KING'S DAUGHTERS

2022 Community Health Needs Assessment

- CHNA Executive Summary
- About our Community
- Key Health Indicators
- Community Input
- Prioritized Health Needs

King's Daughters Medical Center 2022 CHNA

The health and well-being of the community is vitally important to us at King's Daughters. We owe our very existence to forward-thinking community members, to volunteers who helped shape King's Daughters, and to the patients and families who choose us for their care.

Our commitment to community drives us to give back. Our team members, physicians and health professionals provide free screenings and education, and participate in health fairs and other special events designed to help people and the community be healthier.

Programs sponsored through King's Daughters Community Relations Department include: blood drives, CPR Training - both community and professional; Faith Works; health education; health screenings; Meals-on-Wheels; and mobile health services.

King's Daughters desires to continue providing clinical programs and services to meet community needs, while also pursuing continuous improvement in existing and future programs to improve the overall health of the communities it serves. As such, King's Daughters has conducted a Community Health Needs Assessment (CHNA), using primary and secondary data, to ensure community benefit programs and resources are focused on significant health needs as perceived by the community at large, as well as alignment with King's Daughters mission, services and strategic priorities.

King's Daughters has defined its community to include Boyd, Carter and Greenup counties in Kentucky and Lawrence County in Ohio. These four counties represent the King's Daughters primary service area. While King's Daughters serves patients across a broader region, defining the CHNA community similarly to its primary service area allows King's Daughters to more effectively focus its resources to address identified significant health needs, targeting areas of greatest need and health disparities.

KDMC obtained input from 41 leaders representing public health, major employers, public schools, social services, KDMC leaders and the community-at-large through key stakeholder interviews. Primary input was also obtained by conducting a community health survey distributed to members of the community.

Secondary data was assessed including:

- Demographics (population, age, sex, race)
- Socioeconomic indicators (household income, poverty, unemployment, educational attainment)
- Key health indicators

Information gathered in the above steps was reviewed and analyzed to identify health issues in the community.

King's Daughters Medical Center 2022 CHNA

The process identified the following health issues which are listed in alphabetical order:

- Access to care
- Cancer
- Chronic health conditions
- Food insecurity
- Heart disease
- Lack healthcare providers
- Lack of affordable housing
- Lack of healthy nutrition
- Lack of prenatal care
- Mental health
- Obesity
- Physical inactivity
- Poverty
- Preventive care
- Smoking/vaping
- Substance use disorders
- Teenage pregnancy
- Unintentional injury

Health needs were prioritized with input from a broad base of members of the King's Daughters Leadership Team utilizing a scoring guide.

A review of existing community benefit and outreach programs was also conducted as part of this process and opportunities for increased community collaboration were explored.

Based on the information gathered through this Community Health Needs Assessment and the prioritization process described above, King's Daughters chose the needs below to address over the next three years. Opportunities for health improvement exist in each area. King's Daughters will work to identify areas where it can most effectively focus its resources to have significant impact and develop an implementation strategy for fiscal years ending 2023-2025.

Access to Care

a. Remove barriers to care
b. Educate about access to primary care

Holistic Health

- Physical
- Mental
- Social
- Spiritual

Poverty

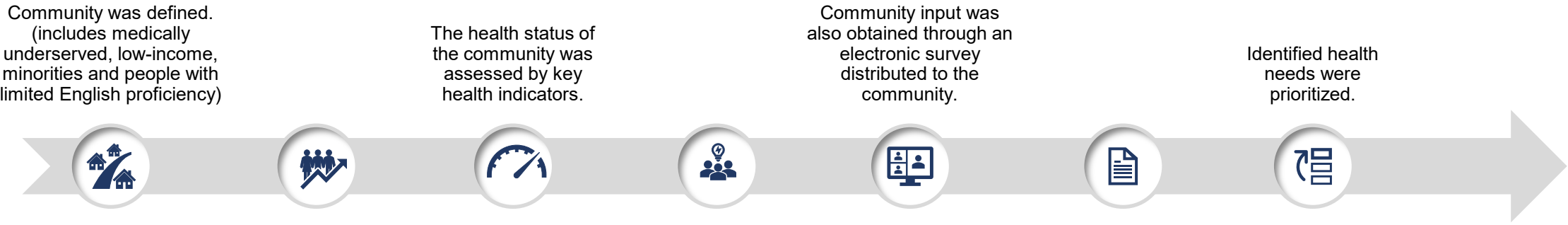
a. Partner with existing community organizations who focus on issues surrounding poverty

How the Assessment was Conducted

KDMC conducted a community health needs assessment (CHNA) to support its mission responding to the needs in the community it serves, to fulfill the requirements established by the Patient Protection and Affordable Care Act of 2010, and to comply with federal tax-exemption requirements. The goals were to:

- ✓ Identify and prioritize health issues in KDMC's service area, particularly for vulnerable and under-represented populations.
- ✓ Ensure that programs and services closely match the priorities and needs of the community.
- ✓ Strategically address those needs to improve the health of the communities served by KDMC.

Based on current literature and other guidance from the U.S. Department of the Treasury, the following steps were conducted as part of KDMC's CHNA:



Acknowledgements

The community health needs assessment for KDMC supports the organization's mission *"To care. To serve. To heal."* This community health needs assessment was made possible because of the commitment toward addressing the health needs in the community. Many individuals across the organization devoted time and resources to the completion of this assessment.

KDMC would like to thank leaders from the following community organizations who participated in key stakeholder interviews and provided valuable information to be used in the assessment:

- Ashland Boyd County Health Department
- Ashland Community & Technical College
- Ashland Community Kitchen
- Ashland For Change
- Ashland Police Department
- Ashland Schools
- CARES
- Carter County Emergency Ambulance
- Carter County Health Department
- Carter County Schools
- Christ Episcopal Church
- City of Ashland
- Drug Court (Greenup County)
- Emergency Medical Services
- Family Health Centers
- FIVCO Area Development
- Greenup County Health Department
- Holy Family Catholic Church
- Impact Prevention
- Kentucky Homeplace
- Lawrence Economic Development Corporation
- Lawrence County Courts
- Lawrence County Health Department
- Northeast Kentucky Community Action Agency, Inc.
- Pathways
- Primary Plus/FQHC
- Ramey Estep
- Russell Schools
- Safe Harbor
- Salvation Army
- The Kentucky Cooperative Extension Service

This community health needs assessment has been facilitated by Crowe LLP ("Crowe"). Crowe is one of the largest public accounting, consulting, and technology firms in the U.S. Crowe has significant healthcare experience including providing services to hundreds of large healthcare organizations across the country. For more information about Crowe's healthcare expertise visit www.crowe.com/industries/healthcare.

Written comments regarding the health needs that have been identified in the current community health needs assessment (CHNA) should be directed to:

Elaine Corbitt
Communications & Community Engagement
elaine.corbitt@kdmc.kdhs.us

General Description of King's Daughters Medical Center

King's Daughters Medical Center is a locally controlled, not-for-profit, 455-bed regional referral center covering a 150-mile radius that includes southern Ohio and eastern Kentucky. King's Daughters offers comprehensive cardiac, medical, surgical, maternity, pediatric, rehabilitative, bariatric, psychiatric, cancer, neurological, pain care, wound care and home care services. KDMC operates more than 50 offices in eastern Kentucky and southern Ohio. KDMC's primary service area encompasses four counties in two states, Boyd, Carter and Greenup counties in Kentucky, and Lawrence County, Ohio. The organization serves a population of approximately 175,000 and is the largest employer in the region with more than 4,000 employees.

Services at this location

- Comprehensive cardiac care
- Cancer/oncology
- Orthopedics and sports medicine
- Surgical care
- Inpatient services: med/surg, ICU, pediatric, maternity, behavioral medicine
- Emergency services

Community Overview

Demographic Data

King's Daughters patients collectively come from a large geographic area. For purposes of this report, the community served by King's Daughters includes Boyd, Carter and Greenup counties in Kentucky, and Lawrence County, Ohio. Between October 1, 2020 and September 30, 2021, 77% of KDMC's inpatient discharges originated from patients residing in these four counties with approximately 32% of total patient discharges originating in Boyd County. To understand the profile of KDMC's CHNA community, demographic and health indicator data were analyzed for the population within the defined service area. Data was analyzed for the CHNA community as a whole as well each of the four counties within the CHNA community.

The CHNA community has a total population of 169,597 according to the U.S. Census Bureau American Community Survey 2016-2020 5-year estimates. The percentage of population by combined race and ethnicity is made up of 94.6% Non-Hispanic White; 1.4% Non-Hispanic Black; 1.3% Hispanic or Latino; 2.1% Non-Hispanic Multiple Races; and 0.6% Non-Hispanic some other race. The demographic makeup of the CHNA community is shown below. The following socioeconomic indicators have significantly unfavorable rates for the CHNA community compared to state and national rates.

- Educational attainment is significantly lower for the CHNA community with 17% of people over the age of 25 obtaining a bachelor's degree or higher compared to 33% for the U.S.
- The percentage of people living in poverty for the community is six percentage points higher than the national rate of 12.8%.
- The percentage of persons with disability is significantly higher than the state and national rates of 17.54% (Kentucky) and 12.26%, respectively.

$72,549
Average Family Income

17%
People 25+ with a Bachelor's Degree or Higher

18.9%
of people are living in poverty (31,265 persons)

8.8%
Adults age 18-64 without Health Insurance Coverage (8,494 persons)

51%
Population 16+ in Civilian Labor Force

22%
37,661 persons with a disability

America's Health Rankings - Kentucky

America's Health Rankings evaluates a comprehensive set of health, environmental and socioeconomic data to illuminate both health challenges and successes; determine national and state health benchmarks; and enable stakeholders to take action to improve health. Annually, state-by-state analysis are prepared. Among the 50 states, Kentucky ranks 48th for health behaviors and 47th for health outcomes.

Below are highlights from Kentucky's 2021 report.

Measures		Rating	State Rank	State Value	U.S. Value
BEHAVIORS*		+	48	-1.339	—
Nutrition and Physical Activity	Exercise (% ages 18+)	+	50	15.3%	23.0%
	Fruit and Vegetable Consumption (% ages 18+)	+	50	4.7%	8.0%
	Physical Inactivity (% ages 18+)	+	50	30.6%	22.4%
Sexual Health	Chlamydia (new cases per 100,000 population)	++++	15	468.1	551.0
	High-risk HIV Behaviors (% ages 18+)	+++	30	5.7%	5.6%
	Teen Births (births per 1,000 females ages 15-19)	+	44	24.9	16.7
Sleep Health	Insufficient Sleep (% ages 18+)	+	48	38.6%	32.3%
Smoking and Tobacco Use	Smoking (% ages 18+)	+	49	21.4%	15.5%
HEALTH OUTCOMES*		+	47	-0.813	—
Behavioral Health	Excessive Drinking (% ages 18+)	++++	11	15.8%	17.6%
	Frequent Mental Distress (% ages 18+)	+	47	17.4%	13.2%
	Non-medical Drug Use (% ages 18+)	+	45	15.0%	12.0%
Mortality	Premature Death (years lost before age 75 per 100,000 population)	+	45	9,922	7,337
	Premature Death Racial Disparity (ratio)	+++++	3	1.1	1.5
Physical Health	Frequent Physical Distress (% ages 18+)	+	49	15.2%	9.9%
	Low Birthweight (% of live births)	++	32	8.7%	8.3%
	Low Birthweight Racial Disparity (ratio)	+++++	10	1.8	2.1
	Multiple Chronic Conditions (% ages 18+)	+	49	16.1%	9.1%
	Obesity (% ages 18+)	+	45	36.6%	31.9%

FREQUENT MENTAL DISTRESS

▲26%

from 13.8% to 17.4% of adults between 2015 and 2020

SMOKING

▼26%

from 29.0% to 21.4% of adults between 2011 and 2020

FLU VACCINATION

▲10%

from 42.1% to 46.5% of adults between 2019 and 2020

Access to Services

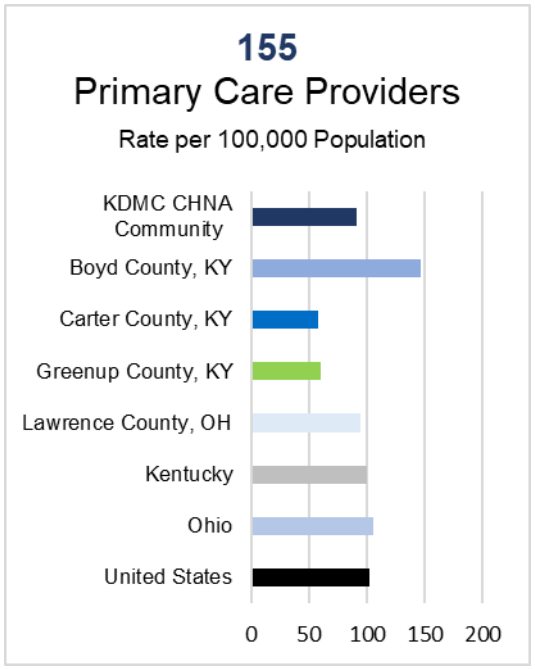
Data Tables

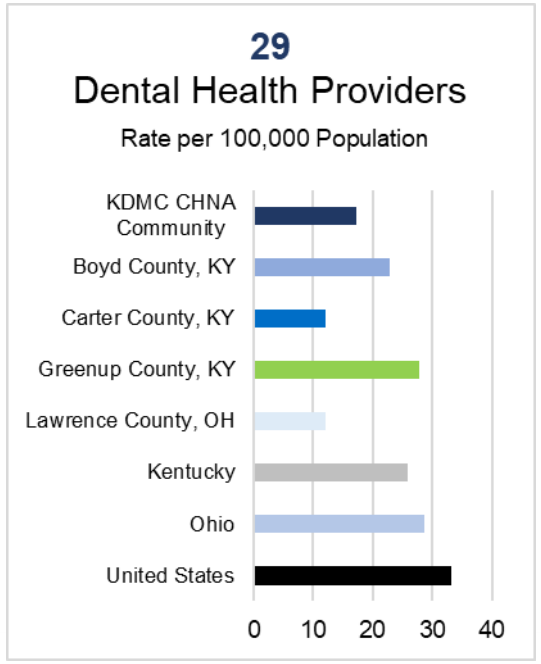
Limited access to care presents barriers to good health. The supply and accessibility of facilities and physicians affect access. As shown below, the rate of healthcare providers within KDMC's CHNA community depends on county residence. Generally, Boyd and Lawrence counties have higher rates of providers which are favorable to state and national rates. However, Carter and Greenup counties have significantly few providers and rates that are unfavorable to state and national rates.

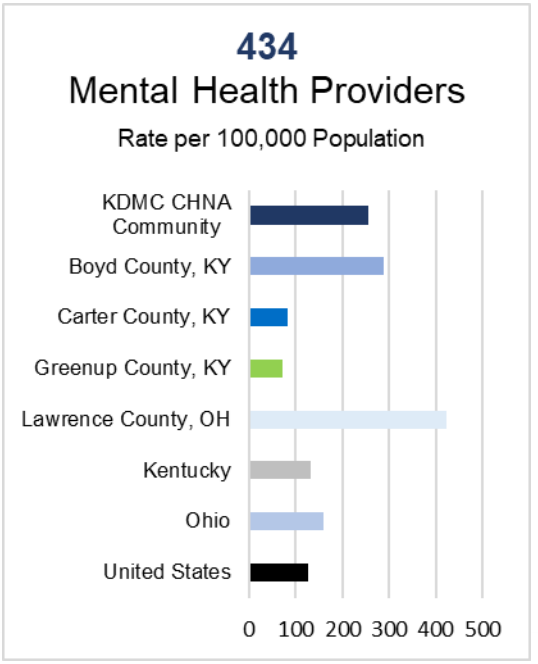
The chart to the right reports the percentage of population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA). Within the CHNA community, there are 68,054 people living in a HPSA. This represents approximately 40% of the total population.

Population Living in a Health Professional Shortage Area

	Total Population (ACS 2020 5-Year Estimates)	Population Living in an Area Affected by a HPSA	Percentage of Population Living in an Area Affected by a HPSA
KDMC CHNA Community	**169,597**	**68,054**	**40.13%**
Boyd County, KY	47,361	17,923	37.84%
Carter County, KY	26,976	12,788	47.41%
Greenup County, KY	35,359	12,839	36.31%
Lawrence County, OH	59,901	24,504	40.91%
Kentucky	4,461,952	1,131,625	25.35%
Ohio	11,675,275	1,414,117	12.11%
United States	326,569,308	73,493,673	22.50%







79%

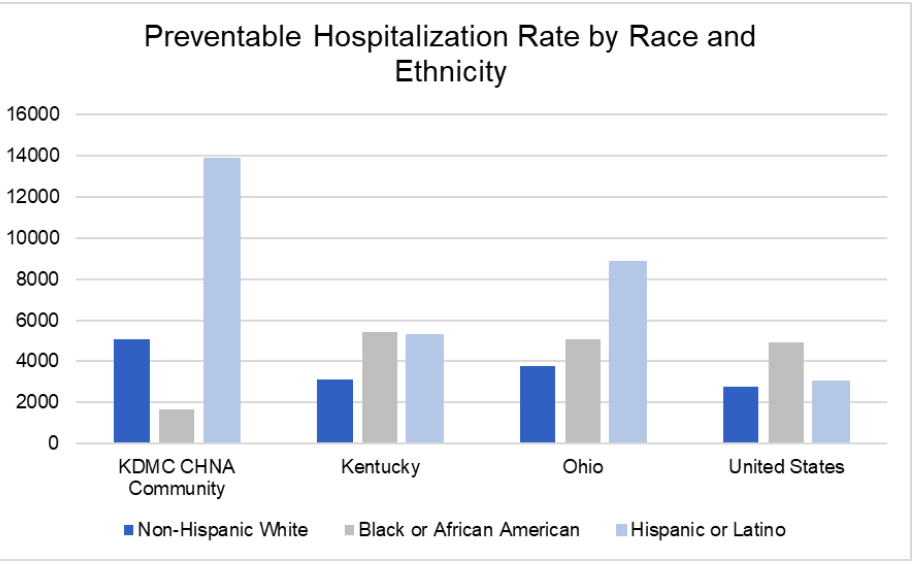
of adults over age 18 have a dedicated healthcare provider in Kentucky.

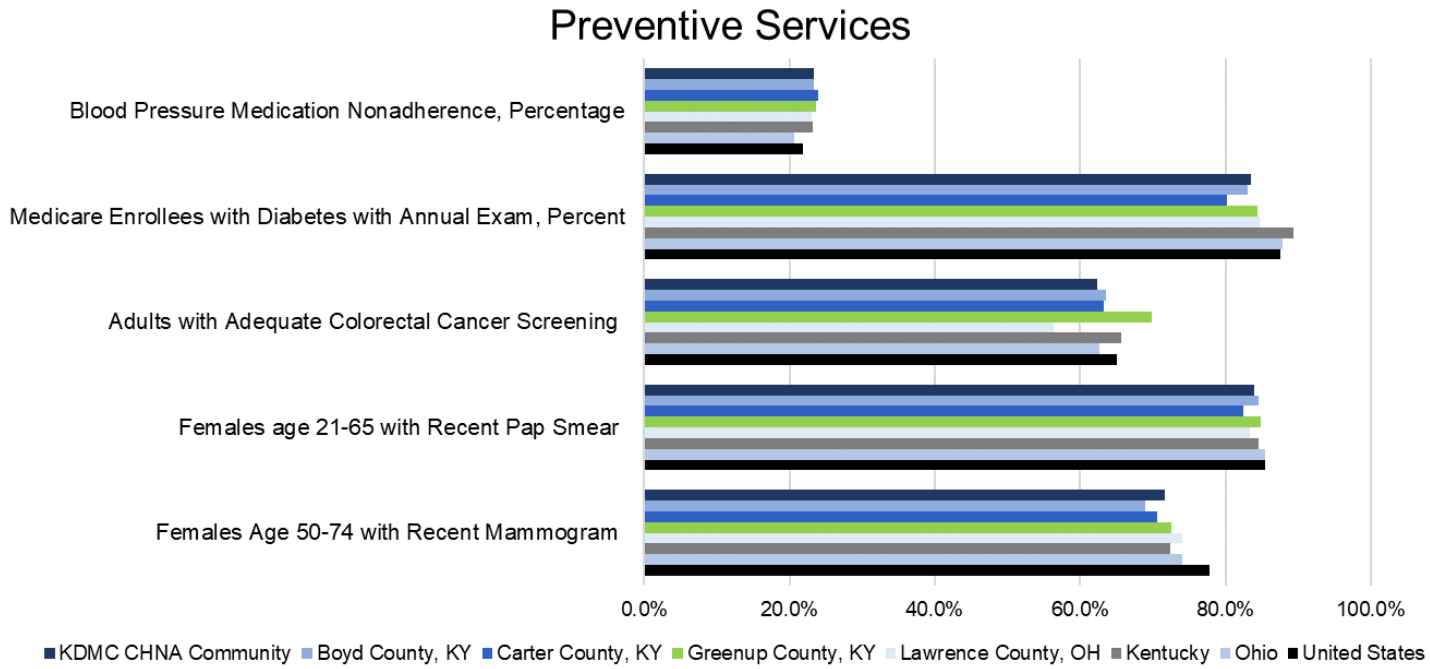
Clinical Preventive Services

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

33.3% of women 65+ in the community are up-to-date with core preventative services compared to the national benchmark of 28.4%.

36.4% of men 65+ in the community are up-to-date with core preventative services compared to the national benchmark of 32.4%.





Preventable hospitalizations include hospital admissions among Medicare beneficiaries for one or more of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, bacterial pneumonia, or urinary tract infection.

- The rate for preventable hospitalizations in the CHNA Community is unfavorable to state and national rates. However, the rate has significantly improved since 2016.
- Preventable hospitalizations are significantly higher for Hispanic or Latino residents compared to Non-Hispanic White and Black or African American populations. Greenup County reports the highest rate of preventable hospitalizations among Medicare beneficiaries at 5,965 preventable hospitalizations per 100,000 Medicare beneficiaries. The rate for preventable hospitalizations for Hispanic or Latino population is 18,572 in Greenup County.

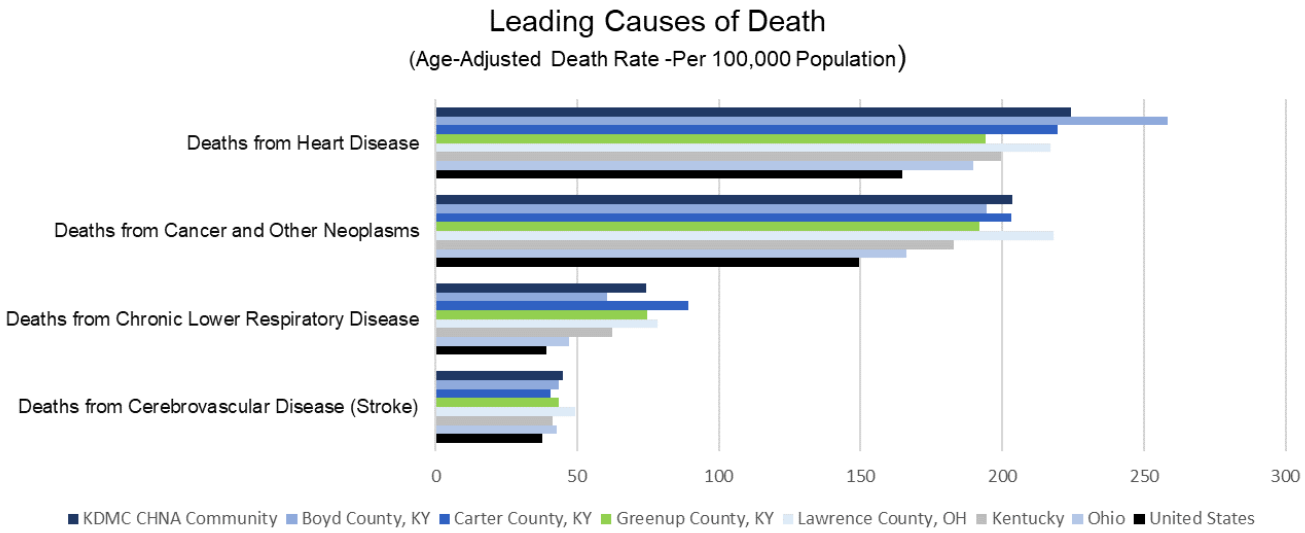
Data Tables

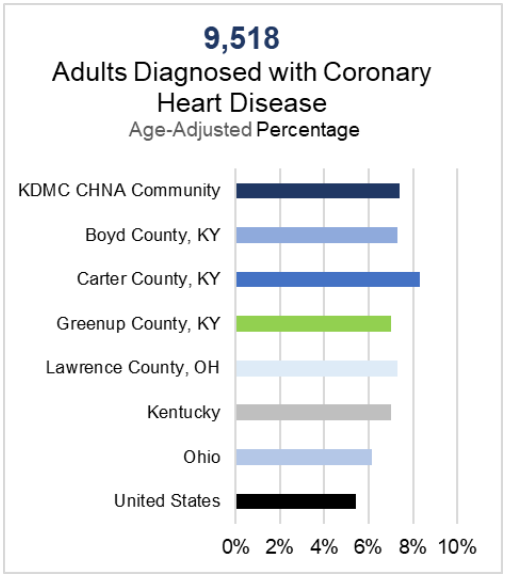
Health Outcomes & Mortality

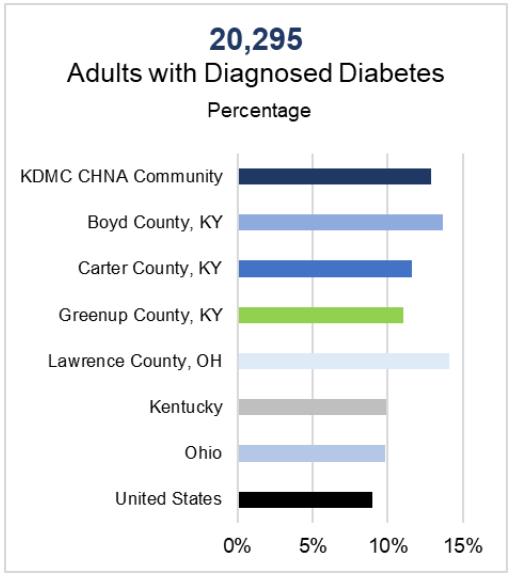
KDMC's community has a significant number of adults who have been diagnosed with chronic illnesses. The prevalence of chronic diseases in the KDMC community is unfavorable to state and national percentages. Over 43% of the population, 55,565 adults, have high blood pressure.

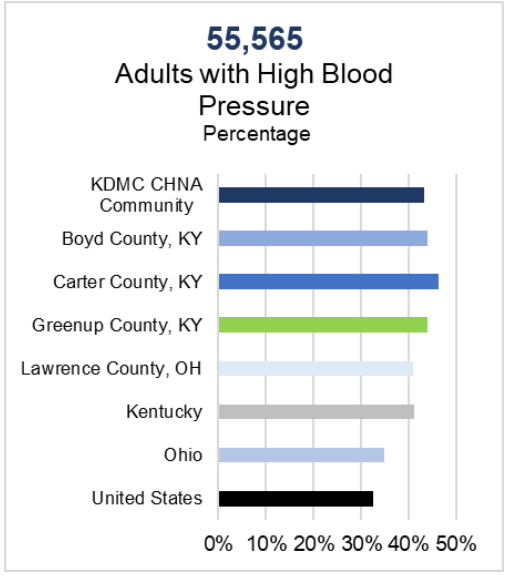
Coronary heart disease, cancer, lung disease and stroke are leading causes of death in the United States. Adjusted death rates for the community are unfavorable to state and national rates with deaths from heart disease and cancer being significantly higher than national rates. Males have significantly higher rates for deaths from heart disease and cancer compared to females.

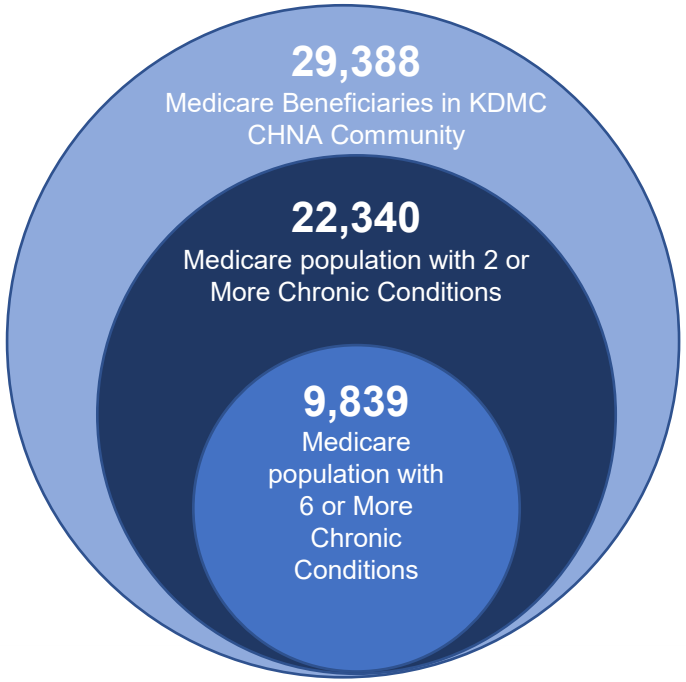
Data Tables









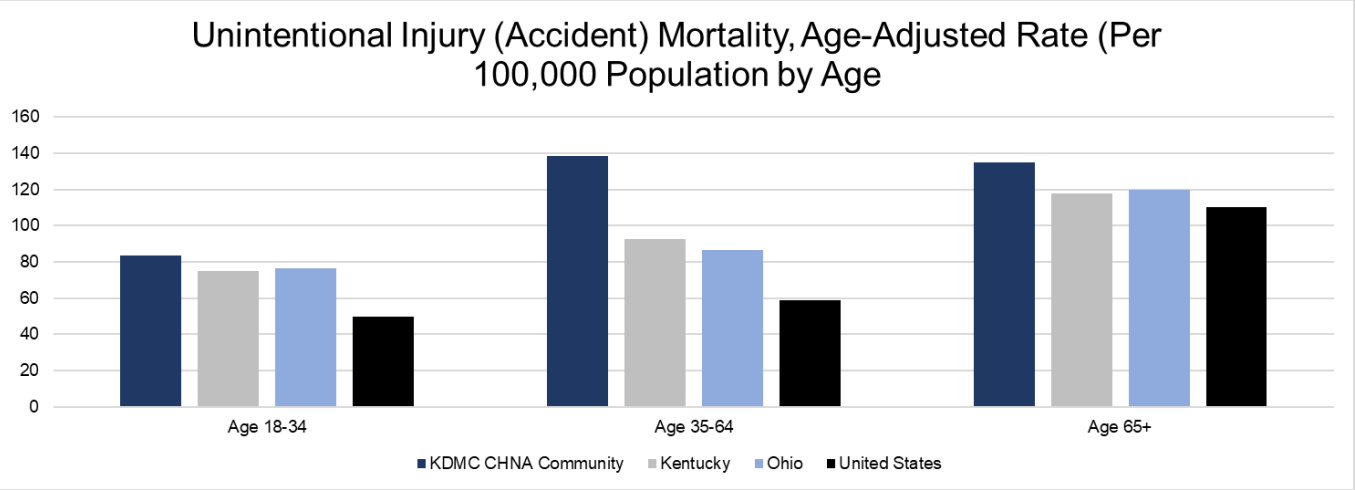


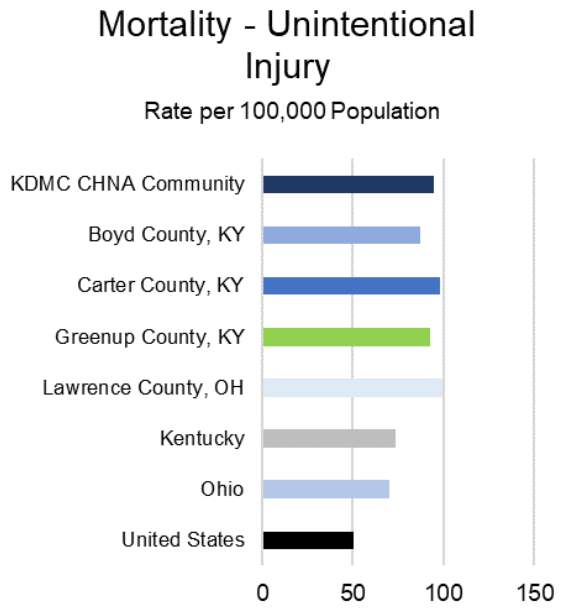
Injury and Violence

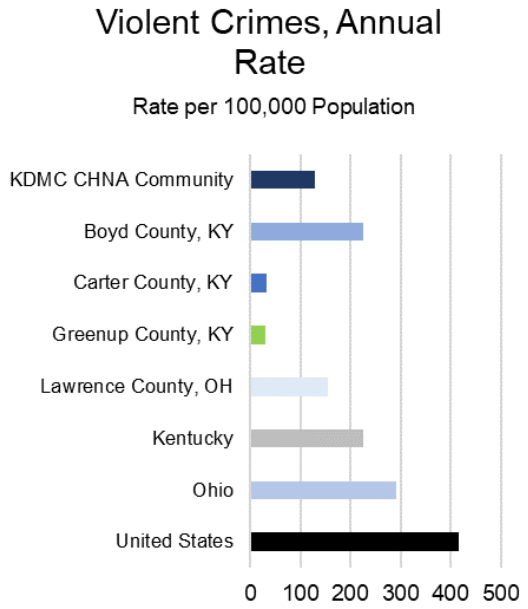
Crime rates are very different for the four counties of the CHNA, with Carter and Greenup counties having favorable rates compared to state and national rates, and Boyd County having rates higher than state and national rates.

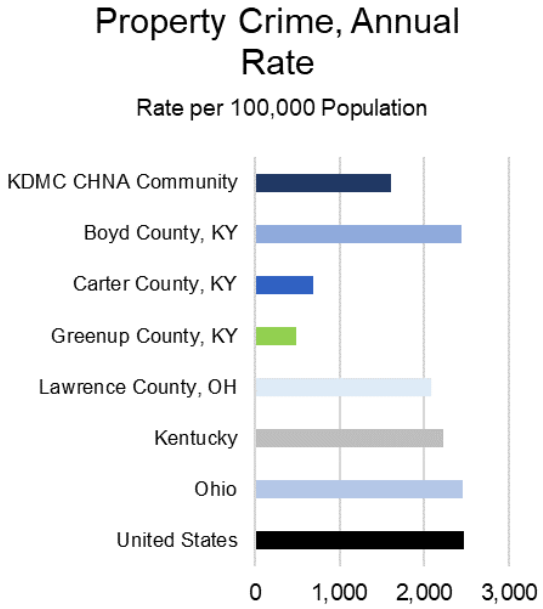
The five-year average rate of death due to unintentional injury (accident) for the KDMC CHNA community is nearly double the national average rate. This indicator is relevant because accidents are a leading cause of death in the United States. The chart to the right reports significantly higher mortality rates for age 35-64 in KDMC's CHNA community compared to state and national rates.

Data Tables









Maternal, Infant and Child Health

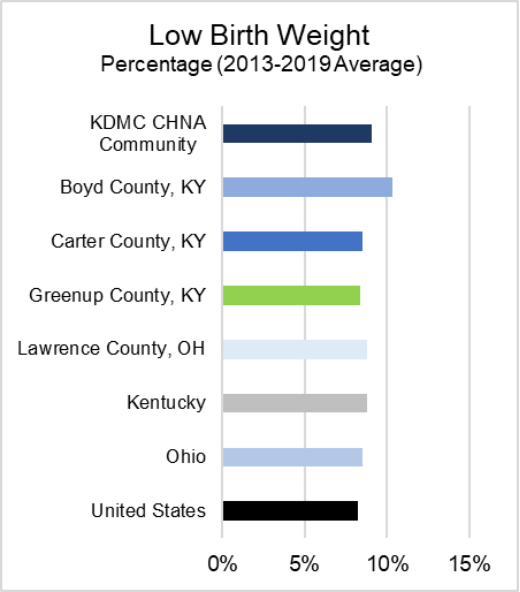
Engaging in prenatal care decreases the likelihood of maternal and infant health risks such as low birth weight. Rates for low birth weight are comparable to state and national rates with Boyd County having the highest rate for low birth weight at 10.3%. Rates for low birth weight and infant mortality indicate significantly higher rate for Non-Hispanic Black population.

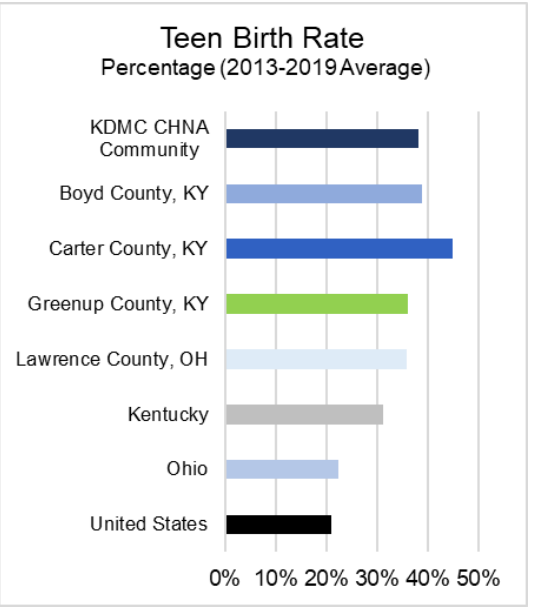
In the report area, of the 33,884 total female population age 15-19, the 7-year average teen birth rate is 38.3 per 1,000, which is nearly double the rate of the United States of 20.9.

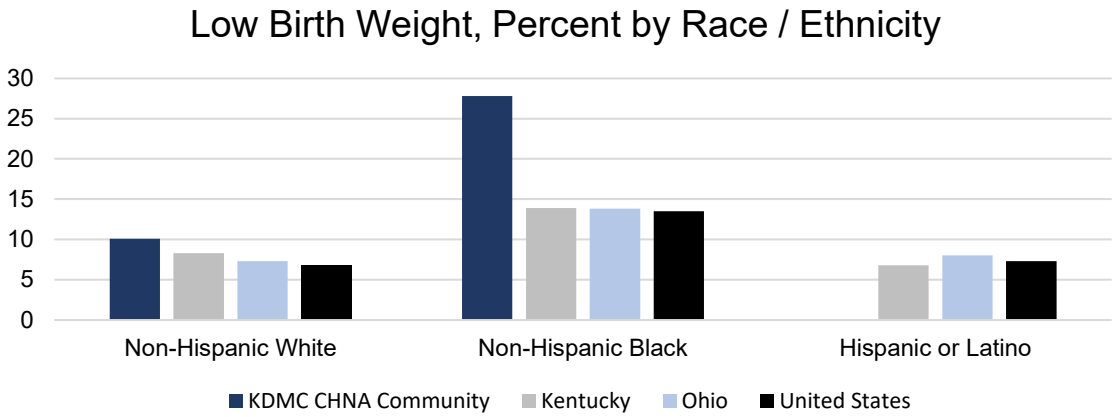
22% of women giving birth in the CHNA community had no prenatal care in the first trimester of pregnancy.

Almost a quarter of women giving birth in the CHNA community smoked during pregnancy.

Data Tables







22%

Women giving birth in the KDMC CHNA Community had no prenatal care in the first trimester

22%

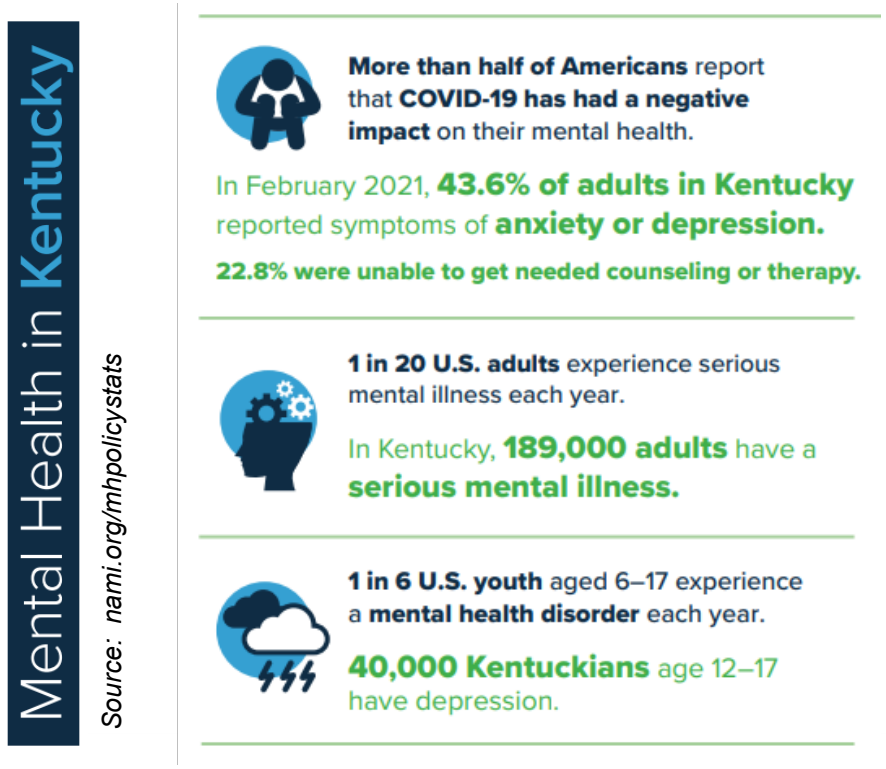
Women giving birth in the KDMC CHNA Community smoked during pregnancy.

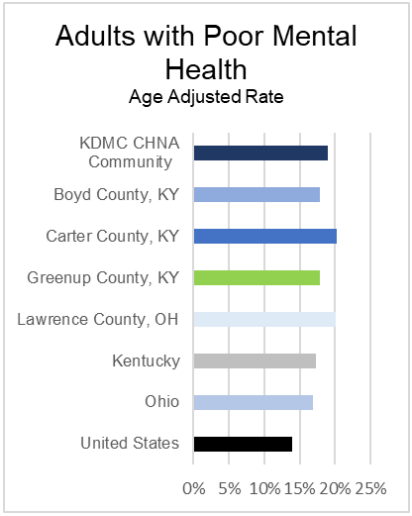
Mental Health

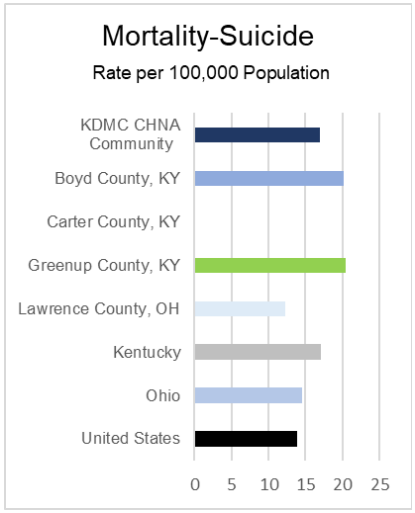
According to the National Alliance on Mental Illness, 189,000 adults in Kentucky have a serious mental illness and approximately 40,000 youth have depression.

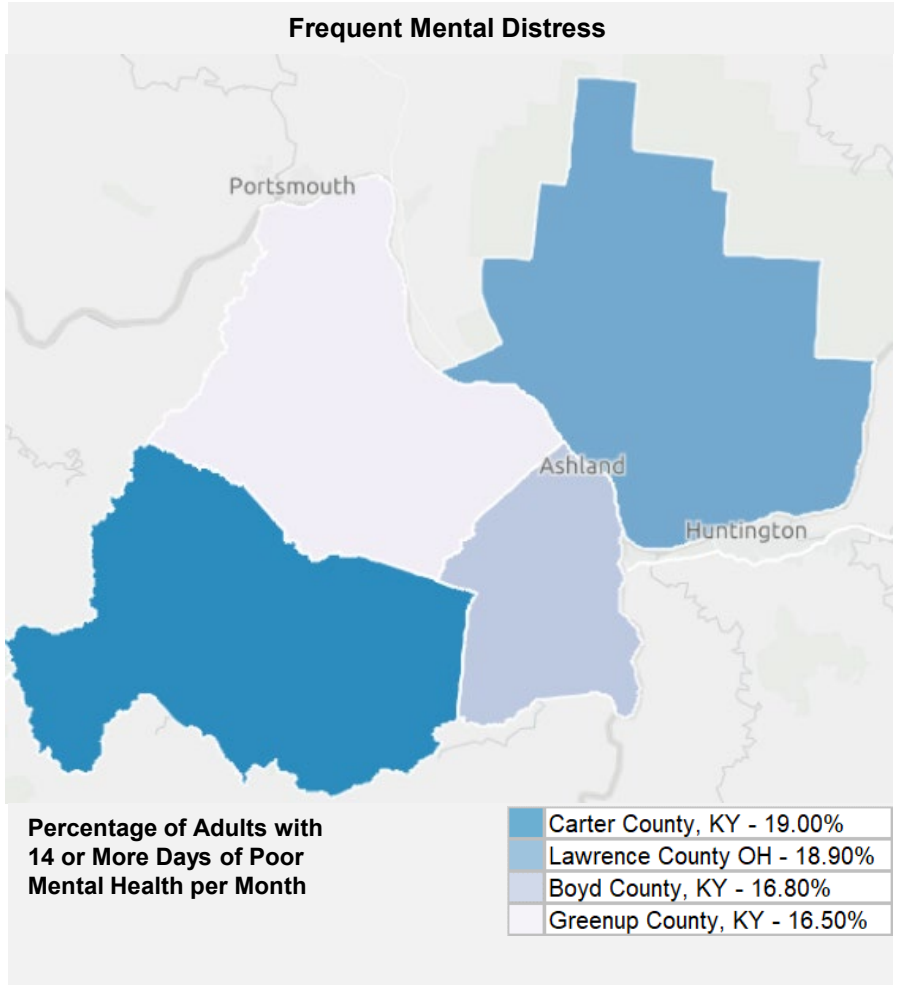
The map to the right reports the percentage of adults (ages 18 years and older) in the CHNA community reporting 14 days or more of poor mental health per month by county. In the CHNA community, it is estimated that approximately 28,000 adults have frequent mental distress.

Data Tables









Nutrition, Physical Activity and Obesity

Healthy diets and physical activity contribute to healthy lifestyles and overall well-being. These factors are relevant because current behaviors are determinants of future health and well-being and these indicators may be linked to significant health issues, such as obesity and poor cardiovascular health.

- Over 15% of the population (26,460 persons) live with food insecurity in the CHNA community. The rate of food insecurity is higher for children and is 22.18% which is approximately 8,400 children in the CHNA community.
- Over 50,000 persons, or 39% of adults, are obese in the CHNA community. Obesity rates have increased by 60% over the last 15 years.
- 32.2% of adults, age 20 and older, self-report no active leisure time physical activity. This is significantly higher than the national rate of 22.0%.
- Approximately 58% of public-school students in the CHNA Community are eligible for free or reduced-price lunch program, which is higher than the U.S. rate of 42%.

The map to the right reports the percentage of the low-income population with low food access. Low food access is defined as living more than ½ mile from the nearest supermarket or large grocery store. The low- income population with low food access in the community is estimated to be 12,639 persons with Boyd County reporting the highest percentage of low-income population with low food access.

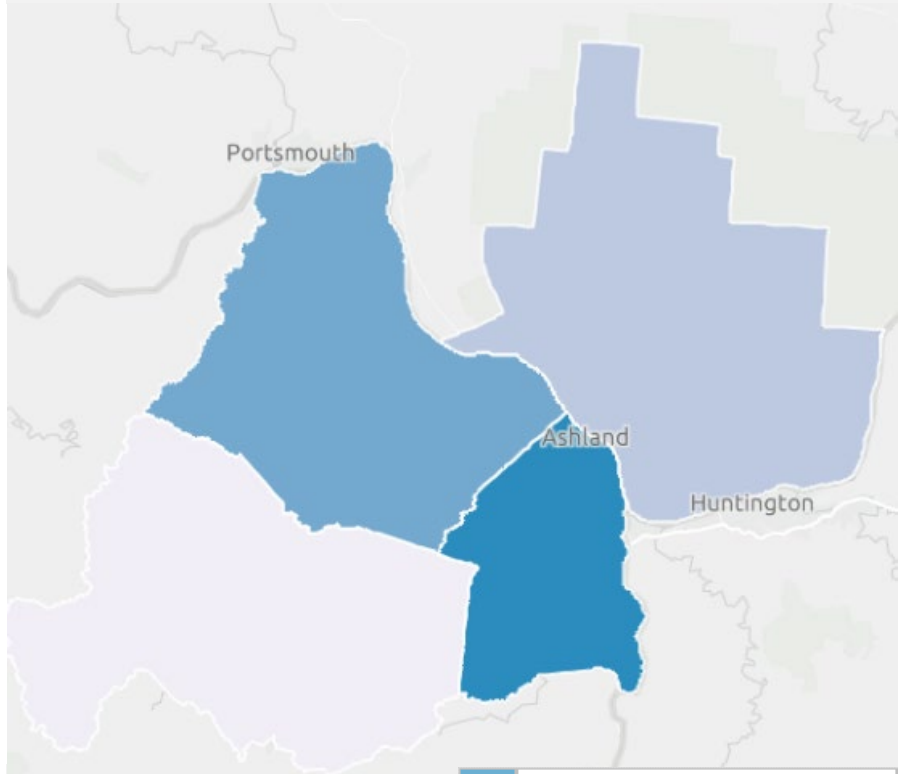
Data Tables

26,460
Food Insecure Population

50,295
Adults with BMI>30 (Obese)

9,916
Students Eligible for Free or Reduced- Price Lunch

Population with Limited Food Access, Low Income Percent by County



Percentage of Low Income Population with Low Food Access

	Boyd County, KY - 33.67%
	Greenup County, KY - 20.50%
	Lawrence County OH - 10.93%
	Carter County, KY - 7.63%

Physical Environment

The structure of housing and families and the condition and quality of housing units and residential neighborhoods are important because housing issues like overcrowding and affordability have been linked to multiple health outcomes, including infectious disease, injuries, and mental disorders.

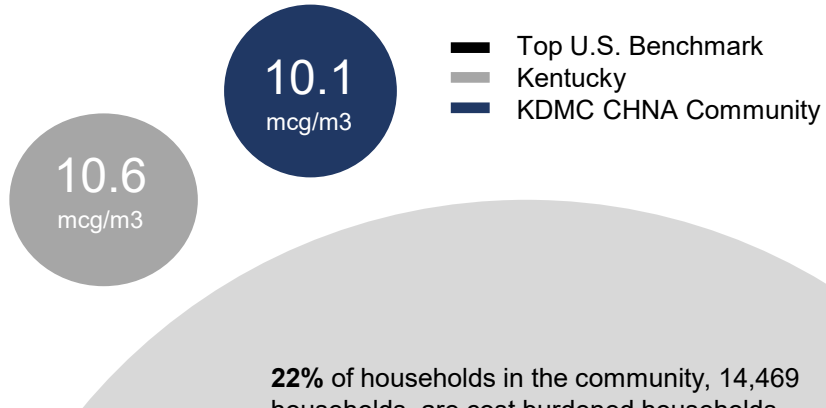
Within the community, 14,469 households, or 22%, have housing costs that are 30% or more of the total household income and are classified as "cost-burdened households."

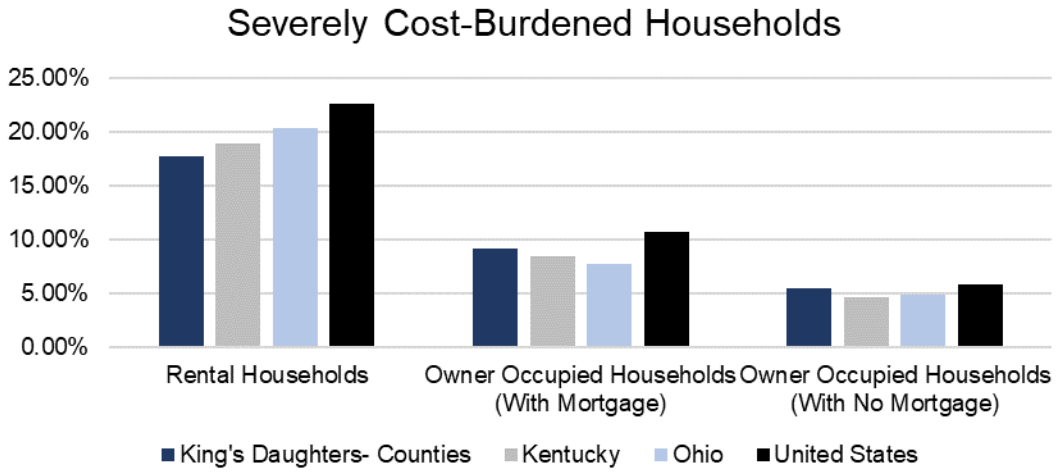
A large number of seniors in the community, age 65+, live alone. This is important because older adults who live alone may have challenges accessing basic needs, including health needs.

Data Tables

Air Pollution-Fine Particulate Matter

Air pollution is the percentage of days per year with fine particulate matter 2.5 (PM2.5) levels above the National Ambient Air Quality Standard of 35 micrograms pers cubic meter.





22% of households in the community, 14,469 households, are cost burdened households meaning housing costs exceed 30% of household income. **6,575** households have housing costs that **exceed 50%** of household income.

It is estimated that **22.2%** of households (16,347 households) within the community have no or slow internet.

23% housing units have one or more substandard conditions.

9,644 Seniors (age 65+) live alone.

Substance Use Disorder

The percentage of adults in the CHNA community who currently smoke is 24.9% and is unfavorable to state and national benchmarks. This indicator is relevant because tobacco use is linked to leading causes of death, such as cancer and cardiovascular disease.

Counties in the Appalachian region of the eastern United States have been disproportionately impacted by the epidemic of addiction. The death rate for opioid overdoses in Appalachian counties is 75% higher than non-Appalachian counties. The death rate for opioid overdoses in the CHNA community is more than triple the national rate.

Deaths of despair include deaths due to intentional self-harm (suicide), alcohol-related disease, and drug overdose. The rate for deaths of despair is two times the national rate, with Boyd County reporting the highest rates.

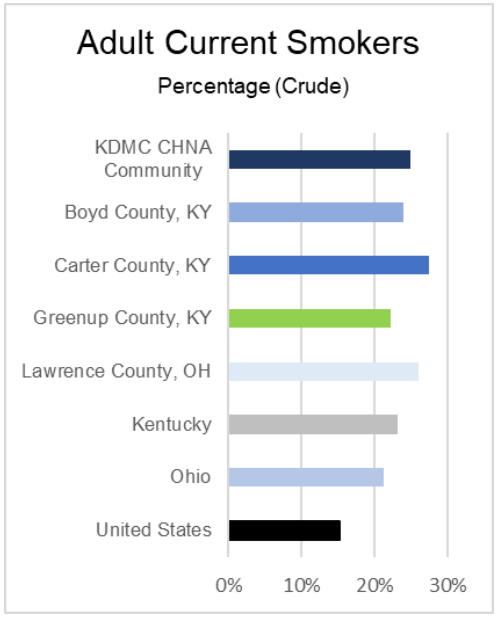
Data Tables

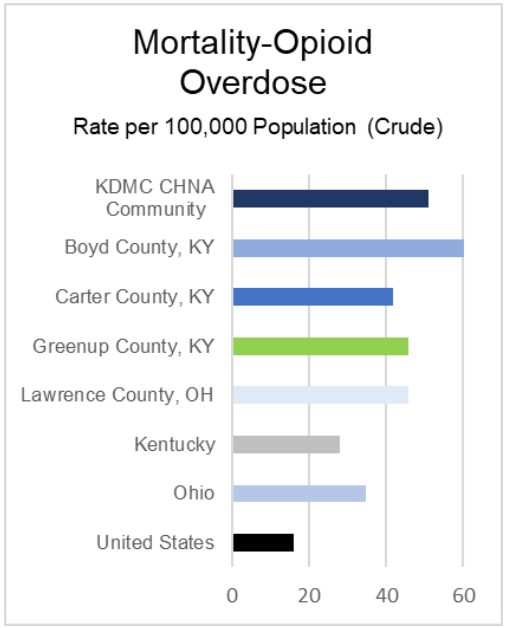
Behavioral Health Barometer

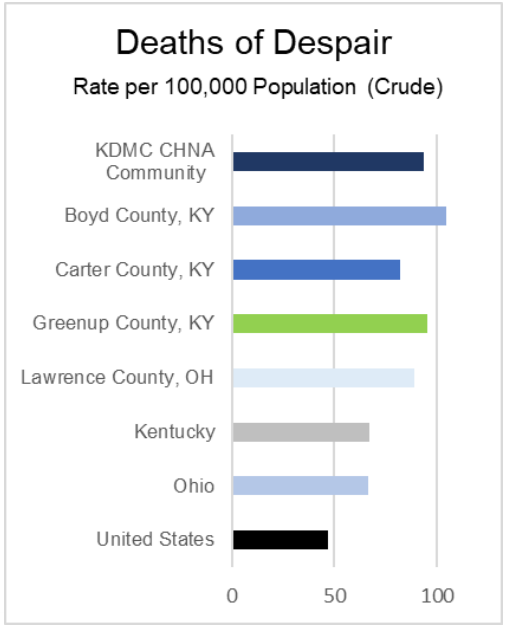
2019 National Survey on Drug Use - Youth Substance Abuse

	2017-2019		2002-2004	
	Kentucky	United States	Kentucky	United States
Cigarette Use Among youth Aged 12-17	6.00%	2.70%	18.80%	12.30%
Marijuana Use among Youth Aged 12-17	6.00%	6.80%	8.60%	7.90%
Alcohol Use among Youth Aged 12-17	10.70%	9.40%	19.40%	17.60%

	2017-2019		2015-2017	
Illicit Drug Use among Youth Aged 12-17	6.50%	8.20%	12.30%	17.00%







Key Stakeholder Interviews

Written Summary of Stakeholder Interviews

KDMC obtained input from 41 leaders representing public health, major employers, public schools, social services, KDMC leaders and the community-at-large through key stakeholder interviews. Interviews were conducted during February and March of 2022.

Health Disparities

Stakeholders described somewhat of a "split community" – meaning that the middle- and upper-class can have a good life, whereas the working poor and generational poor experience accelerated health issues.

Barriers

The barriers or problems that keep community residents from obtaining necessary health services and improving health in their community include financial matters; transportation; low education attainment; lack of health literacy; lack of healthy food choices; and limited mental health treatment options.

Stigmas around drug use and mental health; language barriers and racial/LBGTQ discrimination were also noted as barriers.

Most Underserved Populations

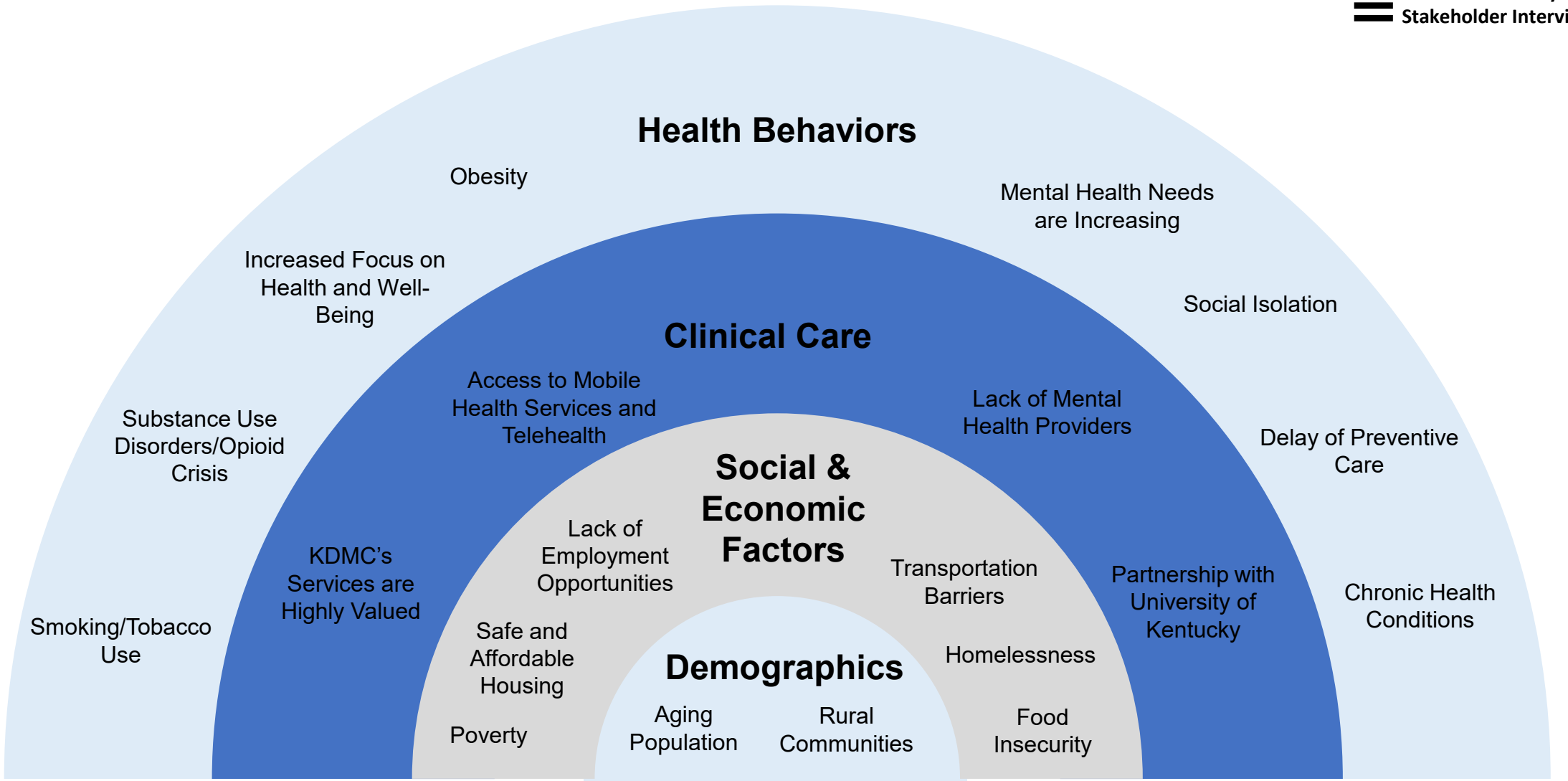
Populations with the most serious unmet healthcare needs include elderly individuals, youth and adolescents, working poor and low-income individuals, homeless individuals, individuals living in rural areas, persons with mental health or substance abuse issues and individuals in marginalized groups.

Most Important Health and Quality of Life Issues (alphabetical order)

- Chronic health conditions – particularly: obesity, diabetes, heart conditions, and cancer
- Low income/poverty
- Mental health
- Substance use disorders and the opioid epidemic

Key Stakeholder Interviews – Factors Impacting Health in the Community

Written Summary of Key Stakeholder Interviews



Key Stakeholder Interviews

What should be done to address the most critical issues?

To address chronic health conditions, trust must be built with providers and more encouragement of preventative care is needed. Assist people with finding primary care providers and work to switch the views on healthcare and current healthcare attitudes resulting from COVID, including the fear of hospitals which has led to sicker patients that have neglected preventative care. Good behaviors can be contagious, there is a need for more examples to be set for prevention and diet / exercise, including additional community assets for these behaviors in rural areas. Additionally, outreach needs to continue, and care needs to be accessible, including more care offerings in schools, walk in clinics, community screenings, health fairs, and telehealth options. People need to get back to in-person visits. Incentives for affordable insurance and affordable medicine are needed as well. Education on wellness and resources will also help combat this, along with health literacy courses aimed at people with chronic health conditions. Finally, the availability of more outdoor activities will help to encourage physical activity.

To address poverty and the low-income population, educate people about how to obtain resources and insurance and how to take care of themselves in order to break the cycle of generational poverty. There is a need to motivate people to want to better themselves. Additionally, build more affordable housing and provide resources to help people find somewhere to live at an affordable cost. Increasing neighborhood stores and providing funding to food banks and soup kitchens would also help. Providing additional resources to increase transportation availability and encouraging additional economic development.

To address mental health needs, there is a need for more providers, including adolescent mental health therapists. There is also a need for an inpatient adolescent program and there is room to grow outpatient mental health services. Access to better mental health facilities and more timely mental health care is needed as mental health issues have grown worse with COVID and there are long wait times for treatment. Mental health providers that are not tied to substance abuse is also needed and the stigma around mental health needs to be removed through additional education. Additionally, a system that nurtures mental health and encourages children to talk to therapists is needed.

To address substance abuse, develop more drug rehabilitation facilities, including inpatient facilities. Need to address youth who see bad examples in families of substance abuse to encourage prevention and education to stop substance abuse before it starts. Need to also be more proactive in weaning people off substances and helping them to get clean instead of swapping one substance for another. Encourage lifestyle changes and teach skills to be productive. Provide second chances for those with substance abuse histories to find employment. Send addicts to treatment instead of jail and work to break the stigma surrounding drug and alcohol abuse. Encourage communication in families to help combat substance abuse and provide more community events to give awareness on drugs and alcohol abuse.

What should KDMC Address over the next three to five years?

Key stakeholders were asked to recommend the most important issue that KDMC should address over the next three to five years.

Help people connect with primary care physicians. Continue to increase providers and/or access to providers.

Make sure King's Daughters continues to partner within the community and be involved with the community through free screenings, and education to encourage proactive health instead of reactive health. Place emphasis on reaching youth in the community.

Focus on behavioral health, mental health, and rehabilitation and addiction services. Offer services beyond stabilization.

Bring health to people through mobile clinics, telehealth and additional facilities.

Community Survey

In order to develop a broad understanding of community health needs, KDMC conducted a community survey during March, April and May of 2022. A link to the survey was distributed via e-mail, social media and word of mouth to the community-at-large. A total of 1,228 surveys were completed.

Link to Community Survey Summary

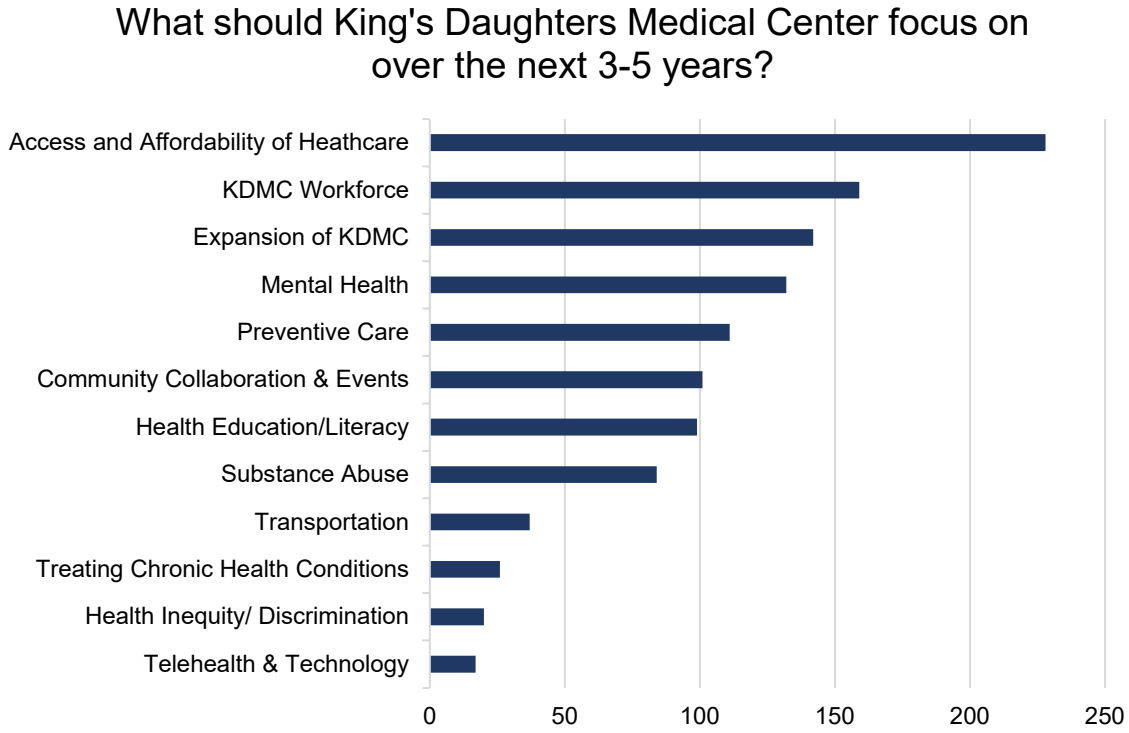
Health Issues that Impact the Community Most	Substance Use Disorders and Addiction	Obesity/Overweight	Smoking (Tobacco Use)	Vaping	High Blood Pressure/Stroke
Weaknesses in the Community	Poverty	Lack of Affordable Healthy Food	Poor Housing Quality	Lack of Availability of Mental Health Care	Lack of Transportation Services
What should KDMC focus on over the next 3-5 years?	Access and Affordability of Healthcare	KDMC Workforce	Expansion of KDMC	Mental Health	Preventive Care

Community Survey

Community Resources and Health Behaviors – Key Findings

- Only **37%** of the respondents eat five fruits and vegetables each day. Significantly less, 33%, exercise at least 30 minutes a day, five days a week.
- **35%** of the survey respondents indicated transportation to and from doctor appointments is challenging.
- **28%** of survey respondents have delayed healthcare due to cost and/or lack of insurance.
- The community agrees there is a need for additional services such as:
  - **78%** of the respondents indicated there is a need for more services to address addiction and alcohol abuse
  - **80%** of the respondents indicated there is a need for more general assistance with activities of daily living for seniors
  - **71%** of the respondents indicated there is a need for additional home healthcare services
- Respondents indicated the biggest source of stress in their daily life was financial stability and relationships.
- The biggest challenges related to the COVID-19 pandemic are mental health and social isolation and juggling work and family

What should King's Daughters focus on over the next 3-5 years?



Link to Community Survey Summary

Evaluation of the Impact of Actions Taken Since the Last CHNA

Substance Misuse/Abuse

Goals	Objectives	Progress to Meeting Goal
Goal 1: Increase the number of justice system involved individuals that are established with a primary care provider and receiving individualized mental health, physical health, MAT and social services.	1. Increase the number of justice-involved individuals that receive individualized services, including mental health, physical health, hepatitis and HIV testing, MAT, housing, job placement, trauma-based services, etc. by 30%, by September 30, 2021.	FY20 - 23 individuals from the Drug Court were served FY21 – 38 individuals from the Drug Court were served KDMC applied for and received grant funding to begin a community clinic to serve those with SUD. Through the clinic, which began August 2021, there were seven (7) individuals served. There were also 488 inpatients with SUD aided on their path to recovery.
	2. Increase the number of justice-involved individuals that are established with a primary care provider by 25%, by September 30, 2021.	FY20 - 23 individuals served FY21 – 38 individuals served
Goal 2: Reduce the impact of substance use disorder	1. Increase community knowledge of substance use disorder and its impact	FY20 - 66 individuals educated FY21 – 50 individuals educated KDMC sponsored a wellness fair for the Greenup/Lewis County Drug Court participants. The wellness fair included bloodwork, vital signs, EKG, vaccines for COVID-19 and Hep-A, referrals to dental and vision, a needle exchange, information on medically assisted treatment, and free Narcan.
Goal 3: Reduce initiation into substance use through medication safety education	1. Increase knowledge of safe medication practice	FY20 – 152 individuals educated FY21 – 259 individuals educated KDMC supports medication take back efforts through providing a medication drop off box at their in-hospital pharmacy. During FY21, 57.5 pounds of medications were dropped off.

Evaluation of the Impact of Actions Taken Since the Last CHNA

Obesity and Diabetes Mellitus

Goals	Objectives	Progress to Meeting Goal
Goal 1: Increase access to healthy foods for healthful diets, and achievement and maintenance of healthy body weight.	1. Increase opportunities to obtain fruits and vegetables in food deserts.	FY20 – Farmers market held 21 days with 2,614 customers and $44,787 in sales FY21 – Farmers market held 38 days with $50,588 in sales, of which $4,434 were senior vouchers; $1,554 were double dollar vouchers and $12 were WIC vouchers.
	2. Increase access to healthy foods through food banks and feeding programs	FY20 – 32,697 pounds of food donated to River Cities Harvest; Meals-on-Wheels – 433 individuals served with 7,527 meals FY21 – 16,802 pounds of food donated to River Cities Harvest; Meals-on-Wheels – 757 individuals served with 14,095 meals Nutrition education was provided for 351 adults and 250 children to encourage healthy eating. Additionally, 150 school age children received nutrition education.
Goal 2: Reduce household food insecurity and in doing so reduce hunger	1. Reduce food insecurity among children through food provision programs	FY-20: *Cat mobile – 35-40 students served Provided Community Kitchen with $2500 worth of vegetables to help meet additional need to feed children due to COVID-19
Goal 3: Reduce the proportion of children and adolescents aged 2 to 19 years who have obesity (HP2030 proposed objective NWS-2030-03)	1. Increase opportunities for physical activity in the area	FY20 - Heart Challenge – 475 children/youth; Hooper size – 50 students served; Sponsored walks/runs – 152 served FY21 – Sponsored __ 5 walks/runs – 103 served
Goal 4: Reduce the proportion of adults with undiagnosed prediabetes (HP2030 proposed objective D-2030-09)	1. Increase the number of adults receiving blood sugar screening	FY20 - 70 individuals received free non-fasting glucose testing and 784 received low-cost A1c tests FY21 – 240 individuals received free non-fasting glucose testing and 3 received low-cost A1c tests In addition to the blood sugar screenings, KDMC provides diabetes education throughout the community. During FY21, KDMC provided education to 700 adults and 50 children.

Evaluation of the Impact of Actions Taken Since the Last CHNA

Cancer Prevention

Goals	Objectives	Progress to Meeting Goal
Goal 1: Reduce the overall cancer death rate (HP2030 proposed – C-2030-01)	1. Increase the proportion of adults who receive a lung cancer screening based on the most recent guidelines (HP2030 proposed – C-2030-03)	FY20 – 591 low dose CT scans; One (1) person completed the Lung CancerAware risk assessment. FY21 – 1,218 low dose CT scans; 20 people completed the Lung CancerAware risk assessment 8 were at-risk.
	2. Increase the proportion of adults who receive a colon/rectal cancer screening based on the most recent guidelines (HP2030 proposed – C-2030-07)	FY20 - 52 letters sent to patients referred by providers, no courses held due to COVID-19 restrictions FY21 - 75 letters sent to patients referred by providers, no courses held due to COVID-19 restrictions Educational videos posted to Facebook were used to provide education to the community. Facebook reporting of individuals that opened the video for at least 15-seconds was used as a measure of this activity. KDMC posted six videos targeting lung cancer with 2,516 views, eight videos targeting colon cancer with 1,750 views and five videos for breast cancer with 3,861 views. Videos were also posed for skin cancer (512 views) and prostate cancer (612 views).

Evaluation of the Impact of Actions Taken Since the Last CHNA

Chronic Lower Respiratory Disease (COPD & other lung/breathing issues)

Goals	Objectives	Progress to Meeting Goal
Goal 1: Improve lung health by reducing illness, disability and death related to tobacco use.	1. Reduce the initiation of cigarettes and e-cigarettes among adolescents and young adults (HP 2030 proposed – TU2030-08 & TU2030-04)	Benchmark – FY19 – 451 FY20-total 658 (183 adults and 475 children/youth served) FY21 – total 899 adults served
	2. Increase use of smoking cessation counseling and/or medication among adult smokers (HP 2030 proposed – TU2030-11)	FY20 – 32,697 pounds of food donated to River Cities Harvest; Meals-on-Wheels – 433 individuals served with 7,527 meals FY21 – 16,802 pounds of food donated to River Cities Harvest; Meals-on-Wheels – 757 individuals served with 14,095 meals
Goal 2: Reduce lung illness and death due to vaping among adolescents	1. Increase knowledge of the hazards of e-cigarette use and vaping	FY20 – 188 adults and 475 children/youth served FY21 – 423 adults served
Goal 3: Reduce morbidity and mortality due to respiratory disease (other than cancer)	1. Increase the number of individuals in rural areas receiving PFT screening for breathing issues	FY20 – 361 served FY21 – 263 served

Evaluation of the Impact of Actions Taken Since the Last CHNA

Heart Disease and High Blood Pressure

Goals	Objectives	Progress to Meeting Goal
Goal 1: Reduce coronary heart disease deaths (HP2030 proposed – HDS2030-02)	1. Improve early detection and treatment of high total cholesterol	FY20-70 adults served at free health screenings; 939 screened through low cost blood profiles; 183 screened through the HeartAware risk assessment; 52 were at risk FY21 - 205 adults served at free health screenings; 2,756 screened through low cost blood profiles; 494 screened through the HeartAware risk assessment; 155 were at risk
	2. Increase community education about the prevention of coronary heart disease	FY20-257 adults and 475 children/youth; Facebook videos – 34,035 reached FY21 - 349 adults; Facebook videos – 2,688 reached
Goal 2: Reduce the proportion of adults with hypertension (HP2030 proposed – HDS 2030-04)	1. Improve early detection and treatment of hypertension	FY20-168 adults screened; 183 screened through the HeartAware risk assessment; 52 were at risk FY21 -494 adults screened; screened through the HeartAware risk assessment; 155 were at risk and 9 were screened through the StrokeAware risk assessment with all 9 at risk.
	2. Increase community education about risk factors and prevention of hypertension	FY20-185 adults educated FY21 – 709 adults educated

Prioritization of Identified Health Needs

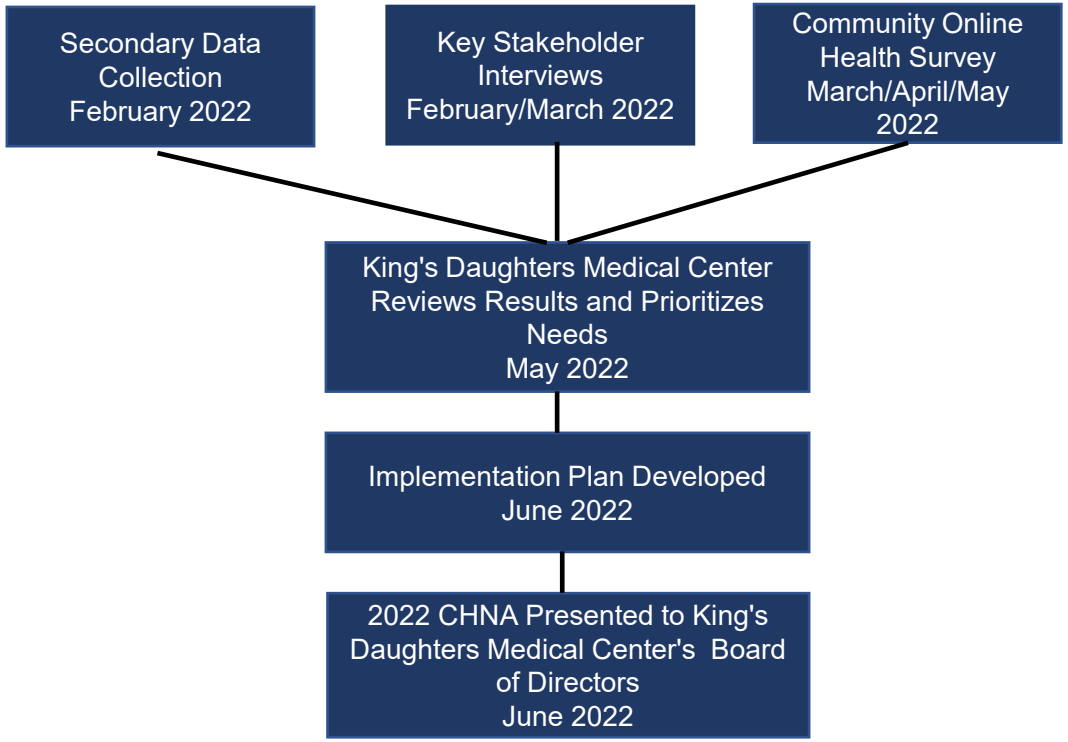
Primary and secondary data were gathered and compiled from February 2022 to May 2022. Based on the information gathered through the CHNA process, the following summary list of needs was identified. Identified health needs are listed in alphabetical order.

- Access to Health Services
- Cancer
- Chronic Health Conditions
- Food Insecurity
- Heart Disease
- Lack Healthcare Providers
- Lack of Affordable Housing
- Lack of Healthy Nutrition
- Lack of Prenatal Care
- Mental Health
- Obesity
- Physical Inactivity
- Poverty
- Preventive Care
- Smoking/Vaping
- Substance Abuse
- Teen Births
- Unintentional Injury

Health needs were prioritized with input from a broad base of members of KDMC's Leadership Team by utilizing a scoring guide.

Based on the information gathered through this Community Health Needs Assessment and the prioritization process described above, KDMC chose the needs below to address over the next three years.

- Access to Care
- Holistic Health
- Poverty



Appendix A

Return to Report

Population by Age & Gender

	Age 0-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Total	Male	Female
KDMC CHNA Community	**37,140**	**12,700**	**19,586**	**20,559**	**22,822**	**24,036**	**32,754**	**169,597**	**83,449**	**86,148**
Boyd County, KY	10,128	3,310	5,567	6,036	6,368	6,755	9,197	47,361	23,645	23,716
Carter County, KY	6,221	2,352	2,993	3,071	3,587	3,716	5,036	26,976	13,391	13,585
Greenup County, KY	7,604	2,512	3,861	4,259	4,713	5,041	7,369	35,359	17,208	18,151
Lawrence County, OH	13,187	4,526	7,165	7,193	8,154	8,524	11,152	59,901	29,205	30,696
State / National Benchmark										
Kentucky	1,007,619	419,842	581,856	552,563	575,248	594,896	729,928	4,461,952	2,196,522	2,265,430
Ohio	2,593,988	1,066,321	1,539,254	1,395,833	1,483,840	1,605,418	1,990,621	11,675,275	5,721,796	5,953,479
United States	73,296,738	30,435,736	45,485,165	41,346,677	41,540,736	42,101,439	52,362,817	326,569,308	160,818,530	165,750,778

	Age 0-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Total	Male	Female
KDMC CHNA Community	**21.9%**	**7.5%**	**11.5%**	**12.1%**	**13.5%**	**14.2%**	**19.3%**	**100.0%**	**49.2%**	**50.8%**
Boyd County, KY	21.4%	7.0%	11.8%	12.7%	13.4%	14.3%	19.4%	100.0%	49.9%	50.1%
Carter County, KY	23.1%	8.7%	11.1%	11.4%	13.3%	13.8%	18.7%	100.0%	49.6%	50.4%
Greenup County, KY	21.5%	7.1%	10.9%	12.0%	13.3%	14.3%	20.8%	100.0%	48.7%	51.3%
Lawrence County, OH	22.0%	7.6%	12.0%	12.0%	13.6%	14.2%	18.6%	100.0%	48.8%	51.2%
State / National Benchmark										
Kentucky	22.6%	9.4%	13.0%	12.4%	12.9%	13.3%	16.4%	100.0%	49.2%	50.8%
Ohio	22.2%	9.1%	13.2%	12.0%	12.7%	13.8%	17.0%	100.0%	49.0%	51.0%
United States	22.4%	9.3%	13.9%	12.7%	12.7%	12.9%	16.0%	100.0%	49.2%	50.8%

Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Population by Ethnicity & Race

Return to Report

	Non-Hispanic/ Latino	Hispanic/ Latino	Total	White	Black	Asian	Other Race	Multiple Races	Total
KDMC CHNA Community	**167,433**	**2,164**	**169,597**	**161,751**	**2,435**	**565**	**1,112**	**3,734**	**169,597**
Boyd County, KY	46,475	886	47,361	44,266	948	149	649	1,349	47,361
Carter County, KY	26,678	298	26,976	26,202	103	-	122	549	26,976
Greenup County, KY	34,975	384	35,359	34,253	362	192	49	503	35,359
Lawrence County, OH	59,305	596	59,901	57,030	1,022	224	292	1,333	59,901
State / National Benchmark									
Kentucky	4,294,003	167,949	4,461,952	3,848,305	361,230	68,139	59,562	124,716	4,461,952
Ohio	11,215,336	459,939	11,675,275	9,394,878	1,442,655	268,527	154,066	415,149	11,675,275
United States	267,208,288	59,361,020	326,569,308	229,960,813	41,227,384	18,421,637	20,083,932	16,875,542	326,569,308

	Non-Hispanic/ Latino	Hispanic/ Latino	Total	White	Black	Asian	Other Race	Multiple Races	Total
KDMC CHNA Community	**98.7%**	**1.3%**	**100.0%**	**95.4%**	**1.4%**	**0.3%**	**0.7%**	**2.2%**	**100.0%**
Boyd County, KY	98.1%	1.9%	100.0%	93.5%	2.0%	0.3%	1.4%	2.8%	100.0%
Carter County, KY	98.9%	1.1%	100.0%	97.1%	0.4%	0.0%	0.5%	2.0%	100.0%
Greenup County, KY	98.9%	1.1%	100.0%	96.9%	1.0%	0.5%	0.1%	1.4%	100.0%
Lawrence County, OH	99.0%	1.0%	100.0%	95.2%	1.7%	0.4%	0.5%	2.2%	100.0%
State / National Benchmark									
Kentucky	96.2%	3.8%	100.0%	86.2%	8.1%	1.5%	1.3%	2.8%	100.0%
Ohio	96.1%	3.9%	100.0%	80.5%	12.4%	2.3%	1.3%	3.6%	100.0%
United States	81.8%	18.2%	100.0%	70.4%	12.6%	5.6%	6.1%	5.2%	100.0%

Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Household Income and Poverty

Return to Report

Average Family Income
This indicator reports average family income based on the latest 5-year American Community Survey estimates. A family household is any housing unit in which the householder is living with one or more individuals related to him or her by birth, marriage, or adoption. Family income includes the incomes of all family members age 15 and older.

Children Eligible for Free/Reduced Price Lunch
Free or reduced price lunches are served to qualifying students in families with income between under 185 percent (reduced price) or under 130% (free lunch) of the US federal poverty threshold as part of the federal National School Lunch Program (NSLP).

	Population Below 100% FPL	Percentage of Population Below 100% FPL	Percentage of Population under Age 18 in Poverty	Average Family Income	Percentage of Children Eligible for Free/Reduced Price Lunch
KDMC CHNA Community	**31,265**	**18.90%**	**27.33%**	**$72,549**	**57.83%**
Boyd County, KY	7,461	16.44%	23.14%	$75,622	57.70%
Carter County, KY	6,517	24.93%	34.01%	$65,536	65.72%
Greenup County, KY	5,823	16.69%	27.32%	$80,855	52.45%
Lawrence County, OH	11,464	19.44%	27.36%	$67,956	No data
State / National Benchmark					
Kentucky	717,895	16.61%	22.16%	$85,749	56.21%
Ohio	1,546,011	13.62%	19.13%	$95,193	No data
United States	40,910,326	12.84%	17.48%	$107,335	42.16%

Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Uninsured Adults

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Uninsured Population
This indicator reports the percentage of adults age 18 to 64 without health insurance coverage. This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

	Total Population (For Whom Insurance Status is Determined)	Uninsured Population	Uninsured Population, Percent
KDMC CHNA Community	**96,090**	**8,494**	**8.8%**
Boyd County, KY	25,983	2,208	8.5%
Carter County, KY	15,097	1,619	10.7%
Greenup County, KY	19,996	1,534	7.7%
Lawrence County, OH	35,014	3,133	8.9%
State / National Benchmark			
Kentucky	2,623,127	234,983	8.9%
Ohio	6,863,409	622,220	9.1%
United States	195,703,724	25,136,22	12.8%

Data Source: US Census Bureau, Small Area Health Insurance Estimates. 2019. Source geography: County

Population with a Disability

Return to Report

Population with Any Disability
This indicator reports the percentage of the total civilian non-institutionalized population with a disability. This indicator is relevant because disabled individuals comprise a vulnerable population that requires targeted services and outreach by providers.

	Population with a Disability	Total Population (For Whom Disability Status Is Determined)	Percentage of Population with a Disability
KDMC CHNA Community	**37,661**	**166,594**	**22.6%**
Boyd County, KY	10,955	45,697	24.0%
Carter County, KY	5,622	26,647	21.1%
Greenup County, KY	7,419	34,934	21.2%
Lawrence County, OH	13,665	59,316	23.0%
State / National Benchmark			
Kentucky	768,194	4,379,339	17.5%
Ohio	1,612,446	11,501,751	14.0%
United States	40,786,461	321,525,041	12.7%

Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Educational Attainment

Return to Report

Education
Education metrics can be used to describe variation in population access, proficiency, and attainment throughout the education system, from access to pre-kindergarten through advanced degree attainment. These indicators are important because education is closely tied to health outcomes and economic opportunity.

	Total Population Age 25+	Population Age 25+ with No High School Diploma	Population Age 25+ with No High School Diploma, Percent	Population Age 25+ with Bachelor's Degree or Higher, Percent
KDMC CHNA Community	**119,757**	**15,510**	**12.9%**	**16.9%**
Boyd County, KY	33,923	4,057	11.9%	20.2%
Carter County, KY	18,403	3,706	20.1%	13.8%
Greenup County, KY	25,243	2,560	10.1%	16.4%
Lawrence County, OH	42,188	5,187	12.2%	15.8%
State / National Benchmark				
Kentucky	3,034,491	389,642	12.8%	25.0%
Ohio	8,014,966	738,770	9.2%	28.9%
United States	222,836,834	25,562,680	11.5%	32.9%

Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Areas Affected by a Health Professional Shortage Area (HPSA)

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Areas Affected by a Health Professional Shortage Area
This indicator reports the percentage of the population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA), defined as having a shortage of primary medical care, dental or mental health professionals. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

	Population Living in an Area Affected by a HPSA	Total Population (5 year estimate)	Percetage of Population Living in an Area Affected by a HPSA
KDMC CHNA Community	**68,054**	**169,597**	**40.1%**
Boyd County, KY	17,923	47,361	37.8%
Carter County, KY	12,788	26,976	47.4%
Greenup County, KY	12,839	35,359	36.3%
Lawrence County, OH	24,504	59,901	40.9%
State / National Benchmark			
Kentucky	1,131,189	4,461,952	25.4%
Ohio	1,413,479	11,675,275	12.1%
United States	73,467,356	326,569,308	22.5%

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Health Professional Shortage Areas Database. May 2021. Source geography: HPSA

Access to Healthcare Services

Return to Report

	Dental Care		Mental Care		Primary Care	
	Providers per 100,000 Population	Dental Health Providers	Providers per 100,000 Population	Mental Health Providers	Providers per 100,000 Population	Primary Care Providers
KDMC CHNA Community	**17.15**	**29**	**256.67**	**434**	**91.67**	**155**
Boyd County, KY	22.79	11	288.02	139	147.12	71
Carter County, KY	12.02	1	82.62	22	60.09	16
Greenup County, KY	3.76	10	72.30	26	94.54	34
Lawrence County, OH	27.81	7	424.11	247	58.38	34
State / National Benchmark						
Kentucky	25.94	1,169	132.32	5,962	99.80	4,497
Ohio	28.89	3.409	158.52	18,704	105.28	12,422
United States	33.25	111,316	126.04	421,90	102.66	343,627

Mental Care Data Source: Centers for Medicare and Medicaid Services, CMS - National Plan and Provider Enumeration System (NPPES). Accessed via County Health Rankings. 2020. Source geography: County

Primary Care Data Source: US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Area Health Resource File. Accessed via County Health Rankings. 2017. Source geography: County

Dental Care
This indicator reports the number of oral healthcare providers with a CMS National Provider Identifier (NPI). Providers included in this summary are those who list "dentist," "general practice dentist," or "pediatric dentistry" as their primary practice classification, regardless of sub-specialty. Data are from the latest Centers for Medicare and Medicaid Services (CMS) National Provider Identifier (NPI) downloadable file.

Mental Care
This indicator reports the number of mental health providers in the report area as a rate per 100,000 total area population. Mental health providers include psychiatrists, psychologists, clinical social workers, and counsellors that specialize in mental healthcare. Data from the 2020 Centers for Medicare and Medicaid Services (CMS) National Provider Identifier (NPI) downloadable file are used in the 2021 County Health Rankings.

Primary Care
This indicator reports the number of primary care physicians per 100,000 population. Doctors classified as "primary care physicians" by the AMA include General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians aged 75 and over and physicians practicing sub-specialties within the listed specialties are excluded. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Preventive Services – Core Preventable Services

Return to Report

	Percentage of Males age 65+ Up to Date on Core Preventative Services	Percentage of Females age 65+ Up to Date on Core Preventive Services
KDMC CHNA Community	**36.4%**	**33.3**
Boyd County, KY	42.2%	34.7%
Carter County, KY	33.9%	31.0%
Greenup County, KY	41.0%	36.1%
Lawrence County, OH	30.2%	31.5%
State / National Benchmark		
Kentucky	37.5%	36.1%
Ohio	33.8%	32.4%
United States	32.4%	28.4%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2018. Source geography: Tract

Male Preventive Services
This indicator reports the percentage of males age 65 years and older who report that they are up to date on a core set of clinical preventive services. Services include: an influenza vaccination in the past year; a PPV ever; and either a fecal occult blood test (FOBT) within the past year, a sigmoidoscopy within the past 5 years and a FOBT within the past 3 years, or a colonoscopy within the past 10 years.

Female Preventive Services
This indicator reports the percentage of females age 65 years and older who report that they are up to date on a core set of clinical preventive services. Services include: an influenza vaccination in the past year; a pneumococcal vaccination (PPV) ever; either a fecal occult blood test (FOBT) within the past year, a sigmoidoscopy within the past 5 years and a FOBT within the past 3 years, or a colonoscopy within the previous 10 years; and a mammogram in the past 2 years.

Preventive Services – Blood Pressure, Diabetes, and Preventable Hospitalizations

Return to Report

	Blood Pressure Medication Nonadherence	Medicare Enrollees with Diabetes with Annual Exam	Preventable Hospitalizations per 100,000 Beneficiaries
KDMC CHNA Community	**23.4%**	**83.5%**	**4,857**
Boyd County, KY	23.4%	83.0%	4,853
Carter County, KY	23.9%	80.2%	3,564
Greenup County, KY	23.7%	84.4%	5,964
Lawrence County, OH	23.0%	84.6%	4,730
State / National Benchmark			
Kentucky	23.2%	89.4%	3,801
Ohio	20.7%	87.9%	3,178
United States	21.8%	87.5%	2,865

Blood Pressure Medication Nonadherence Data Source: Centers for Disease Control and Prevention, CDC - Atlas of Heart Disease and Stroke 2018. Source geography: County

Diabetes Annual Exam Data Source: Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2019. Source geography: County

Preventable Hospitalizations Data Source: Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool. 2020. Source geography: County

Blood Pressure
This indicator reports the number and percentage of Medicare beneficiaries not adhering to blood pressure medication schedules. Nonadherence is defined having medication coverage days at less than 80%.

Diabetes Annual Exam
This indicator reports the percentage of diabetic Medicare patients who have had a hemoglobin A1c (hA1c) test, a blood test which measures blood sugar levels, administered by a health care professional in the past year. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Preventable Hospitalizations
This indicator reports the preventable hospitalization rate among Medicare beneficiaries for the latest reporting period. Preventable hospitalizations include hospital admissions for one or more of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, bacterial pneumonia, or urinary tract infection. Rates are presented per 100,000 beneficiaries.

Preventive Services – Cancer Screenings

Return to Report

	Adults with Adequate Colorectal Cancer Screening	Females age 21-65 with Recent Pap Smear	Females Age 50-74 with Recent Mammogram
KDMC CHNA Community	**62.3%**	**83.9%**	**71.7%**
Boyd County, KY	63.5%	84.6%	68.9%
Carter County, KY	63.3%	82.5%	70.6%
Greenup County, KY	69.9%	84.8%	72.6%
Lawrence County, OH	56.4%	83.4%	74.0%
State / National Benchmark			
Kentucky	65.6%	84.5%	72.4%
Ohio	62.6%	85.4%	74.0%
United States	65.0%	85.5%	77.8%

Colorectal Cancer Screening Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2018.

Pap Smear Screening Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2018.

Mammogram Screening Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2018.

Colorectal Cancer Screening
This indicator reports the percentage of adults with adequate colorectal cancer screening.

Pap Smear Screening
This indicator reports the percentage of females age 21–65 years who report having had a Papanicolaou (Pap) smear within the previous 3 years.

Mammogram Screening
This indicator reports the percentage of females age 50-74 years who report having had a mammogram within the previous 2 years.

Health Outcomes and Mortality – Cancer Incidence Rates

Return to Report

Cancer Incidence Rates
These indicators report the age adjusted incidence rate (cases per 100,000 population per year) of individuals with cancer adjusted to 2000 U.S. standard population age groups (Under Age 1, 1-4, 5-9, ..., 80-84, 85 and older).

	Breast Cancer Incidence Rate (Per 100,000 Population)	Colorectal Cancer Incidence Rate (Per 100,000 Population)	Lung Cancer Incidence Rate (Per 100,000 Population)	Prostate Cancer Incidence Rate (Per 100,000 Population)
KDMC CHNA Community				
Boyd County, KY	119.8	54.6	92.1	102.4
Carter County, KY	107.2	53.8	97.9	102.2
Greenup County, KY	126.7	52.3	94.3	106.4
Lawrence County, OH	135.5	49.3	92.9	92.8
State / National Benchmark				
Kentucky	127.6	48	88.8	105.1
Ohio	129.6	41.3	67.3	107.2
United States	126.8	38.0	57.3	106.2

Data Source: State Cancer Profiles. 2014-18. Source geography: County

Health Outcomes and Mortality – Chronic Conditions

Return to Report

	Percentage of Adults with Diagnosed Diabetes	Percentage of Adults Ever Diagnosed with Coronary Heart Disease	Percentage of Adults with High Blood Pressure
KDMC CHNA Community	**12.9%**	**7.4%**	**43.2%**
Boyd County, KY	13.7%	7.3%	44.0%
Carter County, KY	11.6%	8.3%	46.3%
Greenup County, KY	11.0%	7.0%	44.0%
Lawrence County, OH	14.1%	7.3%	40.8%
State / National Benchmark			
Kentucky	9.9%	7.0%	41.0%
Ohio	9.8%	6.1%	34.9%
United States	9.0%	5.4%	32.6%

Diabetes Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2019. Source geography: County

Coronary Heart Disease and High Blood Pressure Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2019

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

Coronary Heart Disease
This indicator reports the percentage of adults age 18 and older who report ever having been told by a doctor, nurse, or other health professional that they had angina or coronary heart disease.

High Blood Pressure
This indicator reports the percentage of adults age 18 who report ever having been told by a doctor, nurse, or other health professional that they have high blood pressure. Women who were told high blood pressure only during pregnancy and those who were told they had borderline hypertension were not included.

Health Outcomes and Mortality – Mortality

Return to Report

Cancer Deaths
This indicator reports the 2016-2020 five-year average rate of death due to malignant neoplasm (cancer) per 100,000 population.

Heart Disease Deaths
This indicator reports the 2016-2020 five-year average rate of death due to heart disease (ICD10 Codes I00-I09, I11, I13, I20-I151) per 100,000 population.

Lung Disease Deaths
This indicator reports the 2016-2020 five-year average rate of death due to chronic lower respiratory disease per 100,000 population.

	Cancer Death Rate (Per 100,000 Population)	Heart Disease Death Rate (Per 100,000 Population)	Lung Disease Death Rate (Per 100,000 Population)	Stroke Death Rate (Per 100,000 Population)
KDMC CHNA Community	**203.7**	**224.2**	**74.4**	**45.1**
Boyd County, KY	194.4	258.4	60.6	43.6
Carter County, KY	203.1	219.6	89.2	40.7
Greenup County, KY	192.1	194.2	74.7	43.3
Lawrence County, OH	218.1	216.9	78.4	49.4
State / National Benchmark				
Kentucky	182.8	199.6	62.2	41.3
Ohio	166.3	189.7	47.1	42.7
United States	149.4	164.8	39.1	37.

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2016-2020. Source geography: County

Injury and Violence – Mortality – Unintentional Injury

Return to Report

Death due to Unintentional Injury (Accident)
This indicator reports the 2016-2020 five-year average rate of death due to unintentional injury (accident) per 100,000 population..

	Unintentional Injury Death Rate (Per 100,000 Population)	Five Year Total Deaths, 2016-2020 Total
KDMC CHNA Community	**94.5**	**832**
Boyd County, KY	87.5	222
Carter County, KY	98.3	132
Greenup County, KY	92.4	172
Lawrence County, OH	99.6	306
State / National Benchmark		
Kentucky	73.3	16,580
Ohio	70.3	42,448
United States	50.4	872,432

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2016-2020. Source geography: County

Injury and Violence – Violent Crime and Property Crime

Return to Report

Violent Crime
Violent crime includes homicide, rape, robbery, and aggravated assault.

Property Crime
This indicator reports the rate of property crime offenses reported by law enforcement per 100,000 residents. Property crimes include burglary, larceny-theft, motor vehicle theft, and arson. This indicator is relevant because it assesses community safety.

	Violent Crime		Property Crime	
	Violent Crimes, Annual Rate (Per 100,000 Pop.)	Violent Crimes, 3-year Total	Property Crimes, Annual Rate (Per 100,000 Pop.)	Property Crimes, Annual Average
KDMC CHNA Community				
Boyd County, KY	225.6	326	2443.8	1182
Carter County, KY	32	26	683.6	185
Greenup County, KY	31.5	35	488	176
Lawrence County, OH	155.1	284	2084.8	1244
State / National Benchmark				
Kentucky	226.5	30445	2226.8	98512
Ohio	290.7	102280	2453.8	284730
United States	416.00	4,579,031	2,466.10	7,915,583.00

Data Source: Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Inter-university Consortium for Political and Social Research. 2014; 2016. Source geography: County

Maternal, Infant, and Child Care – Infant Deaths, Low Weight Births, Birth Care

Return to Report

	Infant Deaths per 1,000 Live Births	Low Birthweight Births, Percentage	Births with Late/No Care, Percentage
KDMC CHNA Community	**6.5**	**9.1%**	
Boyd County, KY	6.8	10.3%	No data
Carter County, KY		8.5%	No data
Greenup County, KY		8.4%	No data
Lawrence County, OH	6.3	8.8%	No data
State / National Benchmark			
Kentucky	6.4	8.8%	5.5%
Ohio	7.2	8.6%	6.1%
United States	5.8	8.2%	6.1%

Infant Deaths and Low Birthweight Births Data Source: University of Wisconsin Population Health Institute, County Health Rankings. 2013-2019. Source geography: County

Births with Late/No Care Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. Centers for Disease Control and Prevention, Wide-Ranging Online Data for Epidemiologic Research. 2019. Source geography: County

Infant Deaths
This indicator reports information about infant mortality, which is defined as the number of all infant deaths (within 1 year) per 1,000 live births.

Low Birthweight Births
This indicator reports the percentage of live births where the infant weighed less than 2,500 grams (approximately 5 lbs., 8 oz.). These data are reported for a 7-year aggregated time period.

Births with Late/No Care
This indicator reports the percentage of women who did not obtain prenatal care until the 7th month (or later) of pregnancy or who didn't have any prenatal care, as of all who gave birth during the three-year period from 2017 to 2019. This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Mental Health – Adult Mental Health

Return to Report

	Average Poor Mental Health Days per Month	Suicide Rate (Per 100,000 Population)
KDMC CHNA Community		
Boyd County, KY	5.7	20.2
Carter County, KY	5.8	
Greenup County, KY	5.1	20.4
Lawrence County, OH	5.4	12.3
State / National Benchmark		
Kentucky	5.2	17.1
Ohio	4.9	14.6
United States	4.40	13.80

Poor Mental Health Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2019. Source geography: Tract

Suicide Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2016-2020. Source geography: County

Poor Mental Health
This indicator reports the percentage of adults age 18 and older who report 14 or more days during the past 30 days during which their mental health was not good.

Suicides
This indicator reports the 2016-2020 five-year average rate of death due to intentional self-harm (suicide) per 100,000 population.

Nutrition, Physical Inactivity Obesity – Food Environment

Return to Report

Food Deserts
This indicator reports the number of neighborhoods in the report area that are within food deserts. The USDA Food Access Research Atlas defines a food desert as any neighborhood that lacks healthy food sources due to income level, distance to supermarkets, or vehicle access.

Low Food Access
This indicator reports the percentage of the population with low food access. Low food access is defined as living more than ½ mile from the nearest supermarket, supercenter, or large grocery store.

SNAP Authorized Retailers
This indicator reports the number of SNAP-authorized food stores as a rate per 10,000 population. SNAP-authorized stores include grocery stores as well as supercenters, specialty food stores, and convenience stores that are authorized to accept SNAP (Supplemental Nutrition Assistance Program) benefits.

		Food Desert		Low Food Access		SNAP Authorized Retailers	
	Total Population (2010)	Food Desert Population	Food Desert Population, Percent	Population with Low Food Access	Population with Low Food Access, Percent	Total SNAP-Authorized Retailers	SNAP-Authorized Retailers per 10,000 Population
KDMC CHNA Community	**176,622**	**22,558**	**12.8%**	**34,128**	**19.3%**	**188**	**11.26**
Boyd County, KY	49,542	13,755	27.8%	16,951	34.2%	52	11.18
Carter County, KY	27,720	4,337	15.6%	2,173	7.8%	42	15.82
Greenup County, KY	36,910	3,037	8.2%	7,436	20.1%	37	10.61
Lawrence County, OH	62,450	1,429	2.3%	7,568	12.1%	57	9.65
State / National Benchmark							
Kentucky	4,339,367	571,751	13.2%	858,468	19.8%	4,509	10.07
Ohio	11,536,504	1,504,341	13.0%	2,899,354	25.1%	9,878	8.45
United States	308,745,538	39,074,974	12.7%	68,611,398	22.2%	248,526	7.47

Food Desert and Low Food Access Data Source: US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2019. Source geography: Tract
SNAP Authorized Retailers Data Source: US Department of Agriculture, Food and Nutrition Service, USDA - SNAP Retailer Locator. Additional data analysis by CARES. 2021. Source geography: Tract

Nutrition, Physical Inactivity Obesity – Obesity and Physical Activity

Return to Report

		Obesity		Physical Activity	
	Population Age 20+	Adults with BMI > 30.0	Adults with BMI > 30.0, Percent	Adults with No Leisure Time Physical Activity	Adults with No Leisure Time Physical Activity, Percent
KDMC CHNA Community	**128,430**	**50,295**	**39.16%**	**43,480**	**33.85%**
Boyd County, KY	35,893	15,111	42.10%	11,421	31.80%
Carter County, KY	20,183	7,609	37.70%	7,373	36.50%
Greenup County, KY	26,930	10,314	38.30%	8,356	31.00%
Lawrence County, OH	45,424	17,261	38.00%	16,330	36.00%
State / National Benchmark					
Kentucky	3,348,426	1,048,676	31.32%	899,556	26.87%
Ohio	8,802,185	2,933,770	33.33%	2,269,634	25.79%
United States	243,082,729	67,624,774	27.82%	54,200,862	22.60%

Obesity Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2019. Source geography: County

Physical Activity Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2019. Source geography: County

Obesity
This indicator reports the number and percentage of adults aged 20 and older self-report having a Body Mass Index (BMI) greater than 30.0 (obese). Body mass index (weight [kg]/height [m]2) was derived from self-report of height and weight. Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Physical Activity
This indicator is based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

Physical Environment – Cost Burdened Households

Return to Report

Cost Burdened Households
This indicator reports the percentage of the households where housing costs are 30% or more total household income. This indicator provides information on the cost of monthly housing expenses for owners and renters. The information offers a measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels. The following zip codes have the highest percentage of households with severe cost burden of housing.

	Cost Burdened Households (30%)	Total Households	Percentage of Cost Burdened Households
KDMC CHNA Community	**14,469**	**65,359**	**22.1%**
Boyd County, KY	4,115	18,213	22.6%
Carter County, KY	1,852	9,624	19.2%
Greenup County, KY	2,635	14,314	18.4%
Lawrence County, OH	5,867	23,208	25.3%
State / National Benchmark			
Kentucky	417,904	1,748,053	23.9%
Ohio	1,195,196	4,717,226	25.3%
United States	37,128,748	122,354,219	30.3%

Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Physical Environment – Housing

Return to Report

	Percentage of Households with No or Slow Internet	Percentage of Substandard Housing Conditions
KDMC CHNA Community	**22.2%**	**22.5%**
Boyd County, KY	16.8%	22.7%
Carter County, KY	37.3%	21.1%
Greenup County, KY	19.3%	18.6%
Lawrence County, OH	22.0%	25.4%
State / National Benchmark		
Kentucky	18.4%	24.7%
Ohio	15.5%	25.5%
United States	14.8%	31.5%

Internet Access Data Source: US Census Bureau, American Community Survey. 2016-20 Source geography: Tract

Substandard Housing Data Source: US Census Bureau, American Community Survey. 2016-20. Source geography: Tract

Internet Access
This indicator reports the percentage of households who either use dial-up as their only way of internet connection, or have internet access but don't pay for the service, or have no internet access in their home, based on the 2014-2019 American Community Survey estimates.

Substandard Housing
This indicator reports the percentage of owner- and renter-occupied housing units having at least one of the following conditions: 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) with 1 or more occupants per room, 4) selected monthly owner costs as a percentage of household income greater than 30%, and 5) gross rent as a percentage of household income greater than 30%. Selected conditions provide information in assessing the quality of the housing inventory and its occupants. This data is used to easily identify homes where the quality of living and housing can be considered substandard.

Substance Use Disorder – Adult Alcohol and Tobacco Use

Return to Report

	Percentage of Adults Binge Drinking in the Past 30 Days	Percentage of Adult Current Smokers
KDMC CHNA Community	**13.9%**	**24.9%**
Boyd County, KY	13.1%	23.9%
Carter County, KY	13.0%	27.5%
Greenup County, KY	13.4%	22.3%
Lawrence County, OH	15.1%	26.1%
State / National Benchmark		
Kentucky	14.8%	23.2%
Ohio	17.0%	21.3%
United States	16.7%	15.3%

Alcohol Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2019. Source geography: Tract

Tobacco Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the 500 Cities Data Portal. 2019. Source geography: Tract

Adult Alcohol Use
This indicator reports the percentage of adults age 18 and older who report having five or more drinks (men) or four or more drinks (women) on an occasion in the past 30 days.

Adult Tobacco Use
This indicator reports the percentage of adults age 18 and older who report having smoked at least 100 cigarettes in their lifetime and currently smoke every day or some days.

Substance Use Disorder – Opioid Overdose

Return to Report

Opioid Overdose
This indicator reports the 2016-2020 five-year average rate of death due to opioid drug overdose per 100,000 population. Rates are resummarized for report areas from county level data, only where data is available. This indicator is relevant because opioid drug overdose is the leading cause of injury deaths in the United States, and they have increased dramatically in recent years.

	Age-Adjusted Death Rate (Per 100,000 Population)	Five Year Total Deaths, 2016-2020 Total
KDMC CHNA Community	**51.1**	**405**
Boyd County, KY	60.9	143
Carter County, KY	41.8	49
Greenup County, KY	45.7	76
Lawrence County, OH	50.7	137
State / National Benchmark		
Kentucky	28.1	5,896
Ohio	34.9	19,099
United States	16.0	256,428

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2016-2020. Source geography: County

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Appendix B – Key Stakeholder Interview Summary

The questions on the interview instrument are grouped into four major categories for discussion. The interview questions for each key stakeholder were identical. A summary of the stakeholders' responses by each of the categories follows. Paraphrased quotes are included to reflect some commonly held opinions and direct quotes are employed to emphasize strong feelings associated with the statements.

This section of the report summarizes what the key stakeholders said without assessing the credibility of their comments.

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

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

Most of the key stakeholders rated the health and quality of life in the community as poor or below average. Factors contributing to this rating included the substance abuse and opioid crisis, homelessness and lack of affordable housing, prevalence of smoking, high number of individuals struggling with obesity and other chronic diseases, lack of education, and poverty resulting from loss of industry and lack of jobs. Many key stakeholders also acknowledged that health and quality of life in the community was better for individuals in a higher socio-economic level. Furthermore, it was noted that preventative care has taken a backseat as a result of COVID and the fear that COVID introduced into the healthcare system.

When asked whether the health and quality of life had improved, declined, or stayed the same, most of the stakeholders responded that they felt the health and quality of life had declined over the last three years, and that COVID had been a factor in the decline, along with loss of industry and jobs. These factors, along with the factors noted previously have contributed to an increase in mental health issues within the community. The aging society has also led to a decline. Positive factors included an increase in health education and a focus on health and well-being from community agencies – particularly with a focus on outdoor activities and physical activities. Additionally, positive favors included access to mobile health services and improved communication. Key stakeholders noted that KDMC was a world-class health system that also contributed in a positive manner.

When it comes to personal wellness and healthy living, stakeholders noted that while there are many community resources available, including free screenings, outdoor festivals, farmers markets, parks, and walking paths, community members do not always take advantage. Healthy food access is difficult for those in poverty and misinformation or a distrust in the healthcare system has led to low rates of preventative care and vaccinations. Many people are focused on trying to survive and do not have time for exercise or cooking, but the middle and upper class are taking more ownership and are participating in community offerings.

Stakeholders noted additional factors that have contributed to health and quality of life in the community. Additional negative factors included transportation barriers and internet difficulty due to the rural community, social isolation or lack of involvement in activities resulting from COVID and from poverty, pollution from industry in the area, limited opportunities for education and community members leaving for education and not returning, and generational poverty and "broken people" raising "broken people." Additional positive factors included the partnerships with KDMC and the UK Health System, the coordination of care efforts in the community and with community partners, a burgeoning arts community, and the natural landscapes that encourage people to spend time outside.

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"The closed Our Lady of Bellefonte hospital is being converted into a substance abuse treatment facility which shows the health needs of the community in that a hospital could not be supported but a treatment facility can be."

"There are many more resources available now that try to give people the best advantage."

"World-class health system."

"There are many actions being taken to be proactive, however, COVID did slow some things down."

"We have made progress by recruiting better healthcare providers to the area."

"Apples cost more than hot dogs."

"Broken people raising broken people."

"Brain drain."

2. Underserved populations and communities of need

Key stakeholders were asked to provide their opinions regarding specific populations or groups of people whose health or quality of life may not be as good as others. Stakeholders were also asked to provide their opinions as to why they thought the populations were underserved or in need. Each stakeholder was asked to consider the specific populations they serve or those with which they usually work.

Elderly individuals were identified as an underserved population. There are not many assisted living facilities in the community and not as much attention is paid to this group. They face fixed income challenges and have housing issues, access and transportation issues, and do not tend to get enough physical activity or nutrition. Elderly individuals require assistance with medication management, and many do not have an advocate.

Youth and adolescents were identified as an underserved population. Many are not seeking preventative care may not have a network to get them the care they need. There is a lack of pediatric providers, including pediatric psych providers and providers for children with developmental disabilities, such as ABA therapists. Many do not have a voice and do not have an advocate. There are not many things to do in the community and many youth may be limited in activities due to transportation constraints.

The working poor and low-income individuals were identified as an underserved population. Not only does this population need access to healthcare providers and education on options, but also transportation to healthcare services, time off work to get to appointments, and financial assistance to meet required payments under their high-deductible health plans. Those on Medicare have limited health provider options and may have to travel outside of the community for healthcare. Some in this group have minimum-wage jobs that do not provide benefits and as a result of working, these individuals lose access to government benefits resulting from unemployment. These individuals have to make difficult decisions when it comes to how their money is spent, such as deciding between health food and medications.

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Homeless individuals were identified as an underserved population. This population is growing and those that are homeless do not have insurance or the ability to access preventative care. This group also faces a stigma. There is a lack of affordable housing and even those with a minimum wage job may fall into this category.

Individuals living in rural areas were identified as an underserved population as it can take a long time for emergency response units to reach them and many live very far from resources.

Individuals with mental health or substance use disorders were identified as an underserved population. There is a shortage of providers available to serve this population, especially the mental health population that is not tied to substance use disorders. This group also faces a stigma in the community.

Individuals in marginalized groups were identified as an underserved population. Marginalized groups mentioned include communities of color (who may be suspicious of the healthcare system), the Hispanic, Indian, and Asian populations and those that do not speak English as a first language, and the LGBTQ population (who may be subject to bias due to ignorance). The community served by King's Daughters does not have much diversity and many lack education about cultural and ethnic differences.

"The elderly population is most in need and are often treated as a waste of resources"

"The working poor make too much for assistance, but not enough to eat healthy."

"The homeless population and those with addiction issues face judgement around the choices they have made and needing to accept the consequences."

"There is room for improvement in the community to be more accepting, educated, and inclusive."

3. Barriers

The key stakeholders were asked what barriers or problems keep community residents from obtaining necessary health services and improving health in their community. The responses addressed a wide array of issues.

Financial matters were frequently mentioned by stakeholders as a barrier to improving health in the community. Stakeholders pointed to a lack of living wage jobs, the current attitude toward working (people do not want to work), an increased cost of living, and a lack of available affordable housing. Also, people have difficulty accessing Medicaid or obtaining other insurance.

Transportation was frequently mentioned as a barrier to improving health in the community, particularly the lack of public transportation and limited transportation offerings. Additionally, those living in rural areas have far commutes to health centers and generally do not have access to public transportation.

A low education rate and a lack of health literacy was mentioned as a barrier to improving health. Education in generally is not emphasized in the community and low education may prevent people from taking responsibility for their care, asking the right questions, critical thinking, and sorting through information, misinformation, and distractions. There is a need for health education and wellness education in the community.

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Poor nutrition and a lack of healthy food choices were mentioned as a barrier to improving health. These often lead to chronic diseases such as obesity and diabetes, which are prevalent in the community.

Accessible health services and the limited treatment options for mental health and substance abuse was mentioned as a barrier to improving health. The key stakeholders were asked if health services such as medical, dental, and mental health services, were easily accessible in the community and the general consensus was that these services were not accessible to all in the community – particularly the Medicaid population or those living in rural areas. Additionally, it was noted that many people turn to the emergency rooms and urgent care centers for non-urgent needs which puts a drain on the system. Capacity and volume issues were also noted by stakeholders and the need for additional preventative measures to be proactive when it comes to substance abuse.

Other barriers mentioned were internet connectivity in rural areas, a general awareness of available resources in the community, stigmas around drug use and mental health, language barriers and racial / LBGTQ discrimination, political influence, COVID and resulting fear, and a general distrust of the healthcare system.

"Low-income transportation is available, but you have to plan for it."

"Telehealth has made physical and behavioral health much more accessible. This has opened an easier way to open up access for those that have internet connectivity."

"There is a generational lack of knowledge around creating healthier lifestyles."

"We live in a fresh food desert. Aside from summer farmers markets we lack affordable fresh food options. Healthy foods are expensive, and McDonalds is cheaper."

4. Most important health and quality of life issues

Key stakeholders were asked to provide their opinion as to the most critical health and quality of life issues facing the community. The issues identified most frequently in alphabetical order were:

- Chronic health conditions – particularly: obesity, diabetes, heart conditions, and cancer
- Low income / poverty
- Mental health
- Substance use disorders and the opioid epidemic

Other important health and quality of life issues were noted affecting all stages of life, including the shortage of providers, access to routine screenings and preventative care, pollution, and transportation and connectivity.

The key stakeholders were also asked to provide suggestions on what should be done to address the most critical issues. Responses included:

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- To address chronic health conditions, trust must be built with providers and more encouragement of preventative care is needed. Assist people with finding primary care providers and work to switch the views on healthcare and current healthcare attitudes resulting from COVID, including the fear of hospitals which has led to sicker patients that have neglected preventative care. Good behaviors can be contagious, and there is a need for more examples to be set for prevention and diet / exercise, including additional community assets for these behaviors in rural areas. Additionally, outreach needs to continue, and care needs to be accessible, including more care offerings in schools, walk in clinics, community screenings, health fairs, and telehealth options. People need to get back to in-person visits. Incentives for affordable insurance and affordable medicine are needed as well. Education on wellness and resources will also help combat this, along with health literacy courses aimed at people with chronic health conditions. Finally, the availability of more outdoor activities will help to encourage physical activity.

- To address poverty and the low-income population, educate people about how to obtain resources and insurance and how to take care of themselves in order to break the cycle of generational poverty. There is a need to motivate people to want to better themselves. Additionally, build more affordable housing and provide resources to help people find somewhere to live at an affordable cost. Increasing neighborhood stores and providing funding to food banks and soup kitchens would also help. Providing additional resources to increase transportation availability and encouraging additional economic development.

- To address mental health needs, there is a need for more providers, including adolescent mental health therapists. There is also a need for an inpatient adolescent program and there is room to grow outpatient mental health services. Access to better mental health facilities and more timely mental health care is needed as mental health issues have grown worse with COVID and there are long wait times for treatment. Mental health providers that are not tied to substance abuse is also needed and the stigma around mental health needs to be removed through additional education. Additionally, a system that nurtures mental health and encourages children to talk to therapists is needed.

- To address substance abuse, develop more drug rehabilitation facilities, including inpatient facilities. Need to address youth who see bad examples in families of substance abuse to encourage prevention and education to stop substance abuse before it starts. Need to also be more proactive in weaning people off substances and helping them to get clean instead of swapping one substance for another. Encourage lifestyle changes and teach skills to be productive. Provide second chances for those with substance abuse histories to find employment. Send addicts to treatment instead of jail and work to break the stigma surrounding drug and alcohol abuse. Encourage communication in families to help combat substance abuse and provide more community events to give awareness on drugs and alcohol abuse. In closing, the key stakeholders were asked to recommend the most important issue that Mosaic should address over the next three to five years.

In closing, the key stakeholders were asked to recommend the most important issue that King's Daughters should address over the next three to five years.

A common suggestion made by stakeholders was to make sure that King's Daughters continues to partner within the community and be involved with the community through free screenings, and education to encourage proactive health instead of reactive health. Help people in the community connect with primary care physicians and place an emphasis on reaching the youth in the community.

Stakeholders suggested that King's Daughters continue to build trust between the healthcare community and the overall community, including being more accessible and welcoming to marginalized communities and having more providers to allow for more timely treatments. Bring health to the people through mobile clinics, telehealth, and additional facilities. Ensure employees are being taken care of to prevent turnover.

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Finally, stakeholders also suggested focusing on behavioral health, mental health, and rehabilitation and addiction services, and offering additional treatment options or collaborations with mental health and physical health. Focusing on mental health will help combat substance abuse. Help to change the attitude when it comes to rehab centers for substance abuse.

"Good behaviors can be contagious."

"We need to motivate people to want to better themselves."

"There is good collaboration with community agencies."

"We are on the right track with inpatient and outpatient wellness programs."

"We are happy King's Daughters is in our community!"

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Key Findings

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

- The most critical health and quality of life issues facing the community were identified as:
    - Chronic health conditions – particularly: obesity, diabetes, heart conditions, and cancer
    - Low income / poverty
    - Mental health
    - Substance abuse and the opioid epidemic
- The overall health and quality of life in the community was rated as below average or poor, but stakeholders described somewhat of a "split community" – meaning that the middle- and upper-class can have a good life, whereas the working poor and generational poor experience accelerated health issues.
- Stakeholders believed that the health and quality of life in the community had declined over the last three years. Populations with the most serious unmet healthcare needs include the elderly and youth and adolescents, working poor and low-income individuals, homeless individuals, individuals living in rural areas, individuals with mental health or substance abuse issues, and individuals in marginalized groups.
- The primary barriers or problems that keep community residents from obtaining necessary health services and improving health in their community include financial matters, transportation, a low education rate and lack of health literacy, poor nutrition and the lack of heathy food options, and the lack of accessible health services and limited treatment options for mental health and substance abuse.
- The most prevalent suggestions made by stakeholders for King's Daughters to address over the next three to five years was to make sure that King's Daughters continues to partner within the community to encourage proactive health instead of reactive health and to continue to build trust between the healthcare community and the overall community. Additionally, stakeholders recommended that King's Daughters focus on behavioral health, mental health, and rehabilitation and addiction services.

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Other Findings

Key stakeholders were asked to provide their opinion as to the community's preparedness for and response to the COVID-19 pandemic. The majority of stakeholders agreed that preparedness was low on the scale, at around a 4 or 5 out of 10. Many stakeholders agreed that the response to the pandemic was stronger, rating the response at a 7 or 8 out of 10.

Key stakeholders were also asked if they had any ideas, programs or projects related to health, wellness or physical activities that would be a good investment for the community. Common suggestions included expanded farmers markets, additional health screenings, wellness fairs and education sessions, dietary and cooking demonstrations and education, investing in outdoor fitness equipment that can be used by all and sponsoring more fitness activities such as 5Ks, and provide more youth mentorship opportunities and activities.

Finally, key stakeholders were asked if there were any physician specialists needed in the community. Many stakeholders asked for pediatric specialists, neurologists, dermatologists, psychiatrists and behavioral health specialists, developmental disability specialists and ABA therapists, and finally more trauma physicians.

Appendix C – Community Survey Summary

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In order to develop a broad understanding of community health needs, King's Daughters Medical Center conducted a community survey during March, April and May of 2022. A link to the survey was distributed via e-mail, social media and word of mouth to the community at-large. A total of 1,228 surveys were completed.

The majority of respondents were White/Caucasian (97%), 1% of the respondents identified as Black or African American and 1% identified as other racial or ethnic identities. The remaining 1% preferred not to answer.

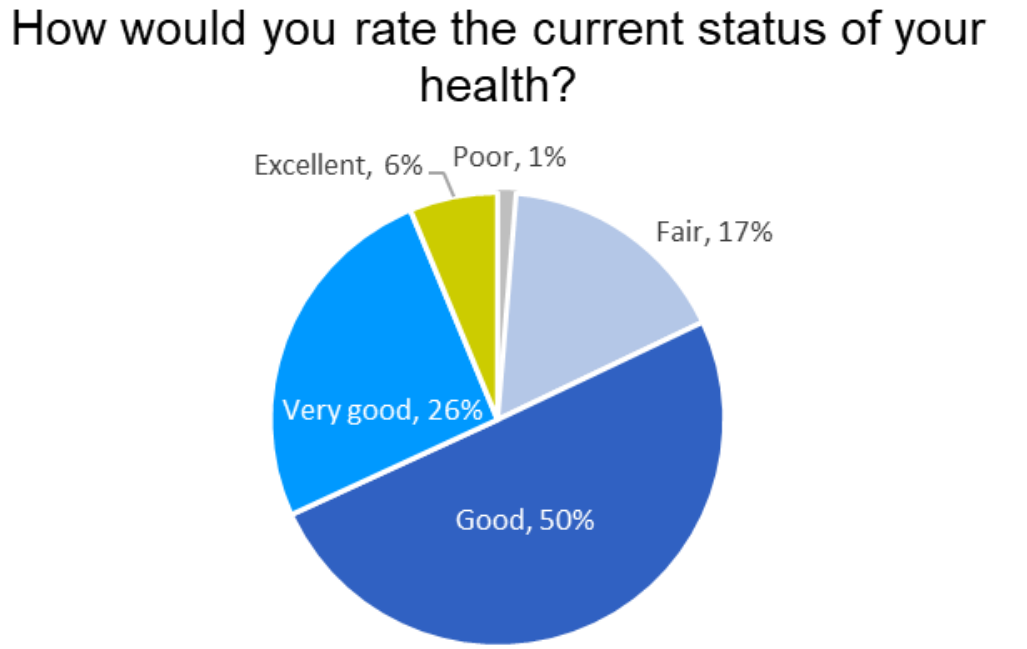
Respondents by age group were as follows:

Age Group	Percent of Total Respondents
18-34	24%
35-44	25%
45-54	25%
55-64	19%
65+	7%

Females represented 81% of the respondents while males represented 19%. The remaining 1% of respondents identified as other genders or chose not to answer.

Given the reported demographics above, care should be taken with interpreting the survey results. The ethnicities, ages and gender of survey respondents do not match demographics for the CHNA Community. Specifically, the survey reached more whites and more females compared to demographic information for the community. Additionally, fewer older adults, aged 65+, completed the survey compared to the demographics for the CHNA Community.

Survey respondents were asked to rate the current status of their health. The majority of the respondents indicated the status of their health was good.



Appendix C – Community Survey Summary

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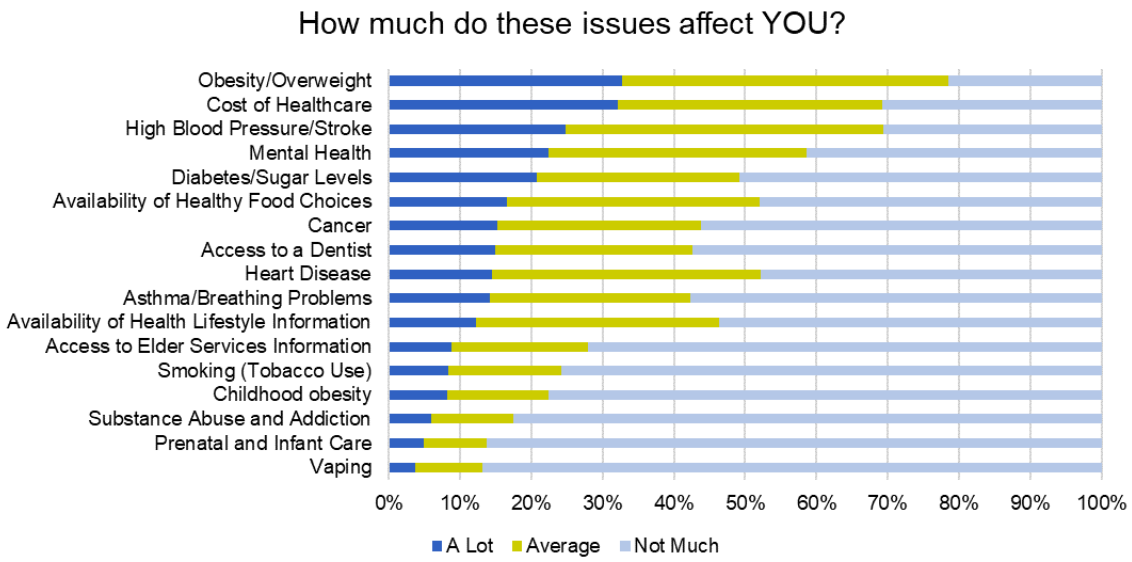
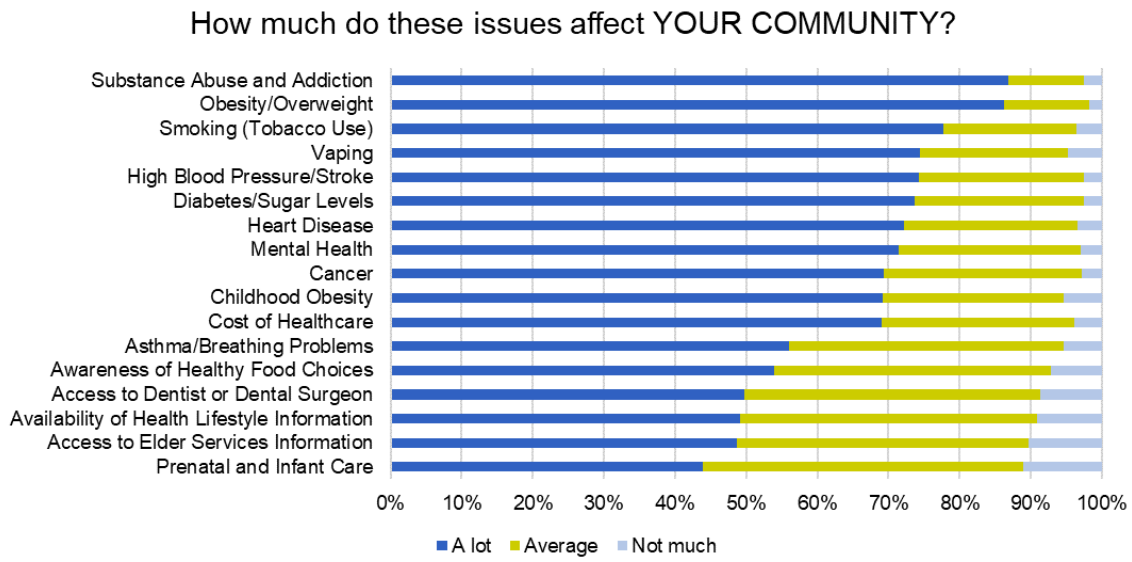
When asked "How much do these health issues affect YOU?" cost of health care, awareness of healthy food choices, mental health and obesity were the issues that affected respondents most. The chart below summarizes all of the responses to this question.



When asked to rate how the same issues impacted the community, respondents identified substance abuse, cost of health care, mental health and obesity as the issues that affected the community most.



Appendix C – Community Survey Summary

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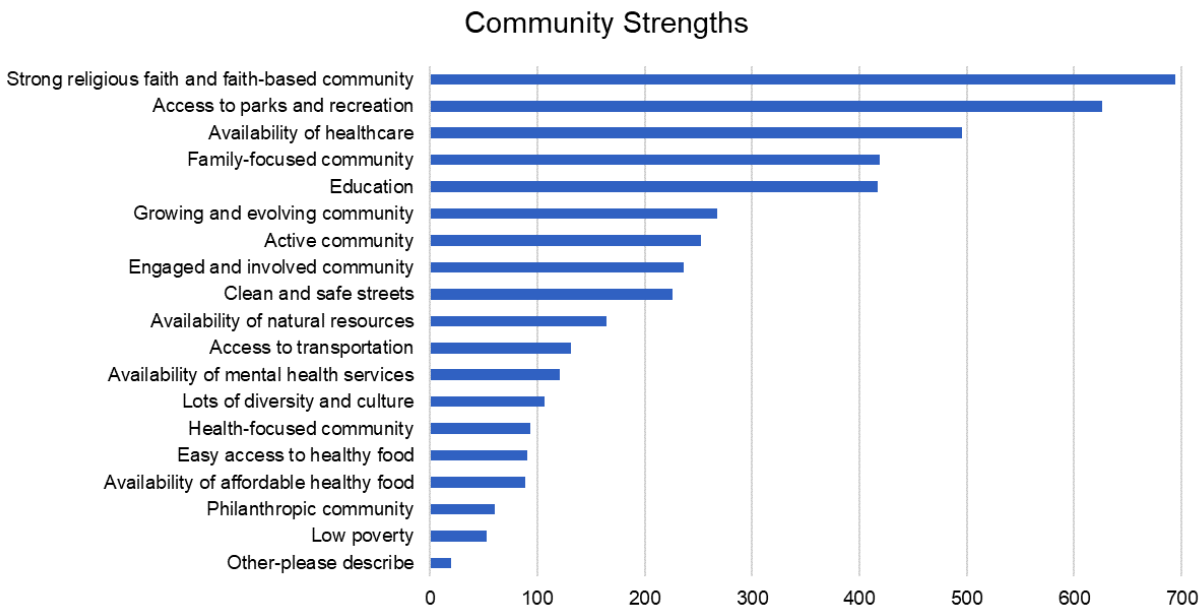
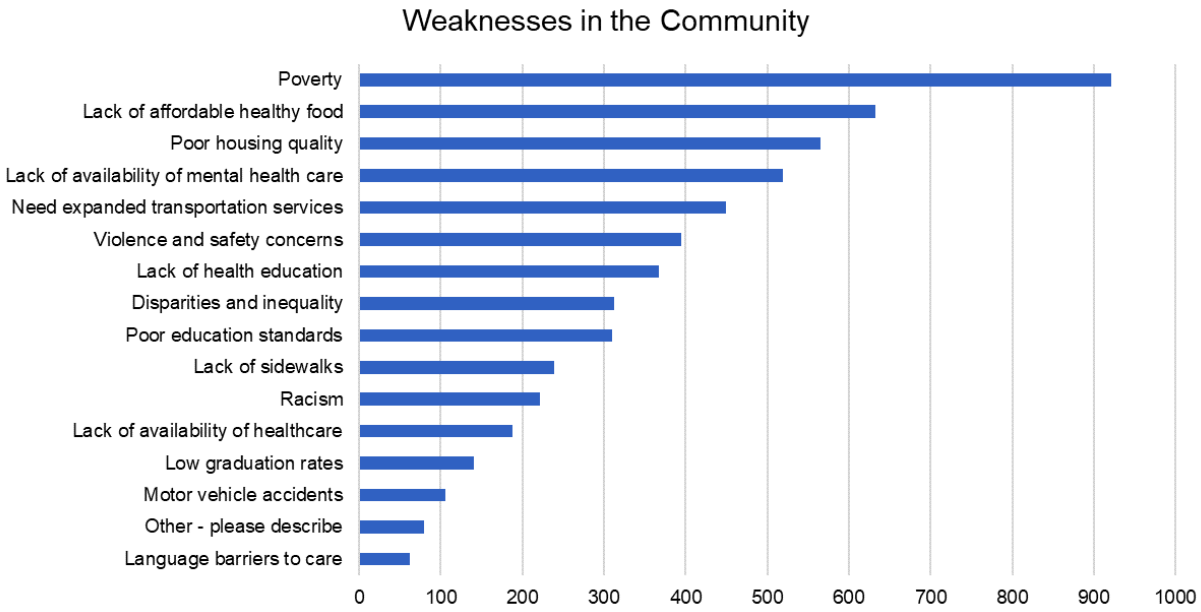
The survey asked the following two questions:

- What do you believe are the current STRENGTHS of your community?
- What do you believe are the WEAKNESSES in your community?

The survey provided predetermined responses that could be selected from the list. Respondents were instructed to mark up to five selections. Below is a summary of strengths and weaknesses identified.





Appendix C – Community Survey Summary

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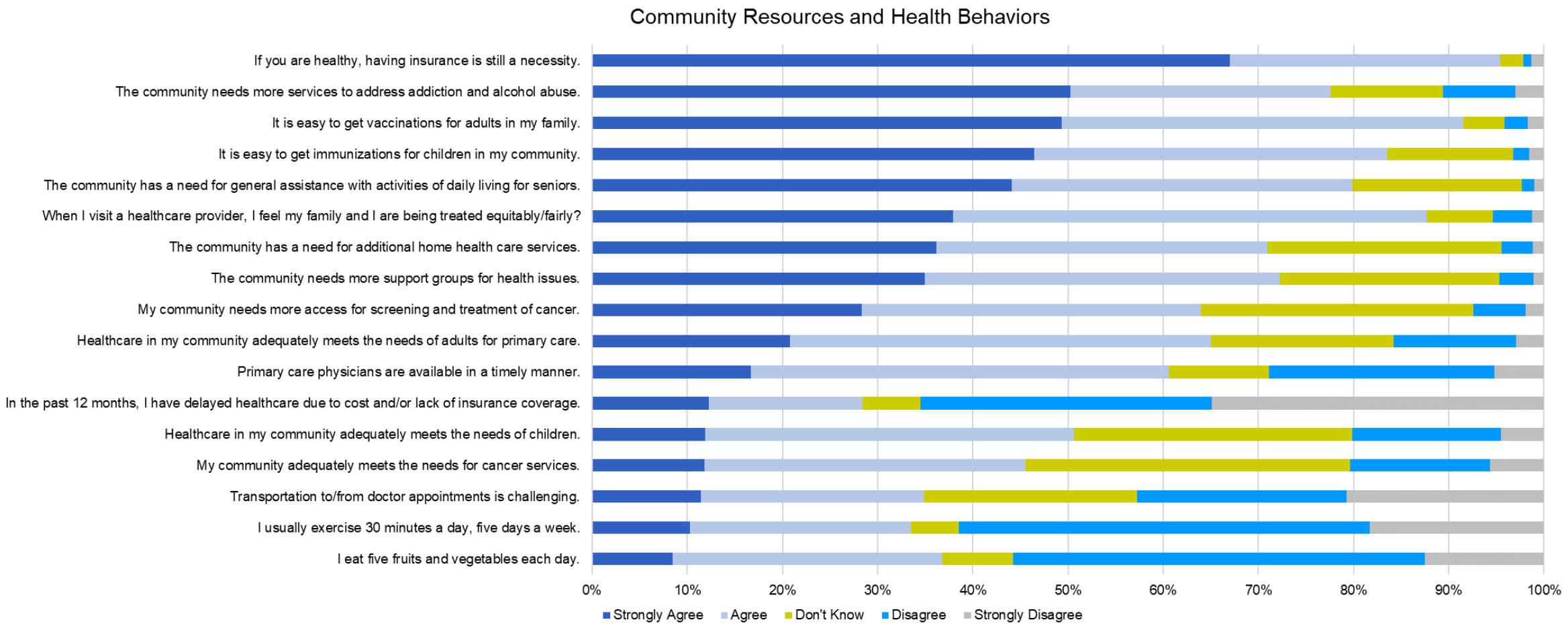
Below is summary of the survey results regarding specific statements regarding community resources and health behaviors. Key findings are summarized on the following page.



Appendix C – Community Survey Summary

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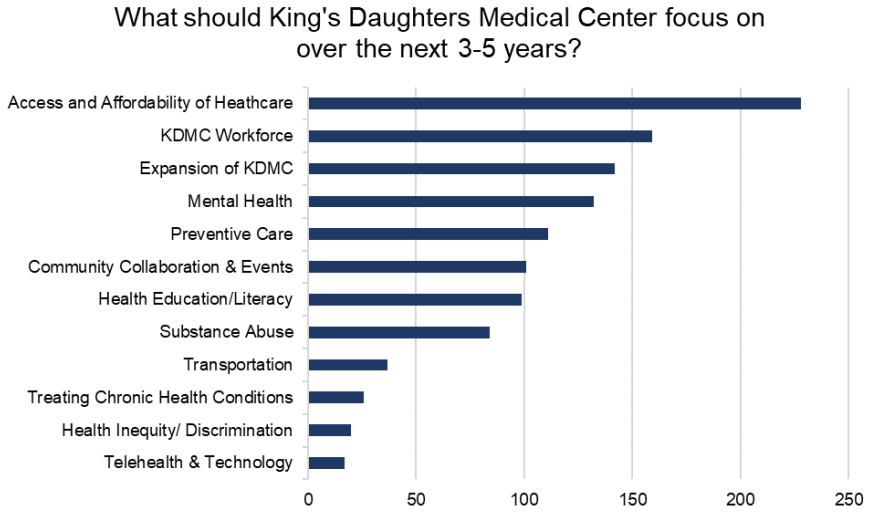
Community Resources and Health Behaviors – Key Findings

- Only **37%** of the respondents eat five fruits and vegetables each day. Significantly less, 33%, exercise at least 30 minutes a day, five days a week.
- **35%** of the survey respondents indicated transportation to and from doctor appointments is challenging.
- **28%** of survey respondents have delayed healthcare due to cost and/or lack of insurance.
- The community agrees there is a need for additional services such as:
  - **78%** of the respondents indicated there is a need for more services to address addiction and alcohol abuse
  - **80%** of the respondents indicated there is a need for more general assistance with activities of daily living for seniors
  - **71%** of the respondents indicated there is a need for additional home health care services

Additional survey results:

- Over 73% of the survey respondents indicated they are always able to visit a doctor when needed. When asked about the reasons why they are unable to visit a doctor when needed, getting time off work and inability to afford the doctor visit were cited as primary reasons why they could not visit the doctor when needed.
- The majority of respondents, over 73%, have had a routine physical in the last year.
- Over 98% of the respondents indicated they had medical/health insurance. 86% of the respondents had dental and 82% had vision insurance as well.
- Respondents indicated the biggest source of stress in their daily life was financial stability.
- The biggest challenges related to the COVID-19 pandemic are mental health and social isolation, juggling work and family, and complying with social distancing and mask mandates.



Limitations and Information Gaps

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As with all data collection efforts, there are several limitations related to the assessment's research methods that should be acknowledged. Years of the most current data available differ by data source. In some instances, 2021 may be the most current year available for data, while 2014 may be the most current year for other sources. Likewise, survey data based on self-reports, such as the Behavioral Risk Factor Surveillance Survey (BRFSS), should be interpreted with particular caution. In some instances, respondents may over or under report behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked.

In addition, respondents may be prone to recall bias – that is, they may attempt to answer accurately, but they remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest. Despite these limitations, most of the self-report surveys analyzed in this CHNA benefit from large sample sizes and repeated administrations, enabling comparison over time. Similarly, while the qualitative data collected for this study provide valuable insights, results are not statistically representative of a larger population due to nonrandom recruiting techniques and a small sample size. Data were collected at one point in time and among a limited number of individuals.

Therefore, findings, while directional and descriptive, should not be interpreted as definitive.