2019 Community Health Needs Assessment
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
Goal: Increase healthcare access to the community in an effort to improve overall health.

In 2016, we expanded clinic hours. The Saturday clinic is open from 10am - 6:30pm and it is located at the Hyden ARH Clinic, inside the Mary Breckinridge ARH Hospital. Monday through Friday, our clinic is open until 7:30pm.

We successfully recruited a pediatrician and a speech language pathologist in 2016. In 2018, we expanded outpatient cardiology services by adding a cardiology clinic on Tuesdays at Hyden ARH Clinic.

Provided free community education for area schools and the general community about healthy living.

Narcan dosage training (open to the public) was held July 2018 at the hospital. We had an excellent turnout from private citizens and first responders.

Free health screenings were available for stroke prevention and free Hepatitis C and HIV testing was available. We continue to educate our community members on this National Epidemic and attend the Hal Rogers’ National Drug Abuse and Heroin Summit in Atlanta, Georgia each year in April. We are working with the Leslie County Health Department to begin a needle exchange program in Leslie County.

Goal: Work to improve communication with patients, family members, and community.

We increased promotion and advertising in the community regarding patient education opportunities, senior care programs, services offered at hospital and screenings. Marketing developed a senior care pamphlet that we distribute at all community events and to local health care entities, as well as a swing bed program pamphlet that explains how our swing bed program operates.

Our greatest success...

The addition of a speech language pathologist to our Rehab Department.

We are proud to utilize the former newborn nursery as a therapy room for our pediatric patients. This enables our patients to obtain the services they need without having to travel long distances.
Flyers are distributed throughout the community and local business establishments announcing our free screenings and community events.

Marketing campaign was developed informing community about Hyden ARH Clinic operating an extended hours clinic, Monday through Friday from 8 am-7:30 pm and Saturday Clinic.

Lisa Bowling, Mary Breckinridge ARH employee, works with seniors.

Mary Breckinridge ARH 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 Mary Breckinridge ARH.

Mallie Noble
Administrator, Mary Breckinridge ARH
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Introduction

Mary Breckinridge ARH Hospital

Mary Breckinridge ARH Hospital, known for its long and rich history of innovative medical care, is a 25-bed critical access hospital located in Hyden, Kentucky.

Much like the ARH system, Mary Breckinridge Hospital has a colorful history that has shaped medical care in Eastern Kentucky. The hospital was originally opened by midwife Mary Breckinridge who founded the Frontier Nursing Service in Leslie County to provide healthcare for mothers and babies in remote rural areas.

Services

- Clinics
- Emergency
- Home Health
- Imaging
- Rehabilitation Therapy
- Respiratory Therapy
- Senior Care
- Surgery
- Swing Beds
A Portrait of the Community Served by Mary Breckinridge ARH Hospital

- Hyden is the county seat of Leslie County, Kentucky, United States.
- Public transportation is provided by LKLP Community Action Partnership with demand-response service and scheduled service from Hyden to Hazard.
- Leslie County offers The Frontier School of Midwifery and Family Nursing, Frontier Nursing Service, and Daniel Boone Habitat for Humanity.
- Riverfront Park, Portal 31 Mine Tour, Cumberland Gap National Historic Park, Natural Bridge State Park, and Flat Lick Falls are among the popular recreational interest points in the surrounding area.
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>Leslie County</th>
<th>Kentucky</th>
<th>National Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 Population Estimate</td>
<td>22,339</td>
<td>4,454,189</td>
<td>323,127,513</td>
</tr>
<tr>
<td>Percent Population Change, 2010-2017</td>
<td>-8.9%</td>
<td>2.6%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Percent of Population under 18 years</td>
<td>21.6%</td>
<td>22.7%</td>
<td>22.80%</td>
</tr>
<tr>
<td>Percent of Population 65 year and older</td>
<td>18.9%</td>
<td>16.0%</td>
<td>15.20%</td>
</tr>
<tr>
<td>Percent of Population Non-Hispanic White</td>
<td>97.5%</td>
<td>84.6%</td>
<td>61.3%</td>
</tr>
<tr>
<td>Percent of Population African American</td>
<td>0.6%</td>
<td>8.1%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Percent of Population Hispanic</td>
<td>0.8%</td>
<td>3.7%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Percent of Population other Race</td>
<td>1.9%</td>
<td>7.2%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Percent of the Population not Proficient in English</td>
<td>0.1%</td>
<td>1.0%</td>
<td>4%</td>
</tr>
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</table>
# Social and Economic Factors

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Leslie County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median HH Income, Not Hispanic/Latino</td>
<td>$27,958</td>
<td>$48,744</td>
<td>n/a</td>
</tr>
<tr>
<td>Graduation Rate of 9th Grade Cohort in 4 Years</td>
<td>98.0%</td>
<td>89.2%</td>
<td>83.0%</td>
</tr>
<tr>
<td>Percentages of Ages 25-44 with Some Post-Secondary College</td>
<td>40.0%</td>
<td>60.3%</td>
<td>65.0%</td>
</tr>
<tr>
<td>Percent of Unemployed Job-Seeking Population 16 Years and Older</td>
<td>13.0%</td>
<td>5.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Percent of Children in Poverty</td>
<td>39.0%</td>
<td>24.4%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Percent of Children Qualifying for Free or Reduced Lunches</td>
<td>69.0%</td>
<td>59.4%</td>
<td>52.0%</td>
</tr>
<tr>
<td>Percent of Single-Parent Households</td>
<td>26.0%</td>
<td>34.6%</td>
<td>34.0%</td>
</tr>
<tr>
<td>Violent Crime Rate per 100,000 population</td>
<td>47</td>
<td>215</td>
<td>380</td>
</tr>
<tr>
<td>Injury Death Rate per 100,000 population</td>
<td>158</td>
<td>88</td>
<td>65</td>
</tr>
<tr>
<td>Firearm Fatalities Rate per 100,000 population</td>
<td>n/a</td>
<td>15</td>
<td>11</td>
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</tbody>
</table>

# Health Behaviors

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Leslie County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Adult Smokers</td>
<td>26.0%</td>
<td>24.5%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Percent Obese Adults with BMI &gt;= 30</td>
<td>43.0%</td>
<td>33.7%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Percent Physically Inactive Adults</td>
<td>37.0%</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>38</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Chlamydia Rate Newly Diagnosed per 100,000 Population</td>
<td>82.4</td>
<td>395</td>
<td>478.8</td>
</tr>
<tr>
<td>Teen Birth Rate Ages 15-19 per 1,000 Population</td>
<td>65</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 where not made available by County Health Rankings.
### Health Outcomes

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Leslie County</th>
<th>Kentucky</th>
<th>National Benchmark*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Potential Life Lost Rate</td>
<td>15,500</td>
<td>9,047</td>
<td>6,700</td>
</tr>
<tr>
<td>Percent of Population in Fair/Poor Health</td>
<td>26.0%</td>
<td>21.3%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Physically Unhealthy Days</td>
<td>5.5</td>
<td>4.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Mentally Unhealthy Days</td>
<td>5.0</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>14.0%</td>
<td>12.8%</td>
<td>10.0%</td>
</tr>
<tr>
<td>HIV Prevalence Rate</td>
<td>n/a</td>
<td>180</td>
<td>362</td>
</tr>
<tr>
<td>Child Mortality Rate</td>
<td>n/a</td>
<td>58.5</td>
<td>50</td>
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</tbody>
</table>

### Physical Environment

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Leslie 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>9.1</td>
<td>10.3</td>
<td>8.7</td>
</tr>
<tr>
<td>Presence of Drinking Water Violations</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Percentage of Severe Housing Problems with at least one of the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overcrowding, High Housing Cost, or Lack of Kitchen or Plumbing Facilities</td>
<td>17.0%</td>
<td>14.4%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Percentage of Workforce Driving Alone to Work</td>
<td>83.0%</td>
<td>82.2%</td>
<td>76.0%</td>
</tr>
<tr>
<td>Percentage of Workforce Commuting Alone for More than 30 Minutes</td>
<td>51.0%</td>
<td>29.0%</td>
<td>35.0%</td>
</tr>
</tbody>
</table>
Hospital Utilization Data

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

Table: Hospital Inpatient Discharges, 1/1/17 - 12/31/17

<table>
<thead>
<tr>
<th>County of Origin</th>
<th>Discharges</th>
<th>Total Charges</th>
<th>Average Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leslie - KY</td>
<td>191</td>
<td>4,060,806</td>
<td>21,261</td>
</tr>
<tr>
<td>Perry - KY</td>
<td>18</td>
<td>767,001</td>
<td>42,611</td>
</tr>
<tr>
<td>Clay - KY</td>
<td>18</td>
<td>413,943</td>
<td>22,997</td>
</tr>
<tr>
<td>Harlan - KY</td>
<td>12</td>
<td>359,827</td>
<td>29,986</td>
</tr>
<tr>
<td>Knott - KY</td>
<td>3</td>
<td>90,403</td>
<td>30,134</td>
</tr>
<tr>
<td>Breathitt - KY</td>
<td>2</td>
<td>60,728</td>
<td>30,364</td>
</tr>
<tr>
<td>Jackson - KY</td>
<td>1</td>
<td>54,029</td>
<td>54,029</td>
</tr>
<tr>
<td>Whitley - KY</td>
<td>1</td>
<td>31,780</td>
<td>31,780</td>
</tr>
<tr>
<td>Madison - KY</td>
<td>1</td>
<td>16,174</td>
<td>16,174</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>147</td>
<td>$3,000,090</td>
<td>$20,409</td>
</tr>
<tr>
<td>Medicare Managed Care</td>
<td>23</td>
<td>$599,055</td>
<td>$26,046</td>
</tr>
<tr>
<td>In State Medicaid</td>
<td>20</td>
<td>$920,455</td>
<td>$46,023</td>
</tr>
<tr>
<td>WellCare of Kentucky Medicaid Managed Care</td>
<td>18</td>
<td>$311,404</td>
<td>$17,300</td>
</tr>
<tr>
<td>Black Lung</td>
<td>12</td>
<td>$404,384</td>
<td>$33,699</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>Leslie - KY</td>
<td>17,103</td>
<td>$28,575,475</td>
<td>1,671</td>
</tr>
<tr>
<td>Clay - KY</td>
<td>1,275</td>
<td>1,955,545</td>
<td>1,534</td>
</tr>
<tr>
<td>Perry - KY</td>
<td>1,148</td>
<td>2,477,683</td>
<td>2,158</td>
</tr>
<tr>
<td>Harlan - KY</td>
<td>564</td>
<td>1,109,529</td>
<td>1,967</td>
</tr>
<tr>
<td>Laurel - KY</td>
<td>161</td>
<td>241,267</td>
<td>1,499</td>
</tr>
<tr>
<td>Letcher - KY</td>
<td>64</td>
<td>346,573</td>
<td>5,415</td>
</tr>
<tr>
<td>Bell - KY</td>
<td>54</td>
<td>130,298</td>
<td>2,413</td>
</tr>
<tr>
<td>Knott - KY</td>
<td>53</td>
<td>254,503</td>
<td>4,802</td>
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</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>Pulmonary disease w mcc</td>
<td>31</td>
<td>$614,424</td>
<td>$19,820</td>
</tr>
<tr>
<td>Septicemia w mcc</td>
<td>18</td>
<td>$634,056</td>
<td>$35,225</td>
</tr>
<tr>
<td>Heart failure</td>
<td>17</td>
<td>$362,602</td>
<td>$21,330</td>
</tr>
<tr>
<td>Simple pneumonia</td>
<td>16</td>
<td>$340,538</td>
<td>$21,284</td>
</tr>
<tr>
<td>Pulmonary disease w/o cc/mcc</td>
<td>15</td>
<td>$222,675</td>
<td>$14,845</td>
</tr>
<tr>
<td>Digestive disorders w/o mcc</td>
<td>14</td>
<td>$213,440</td>
<td>$15,246</td>
</tr>
<tr>
<td>Kidney disease</td>
<td>12</td>
<td>$192,439</td>
<td>$16,037</td>
</tr>
<tr>
<td>Cellulitis w/o mcc</td>
<td>11</td>
<td>$127,841</td>
<td>$11,622</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Payer</th>
<th>Visits</th>
<th>Total Charges</th>
<th>Average Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare (Excluding Medicare Managed Care)</td>
<td>6,610</td>
<td>$11,631,610</td>
<td>$1,760</td>
</tr>
<tr>
<td>WellCare of Kentucky Medicaid Managed Care</td>
<td>6,098</td>
<td>$10,440,565</td>
<td>$1,712</td>
</tr>
<tr>
<td>Blue Cross Blue Shield</td>
<td>1,563</td>
<td>$2,597,015</td>
<td>$1,662</td>
</tr>
<tr>
<td>Medicare Managed Care</td>
<td>1,531</td>
<td>$3,048,723</td>
<td>$1,991</td>
</tr>
<tr>
<td>Commercial - HMO</td>
<td>929</td>
<td>$1,226,004</td>
<td>$1,320</td>
</tr>
<tr>
<td>Humana Medicaid Managed Care</td>
<td>718</td>
<td>$1,283,300</td>
<td>$1,787</td>
</tr>
<tr>
<td>Passport Medicaid Managed Care</td>
<td>690</td>
<td>$1,267,666</td>
<td>$1,837</td>
</tr>
<tr>
<td>Anthem Medicaid Managed Care</td>
<td>554</td>
<td>$963,539</td>
<td>$1,739</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.

Mary Breckinridge ARH Hospital
Community Steering Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Stewart</td>
<td>Medicine Shop/Subway</td>
</tr>
<tr>
<td>Christina Henderson</td>
<td>Home Town Pharmacy</td>
</tr>
<tr>
<td>Carolyn Joseph</td>
<td>Mayor</td>
</tr>
<tr>
<td>Heath Vance</td>
<td>Health Department Environmentalist</td>
</tr>
<tr>
<td>Tim Bell</td>
<td>EMS Supervisor</td>
</tr>
<tr>
<td>Brett Wilson</td>
<td>Superintendent, Leslie Co Board of Education</td>
</tr>
<tr>
<td>Onzie Sizemore</td>
<td>Leslie County Fiscal Court</td>
</tr>
<tr>
<td>Sarah Osborne</td>
<td>Mt. View Elementary</td>
</tr>
<tr>
<td>Brian Overbee</td>
<td>Grace Health</td>
</tr>
<tr>
<td>Andrew Farmer</td>
<td>Farmer Pediatric Dentistry</td>
</tr>
<tr>
<td>Sharon Mosley</td>
<td>Leslie County Relay for Life (retired teacher)</td>
</tr>
<tr>
<td>Tonya Asher</td>
<td>LKLP County Coordinator</td>
</tr>
</tbody>
</table>
Community Feedback

In order to collect primary data from community residents, focus groups and a key informant interview were conducted in Leslie County and in the area that Mary Breckinridge ARH patients reside. The focus groups were conducted as separate meetings or in conjunction with other regularly scheduled meetings in the county. Fifty individuals participated in four focus groups. Representation from the Stinnett Community Center, Hyden & Leslie County Chamber of Commerce, Frontier Nursing University, Our Mountains Television, Leslie County Public Library, Leslie County Senior Citizens Center 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.

Focus Groups

Resident’s vision for a healthy community

- Drug free community
- Alcohol and Tobacco free community
- Physically active residents with recreation opportunities for all ages
- Early childhood resources
- Cultural events for the community
- Healthy population focused on wellness
- Strong economy with jobs
- Senior resources - caregiver support, assisted living
- Hospice services
- Centralized youth center
- Affordable healthcare
- Technology/broadband/ fiber optics
- Transportation
What are the most significant health needs in Leslie County?

- Mental health and need for more mental health counselors
- Lack of access to healthy foods
- Substance use - alcohol, drugs, tobacco
- Vaping
- Lack of communication on available resources
- Cancer
- Diabetes
- Lung disease - COPD, black lung
- Heart disease
- Lack of affordable housing
- Homelessness
- Lack of physical activity/sedentary lifestyle

What is your perception of the current health care system including hospital, health department, clinics, physicians, EMS and other essential services* in Leslie 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 Leslie County

- Excellent customer service
- Clinics, pharmacies and nurse practitioners available throughout the county
- Strong health department
- After-hours care available
- Short wait times
- School based clinics

Opportunities for improving the health care system in Leslie County

- Perception that the hospital should be updated
- Lack of mental health services
- Transportation
- Not enough senior care
- Need for specialty care - orthopedics, dermatology, OB, podiatrist, diabetic care, pediatrics
- EMS and paramedic shortage

What can be done to better meet health needs of residents in Leslie County?
- Recruit specialists to practice in Leslie County
- Shortage of health care providers
- Health education on prevention
- Bring specialists one day a week in Hyden
- ARH promote services that are currently provided - social media

**Key Informant Interview**
As a mechanism to examine needs that surfaced in focus group discussions, the hospital leadership and the steering committee provided contact information for potential key informant interviews to be conducted. An interview was held and below is a summary of responses highlighting the strengths of the community, challenges/barriers in the broader health care system and opportunities for improving the community’s health.

**Most significant or common needs in Leslie County (related to health)?**
- Substance abuse
- Diabetes
- Heart disease
- Cancer

**Strengths of health care system in Leslie County**
- Excellent staff and doctors
- Good ambulance service
- Clinics available in rural communities

**Barriers to health care or living healthy in Leslie County**
- Isolation
- Transportation

**What could be done to better meet Leslie County residents health needs?**
- Utilizing telehealth
Mary Breckinridge ARH Hospital

Winter 2018 Survey Results

329 Surveys*

61% Households are satisfied with their ability to access health care services in their county.

62% Respondents have a family doctor. 46% visit their family doctor regularly.

17% Households are currently without health insurance.

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

- Emergency room: 30%
- Health department: 16%
- Urgent care center: 15%
- Other: 17%
- I do not receive routine healthcare*: 23%

*No appointment available (49%), can’t afford it (13%), no specialist in my community (9%), can’t take off from work (8%), no transportation (4%).

Top three health challenges households face:

- High blood pressure: 24%
- Overweight/obesity: 17%
- Diabetes: 15%
- Heart disease and stroke: 14%
- Respiratory/lung disease: 9%
- Cancer: 8%
- Mental health issues: 7%
- Other: 4%
- HIV/AIDS/STDs: 2%

Routine health care accessed by respondents:

<table>
<thead>
<tr>
<th>Service</th>
<th>Respondent's rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine physical</td>
<td>180</td>
</tr>
<tr>
<td>Mammogram</td>
<td>97</td>
</tr>
<tr>
<td>Pap smear</td>
<td>73</td>
</tr>
<tr>
<td>Prostate-Specific Antigen (PSA)</td>
<td>15</td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>37</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.
Hospitals* visited in the last 24 months by households:

- Manchester: 3%
- Other: 6%
- Lexington: 6%
- London: 17%
- Mary Breckinridge ARH: 29%
- Hazard: 39%

*Why another hospital?
Service I needed was not available (48%), physician referred me (31%), I prefer larger hospitals (10%), insurance requires me to go elsewhere (5%).

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

- Surgery: 53% at ARH, 47% at other hospitals
- Orthopedics: 50% at ARH, 50% at other hospitals
- Oncology (Cancer Care): 51% at ARH, 49% at other hospitals
- Obstetrics/Gynecology: 51% at ARH, 49% at other hospitals
- Cardiology: 64% at ARH, 36% at other hospitals

How far respondents have to travel to see a specialist. 41% would be willing to use telehealth services for specialty care.

- I do not see any specialists: 8%
- Less than 20 miles: 12%
- 20 - 49 miles: 19%
- 50 - 100 miles: 32%
- More than 100 miles: 30%

Top three most important factors for a healthy community:

- Low crime/safe neighborhood: 14%
- Good jobs/healthy economy: 14%
- Good place to raise children: 13%
- Easy access to healthcare: 13%
- Good school systems: 12%
- Religious or spiritual values: 10%
- Affordable housing: 7%
- Low disease rate: 4%
- Personal responsibility: 3%
- Transportation: 2%
- Community activities and events: 2%
- Access to internet/technology: 2%
- Parks and recreation: 2%
- Diverse community: 1%

Residents that think the county meets these factors. 30%
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

**Mental Health**

Goal: Increase the awareness of how to recognize and deal with the stigma of mental health illness and don’t let it stand in the way of getting treatment.

- Collaborate with Community Partners to help recognize and detect signs and symptoms of mental health issues.
- Develop a referral system to ensure patients get timely and appropriate scheduling to mental health providers.
- Develop a brochure listing of local mental health providers that would allow easy access for patients to seek appropriate treatment.
- Recruitment campaign for Part Time Licensed Clinical Social Worker or Psychiatric FNP for Specialty Clinic.

Community Partners: Kentucky River Community Care, Kentucky Office of Rural Health Center, Leslie County Board of Education Resource Personnel.

**Substance Abuse**

Goal: Administer grant received April 1, 2019 that provides free testing for Hepatitis C and HIV.

- Recruitment of a Gastrointestinal and/or Infectious Disease Physician for treatment and follow-up on patients that are diagnosed with these diseases.
- Implement a needle exchange program in Leslie County.

Community Partners: Kentucky River District Health Department.

**Education: Tobacco Use and Vaping**

Goal: Decrease the number of young adolescents who may have begun or are thinking about tobacco use.

- Increase awareness and educate the youth in our community regarding the health issues associated with tobacco abuse and vaping.

Community Partners: Kentucky River District Health Department, Leslie County Board of Education, Leslie County Fiscal Court, Mayor City of Hyden.
Implementation Strategy, continued

Preventative Care
(diatbes, obesity and inactivity, hypertension)

Goal: Increase awareness of health eating and life style, importance of exercise such as walking.

- Monthly Community Health Fairs with senior citizens, elementary and high school students.

Community Partners: Marjorie Haas, M.D., Pediatrician, Kentucky River District Health Department, Leslie County Board of Education, Leslie County Fiscal Court, Mayor City of Hyden.

Specialties
(general surgery, gastroenterologist, podiatrist)

Goal: Provide community with access to specialists without having to travel outside their respective communities.

- Recruit a general surgeon, podiatrist, and a gastroenterologist for a clinic two days a month at Hyden ARH Clinic working towards surgeon performing outpatient scopes such as colonoscopies, endoscopies, and removal of lumps and bumps.

Community Partners: Dan Stone, Hazard ARH CCEO, and Charles Lovell, Barbourville ARH CCEO.
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</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>2014-2015</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>
Leslie 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 Leslie 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?
   ○ Mary Breckinridge
   ○ Hazard
   ○ London
   ○ Manchester
   ○ Lexington
   ○ 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:

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

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

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

16. How would you rate your own personal health?

- O Very healthy
- O Healthy
- O Neither healthy nor unhealthy
- O Unhealthy
- O Very unhealthy

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

- O Very healthy
- O Healthy
- O Neither healthy nor unhealthy
- O Unhealthy
- O 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 Leslie 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!

11 Home Health Agencies
9 Pharmacies
11 Home Care Stores
12 Hospitals
70+ Clinics
600+ Providers
5000+ Employees

Appalachian Regional Healthcare

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www.arh.org