

2019-2021

# Community Health Assessment and Improvement Plan



*Barren River Initiative  
To Get Healthy Together*



**BRIGHT**  
Coalition

# 2019-2021

## Barren River Area Development District

### Community Health Assessment and Improvement Plan



*Allen, Barren, Butler, Edmonson,  
Hart, Logan, Metcalfe, Monroe,  
Simpson & Warren Counties*

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## Letter to the Community

Since its formation in 2011, the BRIGHT Coalition has envisioned that every resident in the Barren River Area Development District will have the best quality of life possible by ensuring a safe place to live, work and play. Healthy individuals, families, and communities are the cornerstone of our vision and should include equal opportunities to be healthy with an emphasis on personal responsibility for their own health and wellness and collaboration among all stakeholders.

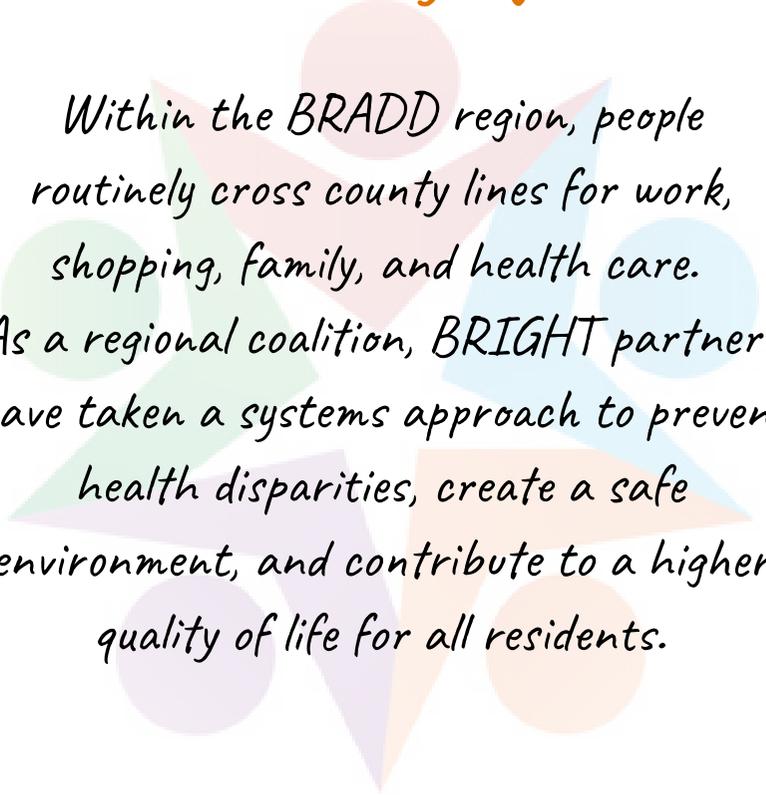
For the past year, members of the BRIGHT Coalition have worked diligently on the third update of the Community Health Assessment and the Community Health Improvement Plan for the BRADD region. We are very proud to present this document as a record of that data-driven work and also as a road map for all of us to reach the destination of a healthier community. We hope that you find this document insightful and inspiring.

Sincerely,

*JEFF MOORE*

Jeff Moore, Chairman  
BRIGHT Coalition, Inc.

## Barren River Initiative To Get Healthy Together



*Within the BRADD region, people routinely cross county lines for work, shopping, family, and health care. As a regional coalition, BRIGHT partners have taken a systems approach to prevent health disparities, create a safe environment, and contribute to a higher quality of life for all residents.*

# Acknowledgements

The BRIGHT Coalition would like to thank the following organizations for their invaluable contributions to this Community Health Assessment profile:

## Health Services

- Aetna
- Barren River District Health Department
- Cal Turner Rehab & Specialty Care
- Caresource Humana
- Christian Care Community
- Commonwealth Regional Specialty Hospital
- Fairview Community Health Center
- Go365 Humana
- Graves Gilbert Clinic
- Kentucky Health Information Exchange
- Lifeskills, Inc.
- Med Center Health Caverna
- Med Center Health Franklin
- Med Center Health Scottsville
- Oxford House
- The Medical Center Home Health Program
- T.J. Regional Health
- WellCare

## Health Equity

- Allen County Health Department
- Barren River Area Development District (BRADD)
- Barren River District Health Department
- City of Bowling Green
- Community Action of Southern Kentucky
- Habitat for Humanity
- HOTEL, Inc.
- Med Center Health
- Monroe County Health Department
- South Central KY AHEC
- Warren County Library
- WKU Department of Public Health
- WKU Institute for Rural Health

## Healthy Environment

- Barren County School System
- Barren River District Health Department
- Community Action of South Central KY
- Kentucky Transportation Cabinet
- Warren County School System

## Healthy Lifestyles

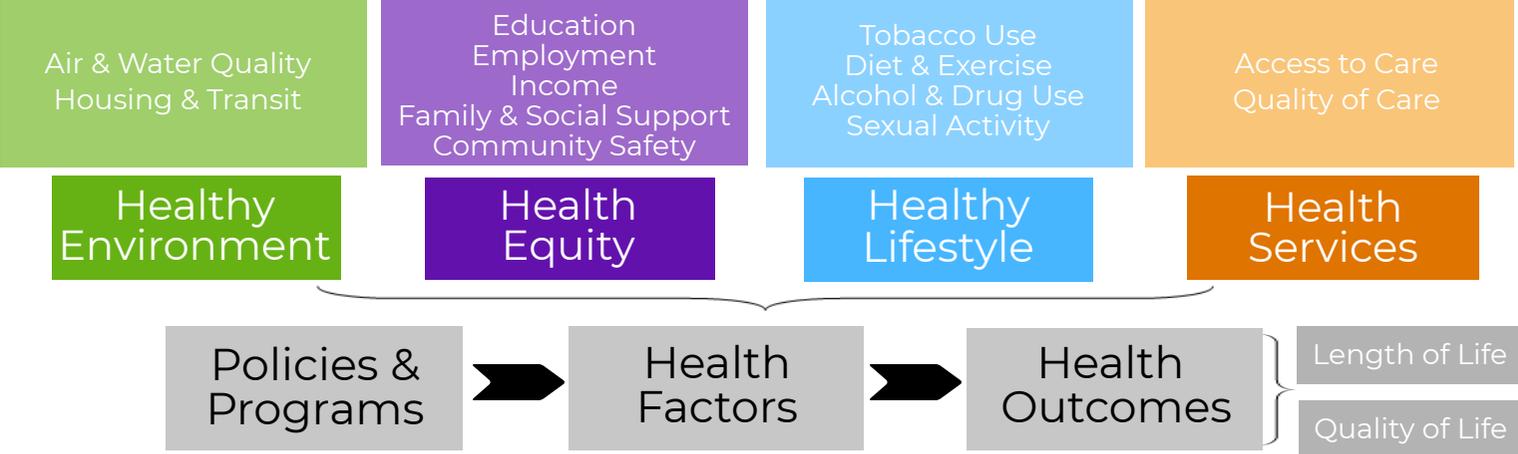
- Allen County Health Department
- Barren River District Health Department
- Bowling Green Independent School System
- Community Farmers Market
- Fairview Community Health Center
- Kentucky Cancer Program
- Med Center Health
- Travel Trim (Logan Aluminum)
- UK Extension - Hart County
- UK Extension - Simpson County



# Community Health Assessment: Framework

The Barren river Initiative to Get Healthy Together wants every resident in the Barren river District Ara Development District (BRADD) to have the best quality of life possible by ensuring a safe place to live, work, and play. Healthy individuals, families, and communities are the cornerstone of this vision and include equal opportunities to be healthy with an emphasis on personal responsibility for their own health and wellness and collaboration among all stakeholders.

The BRIGHT Coalition formed in 2011 with seven community partners: Barren River District Health Department, Caverna Memorial Hospital, The Medical Center at Bowling Green, The Medical Center at Franklin, The Medical Center at Scottsville, Monroe County Medical Center, and TJ Sampson Community Hospital. Within BRIGHT, these stakeholders joined forces to answer the question, "How can leaders of South-Central Kentucky's rural communities work together to improve our overall health status, strengthen the local economy, contribute to education successes, and improve the quality of life for all?". The coalition has since grown to over 47 organizations representing the ten counties in BRADD. The 2018-2019 Community Health Assessment (CHA) was conducted by the coalition to guide the community health improvement process for multiple organizations across the BRADD. This assessment details the priority health issues selected after consideration of all the data collected, and how this was used to develop a Community Health Improvement Plan (CHIP).



# Methodology

Throughout 2018, the BRIGHT Coalition met monthly to conduct the third Mobilizing for Action through Planning and Partnership (MAPP) cycle. MAPP is a strategic planning process that is used for partners in the region to apply strategic thinking to prioritize public health issues and identify resources to address them. This process is how the BRIGHT Coalition facilitates a collaborative process for community partners to participate in data collection and analysis, planning, implementation, and evaluation. It is comprised of six phases with the first four resulting in the CHA, and the CHA is the foundation for the CHIP to be developed and then utilized in the last two phases of the MAPP process.

Through data gathered in 2018 by County Health Rankings, previously conducted assessments, and Healthy People 2020, the coalition identified four priority health issues: Healthy Environment, Health Equity, Healthy Lifestyle, and Health Services in early 2018. The data collection process gathered qualitative and quantitative data through MAPP identified assessments: Community Themes and Strengths Assessment, Forces of Change Assessment, and Community Health Status Assessment. Less than 10% of the population was reached and the target audience was largely missing, resulting in data that isn't statistically representative of the area. Data was gathered from existing sources of County Health Rankings, Behavior Risk Factor Survey, EnviroHealthLink and previous community health assessments. All statistics and facts were evaluated to reveal the data-driven objectives to be addressed for each of the four priority health issues.

## Key Points from 2018 Community-Wide Survey\*

- Accessing health care services is important.
- Safety in my neighborhood is important.
- We buy fresh and healthy foods at the grocery store, but for some cost makes that hard.
- We like to be physically active at parks.
- Tobacco use affects our health in the community.
- Office hours make accessing health care services difficult.
- We aren't visiting a doctor or dentist yearly to receive routine care.
- Most of us drive alone less than 30 minutes to work.

\*The survey did not get enough results to be statistically representative of the community



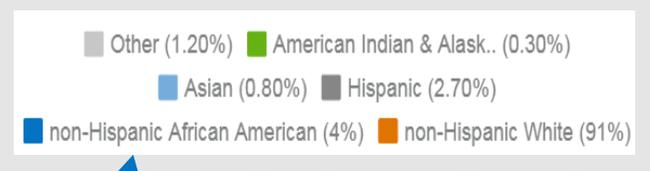
# Community Description

As of 2018, there were 296,024 individuals residing in the Barren River Area Development District (BRADD), which is made up of the ten counties in South Central Kentucky: Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, and Warren. The area is also home to Western Kentucky University, which had 20,267 students enrolled in the fall of 2017 and the International Center which saw 2,470 immigrants arrive from 2013-2017 consisting of over 11 different nationalities.

Of the 10 BRADD counties, 4 have 100% of their population living in a rural area and an average of 78% of the BRADD population live in rural areas, with Warren County being the lowest at 31.2%. The BRADD median household income is \$42,066, but it is estimated that 53,625 (17.7%) residents live in poverty.



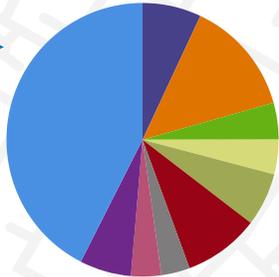
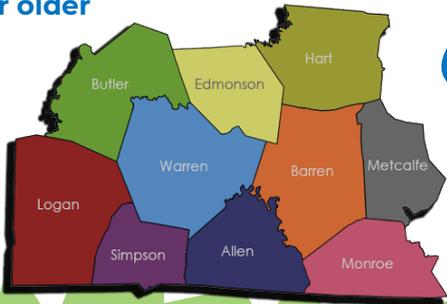
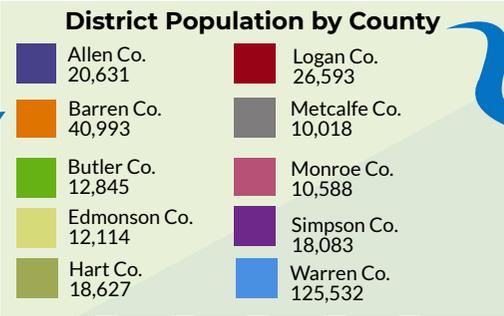
## Who makes up the BRADD?



**27.5%**  
are younger  
than 18 years  
of age



**20.4%**  
are 65 years  
old or older



# Health Services

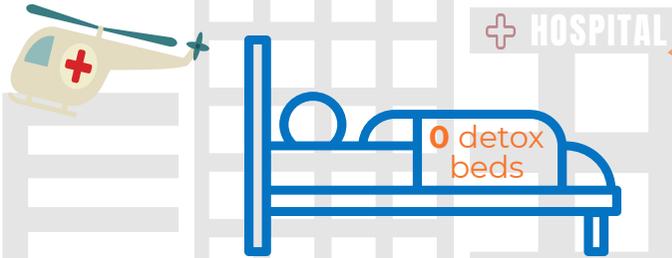
## Data Driven Objectives



- Increase primary care access across BRADD
- Increase access to behavioral health and substance use disorder services throughout BRADD
- Improve clinical outcomes by increasing utilization of community health workers and patient navigators
- Increase the number of syringe exchange programs (SEPs) in BRADD
- Develop access to medical detox beds in BRADD hospitals

Edmonson County has the highest patient to mental health provider ratio in the BRADD at <sup>1</sup>

**3,030:1**



At the end of 2018, 2 syringe exchange programs in the BRADD served over 158 unique clients <sup>3</sup>

**20.5%** of BRADD adults have a depressive disorder <sup>2</sup>



Telehealth expands access to health care especially in rural areas of Kentucky. It can reduce travel to receive specialty care and improve monitoring, timeliness, and communications within the healthcare system. Starting July 1, 2019, these services will be covered in Kentucky for Medicaid, Medicaid MCOs, and commercial health plans in Kentucky.

## Community Resources

- Federally qualified health centers
- Regional health centers
- Almost Family (formerly MD2U)
- Lifeskills
- Community health management
- DSMS (Diabetes Self-Management Support)
- DPP (Diabetes Prevention Program)
- MNT (Medical Nutrition Therapy)

## Community Needs

- HIV clinics
- Lower medication costs
- Access to dental for Medicaid
- More psychiatric care providers
- Opioid treatment facilities
- More syringe exchange programs

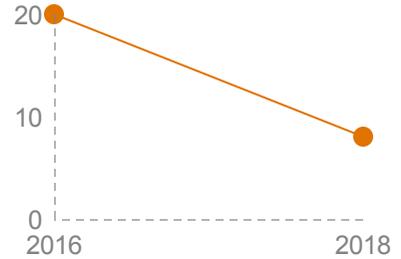
Preventable hospital stays per 1,000 Medicare enrollees ranged from 72 for Barren County to 204 for Monroe County, with the other 8 counties falling between those <sup>1</sup>

BRDHD's mobile dental unit saw **3,602** students during the 2017 school year

**296** of those students had issues that needed a dentist and **66%** of these had Medicaid

**41.1%** of adults did not have a dental visit in the past year <sup>2</sup>

**75.8%** of BRADD adults report being in good or better health <sup>2</sup>



Since 2016, the percentage of BRADD residents without medical insurance has declined from **19.9%** to **8%** <sup>4</sup>

**159\*** Primary care physicians  
**415\*** Mental health providers  
**144\*** Dentists **61** of these dentist accept Medicaid

*\*Over half of the providers in each category are located in Warren County. See data charts pgs. 34-35 for providers in each county <sup>1</sup>*

HEALTH CLINIC

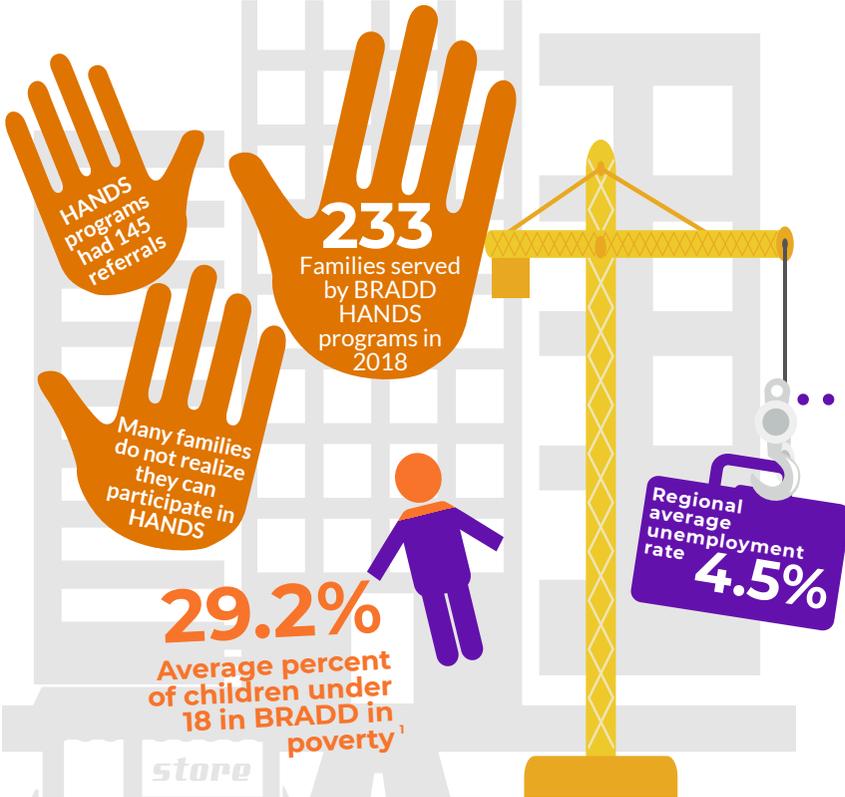
# Health Equity

## Data Driven Objectives

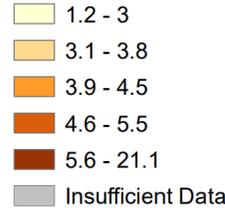


- Increase support for healthy child & family development throughout BRADD
- Educate residents & community organizations on available human & social services in the BRADD
- Implement a Health in All Policies approach across BRADD

BRADD median household income  
**\$42,066**<sup>4</sup>



### Percent Unemployed (%)



## Community Resources



- HANDS program
- SOKY workforce development
- Chamber of Commerce
- Community Action of Southern KY
- Career center

## Community Needs



- Subsidized housing
- Community programs for kids/families
- Car seat safety programs

BRADD's infant mortality rate is 7 per 1,000 children<sup>4</sup>

Percentage of single parent households in BRADD<sup>1</sup>

28.7%

48%

of adults aged 25-44 in BRADD have some post-secondary education<sup>7</sup>

82%

of adults aged 25 or older in BRADD have graduated high school<sup>4</sup>



80% of food insecure children in BRADD are likely income-eligible for federal nutrition assistance<sup>6</sup>

At school, food insecure children are at increased risk of falling behind their food-secure peers both academically and socially; food insecurity is linked to lower reading and mathematics test scores, and they may be more likely to exhibit behavioral problems, including hyperactivity, aggression and anxiety. - Feeding America<sup>6</sup>

Kindergarten readiness was an average of 54% for BRADD in 2018<sup>5</sup>

92% of 9th graders in BRADD graduated in 4 years<sup>1</sup>



# Healthy Environment

## Data Driven Objectives

- Educate BRADD residents on the cleanliness of our water resources and air quality and how it impacts health
- Promote plans that affect how residents commute within the region and how they live in proximity to where they need to be

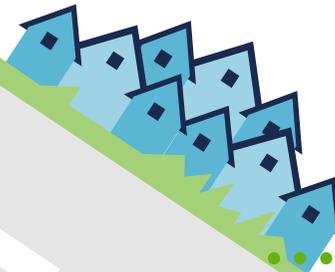


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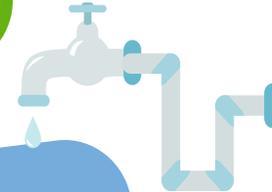
**46.4%**

of BRADD homes were built before 1980<sup>14</sup>



**47%**

of BRADD renters spend more than 30% of their income on housing costs<sup>8</sup>



## Community Resources



- Housing assistance from the USDA
- Housing authorities in most counties
- County transit systems
- Cleaner natural water resources
- Air & ground ozone qualities are improving

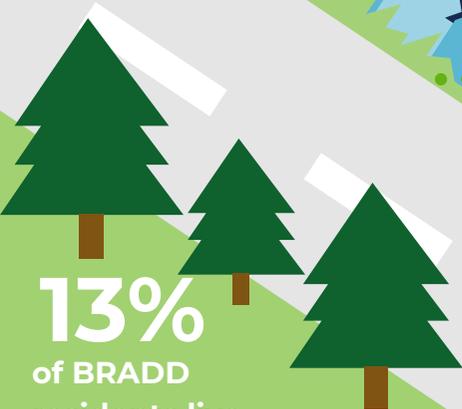
## Community Needs



- Public education on natural water quality
- Uniform residential landlord and tenant act
- Access to bike lanes
- Access to food in food deserts
- Regional transit plan
- Shorter commutes

**13%**

of BRADD residents live with severe household problems<sup>1</sup>



35%

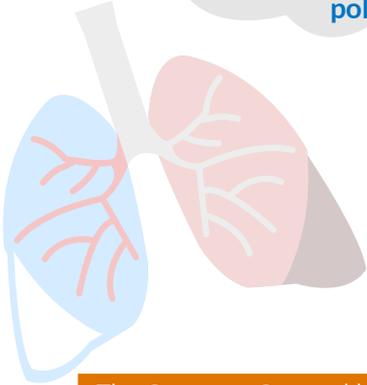
of commuters in BRADD drive alone to work <sup>1</sup>



10.1  $\mu\text{m}^3$   
Considered In Attainment by EPA

BRADD average for daily air pollution <sup>1</sup>

In 2016, 5 BRADD counties had at least one drinking water violation <sup>1</sup>



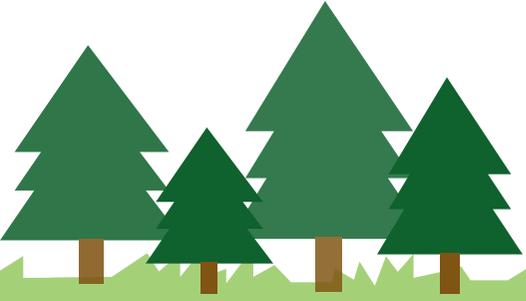
The Surgeon General has warned that radon is the second leading cause of lung cancer in the United States today. Only smoking causes more lung cancer deaths. **If you smoke and your home has high radon levels, your risk of lung cancer is especially high <sup>9</sup>**

BRADD Radon levels vs USA Radon levels

US (1.4 pCi)

BRADD (6.3 pCi)

EPA Recommended Max Level for Radon: 4.0 pCi



# Healthy Lifestyles

## Data Driven Objectives

- Increase access to fresh & healthy foods for those in the most disparate populations in our communities
- Improve education on substance use and alcohol use, & increase mental health awareness surrounding these topics
- Promote exercise opportunities & healthy lifestyle habits to BRADD residents



**31.7%**  
of Barren River Residents are obese<sup>2</sup>



**12.3%**  
of BRADD adults have diabetes<sup>2</sup>

**193**

**FAST FOOD Restaurants in BRADD<sup>12</sup>**



## Community Resources

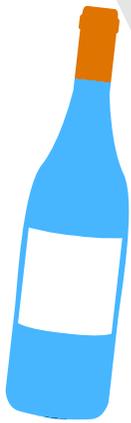


- Freedom from smoking programs
- Cooperative extension offices
- WIC
- Parks & recreational facilities
- KY ASAP
- Health department STD testing and education
- Access to feeding programs

## Community Needs



- Smoke free ordinances
- Opioid treatment facilities
- More syringe exchange programs
- Access to prenatal care



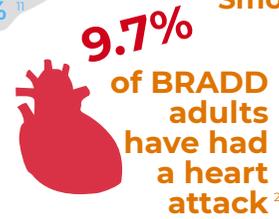
The number of BRADD adults who report binge drinking is **18.1%**<sup>2</sup>



KY has the **2nd highest smoking rate** in the nation at **24.6%**<sup>11</sup>



**27.9%** of BRADD Adults are Smokers<sup>2</sup>



**9.7%** of BRADD adults have had a heart attack<sup>2</sup>



**24%** of BRADD's driving deaths involved alcohol



Kentucky's overdose rate has increased by **11.5%** since 2016<sup>10</sup>

In 2016 there were **2,207** drug arrests per 100,000 population for BRADD<sup>4</sup>



By the end of 2018, BRDHD's Syringe Exchange Programs have received over

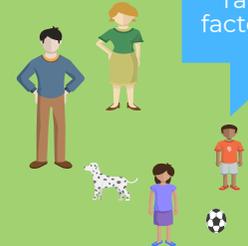
**31,490**

used needles in Warren and Barren County



**34.6%** of BRADD Adults do NOT participate in physical activity<sup>2</sup>

Even with risk factors for heart disease such as high blood pressure, diabetes or high cholesterol, people who enjoy regular physical activity have lower death rates than people who have no risk factors but who aren't physically active<sup>15</sup>





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2019-2021

# Community Health Improvement Plan

*Barren River Initiative  
To Get Healthy Together*



# Data-Driven Objective, Evidence-Based Strategy, and Measures

## [Health Services] Objective 1: Increase access to primary care services for individuals living in BRADD

**Strategy 1.1:** Use telemedicine to deliver consultative, diagnostic, and treatment services remotely for patients in areas with limited access to primary care providers.

*Justification: Telemedicine providers increases access to care services especially for individuals with chronic conditions and in rural or underserved communities (County Health Rankings).*

**Measure 1.1.1:** Increase the number of providers offering telemedicine for primary care services

**Baseline:** 0 primary care providers using telemedicine in 2018

**Target:** Increase by 1 primary care provider in each county by 2021

**Data Source:** BRADD Hospitals

**Measure 1.1.2:** Increase the number of patient encounters in the BRADD utilizing telemedicine.

**Baseline:** 0 patients utilizing telemedicine in 2018

**Target:** Increase by 500 patient encounters by 2021

**Data Source:** BRIGHT Coalition

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**Strategy 1.2:** Provide physicians and mid-level practitioners with educational and training opportunities to learn more about working with rural communities.

*Justification: Rural training programs increase the likelihood that participating physicians will choose to practice in rural areas, hopefully increasing access to care for rural patients (County Health Rankings).*

**Measure 1.2.1:** Increase the primary care physician to patient ratio in BRADD

**Baseline:** 39.8 per 100,000 in 2018

**Target:** 43 per 100,000 by 2021

**Data Source:** National Center for Health Statistics

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**Strategy 1.3:** Increase access to health care services for elementary, middle, and high school students to provide comprehensive school health services (mental, dental & behavioral health) in an integrated fashion.

*Justification: School-based health increases access to care, improves health outcomes, and increases academic achievement for participating students. Additionally, dental programs may reduce costs and prevent cavities, especially for low income students. (County Health Rankings).*

**Measure 1.3.1:** Increase the number of schools offering all three (mental, dental & behavioral health) services in an integrated fashion

**Baseline:** 0 school districts

**Target:** 4 school districts will implement an integrated model by 2021

**Data Source:** BRIGHT Coalition

**Measure 1.3.2:** Hold a school health summit to focus on training and information sharing based on the Whole School, Whole Community, Whole Child model

**Baseline:** One held in 2015 with positive feedback

**Target:** Create assessment and hold summit in Fall/Winter 2019/2020

**Data Source:** BRIGHT Coalition

**Strategy 2.1:** Use telepsych for mental health services to deliver consultation, diagnostic, and treatment services remotely to patients in rural areas of BRADD.

*Justification: Telepsych increases access to care in rural areas and may improve mental health when used appropriately (County Health Rankings).*

**Measure 2.1.1:** Increase mental health providers who use telemedicine to reach patients in rural communities

**Baseline:** 1 mental health providers who used telemedicine in 2018

**Target:** Increase by 1 mental health provider per county by 2021

**Data Source:** Lifeskills

**Measure 2.1.2:** Increase the number of patient encounters using telemedicine for mental health services.

**Baseline:** 178 patient encounters using telemedicine for mental health services in 2018

**Target:** Increase by 500 patient encounters using telemedicine mental health services by 2021

**Data Source:** Lifeskills

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**Strategy 2.2:** Expand behavioral health services on school premises to students of all ages provided by a school clinical psychologist through school-based comprehensive health center.

*Justification: School-based centers have shown that students receiving mental health services may have higher GPAs and increase access to care (County Health Rankings).*

**Measure 2.2.1:** Increase the number of school districts with clinical psychologists on staff.

**Baseline:** 5 school districts with a clinical psychologist on staff in 2018

**Target:** Increase by 100% of school districts with a clinical psychologist on staff by 2021

**Data Source:** School and School District, Department for Education

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**Strategy 2.3:** Advocate for behavioral health legislation that increases access to behavioral health services, including treatment for substance use disorder.

*Justification: The World Health Organization believes that all people with behavioral health disorders have the right to receive high quality treatment and care delivered through a representative health care system.*

**Measure 2.3.1:** Increase education around benefit of mental health services and treatment for substance use disorders in local county governments.

**Baseline:** 0 of educational trainings provided

**Target:** Conduct 1 educational trainings at each local county government meeting annually

**Data Source:** BRIGHT Coalition, BRDHD

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**Strategy 2.4:** Increase the number of primary care providers (PCPs) offering evidence-based behavioral health and substance use disorder treatment.

*Justification: Evidence indicates that integrating medication assisted therapy (MAT) into the primary cares setting lessens the barriers of stigma and increases much needed access (KY Dept. of Behavioral Health).*

**Measure 2.4.1:** Increase primary care providers knowledge around Medication Assisted Treatment (MAT)

**Baseline:** 0 of trainings offered in 2018

**Target:** Conduct 2 MAT trainings annually for primary care providers every year

**Data Source:** BRIGHT Coalition or whoever is going to be responsible for the trainings

**Measure 2.4.2:** Increase the number of primary care practitioners actively providing Medication Assisted Treatment (MAT)

**Baseline:** Unknown

**Target 1:** Establish baseline via survey by August 2020

**Target 2:** Increase by 10% of primary care providers trained in MAT by 2021

**Data Source:** BRIGHT Coalition

**Strategy 3.1:** Utilize a chronic disease management program (CDMP) to implement multicomponent efforts that support patients' ability to actively manage their health conditions.

*Justification: Community Health Workers help to reduce the demand on the health care system by conducting outreach and education for patients that improves knowledge, access to health care, and healthy behaviors for underserved communities (County Health Rankings).*

**Measure 3.1.1:** Increase the number of CDMPs in the BRADD

**Baseline:** Unknown

**Target:** Establish baseline and increase by 1 serving each county by 2021

**Data Source:** BRADD Hospitals

**Measure 3.1.2:** Increase the utilization of existing CDMP

**Baseline:** Unknown

**Target:** Establish baseline and increase by 10% by 2021

**Data Source:** BRADD Hospitals

**Measure 3.1.3:** Decrease the number of emergency department visits and hospital readmission rates due to mismanagement of chronic diseases

**Baseline:** Unknown; determine with each hospital

**Target:** Decrease by 25% by 2021

**Data Source:** BRADD Hospitals

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**Strategy 3.2:** Increase awareness of changes to Medicaid through the 1115 Waiver, to healthcare providers, who will then help spread awareness to the affected Medicaid members directly.

*Justification: Focused interview questions made it clear that many providers in our communities are not aware of the 1115 Waiver, and the potential effects it may have.*

**Measure 3.2.1:** Increase awareness of 1115 waiver with HCPs

**Baseline:** Unknown

**Target 1:** Develop an assessment for providers to determine their baseline knowledge of the 1115 Waiver.

**Target 2:** Conduct training in BRADD before July 1, 2019 to increase awareness of 1115 Waiver.

**Target 3:** Establish evaluation survey for training by \_\_\_.

**Data Source:** BRIGHT Coalition and BRADD Hospitals

## [Health Services] Objective 4: Increase the number of syringe exchange program in BRADD

**Strategy 4.1:** Educate local county governments on the importance and benefits of having a syringe exchange program in their county.

*Justification: SEPs are a highly cost effective strategy for preventing HIV and Hep C transmission among injection drug users and as part as a harm reduction program (CDC Syringe Services Programs).*

**Measure 4.1.1:** Increase education on the benefits of SEPs in rural communities.

**Baseline:** 1 educational session per sector of local government regarding SEPs in 2018

**Target:** Increase educational sessions with local county governments by 10 by December 2020

**Data Source:** Barren River District Health Department

**Measure 4.1.2:** Increase the number of counties operating SEPs in BRADD

**Baseline:** 2 counties with SEPs (Barren & Warren) in 2018

**Target:** 10 counties with SEPs by 2021

**Data Source:** Barren River District Health Department

## [Health Services] Objective 5: Develop access to medical detox beds in BRADD hospitals

**Strategy 5.1:** Develop access to medical detox beds through interagency cooperation amongst area hospitals, local health departments, and insurers.

*Justification: Evidence indicates that medical detox provides people with appropriate evaluation, medical stabilizations, and fosters readiness and entry into substance use treatment and recovery.*

**Measure 5.1.1:** Increase access to medical detox beds in the BRADD

**Baseline:** 0 detox beds in BRADD

**Target:** 20 detox beds available in BRADD by 2021

**Data Source:** BRADD Hospitals

**Strategy 5.2:** Increase awareness of substance use disorder (SUD) services to both individuals and health care providers

*Justification: Increasing awareness of substance use services increases access to care, reduces costs, and saves lives.*

**Measure 5.2.1:** Creation and distribution of community resource guide for SUDs in the BRADD area

**Baseline:** Guide does not exist for all of BRADD area

**Target:** Creation and distribution of guide to all major healthcare agencies by end of 2020. Updated thereafter at least annually.

**Data Source:** Local Health Department

# Data-Driven Objective, Evidence-Based Strategy, and Measures

## [Health Equity] Objective 1: Increase support for healthy child and family development

**Strategy 1.1:** Early childhood home visiting programs provide at-risk expectant parents and families with young children information, support, and training regarding child health, development, and care from prenatal stages through early childhood.

*Justification: Kentucky's early childhood home visiting program, HANDS, has been shown to prevent child maltreatment and injury, and improve children's school readiness and socio-emotional development. The program has also been shown to improve birth outcomes, maternal health, parenting behaviors and attitudes, and increase family economic self-sufficiency. (KY HANDS Program)*

**Measure 1.1.1:** Increase number of families in HANDS

**Baseline:** 233 families participated in 2018

**Target:** Increase active families by 10%

**Data Source:** Local Health Department HANDS Coordinator

**Measure 1.1.2:** Increase number of outside agency referrals to HANDS

**Baseline:** 32 referrals from outside agencies

**Target:** Increase by 10%

**Data Source:** Local Health Department HANDS Coordinator

**Strategy 1.2:** Work with community organizations to establish a resource list of certified car seat installers, places where car seats can be obtained free, and plans for educating families about car seat safety.

*Justification: Car seat distribution and education programs increase car seat use and correct use of car seats. (County Health Rankings)*

**Measure 1.2.1:** Increase number of existing certified car seat installers in the BRADD

**Baseline:** 26 CPS Certified Technicians & Instructors

**Target:** Increase by 12 certified installers

**Data Source:** KY Transportation & Medical Center Health

**Measure 1.2.2:** Increase awareness of programs offering car seat distribution resources

**Baseline:** Establish Baseline

**Target:** Create a dedicated listing

**Data Source:** BRIGHT Coalition

**Strategy 1.3:** Work with Family Resource & Youth Service Centers (FRYSCs) to increase promotion of parent engagement in school programs and utilization of resources

*Justification: Parent engagement has an effect on student learning and outcomes. In KY, FRYSCs coordinate and refer children and families to services (FRYSC Coalition of KY).*

**Measure 1.3.1:** Increase number of FRYSCs communicating with BRIGHT Coalition

**Baseline:** 0 FRYSCs currently communicating

**Target:** Increase by 14 (one per school district)

**Data Source:** BRIGHT Coalition

**Strategy 1.4:** Use the Women Infants & Children (WIC) program to promote nutritious food choices, education, and referrals to community services for prenatal stages through age 5.

*Justification: Breastfeeding promotion programs increase initiation, duration, and exclusivity of breastfeeding and WIC farmer's market vouchers increase access to fresh fruits and vegetables (County Health Rankings); both of these programs are provided by WIC locally.*

**Measure 1.4.1:** Increase number of breastfeeding mothers participating in WIC

**Baseline:**

**Target:** Increase by 10%

**Data Source:** Local Health Department

**Measure 1.4.2:** Increase WIC participation rates

**Baseline:**

**Target:** 95% for each county

**Data Source:** Local Health Department

## [Health Equity] Objective 2: Educate residents and community organizations on available human and social services

**Strategy 2.1:** Utilize health communication and social marketing to educate the community about available resources.

*Justification: Health communication campaigns apply integrated strategies to deliver messages designed, directly or indirectly, to influence health behaviors of target audiences (County Health Rankings).*

**Measure 2.1.1:** Increase the number of social media posts informing of available resources in the community

**Baseline:** BRIGHT currently promotes 0

**Target:** Increase to 2 different agencies monthly

**Data Source:** BRIGHT Coalition

**Strategy 2.2:** Enhance navigator and community health worker activities throughout BRADD to effectively address social determinants of health and chronic disease management

*Justification: Some evidence shows that community health workers may improve patient knowledge, access to care, and healthy behaviors; improving health in underserved communities, reducing disparities in health outcome and enhancing health equity (County Health Rankings).*

**Measure 2.2.1:** Conduct an environmental scan to establish current organizations using CHWs and navigators

**Baseline:** No Scan

**Target:** Complete Scan

**Data Source:** BRIGHT Coalition

**Measure 2.2.2:** Increase awareness of current navigator and CHW resources in the community

**Baseline:** Health Department Resources

**Target:** Develop list of community CHW and navigator resources by 2020

**Data Source:** Local Health Department

**Measure 2.2.3:** Increase number of identified funding opportunities for existing CHW and navigator program

**Baseline:** Unknown

**Target:** Increase by 5%

**Data Source:** Local Health Department

*\*Measures 2.2.1, 2.2.2, 2.2.3 should be completed in consecutive order to build on the previous work*

**Strategy 2.3:** Increase cross-sector collaboration to facilitate support for residents and organizations seeking available human and social services

*Justification: Organizations could discover practices and available resources through sharing, networking, and collaborating. (KY DPH)*

**Measure 2.3.1:** Increase awareness of available resources at organizations in the community

**Baseline:** Unknown

**Target:** Create tool to assess awareness and increase by 5%

**Data Source:** BRIGHT Coalition

**Measure 2.3.2:** Create an opportunity for organizations to share what available programs and resources they have to offer within the community

**Baseline:** 0

**Target:** Develop opportunity and measure effectiveness

**Data Source:** BRIGHT Coalition

**Strategy 3.1:** Create and distribute education materials through various communication methods to increase awareness and understanding of the impact of policies on social determinants of health.

*Justification: Show how non-traditional partners can improve health using their influence. These non-traditional agencies play a major role in shaping economic, physical, social, and service environments that people live in, therefore having an important role to play in promoting health and equity. (Health in All Policies: A Guide for State and Local Governments)*

**Measure 3.1.1:** Increase number of BRIGHT Coalition organizations that are trained in HiAP

**Baseline:** Unknown (2019)

**Target:** Complete 3 HiAP trainings at BRIGHT Coalition meetings by December 2019

**Data Source:** BRIGHT Coalition

**Measure 3.1.2:** Increase the number of BRIGHT Coalition members trained in HiAP who go back to organizations and train upper level administration/management or another community partner

**Baseline:** 0

**Target:** 15% of Coalition members return to organizations to train management in HiAP by June 2020

**Data Source:** BRIGHT Coalition

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**Strategy 3.2:** Bring more partners to BRIGHT Coalition meetings that are interested in HiAP approach.

*Justification: HiAP focuses on deep and ongoing collaboration that has the potential to benefit multiple partners. (Health in All Policies: A Guide for State and Local Governments)*

**Measure 3.2.1:** Increase number of organizations attending and participating in BRIGHT coalition meetings

**Baseline:** 36 organizations regularly attending during 2018

**Target:** Increase to 50 organizations

**Data Source:** BRIGHT Coalition

---

**Strategy 3.3:** Identify organizational practices and policies that are most feasible to be considered for HiAP.

*Justification: HiAP will improve health using influence through policy. (Health in All Policies: A Guide for State and Local Governments)*

**Measure 3.3.1:** Conduct internal assessment of existing policies from BRIGHT Coalition organizations that already encompass HiAP approach

**Baseline:** Unknown

**Target:** 10% of BRIGHT Coalition organizations complete an internal HiAP assessment by June 2020

**Data Source:** BRIGHT Coalition

**Measure 3.3.2:** BRIGHT Coalition organizations develop a list of policies, at respective organizations, that the HiAP approach could be applied to

**Baseline:** 0

**Target:** 10% of BRIGHT Coalition organizations develop list of 3 policies each that could implement a HiAP approach by December 2020

**Data Source:** BRIGHT Coalition

**Measure 3.3.3:** Utilize measure 3.3.2 list to work on incorporating HiAPs into existing agency policies

**Baseline:** 0

**Target:** Utilize 1 of the existing policies identified in 3.3.2 to apply the HiAP approach for that respective organization to implement by December 2021

**Data Source:** BRIGHT Coalition

## Data-Driven Objective, Evidence-Based Strategy, and Measures

**[Healthy Environment] Objective 1: Educate BRADD residents on the cleanliness of our water resources and air quality, and how it impacts health.**

**Strategy 1.1:** Encourage use of storm water management plans to control and utilize storm water runoff to reduce flooding, lower demand on existing water systems, and support healthy rivers and streams by minimizing the introduction of pollutants.

*Justification: There is strong evidence that storm water management plans reduce storm water runoff and pollutant concentrations, improve water quality, and protect personal property and wildlife. (County Health Rankings)*

**Measure 1.1.1:** Educate developers on best management practices for storm water management plans  
**Baseline:** 0  
**Target:** Create infographics to share with 5 developers/organizations by June 2020.  
**Data Source:** BRIGHT Coalition

**Measure 1.1.2:** Increase the number of best management practices for storm water management plans  
**Baseline:** Unknown (2019)  
**Target:** Establish baseline and increase level by 5%.  
**Data Source:** Warren County Division of Stormwater Management

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**Strategy 1.2:** Educate the public about the existence of “ground ozone” and ways to enhance ambient air quality.

*Justification: The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants in outdoor air (carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter, and sulfur dioxide). These pollutants are found all over the U.S. and can harm individual’s health and environment, as well as cause property damage. (EPA)*

**Measure 1.2.1:** Increase educational encounters with BRADD residents  
**Baseline:** 0  
**Target:** 1 educational encounter per month via BRIGHT’s social media accounts and website.  
**Data Source:** BRIGHT Coalition

**Measure 1.2.2:** Reduce measurable particulate matter and ground ozone levels  
**Baseline:** 10.1  $\mu/m^3$   
**Target:** 8  $\mu/m^3$   
**Data Source:** County Health Rankings

## [Healthy Environment] Objective 2: Promote plans that affect how residents commute within the region and how they live in proximity to where they need to be.

**Strategy 2.1:** Introduce multimodal transportation options throughout the BRADD region.

*Justification: Introducing or expanding public transportation systems in urban areas increases access to and use of public transit; increase physical activity; and increase access to safe, healthy, convenient, and affordable transportation. (County Health Rankings)*

**Measure 2.1.1:** Educate the community on transportation options that are available to the public (e.g., buses, rideshare, carpool, bike lanes, etc.)

**Baseline:** Unknown

**Target:** Once a quarter notify the public via BRIGHT's social media accounts and the web site

**Data Source:** BRIGHT Coalition

**Measure 2.1.2:** Expand transportation options that are available to the public and run on a scheduled timetable (e.g., buses, trains, ferries, rapid transit, etc.)

**Baseline:** Unknown

**Target:** Increase by # of options or scheduled times met

**Data Source:** CASOKY

**Strategy 2.2:** Encourage the development of areas that combine residential and commercial zones (otherwise known as mixed-use areas) that will improve walkability, encourage biking, and provide affordable housing.

*Justification: Streetscape design improvements enable pedestrians, bicyclists, transit riders, and motorists to share and use the street, accommodating the needs of all users. Improvements to streetscape design can include increased street lighting, enhanced street landscaping and street furniture, increased sidewalk coverage and connectivity of pedestrian walkways, bicycling infrastructure, street crossing safety features, and traffic calming measures. (County Health Rankings)*

**Measure 2.2.1:** Enhance streetscapes with greater sidewalk coverage and walkway connectivity, street crossing safety features, traffic calming measures, and other design elements

**Baseline:** Unknown

**Target:** Inform the public about any new projects/updates once every 6 months via BRIGHT's social media accounts or the web site

**Data Source:** BRIGHT Coalition

**Measure 2.2.2:** Seek ways to fund development of mixed-use areas

**Baseline:** Unknown

**Target:** Acquire at least two specific grants for this purpose within 12 months

**Data Source:** BRIGHT Coalition

**Measure 2.2.3:** Decrease the average regional commute time

**Baseline:** 35.4% commute greater than 30 minutes

**Target:** Decrease by 5.5% with a goal of below 30%

**Data Source:** County Health Rankings

**Strategy 2.3:** Improve areas with severe housing problems by encouraging mixed use development projects within those areas.

*Justification: Mixed-use development is a suggested strategy to reduce transportation costs, increase economic opportunity, increase household wealth, and mobility, and enhance neighborhood cultural diversity (Litman 2017). Combining mixed-use development with regional transportation plans and transit-oriented development efforts may increase the effectiveness of Smart Growth policies (Moeckel 2017, Nahlik 2014). (County Health Rankings)*

**Measure 2.3.1:** Encourage mixed-use development within the region by educating how they contribute to a healthier housing and transportation environment.

**Baseline:** Unknown

**Target:** Post studies quarterly to BRIGHT's social media accounts and web site that provide evidence of the measure to the local community.

**Data Source:** BRIGHT Coalition

# Data-Driven Objective, Evidence-Based Strategy, and Measures

## [Healthy Lifestyles] Objective 1: Increase access to fresh and healthy food for those in the most disparate populations in our communities.

**Strategy 1.1:** Serve as a Community Health Resource, by consistently informing the public about Farmer's Markets, community gardens, seed libraries, the Mobile Grocery Store, and other healthy food opportunities that aim to bridge the food access gap by utilizing social media campaigns, the BRIGHT website, and through other media sources.

*Justification: These types of programs in the community have shown evidence of improving access to and consumption of fruits and vegetables (County Health Rankings).*

**Measure 1.1.1:** Increase promotion of food access related opportunities to the public through use of social media

**Baseline:** 0 social media promotions

**Target:** Increase BRIGHT partners promotion of food access opportunities through their website/social media to 4 times per year

**Data Source:** BRIGHT Media analytics

**Strategy 1.2:** Participate in existing community programs, services, and events (such as giving free veggie samples, recipes, & information booths and participating in community gardening) in order to collaborate with other organizations and businesses, gain coalition partnership, and aid in the utilization of community efforts to increase access to healthy food.

*Justification: Farmers markets can increase access to healthy foods and increase consumption of these in low income communities, especially when offering incentive programs (County Health Rankings).*

**Measure 1.2.1:** BRIGHT volunteers will participate in community events promoting healthy eating

**Baseline:** 3 community events with BRIGHT volunteers in 2018

**Target:** BRIGHT representation at 4 community events each year.

**Data Source:** Volunteer Sign-In Form, event data if available

**Strategy 1.3:** By collaborating with the Warren County Public Library, we will initiate more "Seed Libraries" in our rural counties.

*Justification: By supporting existing community endeavors that encourage eating fresh and healthy foods we will ensure that funds and resources are being utilized.*

**Measure 1.3.1:** Increase the number of seed libraries in the BRADD

**Baseline:** 3 seed libraries exist (2 in Warren, 1 in Butler)

**Target:** 2 new seed libraries by 2020

**Data Source:** BRIGHT Coalition

[Healthy Lifestyles] Objective 2: Improve education on substance use, alcohol use, and increase mental health awareness surrounding these topics.

**Strategy 2.1:** Make the Targeting Youth Substance Abuse (TYSA) Grant available to school districts within the BRADD to encourage applying for and receiving funds to educate students on substance abuse.

*Some youth targeted programs that are evidence-based or based on expert opinion have shown evidence in reducing youth risk behaviors (CDC Healthy Youth).*

**Measure 2.1.1:** Send TYSA grant application to contacts in each school district (county and independent).

**Baseline:** New initiative

**Target:** Grant application sent to schools in 14 districts by May 2019

**Data Source:** BRIGHT Coalition TYSA Grant Committee

**Strategy 2.2:** Work with local communities and decision makers to adopt tobacco-free policies and educate decision makers about policies related to tobacco.

*Evidence shows that comprehensive smoke-free policies for indoor areas improve health, and statewide comprehensive tobacco control programs reduce the number of tobacco users, reduce exposure to smoke, and improve health outcomes (County Health Rankings).*

**Measure 2.2.1:** Increase the number of schools/school districts with a tobacco-free campus policy

**Baseline:** 734 schools and 74 districts with tobacco-free campus policy

**Target:** All schools will have a tobacco-free campus policy by 2021 (pending legislation)

**Data Source:** Local Health Department, State Department

**Measure 2.2.2:** Educate decision makers on the importance of tobacco-free laws, bills and ordinances

**Baseline:** 0

**Target:** Increase the number of community organizations (BRIGHT partners) who educate for tobacco-free laws, bills, and ordinances

**Data Source:** Running list of current and proposed tobacco related bills and outcomes.

**Measure 2.2.3:** Increase the number of tobacco-free policies in local establishments

**Baseline:** Unknown

**Target:** Increase by 10% of tobacco-free policies in effect by 2021

**Data Source:** KY Dept. of Education & Local School Boards

**Strategy 2.3:** Use mass media to promote PSAs that prevent initiation of negative behaviors.

*Mass media campaigns have been shown to reduce some negative behaviors, especially when aimed at a defined target population (County Health Rankings).*

**Measure 2.3.1:** Increase the number of organizations sharing existing PSAs

**Baseline:** 1 BRIGHT partner organizations shares PSAs

**Target:** Increase organizations sharing from 1 to 3

**Data Source:** BRIGHT Coalition

**Measure 2.3.2:** Increase the number of existing PSAs shared through media

**Baseline:** 1 PSA shared per quarter

**Target:** Increase PSA's shared thorough media from 1 to 3 per quarter

**Data Source:** Media analytics reported to BRIGHT Coalition

**Strategy 3.1:** Promote physical activity opportunities via social media to increase the number of residents reporting physically active days.

*Justification: Messages about physical activity can help motivate individuals to adhere to regular fitness and exercise programs, especially when framed in terms of gains (County Health Rankings).*

**Measure 3.1.1:** Create a BRIGHT Instagram account to promote physical activity opportunities

**Baseline:** 0

**Target1:** BRIGHT Instagram account created by June 2019

**Target 2:** Instagram used to promote 2 of physical activity opportunities a month

**Data Source:** Media Analytics

**Measure 3.1.2:** Increase the promotion of physical activity opportunities to the public through social media.

**Baseline:** 0

**Target:** Increase by 50 followers

**Data Source:** Media analytics

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**Strategy 3.2:** Educate schools and school districts about walk/bike to school events and walking buses.

*Justification: Healthier body composition, cardio fitness levels, and increases in physical activity have been associated with active travel to school such as walk/bike and walking school buses (County Health Rankings).*

**Measure 3.2.1:** BRIGHT Volunteers will increase their participation in a Walk/Bike to school event

**Baseline:** 0

**Target:** Increase number of Walk/Bike to School events and Walking School Bus activities in schools by 2 events

**Data Source:** BRIGHT Coalition will gather all data from participating schools

**Measure 3.2.2:** Educate school and district staff about walking school buses

**Baseline:** 0

**Target:** Increase to 2 encounters a quarter

**Data Source:** BRIGHT Coalition

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**Strategy 3.3:** Generate logs for GAS (Get Active Simpson) group to log activity and promote programs like GAS to other counties.

*Justification: Fitness and exercise programs offered in the community setting increases physical activity for participating adults (County Health Rankings).*

**Measure 3.3.1:** Use GAS Physical Activity log books to track activity by group

**Baseline:** 0

**Target:** Create GAS Physical Activity log books

**Data Source:** BRDHD GAS Member

**Measure 3.3.2:** Expand GAS concept to other counties to increase physical activity

**Baseline:** GAS exists in 1 county

**Target:** 3 counties

**Data Source:** Local Health Department

2019-2021

# Regional Data Charts

*Barren River Initiative  
To Get Healthy Together*



## Demographics

County	White alone %	Black or African American alone %	American Indian & Alaska Native alone %	Asian alone %	Native Hawaiian and Other Pacific Islander alone %	Two or more Races %	Hispanic or Latino %	White alone, not Hispanic or Latino %
<b>Allen</b>	96.9	1.2	0.3	0.3	Z	1.4	2.0	95.2
<b>Barren</b>	92.8	4.2	0.4	0.9	0.2	1.7	3.2	90.3
<b>Butler</b>	97.7	0.5	0.4	0.3	0.0	1.1	3.2	94.9
<b>Edmonson</b>	96.3	1.9	0.4	0.3	Z	1.1	1.4	95.0
<b>Hart</b>	93.2	4.6	0.3	0.4	0.1	1.6	1.8	91.6
<b>Logan</b>	90.8	6.5	0.5	0.3	Z	2.0	2.8	88.6
<b>Metcalfe</b>	96.4	1.9	0.3	0.3	Z	1.1	1.9	94.8
<b>Monroe</b>	96.1	2.3	0.2	0.3	Z	1.1	3.1	93.2
<b>Simpson</b>	87.2	9.5	0.4	0.9	0.1	2.0	2.4	85.2
<b>Warren</b>	83.2	9.7	0.3	4.1	0.4	2.3	5.4	78.6
<b>Kentucky</b>	87.8	8.4	0.3	1.6	0.1	1.9	3.7	84.6
<b>USA</b>	76.6	13.4	1.3	5.8	0.2	2.7	18.1	60.7

*Z - Value greater than zero but less than half unit of measure shown*  
*Citation: U.S. Census Bureau QuickFacts (date of data used – July 1, 2018)*

<b>Age Distribution</b>			
<b>County</b>	<b>% below 18 years of age</b>	<b>% 18-65 years of age</b>	<b>% 65 and older</b>
<b>Allen</b>	23.9	59.3	16.8
<b>Barren</b>	23.7	59.1	17.2
<b>Butler</b>	22.5	59.4	18.1
<b>Edmonson</b>	19.0	60.6	20.4
<b>Hart</b>	24.0	59.4	16.6
<b>Logan</b>	23.7	58.5	17.8
<b>Metcalfe</b>	23.5	58.2	18.3
<b>Monroe</b>	22.7	58.4	18.9
<b>Simpson</b>	24.3	59.2	16.5
<b>Warren</b>	22.6	64.9	12.5
<b>Kentucky</b>	22.8	61.6	15.6
<b>USA</b>	22.6	61.8	15.6
Citation: <i>County Health Rankings (year of data used - 2016)</i>			

### Population

County	Population	Median Income	% Rural
Allen	20,933	\$41,400	78.7
Barren	43,801	\$40,300	63.3
Butler	12, 831	\$41,700	100
Edmonson	12,226	\$38,400	100
Hart	18,757	\$36,600	87.2
Logan	27,060	\$44,000	75.0
Metcalfe	10,107	\$33,600	100
Monroe	10,659	\$33,400	100
Simpson	18,108	\$45,600	45.2
Warren	128,845	\$47,300	31.2
Kentucky	4,454,189	\$46,600	41.6
USA	325,719,178	\$57,652	19.3

Citation: U.S. Census Bureau QuickFacts (date of data used - July 1, 2017)

### 2017 All Ages in Poverty

County	% Population	# in Poverty
Allen	21.8%	4,508
Barren	22.1%	9,477
Butler	17.1%	2,152
Edmonson	16.9%	2,036
Hart	20.0%	3,683
Logan	17.9%	4,780
Metcalfe	23.4%	2,335
Monroe	24.3%	2,542
Simpson	14.4%	2,550
Warren	16.1%	19,562
Kentucky	17.1%	738,563
USA	13.4%	42,583,651

Citation: U.S. Census Bureau, Small Area Income and Poverty Estimates (years of data used - 2017)

<b>Leading Causes of Death</b>			
	<b>BRADD*</b>	<b>KY *</b>	<b>U.S.*</b>
<b>Heart Disease</b>	201.8	195.9	165.0
<b>Cancer</b>	189.7	185.7	152.5
<b>Chronic Lower Respiratory Disease</b>	72.7	64.5	40.9
<b>Accidents</b>	48.9	72.9	49.4
<b>Stroke</b>	42.8	39.4	37.6
<b>Alzheimer's Disease</b>	43.3	35	31.0
<b>Diabetes</b>	31.2	27.7	21.5
<b>Kidney Disease</b>	20.0	19.4	13.0
<b>Septicemia</b>	17.9	18.5	10.6
<b>Flu/Pneumonia</b>	18.5	18.1	14.3
*Age Adjusted Rate Per 100,000			
Citation: CDC Wonder (2017 Data) <a href="https://wonder.cdc.gov/">https://wonder.cdc.gov/</a>			
CDC Stats of the State of Kentucky (2017 Data) <a href="https://www.cdc.gov/nchs/pressroom/states/kentucky/kentucky.htm">https://www.cdc.gov/nchs/pressroom/states/kentucky/kentucky.htm</a>			

### Premature Death – Years of Potential Life Lost

Counties	2016	2018
Allen	9,600	10,000
Barren	7,700	8,400
Butler	9,600	9,100
Edmonson	6,600	8,500
Hart	8,500	9,500
Logan	8,700	9,400
Metcalfe	10,200	10,900
Monroe	11,100	11,600
Simpson	8,500	8,500
Warren	7,600	7,600
Kentucky	8,800	9,000

Citation: *County Health Rankings*  
(years of data used - 2011-2013, 2014-2016)

### Percent of Adults Reporting Poor or Fair Health

Counties	2016	2018
Allen	22%	20%
Barren	21%	21%
Butler	24%	23%
Edmonson	20%	22%
Hart	24%	24%
Logan	22%	21%
Metcalfe	26%	26%
Monroe	25%	25%
Simpson	22%	20%
Warren	19%	18%
Kentucky	24%	21%

Citation: *County Health Rankings* (years of data used - 2014, 2016)

**Primary Care Physicians\* - Ratio of population to primary care physicians.**

Counties (# of primary care physician)	2016	2018
<b>Allen (2)</b>	10,160:1	10,320:1
<b>Barren (37)</b>	1,300:1	1,180:1
<b>Butler (1)</b>	12,790:1	12,940:1
<b>Edmonson (1)</b>	12,060:1	12,010:1
<b>Hart (8)</b>	2,320:1	2,310:1
<b>Logan (8)</b>	2,990:1	3,360:1
<b>Metcalf (1)</b>	9,980:1	9,910:1
<b>Monroe (5)</b>	1,780:1	2,130:1
<b>Simpson (8)</b>	2,540:1	2,250:1
<b>Warren (88)</b>	1,410:1	1,400:1
<b>Kentucky</b>	1,500:1	1,510:1

\*Primary care physicians include non-federal, practicing physicians (M.D.'s and D.O.'s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics.

Citation: *County Health Rankings (years of data used – 2013 & 2015)*

**Mental health providers\* – Ratio of population to mental health providers**

Counties (# providers)	2016	2018
<b>Allen (12)</b>	1,850:1	1,720:1
<b>Barren (58)</b>	920:1	760:1
<b>Butler (10)</b>	1,290:1	1,280:1
<b>Edmonson (4)</b>	3,000:1	3,030:1
<b>Hart (12)</b>	2,070:1	1,550:1
<b>Logan (15)</b>	1,790:1	1,770:1
<b>Metcalf (9)</b>	1,000:1	1,110:1
<b>Monroe (9)</b>	1,530:1	1,180:1
<b>Simpson (17)</b>	1,050:1	1,060:1
<b>Warren (269)</b>	550:1	470:1
<b>Kentucky</b>	600:1	520:1

\*Mental Health Providers is the ratio of the county population to the number of mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental health care. In 2015, marriage and family therapists and mental health providers that treat alcohol and other drug abuse were added to this measure.

Citation: *County Health Rankings (years of data used – 2015 & 2017)*

**Uninsured - % of population under age 65 without health insurance**

Counties	2016	2018
Allen	26%	9%
Barren	22%	8%
Butler	25%	9%
Edmonson	26%	10%
Hart	26%	10%
Logan	24%	9%
Metcalfe	26%	9%
Monroe	27%	9%
Simpson	20%	7%
Warren	23%	9%
Kentucky	21%	8%

Citation: *County Health Rankings (years of data used – 2013 & 2015)*

**Dentists – Ratio of population to dentists**

Counties	2016	2018
Allen (6)	3,400:1	3,440:1
Barren (15)	3,080:1	2,930:1
Butler (1)	12,880:1	12,850:1
Edmonson (1)	12,010:1	12,110:1
Hart (5)	3,720:1	3,730:1
Logan (8)	3,360:1	3,320:1
Metcalfe (2)	5,000:1	5,010:1
Monroe (7)	1,780:1	1,510:1
Simpson (10)	1,780:1	1,810:1
Warren (89)	1,510:1	1,410:1
Kentucky	1,610:1	1,560:1

Citation: *County Health Rankings (years of data used – 2014 & 2016)*

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

Counties	2016	2018
Allen	92	88
Barren	62	72
Butler	127	74
Edmonson	85	94
Hart	81	90
Logan	129	103
Metcalfe	100	95
Monroe	196	204
Simpson	114	116
Warren	78	72
Kentucky	85	77

Citation: *County Health Rankings*  
(years of data used – 2013 & 2015)

**Diabetes monitoring – Percentage of diabetic Medicare enrollees age 65-75 that receive HbA1c monitoring.**

Counties	2016	2018
Allen	77%	76%
Barren	84%	85%
Butler	84%	88%
Edmonson	84%	81%
Hart	89%	84%
Logan	88%	91%
Metcalfe	82%	83%
Monroe	65%	70%
Simpson	84%	86%
Warren	86%	86%
Kentucky	86%	86%

Citation: *County Health Rankings* (years of data used – 2013 & 2014)

**Kindergarten Readiness - % of Kindergarteners  
scoring average or above average in the 5 domains  
of readiness**

<b>Counties</b>	<b>2016</b>	<b>2018</b>
<b>Allen</b>	35.9	64.8
<b>Barren</b>	53.3	60.1
<b>Butler</b>	50.0	43.3
<b>Edmonson</b>	45.5	62.0
<b>Hart</b>	47.7	36.0
<b>Logan</b>	48.4	44.5
<b>Metcalfe</b>	51.5	48.9
<b>Monroe</b>	52.8	79.7
<b>Simpson</b>	42.7	51.9
<b>Warren</b>	51.9	51.1
<b>Kentucky</b>	50.1	51.3
<i>Citation: KY Early Childhood Profile (years of data used - ??)</i>		

**High school graduation – % of ninth-grade cohort that graduates in four years.**

Counties	2016	2018
Allen	91%	88%
Barren	86%	84%
Butler	93%	93%
Edmonson	93%	93%
Hart	98%	98%
Logan	90%	89%
Metcalfe	88%	93%
Monroe	98%	98%
Simpson	92%	94%
Warren	92%	93%
Kentucky	88%	89%
Citation: <i>County Health Rankings</i> (years of data used – 2012-2013, 2014-2015)		

**Unemployment – % of Population Ages 16 and older Unemployed but Seeking Work.**

Counties	2016	2018
Allen	5.9%	4.2%
Barren	6.3%	4.6%
Butler	7.4%	5.3%
Edmonson	8.3%	6.1%
Hart	6.4%	4.6%
Logan	5.7%	4.2%
Metcalfe	6.1%	4.5%
Monroe	5.6%	4.0%
Simpson	5.8%	4.4%
Warren	5.6%	3.9%
Kentucky	6.5%	5.0%
Citation: <i>County Health Rankings</i> (years of data used – 2014, 2016)		

### High school graduation – % Adults Age 25 or Older

Counties	2016	2018
Allen	76%	80%
Barren	82%	82%
Butler	78%	78%
Edmonson	77%	79%
Hart	75%	75%
Logan	79%	82%
Metcalfe	76%	77%
Monroe	75%	77%
Simpson	84%	85%
Warren	88%	88%
Kentucky	88%	85%
U.S.		87%
Citation: <i>Census.gov</i>		

### Some college – % Adults Ages 25-44 with Some Post-Secondary Education.

Counties	2016	2018
Allen	48%	49%
Barren	48%	50%
Butler	43%	42%
Edmonson	47%	47%
Hart	35%	41%
Logan	46%	49%
Metcalfe	40%	42%
Monroe	45%	48%
Simpson	50%	45%
Warren	63%	64%
Kentucky	59%	60%
Citation: <i>County Health Rankings</i> (years of data used – 2010-2014, 2012-2016)		

**Children in poverty – % Children Under Age 18 in Poverty.**

Counties	2016	2018
Allen	29%	28%
Barren	29%	30%
Butler	31%	27%
Edmonson	28%	31%
Hart	34%	30%
Logan	26%	26%
Metcalfe	38%	37%
Monroe	39%	35%
Simpson	24%	25%
Warren	23%	23%
Kentucky	26%	24%

Citation: *County Health Rankings (years of data used – 2014, 2016)*

**Children in single-parent households – % of Children Living In a Household Headed by a Single Parent.**

Counties	2016	2018
Allen	24%	22%
Barren	29%	28%
Butler	36%	33%
Edmonson	18%	27%
Hart	29%	24%
Logan	37%	34%
Metcalfe	19%	24%
Monroe	36%	30%
Simpson	31%	31%
Warren	33%	34%
Kentucky	34%	35%

Citation: *County Health Rankings (years of data used – 2010-2014, 2012-2016)*

**Violent Crime – Number of reported violent crime offenses per 100,000 population**

Counties	2016	2018
Allen	15	11
Barren	46	52
Butler	7	9
Edmonson	8	9
Hart	9	7
Logan	34	39
Metcalfe	3	4
Monroe	4	4
Simpson	35	30
Warren	224	251
Kentucky	235	215

Citation: *County Health Rankings*  
(years of data used – 2010-2012, 2012-2014)

**Injury Deaths – Number of deaths due to injury per 100,000 population**

Counties	2016	2018
Allen	90	88
Barren	171	185
Butler	63	69
Edmonson	44	56
Hart	57	87
Logan	119	124
Metcalfe	52	49
Monroe	71	58
Simpson	64	57
Warren	322	371
Kentucky	82	88

Citation: *County Health Rankings*  
(years of data used – 2009-2013, 2012-2016)

**Air pollution (particulate matter) –  
Average daily density of fine particulate matter  
in micrograms per cubic meter (PM2.5)**

Counties	2016	2018
Allen	14.0	10.1
Barren	13.8	10.1
Butler	14.0	10.2
Edmonson	13.9	10.0
Hart	13.7	10.0
Logan	14.2	10.4
Metcalfe	13.7	9.7
Monroe	13.8	9.7
Simpson	14.2	10.3
Warren	14.0	10.2
Kentucky	13.5	10.0

Citation: *County Health Rankings (years of data used – 2011, 2012)*

**Drinking water violations – Indicator of the  
presence of health-related drinking water  
violations. Yes indicates the presence of a  
violation, No indicates no violation.**

Counties	2016	2018
Allen	No	Yes
Barren	No	No
Butler	Yes	No
Edmonson	No	Yes
Hart	No	No
Logan	No	Yes
Metcalfe	No	Yes
Monroe	No	Yes
Simpson	No	No
Warren	Yes	No
Kentucky	N/A	N/A

Citation: *County Health Rankings  
(years of data used – FY2013-FY2014, 2016)*

**Severe Housing Problems – Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities**

<b>Counties</b>	<b>2016</b>	<b>2018</b>
<b>Allen</b>	14%	13%
<b>Barren</b>	13%	13%
<b>Butler</b>	13%	11%
<b>Edmonson</b>	15%	11%
<b>Hart</b>	13%	14%
<b>Logan</b>	17%	17%
<b>Metcalfe</b>	11%	13%
<b>Monroe</b>	16%	15%
<b>Simpson</b>	16%	12%
<b>Warren</b>	17%	16%
<b>Kentucky</b>	14%	14%

Citation: *County Health Rankings (years of data used – 2008-2012, 2010-2014)*

**Driving Alone to Work – Percentage of the workforce that drives alone to work.**

Counties	2016	2018
Allen	79%	76%
Barren	82%	81%
Butler	83%	85%
Edmonson	82%	78%
Hart	75%	75%
Logan	87%	86%
Metcalfe	81%	79%
Monroe	78%	80%
Simpson	85%	89%
Warren	82%	81%
Kentucky	82%	82%

Citation: *County Health Rankings (years of data used 2010-2014, 2012-2016)*

**Long commute (driving alone) – Among workers who commute in their car alone, the percentage that commute more than 30 minutes.**

Counties	2016	2018
Allen	41%	41%
Barren	23%	23%
Butler	42%	42%
Edmonson	60%	62%
Hart	41%	41%
Logan	31%	33%
Metcalfe	28%	38%
Monroe	30%	33%
Simpson	27%	24%
Warren	15%	17%
Kentucky	28%	29%

Citation: *County Health Rankings (years of data used – 2014-2014 & 2012-2016)*

### Percent Adult Obesity

Counties	2016	2018
Allen	35%	36%
Barren	35%	32%
Butler	36%	32%
Edmonson	35%	31%
Hart	35%	37%
Logan	36%	35%
Metcalfe	34%	34%
Monroe	31%	34%
Simpson	32%	39%
Warren	29%	32%
Kentucky	32%	34%
Citation: <i>County Health Rankings (years of data used – 2012, 2014)</i>		

### Physical Inactivity – % of adults age 20 + reporting no leisure-time physical activity

Counties	2016	2018
Allen	34%	34%
Barren	31%	31%
Butler	37%	36%
Edmonson	33%	26%
Hart	34%	37%
Logan	38%	38%
Metcalfe	35%	32%
Monroe	28%	29%
Simpson	32%	27%
Warren	27%	24%
Kentucky	29%	28%
Citation: <i>County Health Rankings (years of data used – 2012, 2014)</i>		

**Food environment index – Index of factors that contribute to a healthy food environment**

Counties	2016	2018
Allen	7.7	8.3
Barren	7.2	7.7
Butler	7.0	7.4
Edmonson	7.6	8.1
Hart	7.0	7.5
Logan	7.5	7.4
Metcalfe	7.6	8.1
Monroe	7.3	7.8
Simpson	7.0	7.3
Warren	7.2	7.4
Kentucky	7.1	7.0

Citation: *County Health Rankings (years of data used – 2010, 2013, & 2015)*

**Access to exercise opportunities – Percentage of population with adequate access to locations for physical activity**

Counties	2016	2018
Allen	34%	57%
Barren	46%	69%
Butler	31%	21%
Edmonson	40%	58%
Hart	56%	44%
Logan	42%	41%
Metcalfe	10%	55%
Monroe	53%	46%
Simpson	76%	78%
Warren	60%	64%
Kentucky	70%	72%

Citation: *County Health Rankings (years of data used – 2010 population, 2014, 2016 SIC, & 2016 parks)*

**Excessive drinking – Percentage of adults reporting binge or heavy drinking**

<b>Counties</b>	<b>2016</b>	<b>2018</b>
<b>Allen</b>	12%	15%
<b>Barren</b>	11%	14%
<b>Butler</b>	11%	13%
<b>Edmonson</b>	12%	13%
<b>Hart</b>	11%	13%
<b>Logan</b>	12%	13%
<b>Metcalfe</b>	11%	13%
<b>Monroe</b>	11%	13%
<b>Simpson</b>	12%	14%
<b>Warren</b>	14%	15%
<b>Kentucky</b>	14%	16%

Citation: *County Health Rankings (years of data used – 2014, 2016)*

**Alcohol-impaired driving deaths – Percentage of driving deaths with alcohol involvement**

<b>Counties</b>	<b>2016</b>	<b>2018</b>
<b>Allen</b>	17%	35%
<b>Barren</b>	25%	29%
<b>Butler</b>	30%	20%
<b>Edmonson</b>	29%	9%
<b>Hart</b>	6%	33%
<b>Logan</b>	30%	23%
<b>Metcalfe</b>	11%	11%
<b>Monroe</b>	38%	43%
<b>Simpson</b>	26%	9%
<b>Warren</b>	33%	28%
<b>Kentucky</b>	29%	28%

Citation: *County Health Rankings (years of data used – 2010-2014, 2012-2016)*

<b>Percent of Adult Smokers</b>		
<b>Counties</b>	<b>2016</b>	<b>2018</b>
<b>Allen</b>	25%	22%
<b>Barren</b>	24%	23%
<b>Butler</b>	26%	23%
<b>Edmonson</b>	21%	21%
<b>Hart</b>	26%	24%
<b>Logan</b>	24%	22%
<b>Metcalf</b>	26%	26%
<b>Monroe</b>	26%	24%
<b>Simpson</b>	23%	23%
<b>Warren</b>	23%	19%
<b>Kentucky</b>	26%	24%
<b>U.S.</b>	14%	14%
<i>Citation: County Health Rankings (years of data used – 2014, 2016)</i>		

<b>Prevalence of Hypertension</b>		
<b>Counties</b>	<b>2016</b>	<b>2018</b>
<b>Allen</b>	38%	37%
<b>Barren</b>	35%	45%
<b>Butler</b>	31%	28%
<b>Edmonson</b>	50%	51%
<b>Hart</b>	38%	40%
<b>Logan</b>	39%	47%
<b>Metcalf</b>	45%	53%
<b>Monroe</b>	38%	36%
<b>Simpson</b>	40%	37%
<b>Warren</b>	30%	30%
<b>Kentucky</b>	39%	39%
<i>Citation: Kentucky Health Facts (years of data used – 2013-2015, 2015-2017 )</i>		

## Data used in this assessment was compiled by the BRIGHT Coalition from the follow sources:

1. County Health Rankings (Various Measures for Kentucky):  
<http://www.countyhealthrankings.org/app/kentucky/2018/measure/outcomes/1/data>
2. KY Department for Public Health - KYBRFS 2018 Reports:  
<https://chfs.ky.gov/agencies/dph/dpqi/cdpb/Pages/brfss-reports.aspx>
3. BRDHD Syringe Exchange & Hard Reduction Program Database
4. Kentucky Health Facts (BRADD):  
<http://www.kentuckyhealthfacts.org/data/location/show.aspx?cat=1%2c2%2c3%2c5%2c8%2c11&loc=152>
5. Kentucky Center for Statistics - Early Childhood Profile Report:  
<https://kcews.ky.gov/Latest/ECP>
6. Feeding America Map the Meal Gap:  
<http://map.feedingamerica.org/county/2016/overall/kentucky>
7. U.S Census Quickfacts  
[www.census.gov/quickfacts](http://www.census.gov/quickfacts)
8. Housing Burdens:  
<https://www.huduser.gov/portal/datasets/cp.html>  
[https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_17\\_5YR\\_DP04&src=pt](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_DP04&src=pt)
9. Radon:  
<https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information#radonmap>  
[https://www.epa.gov/sites/production/files/2016-12/documents/2016\\_a\\_citizens\\_guide\\_to\\_radon.pdf](https://www.epa.gov/sites/production/files/2016-12/documents/2016_a_citizens_guide_to_radon.pdf)
10. Kentucky Overdose Fatality Report (2017):  
<https://odcp.ky.gov/Documents/2017%20Kentucky%20Overdose%20Fatality%20Report%20%28final%29.pdf>
11. Smoking Rates:  
<https://www.cdc.gov/statesystem/cigaretteuseadult.html>
12. Food Environment Atlas:  
<https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas/>
13. Media Interactions:  
<https://www.nielsen.com/us/en/insights/news/2018/time-flies-us-adults-now-spend-nearly-half-a-day-interacting-with-media.print.html>
14. Kentucky Environmental Public Health Tracking:  
<https://kyibis.mc.uky.edu/ehl/dataportal/Introduction.html>
15. American Heart Association:  
<https://www.heart.org/en/health-topics/cardiac-rehab/getting-physically-active/whats-the-link-between-physical-activity-and-health>

\* Kentucky Office for Refugees:

<https://www.kentuckyrefugees.org/refugees-in-kentucky/bowling-green/>