Percent of Population other Race</td>
<td>2.8%</td>
<td>7.2%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Percent of the Population not Proficient in English</td>
<td>0.0%</td>
<td>1.0%</td>
<td>4%</td>
</tr>
</tbody>
</table>
## Social and Economic Factors

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Harlan County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median HH Income, Not Hispanic/Latino</td>
<td>$24,532</td>
<td>$48,744</td>
<td>n/a</td>
</tr>
<tr>
<td>Graduation Rate of 9th Grade Cohort in 4 Years</td>
<td>88.0%</td>
<td>89.2%</td>
<td>83.0%</td>
</tr>
<tr>
<td>Percentages of Ages 25-44 with Some Post-Secondary College</td>
<td>49.0%</td>
<td>60.3%</td>
<td>65.0%</td>
</tr>
<tr>
<td>Percent of Unemployed Job-Seeking Population 16 Years and Older</td>
<td>12.1%</td>
<td>5.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Percent of Children in Poverty</td>
<td>44.0%</td>
<td>24.4%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Percent of Children Qualifying for Free or Reduced Lunches</td>
<td>78.0%</td>
<td>59.4%</td>
<td>52.0%</td>
</tr>
<tr>
<td>Percent of Single-Parent Households</td>
<td>36.0%</td>
<td>34.6%</td>
<td>34.0%</td>
</tr>
<tr>
<td>Violent Crime Rate per 100,000 population</td>
<td>87</td>
<td>215</td>
<td>380</td>
</tr>
<tr>
<td>Injury Death Rate per 100,000 population</td>
<td>119</td>
<td>88</td>
<td>65</td>
</tr>
<tr>
<td>Firearm Fatalities Rate per 100,000 population</td>
<td>16</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

## Health Behaviors

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Harlan County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Adult Smokers</td>
<td>29.0%</td>
<td>24.5%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Percent Obese Adults with BMI &gt;= 30</td>
<td>37.0%</td>
<td>33.7%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Percent Physically Inactive Adults</td>
<td>39.0%</td>
<td>28.1%</td>
<td>23.0%</td>
</tr>
<tr>
<td>Percent of Adult Excessive Drinking</td>
<td>12.0%</td>
<td>15.8%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Motor Vehicle Mortality Rate</td>
<td>25</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Chlamydia Rate Newly Diagnosed per 100,000 Population</td>
<td>195.3</td>
<td>395</td>
<td>478.8</td>
</tr>
<tr>
<td>Teen Birth Rate Ages 15-19 per 1,000 Population</td>
<td>70</td>
<td>38</td>
<td>27</td>
</tr>
</tbody>
</table>

*National Benchmarks indicate the 90th percentile at the national level

“n/a” denotes where national benchmarks were not made available by County Health Rankings.
### Health Outcomes

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Harlan County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Potential Life Lost Rate</td>
<td>14,100</td>
<td>9,047</td>
<td>6,700</td>
</tr>
<tr>
<td>Percent of Population in Fair/Poor Health</td>
<td>28.0%</td>
<td>21.3%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Physically Unhealthy Days</td>
<td>5.8</td>
<td>4.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Mentally Unhealthy Days</td>
<td>5.2</td>
<td>4.8</td>
<td>3.8</td>
</tr>
<tr>
<td>Percent of Live Births with Low Birth Weight</td>
<td>11.0%</td>
<td>8.9%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Percent of Population who are Diabetic</td>
<td>18.0%</td>
<td>12.8%</td>
<td>10.0%</td>
</tr>
<tr>
<td>HIV Prevalence Rate</td>
<td>61</td>
<td>180</td>
<td>362</td>
</tr>
<tr>
<td>Child Mortality Rate</td>
<td>50</td>
<td>58.5</td>
<td>50</td>
</tr>
</tbody>
</table>

### Physical Environment

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Harlan County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Daily Density of Air Pollution - PM 2.5</td>
<td>9.3</td>
<td>10.3</td>
<td>8.7</td>
</tr>
<tr>
<td>Presence of Drinking Water Violations</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Percentage of Severe Housing Problems with at least one of the following: Overcrowding, High Housing Cost, or Lack of Kitchen or Plumbing Facilities</td>
<td>16.0%</td>
<td>14.4%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Percentage of Workforce Driving Alone to Work</td>
<td>80.0%</td>
<td>82.2%</td>
<td>76.0%</td>
</tr>
<tr>
<td>Percentage of Workforce Commuting Alone for More than 30 Minutes</td>
<td>28.0%</td>
<td>29.0%</td>
<td>35.0%</td>
</tr>
</tbody>
</table>
Hospital Utilization Data

The Tables below provide an overview of Harlan ARH Hospital’s patients and in particular where they come from, how they pay, and why they visited.

<table>
<thead>
<tr>
<th>County of Origin</th>
<th>Discharges</th>
<th>Total Charges</th>
<th>Average Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harlan - KY</td>
<td>4,135</td>
<td>87,445,937</td>
<td>21,148</td>
</tr>
<tr>
<td>Bell - KY</td>
<td>285</td>
<td>8,798,036</td>
<td>30,870</td>
</tr>
<tr>
<td>Lee - VA</td>
<td>50</td>
<td>977,738</td>
<td>19,555</td>
</tr>
<tr>
<td>Letcher - KY</td>
<td>41</td>
<td>981,687</td>
<td>23,944</td>
</tr>
<tr>
<td>Leslie - KY</td>
<td>22</td>
<td>483,374</td>
<td>21,972</td>
</tr>
<tr>
<td>Knox - KY</td>
<td>18</td>
<td>439,817</td>
<td>24,434</td>
</tr>
<tr>
<td>Whitley - KY</td>
<td>18</td>
<td>466,219</td>
<td>25,901</td>
</tr>
<tr>
<td>Perry - KY</td>
<td>16</td>
<td>444,241</td>
<td>27,765</td>
</tr>
<tr>
<td>Floyd - KY</td>
<td>13</td>
<td>470,998</td>
<td>36,231</td>
</tr>
</tbody>
</table>
### Table: Hospital Inpatient Payer Mix, 1/1/17 - 12/31/17

<table>
<thead>
<tr>
<th>Payer</th>
<th>Discharges</th>
<th>Total Charges</th>
<th>Average Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare (Excluding Medicare Managed Care)</td>
<td>1,899</td>
<td>$46,277,255</td>
<td>$24,369</td>
</tr>
<tr>
<td>WellCare of Kentucky Medicaid Managed Care</td>
<td>1,181</td>
<td>$21,621,698</td>
<td>$18,308</td>
</tr>
<tr>
<td>Medicare Managed Care</td>
<td>330</td>
<td>$7,858,341</td>
<td>$23,813</td>
</tr>
<tr>
<td>In State Medicaid</td>
<td>246</td>
<td>$6,602,379</td>
<td>$26,839</td>
</tr>
<tr>
<td>Blue Cross Blue Shield</td>
<td>198</td>
<td>$3,625,457</td>
<td>$18,310</td>
</tr>
<tr>
<td>Humana Medicaid Managed Care</td>
<td>189</td>
<td>$3,525,879</td>
<td>$18,655</td>
</tr>
<tr>
<td>Anthem Medicaid Managed Care</td>
<td>145</td>
<td>$3,071,831</td>
<td>$21,185</td>
</tr>
</tbody>
</table>

### Table: Hospital Outpatient Visits, 1/1/17 - 12/31/17

<table>
<thead>
<tr>
<th>County of Origin</th>
<th>Visits</th>
<th>Total Charges</th>
<th>Average Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harlan - KY</td>
<td>60,262</td>
<td>$160,700,916</td>
<td>2,667</td>
</tr>
<tr>
<td>Bell - KY</td>
<td>1,177</td>
<td>$3,559,318</td>
<td>3,024</td>
</tr>
<tr>
<td>Letcher - KY</td>
<td>1,174</td>
<td>$2,315,135</td>
<td>1,972</td>
</tr>
<tr>
<td>Lee - VA</td>
<td>920</td>
<td>$1,976,039</td>
<td>2,148</td>
</tr>
<tr>
<td>Leslie - KY</td>
<td>334</td>
<td>$1,001,284</td>
<td>2,998</td>
</tr>
<tr>
<td>Claiborne - TN</td>
<td>149</td>
<td>$445,612</td>
<td>2,991</td>
</tr>
<tr>
<td>Perry - KY</td>
<td>113</td>
<td>$319,622</td>
<td>2,829</td>
</tr>
<tr>
<td>Knox - KY</td>
<td>106</td>
<td>$483,110</td>
<td>4,558</td>
</tr>
<tr>
<td>Wise - VA</td>
<td>55</td>
<td>$169,813</td>
<td>3,088</td>
</tr>
<tr>
<td>Whitley - KY</td>
<td>53</td>
<td>$143,049</td>
<td>2,699</td>
</tr>
</tbody>
</table>
### Table: Hospital Inpatient Diagnosis Related Group, 1/1/17 - 12/31/17

<table>
<thead>
<tr>
<th>DRG Description</th>
<th>Discharges</th>
<th>Total Charges</th>
<th>Average Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychoses</td>
<td>516</td>
<td>$16,403,035</td>
<td>$31,789</td>
</tr>
<tr>
<td>Pulmonary disease w mcc</td>
<td>204</td>
<td>$4,213,470</td>
<td>$20,654</td>
</tr>
<tr>
<td>Respiratory failure</td>
<td>203</td>
<td>$4,280,134</td>
<td>$21,084</td>
</tr>
<tr>
<td>Pulmonary disease w cc</td>
<td>175</td>
<td>$2,986,275</td>
<td>$17,064</td>
</tr>
<tr>
<td>Pulmonary disease w/o cc/mcc</td>
<td>157</td>
<td>$1,954,562</td>
<td>$12,449</td>
</tr>
<tr>
<td>Septicemia w mcc</td>
<td>151</td>
<td>$5,271,249</td>
<td>$34,909</td>
</tr>
<tr>
<td>Newborn care</td>
<td>148</td>
<td>$453,635</td>
<td>$3,065</td>
</tr>
<tr>
<td>Alcohol/drug abuse or dependence</td>
<td>141</td>
<td>$2,994,071</td>
<td>$21,235</td>
</tr>
</tbody>
</table>
The Community Steering Committee

The Community Steering Committee is a vital part to the CHNA process. These individuals represent organizations and agencies from the service area and in particular, the individuals who were willing to volunteer enabled the hospital to get input from populations that were often not engaged in conversations about their health needs. CEDIK provided a list of potential agencies and organizations that would facilitate broad input.

The Community Steering Committee met twice as a group. At the first meeting, hospital representatives welcomed and expressed appreciation to committee members for assisting with the CHNA process. In order to allow open discussion, hospital representatives then excused themselves to allow the focus group to be conducted. At the second and final committee meeting, hospital representatives joined the conversation to hear the data results.

Harlan ARH Hospital
Community Steering Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgianna Milwee</td>
<td>Harlan County Committee on Aging</td>
</tr>
<tr>
<td>Colby Kirk</td>
<td>Director, ONE Harlan County</td>
</tr>
<tr>
<td>Benny Patten</td>
<td>Harlan City Council</td>
</tr>
<tr>
<td>Cecilia Adams</td>
<td>FRYSC Coordinator, Harlan Independent School District</td>
</tr>
<tr>
<td>Jeff Phillips</td>
<td>Community Educator, Harlan County School District</td>
</tr>
<tr>
<td>Jonathan Price</td>
<td>Program Director, Harlan Base, Air-Evac Lifeteam</td>
</tr>
<tr>
<td>Brett Johnson</td>
<td>Director of Pupil Personnel, Harlan County School District</td>
</tr>
<tr>
<td>Cindy Howard</td>
<td>Howard Dental Practice</td>
</tr>
<tr>
<td>Lisa Cook</td>
<td>Harlan Co. Extension - 4H Assistant</td>
</tr>
<tr>
<td>Lora Davidson</td>
<td>Harlan Co. Extension - Agent for Family &amp; Consumer Sciences</td>
</tr>
<tr>
<td>Jack Miniard</td>
<td>Clover Fork Clinic</td>
</tr>
</tbody>
</table>
Community Feedback

In order to collect primary data from community residents, focus groups were conducted in Harlan County and in the area that Harlan ARH patients reside. These groups were conducted as separate meetings or in conjunction with other regularly scheduled meetings in the county. Sixty-two individuals participated in four focus groups. Representation from Evarts community members, Clover Fork Clinic, the Harlan Senior Citizens Center, Harlan County School System, and underserved populations in the service area were invited to share their thoughts, opinions and health care needs. Below is an aggregated list of ideas generated from all focus groups.

Resident’s vision for a healthy community

- Greater access to recreation opportunities – wellness center, YMCA, etc.
- Transportation
- Urgent care
- Walkable community
- Drug free community
- Rehab facility
- Access to affordable healthy foods and nutrition education
- Vaccinations
- Tobacco free (vaping)
- Affordable housing
- More community health workers
- Elderly care
- Family sustainability
- Health education
- Health care resource list
- Focus on wellness
What are the most significant health needs in Harlan County?

- Drug abuse – meth, opioids, prescription, synthetic
- Residential drug treatment facilities at capacity
- Preventative care and screening needed
- Lack of after-hours care
- Follow up care
- Lack of foster care
- Affordable medications
- Tobacco and vaping
- Obesity/poor diet
- Grandparents raising grandchildren – need for support, resources
- Need full time nurse in school system
- Hepatitis A & B
- Cancers – lung, colon, breast, rare cancers such as leukemia
- Mental health – bullying in schools, emotional trauma, need to learn coping strategies, retaining counselors in school system
- Need for quality care
- Transportation
- Traveling outside of Harlan for care
- Diabetes
- Senior health – dementia, Alzheimer’s
- Chronic diseases – heart disease, high blood pressure, arthritis, lung disease, COPD, emphysema
- Homelessness in youth
- Dental care for Medicaid users
- Asthma and allergies

What is your perception of the current health care system including hospital, health department, clinics, physicians, EMS and other essential services* in Harlan County? (*Essential services include public utilities, access to healthy food, access to housing, etc.)

Responses sorted into strengths and opportunities for improvement in the health care system.

**Strengths of the health care system in Harlan County**

- Access to health care throughout county – Cloverfork Clinic FQHC
- Hospital – increase in services offered over the past 10 years
• Utilizing telemedicine for follow up care – telehealth program for veterans at Evarts Library
• Quality care
• Community trusts physicians

Opportunities for improving the health care system in Harlan County
• Dispatch is overwhelmed – only one ambulance service, slow response times
• Nursing shortages
• High cost
• Hospital needs to update facility
• Shortage of dentists
• Recruiting and retaining physicians
• Long ER wait times
• Leaving county for specialty services – need for specialists such as lung, rheumatology, urology, endocrinology
• Perception of better care at other facilities

What can be done to better meet health needs of residents in Harlan County?
• Better communication of hospital resources – monthly programs at hospitals to let the community know what is going on
• Host educational events at already established meetings
• More after-hours care opportunities – extended hours for pharmacy
• Medical literacy and understanding the billing process
• Preventative care and education on screenings – including oral screenings
• Senior living and assisted living facilities
• Health support groups
• Wellness center – activities, programs, walking track
• New collaborations and relationships
• Transportation
• Telehealth
• Public health education
• Sex education
• Find solutions to close middle income service gaps
• Drug treatment facilities
• Multi-disciplinary regional health center that is locally accessible
Winter 2018 Survey Results

492 Surveys*

63%
Households are satisfied with their ability to access health care services in their county.

81%
Respondents have a family doctor. 74% visit their family doctor regularly.

5%
Households are currently without health insurance.

**Routine health care** accessed by respondents:

<table>
<thead>
<tr>
<th>Service</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine physical</td>
<td>295</td>
</tr>
<tr>
<td>Mammogram</td>
<td>125</td>
</tr>
<tr>
<td>Pap smear</td>
<td>128</td>
</tr>
<tr>
<td>Prostate-Specific Antigen (PSA) test</td>
<td>44</td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>74</td>
</tr>
</tbody>
</table>

* Not all survey respondents answered every question. Respondents = total number of responses for each question; Households = questions where respondents were asked if “anyone in their household” were impacted.

Where respondents who do not have a family doctor go most often for healthcare:

- Emergency room: 37%
- Health department: 33%
- Urgent care center: 26%
- Other: 5%
- I do not receive routine healthcare: 5%

* Can’t afford it (19%), no appointment available (18%), can’t take off from work (15%), no specialist available (11%), no transportation (4%).

Top three health challenges households face:

- High blood pressure: 26%
- Overweight/obesity: 18%
- Diabetes: 15%
- Heart disease and stroke: 11%
- Other: 9%
- Respiratory/lung disease: 9%
- Cancer: 7%
- Mental health issues: 5%

Respondent’s rating of *their personal health* (red bar) and the *overall health of the people in this county* (gray bar).

- Very healthy: 12%
- Healthy: 58%
- Neither healthy nor unhealthy: 21%
- Unhealthy: 25%
- Very unhealthy: 8%
- Unhealthy: 1%
- Very unhealthy: 9%
Hospitals* visited in the last 24 months by households:

- Pineville: 4%
- Hazard: 5%
- Other: 10%
- Lexington: 11%
- Middlesboro: 22%
- Harlan ARH: 48%

*Why another hospital? Physician referred me (33%), service I needed was not available (32%), I prefer larger hospitals (9%), insurance requires me to go elsewhere (3%).

Households who have used specialty services at an ARH hospital or at another hospital in the past 24 months:

- Surgery: 56% (used), 44% (not used)
- Orthopedics: 32% (used), 68% (not used)
- Oncology (Cancer Care): 58% (used), 42% (not used)
- Obstetrics/Gynecology: 43% (used), 57% (not used)
- Cardiology: 53% (used), 47% (not used)

How far respondents have to travel to see a specialist. 51% would be willing to use telehealth services for specialty care.

- 13% do not see any specialists
- 8% travel less than 20 miles
- 11% travel 20-49 miles
- 30% travel 50-100 miles
- 37% travel more than 100 miles

Top three most important factors for a healthy community:

- Good jobs/healthy economy: 17%
- Easy access to healthcare: 15%
- Good place to raise children: 12%
- Low crime/safe neighborhood: 12%
- Good school systems: 12%
- Religious or spiritual values: 8%
- Personal responsibility: 4%
- Low disease rate: 4%
- Affordable housing: 4%
- Community activities and events: 3%
- Parks and recreation: 3%
- Access to internet/technology: 2%
- Transportation: 2%
- Diverse community: 1%

Residents that think the county meets these factors. 38%
Prioritization of Identified Health Needs

To facilitate prioritization of identified health needs, a ranking process was used. Health needs were ranked based on five factors:

1) The ability of Appalachian Regional Healthcare to evaluate and measure outcomes.

2) The number of people affected by the issue or size of the issue.

3) The consequences of not addressing this problem.

4) Prevalence of common themes.

5) The existence of hospital programs which respond to the identified need.

Health needs were then prioritized taking into account their overall ranking, the degree to which Appalachian Regional Healthcare can influence long-term change, and the impact of the identified health needs on overall health.

Appalachian Regional Healthcare convened as a system and within each individual facility to develop the implementation strategy after priorities were discussed.

Appalachian Regional Healthcare will continue to work with the community to execute the implementation plan and realize the goals that have been positioned to build a healthier community – a healthier Kentucky and West Virginia.
Implementation Strategy

**Education**

Goal: Education on ARH resources and services; of other community partner services; on chronic disease prevention and other wellness topics from ARH staff; to strengthen community coalitions and encourage wellness; to increase coverage of uninsured and underinsured residents.

- Focus of Lunch and Learn series will center on what ARH has and does in the Harlan area, not just a medical topic. It will also include strategies to assist the public to overcome barriers and obstacles to care.
- Design education to the needs of the public school staff in the community, not just the students.
- Target churches with substantial congregations for educational outreach.


**Obesity and Physical Inactivity**

Goal: Increase the number of events and activities addressing physical fitness/wellness.

- Create a marked walking track around the hospital campus.
- Establish a walking team for staff.
- Maintain fitness fair events in elementary schools.
- Use historic fitness fair data to advocate for more physical education in schools.

Community Partners: FRYSC agents, local owners of fitness centers, health department, Community Action Agency, Southeast KCTCS.

**Transportation**

Goal: Improved response times and delivery of patients to larger communities and/or tertiary facilities.

Community Partners: County government and transportation provider.
Implementation Strategy, continued

Explanation of priorities that will not be addressed at this time

- Substance use prevention and drug use treatment – Other organizations in the community, region and state are focusing on this as a priority and are in a better position to deliver effective change.

- Mental health resources – We are currently evaluating the need for more clinical staff in this area.
Next Steps

This Implementation Strategy will be rolled out over the next three years, from Fiscal Year 2020 through the end of Fiscal Year 2022.

Appalachian Regional Healthcare will kick off the implementation strategy by initiating collaborative efforts with community leaders to address each health priority identified through the assessment process.

Periodic evaluation of goals/objectives for each identified priority will be conducted to assure that we are on track to complete our plan as described.

At the end of Fiscal Year 2022, Appalachian Regional Healthcare will review the implementation strategy and report on the success experienced through the collaborative efforts of improving the health of the community.
## Appendix

Sources for all secondary data used in this report:

### Demographics

<table>
<thead>
<tr>
<th>Indicator (2017)</th>
<th>Original Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>Census Population Estimates</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Population under 18 years</td>
<td>Census Population Estimates</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Population 65 year and older</td>
<td>Census Population Estimates</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Population African American</td>
<td>Census Population Estimates</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Population Hispanic</td>
<td>Census Population Estimates</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Population other Race</td>
<td>Census Population Estimates</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Population Not Proficient in English</td>
<td>American Community Survey 5-year Estimates</td>
<td>2013-2017</td>
</tr>
<tr>
<td>All &quot;National Level&quot; Demographics</td>
<td>U.S. Census QuickFacts</td>
<td>2017</td>
</tr>
</tbody>
</table>

### Social and Economic Factors

<table>
<thead>
<tr>
<th>Indicator (2017)</th>
<th>Original Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Household Income, Non Hispanic/Latino</td>
<td>Small Area Income and Poverty Estimates</td>
<td>2013</td>
</tr>
<tr>
<td>Graduation Rate of 9th Grade Cohort in 4 Years</td>
<td>State sources and the National Center for Education Statistics</td>
<td>Varies</td>
</tr>
<tr>
<td>Percent of Population with Some College Education</td>
<td>American Community Survey 5-year Estimates</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Percent of Unemployed Job-Seeking Population 16 Years and Older</td>
<td>Bureau of Labor Statistics</td>
<td>2017</td>
</tr>
<tr>
<td>Percent of Children in Poverty</td>
<td>Small Area Income and Poverty Estimates</td>
<td>2017</td>
</tr>
</tbody>
</table>
### Social and Economic Factors, continued

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Original Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Children Eligible for Free or Reduced Lunch</td>
<td>National Center for Education Statistics</td>
<td>2012</td>
</tr>
<tr>
<td>Percent of Single Parent Households</td>
<td>American Community Survey 5-yr est.</td>
<td>2009-2013</td>
</tr>
<tr>
<td>Violent Crime Rate (per 100,000 population)</td>
<td>Uniform Crime Reporting, Federal Bureau of Investigation</td>
<td>2005-2010</td>
</tr>
<tr>
<td>Injury Death Rate (per 100,000 population)</td>
<td>CDC WONDER mortality data</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Firearm Fatalities Rate (per 100,000 population)</td>
<td>CDC WONDER mortality data</td>
<td>2013-2017</td>
</tr>
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</table>

### Health Behaviors

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Original Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Adults who Smoke Regularly</td>
<td>Behavioral Risk Factor Surveillance System</td>
<td>2016</td>
</tr>
<tr>
<td>Percent of Adults who are Obese (BMI&gt;30)</td>
<td>CDC Diabetes Interactive Atlas</td>
<td>2015</td>
</tr>
<tr>
<td>Percent of Adults who are Physically Inactive During Leisure Time</td>
<td>CDC Diabetes Interactive Atlas</td>
<td>2015</td>
</tr>
<tr>
<td>Percent of Adults who Drink Excessively (Heavy or Binge)</td>
<td>Behavioral Risk Factor Surveillance System</td>
<td>2016</td>
</tr>
<tr>
<td>Motor Vehicle Crash Deaths (per 100,000 population)</td>
<td>CDC WONDER mortality data</td>
<td>2011-2017</td>
</tr>
<tr>
<td>STDs: Chlamydia Rate (per 100,000 population)</td>
<td>National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention</td>
<td>2016</td>
</tr>
<tr>
<td>Teen Birth Rate (per 1,000 females ages 15-19)</td>
<td>National Center for Health Statistics – Natality files</td>
<td>2011-2017</td>
</tr>
</tbody>
</table>
## Health Outcomes

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Original Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premature Death (Years of Potential Life Lost Before Age 75 per 100,000 population)</td>
<td>National Center for Health Statistics</td>
<td>2015-2017</td>
</tr>
<tr>
<td>Percent of Adults Reporting Poor or Fair Health</td>
<td>Behavioral Risk Factor Surveillance System</td>
<td>2016</td>
</tr>
<tr>
<td>Average Poor Physical Health Days in Past 30 Days</td>
<td>Behavioral Risk Factor Surveillance System</td>
<td>2016</td>
</tr>
<tr>
<td>Average Poor Mental Health Days in Past 30 Days</td>
<td>Behavioral Risk Factor Surveillance System</td>
<td>2016</td>
</tr>
<tr>
<td>Percent of Babies Born with Low Birthweight (&lt;2500 grams)</td>
<td>National Center for Health Statistics</td>
<td>2011-2017</td>
</tr>
<tr>
<td>Percent of Adults with Diabetes</td>
<td>National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation</td>
<td>2015</td>
</tr>
<tr>
<td>HIV Prevalence Rate (per 100,000 population)</td>
<td>National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention</td>
<td>2015</td>
</tr>
<tr>
<td>Child Mortality (per 100,000 population)</td>
<td>CDC WONDER mortality data</td>
<td>2017</td>
</tr>
</tbody>
</table>
## Physical Environment

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Original Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Daily Density of Air Pollution - PM 2.5</td>
<td>State-specific sources &amp; EDFacts</td>
<td>2014</td>
</tr>
<tr>
<td>Presence of Drinking Water Violations</td>
<td>Safe Drinking Water Information System</td>
<td>2017</td>
</tr>
<tr>
<td>Percentage of Severe Housing Problems with at least one of the following: Overcrowding, High Housing Cost, or Lack of Kitchen or Plumbing Facilities</td>
<td>Comprehensive Housing Affordability Strategy (CHAS) data</td>
<td>2011-2015</td>
</tr>
<tr>
<td>Percentage of Workforce Driving Alone to Work</td>
<td>American Community Survey</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Percentage of Workforce Commuting Alone for More than 30 Minutes</td>
<td>American Community Survey</td>
<td>2013-2017</td>
</tr>
</tbody>
</table>
Harlan County Community Health Needs Assessment Survey

1. Please tell us your zip code: ________________

2. Are you or anyone in your household satisfied with the ability to access healthcare services in Harlan County?
   ○ Yes
   ○ No

3. Do you have a family doctor?
   ○ Yes
   ○ No

4. If yes, do you visit regularly?
   ○ Yes
   ○ No

5. If no, where do you go most often for healthcare? Please choose all that apply.
   ○ Emergency room
   ○ Health department
   ○ Urgent care center
   ○ Other. Please specify: __________________________
   ○ I do not receive routine healthcare

6. If you answered “I do not receive routine healthcare” above, please select all that apply as to why:
   ○ No appointment available
   ○ No specialist in my community
   ○ No transportation
   ○ Cannot take off from work
   ○ Cannot afford it
   ○ Other. Please specify: ________________________

7. Have you or someone in your household used the services of a hospital in the past 24 months?
   ○ Yes
   ○ No

8. If yes, where did you visit a hospital?
   ○ Harlan
   ○ Middlesboro
   ○ Hazard
   ○ Lexington
   ○ Pineville
   ○ Other. Please specify: ________________________

9. Please select the top THREE health challenges you or anyone in your household face:
   ○ Cancer
   ○ Diabetes
   ○ Mental health issues
   ○ Heart disease and stroke
   ○ High blood pressure
   ○ HIV/AIDS/STDs
   ○ Overweight/obesity
   ○ Respiratory/lung disease
   ○ Other. Please specify: ________________________

10. Are you or anyone in your household without health insurance currently?
    ○ Yes
    ○ No
11. Have you or someone in your household used any of the specialty services below in the past 24 months?

<table>
<thead>
<tr>
<th>Specialty Service</th>
<th>At an ARH hospital</th>
<th>At another hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Obstetrics/Gynecology</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Oncology (Cancer Care)</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Surgery</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other. Please specify:</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

12. If you went to another hospital than an ARH hospital, please select all that apply as to why:

- [ ] Service I needed was not available
- [ ] My physician referred me
- [ ] My insurance requires me to go somewhere else
- [ ] I prefer larger hospitals
- [ ] Other. Please specify: ______________________

15. In the past 24 months, have you had a:

- [ ] Routine physical
- [ ] Mammogram (Women)
- [ ] Pap Smear (Women)
- [ ] PSA (Men)
- [ ] Colonoscopy

16. How would you rate your own personal health?

- [ ] Very healthy
- [ ] Healthy
- [ ] Neither healthy nor unhealthy
- [ ] Unhealthy
- [ ] Very unhealthy

17. How would you rate the overall health of the people in Harlan County?

- [ ] Very healthy
- [ ] Healthy
- [ ] Neither healthy nor unhealthy
- [ ] Unhealthy
- [ ] Very unhealthy
18. Overall, how would you rank your local ARH hospital on a scale of 1 to 10, where 1 is “not very good” and 10 is “very good”? (Please check your answer)

   1   2   3   4   5   6   7   8   9   10
   ○   ○   ○   ○   ○   ○   ○   ○   ○   ○

19. Please select the top THREE most important factors for a “Healthy Community”? Choose only three:

   ○ Good place to raise children
   ○ Low crime/safe neighborhood
   ○ Good school systems
   ○ Easy access to healthcare
   ○ Community activities and events
   ○ Affordable housing
   ○ Low disease rate
   ○ Personal responsibility
   ○ Diverse community
   ○ Good jobs/healthy economy
   ○ Religious or spiritual values
   ○ Transportation
   ○ Parks and recreation
   ○ Access to internet/technology
   ○ Other. Please specify: ________________

20. Do you think Harlan County meets those factors?

   ○ Yes
   ○ No

21. Would you recommend your local ARH hospital to friends and family?

   ○ Yes
   ○ No

22. What is your age?

   ○ 18-24
   ○ 25-39
   ○ 40-54
   ○ 55-64
   ○ 65-69
   ○ 70 or older

23. What is your gender?

   ○ Male
   ○ Female

24. What is the highest level of education you have completed?

   ○ High school
   ○ College or above
   ○ Technical school
   ○ Other. Please specify: ________________

25. What is your current employment status?

   ○ Unemployed
   ○ Employed part-time
   ○ Employed full-time
   ○ Retired
   ○ Other. Please specify: ________________
RESOLUTION ADOPTED BY THE
BOARD OF TRUSTEES OF
APPALACHIAN REGIONAL HEALTHCARE, INC.

ARH Community Health Needs Assessment Reports

The following resolution was adopted at the meeting of the Board of Trustees of Appalachian Regional Healthcare, Inc. (the "Company"), on May 10, 2019, and has not been amended or rescinded since that date:

WHEREAS, Appalachian Regional Healthcare, Inc. (the "Company"), has completed the Community Health Needs Assessment process; and

WHEREAS, the Company has presented implementation strategies to address the identified priorities from each ARH community; and

WHEREAS, the Company desires to work in partnership with each of its local communities in addressing these identified issues over the next three years.

NOW, THEREFORE, BE IT RESOLVED:

1. ARH Management is hereby directed to implement the outlined strategies that address the identified needs from the assessment over the next three years.

2. The appropriate facility staff, as directed by the President and CEO, shall work with their respective community partners to complete the various activities outlined in the community needs assessment implementation plans.

3. The officers of the Company, as directed by the President and CEO, subject to all applicable State and Federal laws, are hereby authorized to take such further action and execute such documents as they deem necessary and proper, in their discretion, to carry out the foregoing resolution.

4. These aforesaid authorizations shall be subject to ongoing review by the Board of Trustees, and may be amended from time to time based upon immediacy of need and availability of necessary resources.

The foregoing resolution is adopted by the Board of Trustees of Appalachian Regional Healthcare, Inc. on this the 10th day of May, 2019.

Appalachian Regional Healthcare, Inc.
Board of Trustees

By: Greg Pauley, Chairman

A true copy attest:

Rick King, Esq., Assistant Secretary-Treasurer
LARGEST HEALTHCARE SYSTEM IN EASTERN KENTUCKY

Largest employer in southeastern Kentucky and the third largest private employer in southern West Virginia!

5000+ Employees

600+ Providers

11 Home Health Agencies

9 Pharmacies

11 Home Care Stores

12 Hospitals

70+ Clinics

Appalachian Regional Healthcare

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www.arh.org