Cabell Huntington Hospital

2016 Community Health Needs Assessment

BAKER TILLY

Candor. Insight. Results.

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About Cabell Huntington Hospital

Cabell Huntington Hospital (CHH) is a not-for-profit, regional referral center with 303 beds. Located in Huntington, West Virginia, CHH cares for patients throughout West Virginia, eastern Kentucky and southern Ohio. Opened in 1956, it is also a teaching hospital and is affiliated with Marshall University Schools of Medicine and Nursing.

All of us at CHH share a common goal: to provide excellent care that promotes lifelong good health. Your medical care includes very personal attention to the details that help make all patients and their families feel at home.

Cabell Huntington Hospital provides quality medical facilities and services to get the community well and patient education resources to keep it well. We are not only concerned with physical health needs; we are also sensitive to emotional and educational needs. At CHH, the road to recovery is made easier by physicians, therapists, nurses, technicians and counselors who are every bit as caring and compassionate as they are highly skilled.

As part of the hospital's concern for total patient care, CHH has become a leader in emergency treatment, mother and baby health care and surgical, diagnostic and therapeutic services. With a highly skilled staff and the most advanced equipment, CHH is a leader in many special services.

Cabell Huntington Hospital's Mission

- To meet your lifetime healthcare needs
- To provide an atmosphere of service, quality, and efficiency
- To advance healthcare through education

Cabell Huntington Hospital's Vision

To be the hospital of choice for all ages in the communities we serve.

Cabell Huntington Hospital's Values

- *Caring* – Anticipating and meeting the needs of others in a compassionate manner.
- *Integrity* – Acting honestly and responsibly in everything we do.
- *Respect* – Honoring and holding in high esteem those with whom we work and serve.
- *Commitment* – Taking individual responsibility for fulfilling our mission.
- *Loyalty* – Being devoted to our customers and our organization.
- *Excellence* – Achieving the highest standards of performance.

Our Commitment to Community Health

Cabell Huntington Hospital leadership and staff share a common goal of providing excellent care that promotes lifelong good health. CHH has a long tradition of caring for the needs of the communities we serve. We continually assess how we serve communities and, as part of our Mission, we are dedicated to providing on-going education and outreach activities to improve health and well-being.

To guide CHH's community health improvement efforts and further our commitment to population health management, we conducted a comprehensive Community Health Needs Assessment (CHNA) across our three-state service area from February to September 2016. The 2016 CHNA builds upon the hospital's previous CHNA conducted in 2013. The three-year timeline complies with requirements set forth in the Affordable Care Act (ACA), and allows us to track changing health trends across our region and align our services with priority needs.

Cabell Huntington Hospital is pleased to present the 2016 CHNA Report for the communities we serve. This report includes a comprehensive review and analysis of health and socio-economic data that impact the health of people across our service area. The purpose of this assessment has been to identify the health needs of the area and better inform stakeholders such as public health and health care providers about opportunities for improving health status. The results enable CHH, the county public health departments, our community partners, and other providers to more strategically establish priorities, develop interventions, and commit resources to improve the health of these communities. Cabell Huntington Hospital acknowledges the resources and commitment of the many organizations named throughout this report who share a common goal of improving the health status of our community.

Best of health to you,

Kevin N. Fowler, President and CEO
Cabell Huntington Hospital

Executive Summary

The Cabell Huntington Hospital CHNA Process

Research Methodology

The 2016 Cabell Huntington Hospital CHNA was conducted between February and September 2016. Quantitative and qualitative methods, representing both primary and secondary research, were used to illustrate and compare health trends and disparities across the service area. Primary research was conducted to solicit input from key community stakeholders representing the broad interests of the community, including experts in public health and individuals representing medically underserved, low-income, and minority populations. Secondary research methods were employed to identify community health needs and trends across CHH's geographic service area and populations.

The following research was conducted to accurately document the health needs of Cabell Huntington Hospital's service area:

- A review of public health and demographic data portraying the health and socioeconomic status of the community. A full listing of data references is included in Appendix A.
- A Key Informant Survey with 72 community representatives to solicit feedback on community health priorities, underserved populations, and partnership opportunities. A list of key informants and their respective organizations is included in Appendix B.
- Focus Groups with 36 health care consumers to identify health needs and inform implementation strategies.

Leadership and Community Engagement

The 2016 CHNA was overseen by a Steering Committee of representatives from Cabell Huntington Hospital with input from a wide representation of community leaders and partners across the Cabell Huntington Hospital service area. Internal leadership was provided by:

- *Rebecca Bookwalter, Market Research Manager, Strategic Marketing & Planning*
- *Lisa Chamberlin Stump, Vice President, Strategic Marketing & Planning*
- *Paul English Smith, Vice President & General Counsel*
- *Hoyt J. Burdick, MD, Senior Vice President and Chief Medical Officer*

Research Partner

Cabell Huntington Hospital's research partner, Baker Tilly, assisted in all phases of the CHNA including project management, quantitative and qualitative data collection, report writing, and development of the Implementation Strategy. Baker Tilly's expertise ensured the validity of the research and assisted in developing a long-term action plan to address the highest health needs across the Cabell Huntington Hospital service area.

Identified Priority Needs

Cabell Huntington Hospital leadership reviewed findings from the CHNA with community partners and public health experts to determine the highest health priorities across the region on which to focus community health improvement efforts. Cabell Huntington Hospital is committed to improving the health of the communities it serves. In cooperation with public health entities and community partners, CHH will focus efforts on the following priority health needs during the next three-year reporting cycle (listed in alphabetical order):

- Access to Health Care
- Chronic Disease Prevention & Management
- Behavioral Health

The rationale and criteria used to select these priorities included:

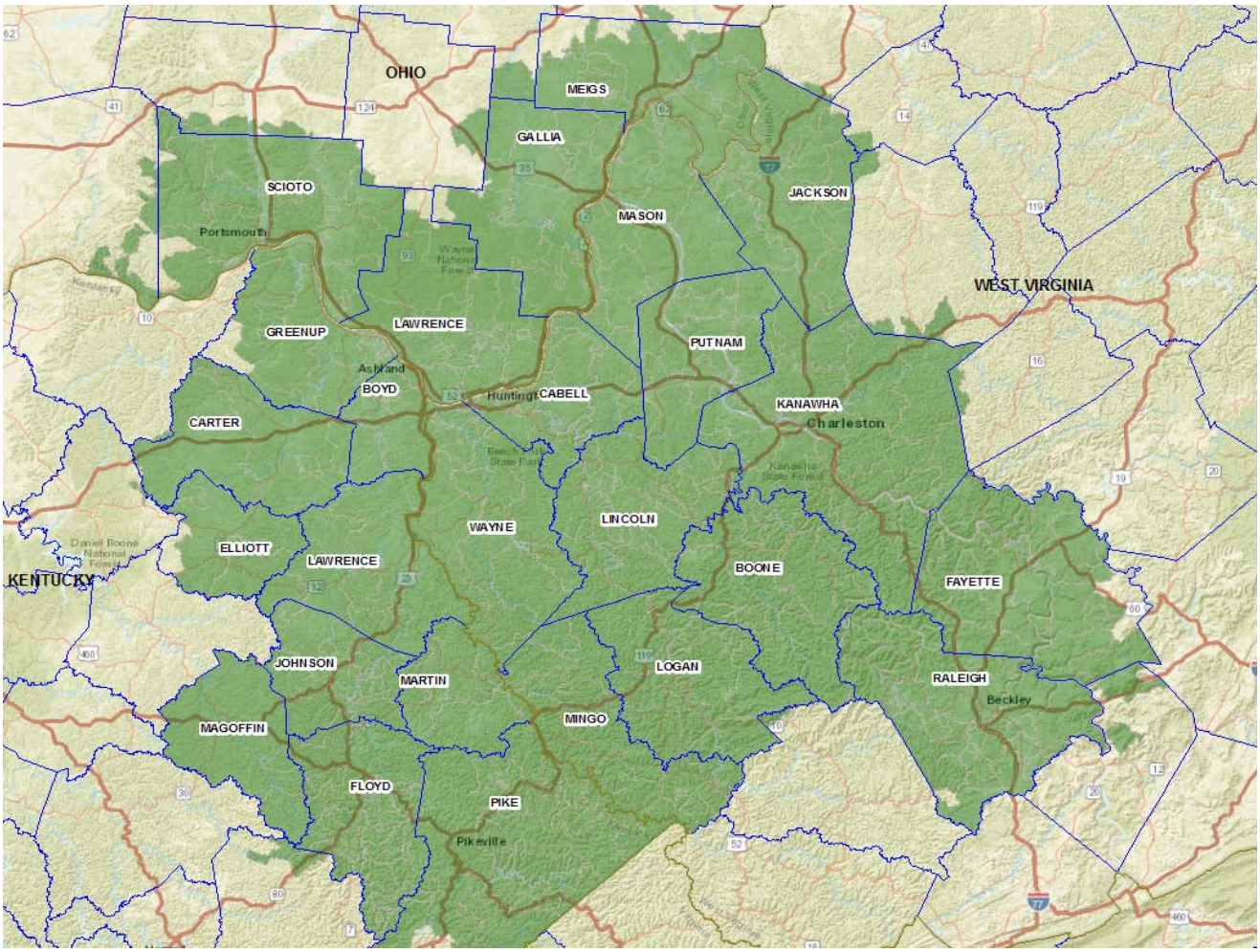
- Prevalence of disease and number of community members impacted
- Rate of disease in comparison to state and national benchmarks
- Existing programs, resources, and expertise to address the issue
- Input from community representatives
- Alignment with concurrent public health and social service organization initiatives

CHNA findings indicate that residents within the CHH service area experience poorer health outcomes and disparities across nearly all health indicators. Residents have higher incidence and death rates associated with preventable chronic conditions, experience more poor mental health days and substance abuse, and are more likely to die prematurely when compared to their peers across the nation.

Cabell Huntington Hospital recognizes the need to partner with local health and human service providers to collectively impact priority health needs, particularly behavioral health. The hospital is a national leader in the care for drug-exposed newborns, also known as Neonatal Abstinence Syndrome (NAS), and will continue to address this need as part of our health improvement efforts. Cabell Huntington Hospital will seek to engage community partners to collaborate on ways to address behavioral health needs. Plans are being made to convene a forum with community stakeholders in early 2017 to better understand root causes and identify opportunities to address needs.

Cabell Huntington Hospital's Service Area at a Glance

Cabell Huntington Hospital serves residents across West Virginia, Ohio, and Kentucky.



For purposes of the CHNA, Cabell Huntington Hospital reviewed data from the following counties. The counties make up the aggregated data set referred to as the "CHH Service Area."

Kentucky		Ohio	West Virginia	
Boyd	Johnson	Gallia	Boone	Logan
Carter	Lawrence	Lawrence	Cabell	Mason
Elliott	Magoffin	Meigs	Fayette	Mingo
Floyd	Martin	Scioto	Jackson	Putnam
Greenup	Pike		Kanawha	Raleigh
			Lincoln	Wayne

Specific county data and zip codes are detailed, where applicable, to show health disparities across the service area.

Community Health Implementation Plan

Cabell Huntington Hospital has developed a Community Health Implementation Plan for the period 2016 to 2019 to guide community benefit and population health improvement activities across the service area. The plan builds upon previous health improvement activities, while recognizing new health needs and a changing health care delivery environment, to address the service area's most pressing community health needs.

Priority Area: Access to Care

Goal: Improve access to comprehensive, quality health care services.

Objectives:

- Conduct health care summit with other providers to identify health care access needs, resources and opportunities
- Summit outcomes may lead to an increase the proportion of individuals who have a specific source of ongoing care
- Summit outcomes may lead to a reduction in the proportion of persons who are unable to obtain or delay in obtaining necessary medical care

Priority Area: Chronic Disease Prevention & Management

Goal**:** Reduce causes of death and positively impact the rates of chronic disease in the CHH service area.

Objectives**:**

- Provide community education and outreach that promotes chronic disease prevention
- Provide knowledge and education to help reduce prevalence of obesity for those at risk or diagnosed with chronic conditions
- Provide awareness and knowledge as well as work with community partners to reduce the initiation of tobacco use among children, adolescents, and young adults

Priority Area: Behavioral Health

Goal: Improve outcomes for residents with a mental health or substance abuse condition and their families.

Objectives:

- Increase public education and awareness for signs and symptoms of mental health and substance abuse issues, and awareness of available community resources
- Increase understanding of root causes of behavioral health needs and opportunities for collective impact among partner organizations

Board Approval and Dissemination

The CHNA Final Report and Implementation Plan were reviewed and adopted by the Cabell Huntington Hospital, Inc. Board of Directors on September 27, 2016, and made widely available to the public through the hospital's website (http://cabellhuntington.org/about/community-health-needs-assessment/).

Demographic Analysis of Cabell Huntington Hospital's Service Area

The following section outlines key demographic indicators related to the social determinants of health within the service area. Social Determinants of Health are factors within the environment in which people live, work, and play that can affect health and quality of life, and are often the root cause of health disparity. Healthy People 2020, a US Department of Health and Human Services health promotion and disease prevention initiative, provides national goals and objectives toward improving our nation's health. Healthy People 2020 goals are included as benchmarks throughout the report, where applicable. Healthy People 2020 defines a health disparity as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage." Identifying potential health disparities throughout the CHH service area helps determine where resources are most needed to improve health.

Population Overview

The CHH service area population is primarily White; less than 7% of residents identify with another race and less than 2% of residents are Hispanic or Latino. Across the service area, Martin County in Kentucky and Kanawha and Raleigh Counties in West Virginia have more diversity with a Black/African American population ranging from 7% to 8%. Martin County also has a higher percentage of residents identifying as Hispanic/Latino (3.4%).

2016 Population by Race/Ethnicity

	CHH Service Area	West Virginia	Kentucky	Ohio	United States
White	93.8%	93.1%	86.6%	81.5%	70.7%
Black/African American	3.4%	3.7%	8.2%	12.5%	12.8%
American Indian and Alaska Native	0.2%	0.2%	0.2%	0.2%	1.0%
Asian	0.6%	0.8%	1.4%	2.0%	5.4%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.1%	0.0%	0.2%
Some Other Race	0.3%	0.4%	1.5%	1.3%	6.7%
Two or More Races	1.3%	1.8%	2.0%	2.4%	3.3%
Hispanic or Latino (of any race)	1.2%	1.6%	3.6%	3.7%	17.8%

The median age across the CHH service area is 41.8 with 18.1% of residents age of 65 years or older. The median age is approximately three years higher than the national average.

2016 Population by Median Age

CHH Service Area	West Virginia	Kentucky	Ohio	United States
41.8	42.1	38.9	39.5	38.9

Language Spoken at Home

Approximately 98% of residents speak primarily English compared to 79% of the population across the nation. Raleigh County, West Virginia has the lowest percentage of primarily English speaking residents (95.8%), followed by Martin County, Kentucky and Cabell County, West Virginia (97.2%).

2016 Population by Language

CHH Service Area	West Virginia	Kentucky	Ohio	United States
98.2%	97.6%	95.0%	93.4%	79.0%

Financial and Occupational Demographics

Cabell Huntington Hospital's service area includes 468,499 housing units, 73% of housing units are owner-occupied and 27% are renter-occupied. The median home value for owner-occupied units ($98,402) is notably lower when compared to the nation ($192,432).

The median household income across the CHH's service area ($41,833) is also lower than the nation ($55,551). Income varies by race and ethnicity. Most notably, the median income for Blacks/African Americans across the CHH service area is $28,875.

2016 Population by Median Household Income

CHH Service Area	West Virginia	Kentucky	Ohio	United States
$41,833	$43,561	$45,528	$50,829	$55,551

2016 Population by Median Household Income & Race/Ethnicity

	CHH Service Area
White	$42,308
Black/African American	$28,875
Asian	$61,900
Hispanic or Latino (of any race)	$41,853
Total Population	**$41,833**

The employment to population ratio measures the employed workforce in comparison to the total workforce population. West Virginia has the lowest employment to population ratio in the nation.

2015 Employment-to-Population Ratio

West Virginia	Kentucky	Ohio	United States
49.4	53.7	59.4	59.3

Unemployment

Unemployment measures the percentage of the eligible workforce (residents age 16 years or older) who are actively seeking work, but have not obtained employment. Approximately 4.4% of the eligible workforce in the CHH service area is unemployed, which is lower than state and national benchmarks. Meigs County, OH is the only county within the service area to have an unemployment rate that exceeds the service area aggregate by more than 2 points (7.5%).

2016 Population by Unemployment Status

CHH Service Area	West Virginia	Kentucky	Ohio	United States
4.4%	4.6%	5.3%	5.5%	5.6%

Poverty

The percentage of all families and families with children living in poverty in the CHH service area is higher in comparison to state and national benchmarks.

2016 Population by Poverty Status

	CHH Service Area	West Virginia	Kentucky	Ohio	United States
Families	15.6%	13.3%	14.5%	11.7%	11.7%
Families w/ Children	11.0%	9.6%	10.7%	9.3%	8.9%

The following counties exceed the CHH service area aggregate by at least 3 points for families and families with children living in poverty. Martin County, KY has the highest percentage of both families and families with children living in poverty.

Poverty Status by County

Families in Poverty	Percentage	Families with Children in Poverty	Percentage
Martin County, KY	33.8%	Martin County, KY	26.9%
Magoffin County, KY	26.1%	Lincoln County, WV	16.6%
Elliott County, KY	25.4%	Magoffin County, KY	15.6%
Floyd County, KY	24.1%	Floyd County, KY	15.3%
Lincoln County, WV	23.0%	Elliott County, KY	14.8%
Lawrence County, KY	22.1%	Cabell County, WV	14.2%
Johnson County, KY	21.3%		

Education Demographics

Education is the largest predictor of poverty and one of the most effective means of reducing inequalities. In CHH's service area, fewer residents have a high school diploma or at least a bachelor's degree compared to state and national benchmarks. The percentage of residents with a bachelor's degree (17%) is 12 points lower than the nation.

2016 Population by Educational Attainment (Residents Age 25 Years or Over)

	CHH Service Area	Kentucky	Ohio	West Virginia	United States
Less than a high school diploma	17.6%	16.2%	11.1%	15.5%	13.6%
High school graduate	38.6%	33.5%	34.4%	40.4%	27.9%
Some college or associate's degree	26.8%	28.2%	28.8%	25.2%	29.2%
Bachelor's degree or higher	17.0%	22.2%	25.8%	18.9%	29.4%

The following counties exceed the CHH service area aggregate by at least 3 points for residents 25 years or older who have attained less than a high school diploma:

Residents Attaining Less than a High School Diploma by County

	Percentage
Magoffin County, KY	33.9%
Elliott County, KY	29.5%
Martin County, KY	28.1%
Lawrence County, KY	26.7%
Mingo County, WV	26.7%
Floyd County, KY	25.5%
Johnson County, KY	24.3%
Pike County, KY	24.2%
Logan County, WV	24.1%
Lincoln County, WV	23.7%
Carter County, KY	23.4%
Boone County, WV	22.8%
Wayne County, WV	22.2%
Fayette County, WV	21.1%

Social Determinants by County & Zip Code

Social determinants impact health for all individuals within a community; populations most at risk for health disparities are highlighted below by county and zip code to allow Cabell Huntington Hospital to focus its health improvement efforts where it can have the greatest impact. Counties and zip codes are presented in descending order by "Families in Poverty."

Social Determinants of Health Indicators by County

	Families in Poverty	Families w/ Children in Poverty	Less than a HS Diploma
Martin County, KY	33.8%	26.9%	28.1%
Magoffin County, KY	26.1%	15.6%	33.9%
Elliott County, KY	25.4%	14.8%	29.5%
Floyd County, KY	24.1%	15.3%	25.5%
Lincoln County, WV	23.0%	16.6%	23.7%
Lawrence County, KY	22.1%	12.1%	26.7%
Johnson County, KY	21.3%	12.1%	24.3%
CHH Service Area	**15.6%**	**11.0%**	**17.6%**

Social Determinants of Health Indicators by Zip Code

	Black/ African American	Older Adults (65+)	English Speaking	Families in Poverty	Families w/ Children in Poverty	Less than HS Diploma
25703 Huntington, WV	18.3%	7.6%	93.9%	34.3%	25.9%	17.3%
25517 Genoa, WV	0.4%	15.6%	99.6%	29.0%	15.0%	33.2%
25506 Branchland, WV	0.6%	17.5%	99.2%	25.5%	16.3%	27.3%
25514 Fort Gay, WV	0.2%	17.5%	99.5%	23.8%	13.8%	23.2%
25702 Huntington, WV	3.4%	17.5%	97.3%	22.9%	20.0%	23.2%
25559 Salt Rock, WV	0.3%	16.4%	99.7%	20.6%	17.7%	14.5%
41230 Louisa, KY	0.5%	16.1%	98.4%	20.1%	13.1%	25.6%
25571 West Hamlin, WV	0.2%	17.0%	99.6%	20.0%	14.4%	26.9%
25523 Hamlin, WV	0.6%	20.9%	99.7%	19.4%	14.8%	21.7%
25570 Wayne, WV	0.6%	18.6%	99.3%	16.3%	8.7%	25.9%
25701 Huntington, WV	9.6%	18.6%	96.6%	16.1%	11.0%	11.7%
41143 Grayson, KY	1.0%	16.8%	99.5%	15.7%	10.2%	23.0%
25537 Lesage, WV	0.3%	20.5%	96.7%	12.5%	8.9%	20.7%
25530 Kenova-Ceredo, WV	0.5%	20.5%	99.8%	12.0%	8.8%	17.5%
25555 Prichard, WV	0.1%	17.5%	100.0%	11.5%	5.5%	20.2%
25535 Lavalette, WV	0.4%	20.7%	99.3%	8.6%	6.4%	16.4%
25550 Point Pleasant, WV	1.4%	21.6%	98.4%	8.5%	8.0%	17.0%
CHH Total Service Area	**3.4%**	**18.1%**	**98.2%**	**15.6%**	**11.0%**	**17.6%**

Color Coding Guide
More than 2% points higher than the Total Service Area Exception: English Speaking cells are more than 2% point lower than the Total Service Area

Public Health Analysis of Cabell Huntington Hospital's Service Area

Background

Publicly reported health statistics were collected and analyzed to display health trends and identify health disparities across the service area. The following analysis uses data compiled by secondary sources such as state department of health agencies, the County Health Rankings & Roadmaps Program, the Centers for Disease Control and Prevention (CDC), among others. Data sources are listed by indicator throughout the report. A full listing of data sources is included in Appendix A.

State and national standards, when referenced, represent comparable year(s) of data to county-level statistics, unless otherwise noted. Healthy People 2020 (HP 2020) goals are national goals created by lead federal health and human service agencies to set a benchmark for all communities to strive towards. Healthy People goals are updated every 10 years and progress is tracked throughout the decade. Comparisons to Healthy People 2020 goals are included where applicable.

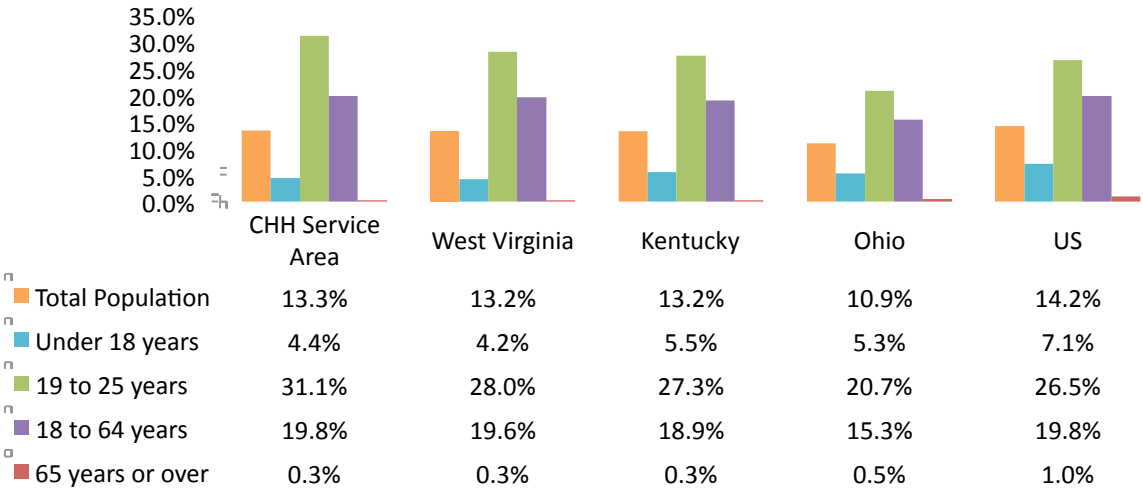
Access to Health Services

The Healthy People 2020 goal is to have 100% of residents with health insurance. The percentage of uninsured residents across the CHH service area is lower when compared to the nation and in line with Kentucky and West Virginia. Putnam and Mason Counties in West Virginia and Lawrence County, Ohio have the lowest uninsured rates. Floyd and Magoffin Counties, KY have the highest uninsured rates.

The uninsured rate among young adults ages 19 to 25 is higher than the nation and all state comparisons. Approximately 29,700 young adults in the service area are uninsured. Rates are highest in the counties of Lawrence, KY (46.7%); Floyd, KY (45.9%); Lincoln, WV (45.3%); Fayette, WV (42.7%); and Johnson, KY (41.1%).

The young adult uninsured rate (31.1%) is the highest in the service area and higher than state and national benchmarks

Population without Health Care Insurance by Age



	CHH Service Area	West Virginia	Kentucky	Ohio	US
Total Population	13.3%	13.2%	13.2%	10.9%	14.2%
Under 18 years	4.4%	4.2%	5.5%	5.3%	7.1%
19 to 25 years	31.1%	28.0%	27.3%	20.7%	26.5%
18 to 64 years	19.8%	19.6%	18.9%	15.3%	19.8%
65 years or over	0.3%	0.3%	0.3%	0.5%	1.0%

Source: American Community Survey, 2010-2014

Total Population without Health Care Insurance by Select County

	Uninsured Rate
Magoffin County, KY	17.0%
Floyd County, KY	16.8%
Lawrence County, OH	11.4%
Mason County ,WV	11.4%
Putnam County, WV	10.4%

Source: American Community Survey, 2010-2014

The following zip codes served by Cabell Huntington Hospital have an uninsured rate that is more than 2 points higher than the nation.

Nearly 25% of residents in Branchland, WV are uninsured

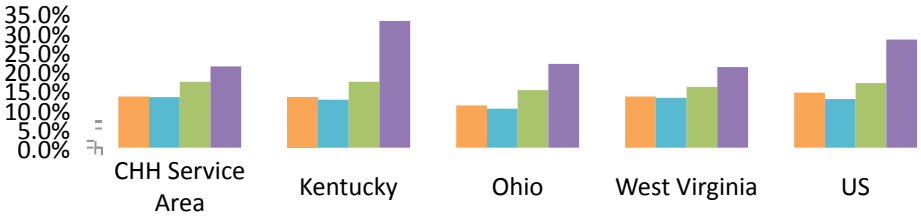
Uninsured Rates for Zip Codes Exceeding the Nation by More Than 2 Points

Zip Code	Uninsured Rate	Number of People Affected
25506, Branchland, WV	24.6%	1,094
25517, Genoa, WV	21.5%	629
25703, Huntington, WV	17.7%	1,161
41101, Ashland, KY	16.3%	3,073

Source: American Community Survey, 2010-2014

Minority racial and ethnic groups in the service area have lower health insurance rates when compared to the White population. Hispanic/Latino adults have the highest uninsured rate in the service area (21.1%; n=2,060), followed by Blacks/African Americans (17%; n=4,726).

Population without Health Care Insurance by Race/Ethnicity

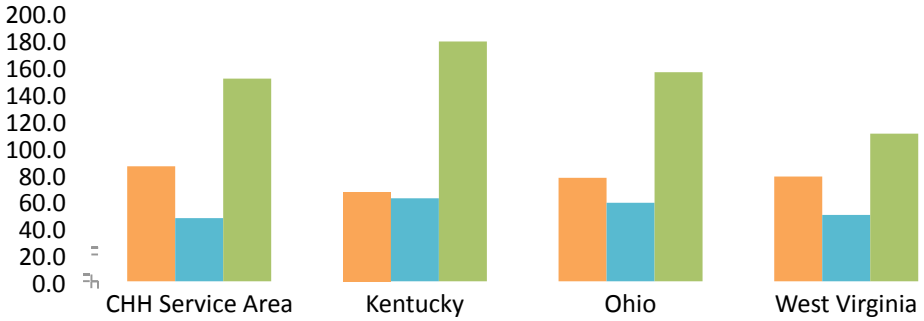


	CHH Service Area	Kentucky	Ohio	West Virginia	US
Total Population	13.3%	13.2%	10.9%	13.2%	14.2%
Whites	13.1%	12.5%	10.1%	13.0%	12.6%
Blacks/African Americans	17.0%	17.0%	15.0%	15.8%	16.7%
Hispanics/Latinos	21.1%	32.9%	21.7%	20.9%	28.1%

Source: American Community Survey, 2010-2014

Provider rates are noted for primary care, dental, and mental health providers. The CHH service area has a higher rate of primary care providers, a lower rate of dental providers, and an equitable rate of mental health providers when compared to state benchmarks.

Provider Rate per 100,000



	CHH Service Area	Kentucky	Ohio	West Virginia
Primary Care Provider	85.6	66.7	77.1	77.8
Dental Provider	46.8	61.9	58.4	49.3
Mental Health Provider	150.8	178.5	155.7	110.1

Source: United States Department of Health & Human Services, Health Resources and Services Administration, 2013 & 2014; Centers for Medicare & Medicaid Services, 2015
*Provider rates are based on 2014 population counts

Approximately 32% of residents in the CHH service area live in a health professional shortage area (HPSA) compared to 33.1% of the nation. The following counties are designated HPSAs for primary care, dental care, and/or mental health care. Nineteen of the 26 counties served by Cabell Huntington Hospital are HPSAs for mental health care.

19 service area counties are HPSAs for mental health care

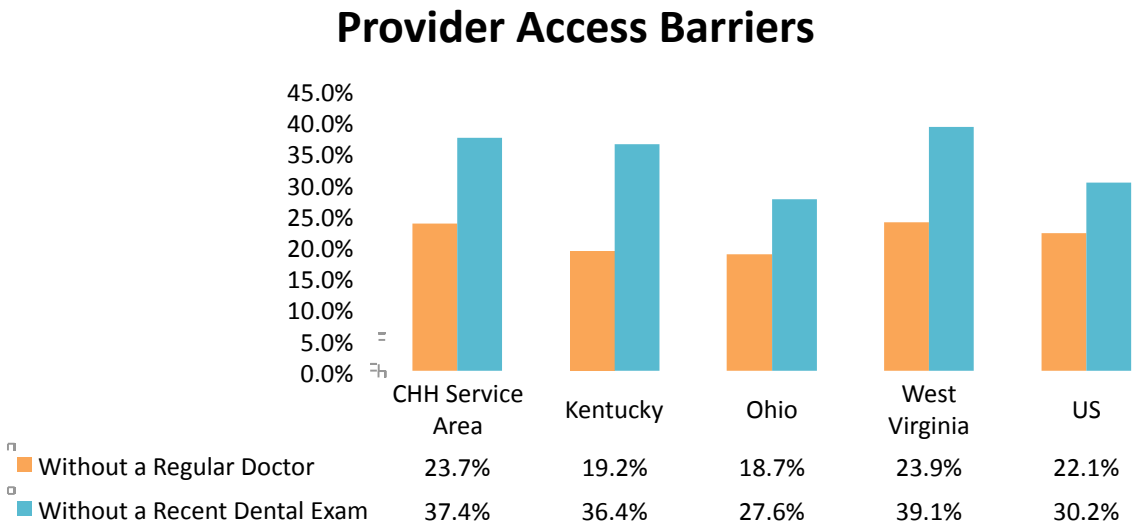
Health Professional Shortage Areas by Discipline

County	Primary Care	Dental Care	Mental Health Care
Boyd County, KY			x
Carter County, KY	x		x
Elliott County, KY	x		x
Floyd County, KY			x
Greenup County, KY			x
Johnson County, KY			x
Lawrence County, KY			x
Magoffin County, KY	x		x
Martin County, KY			x
Pike County, KY			x
Gallia County, OH		x	x
Lawrence County, OH	x	x	x
Meigs County, OH		x	x
Scioto County, OH	x		x
Boone County, WV		x	
Fayette County, WV			x
Jackson County, WV	x		x
Lincoln County, WV		x	
Logan County, WV		x	x
Mason County, WV		x	
Mingo County, WV		X	x
Raleigh County, WV			x
Wayne County, WV		x	

Source: Health Resources and Services Administration, 2016

Primary care and dental provider rates impact access to regular health care and preventative exams. Across the CHH service area, 23.7% of residents do not have a regular doctor, which is consistent with the nation. In contrast, 37.4% of residents have not received a recent dental exam, which exceeds the nation by 7 points.

The CHH service area has a lower dental provider rate and residents are less likely to receive dental exams



Source: Centers for Disease Control and Prevention, 2006-2010 & 2011-2012

The following counties exceed the CHH service area aggregate (27.3%) by at least 3 points for residents without a regular doctor:

Population without a Regular Doctor by County

County	Percentage	County	Percentage
Logan County, WV	34.8%	Meigs County, OH	30.3%
Gallia County, OH	34.7%	Boone County, WV	29.3%
Lawrence County, OH	34.1%	Mingo County, WV	27.1%
Fayette County, WV	31.8%	Raleigh County	26.9%

Source: Centers for Disease Control and Prevention, 2011-2012

The following counties exceed the CHH service area (37.4%) by at least 3 points for residents without a recent dental exam:

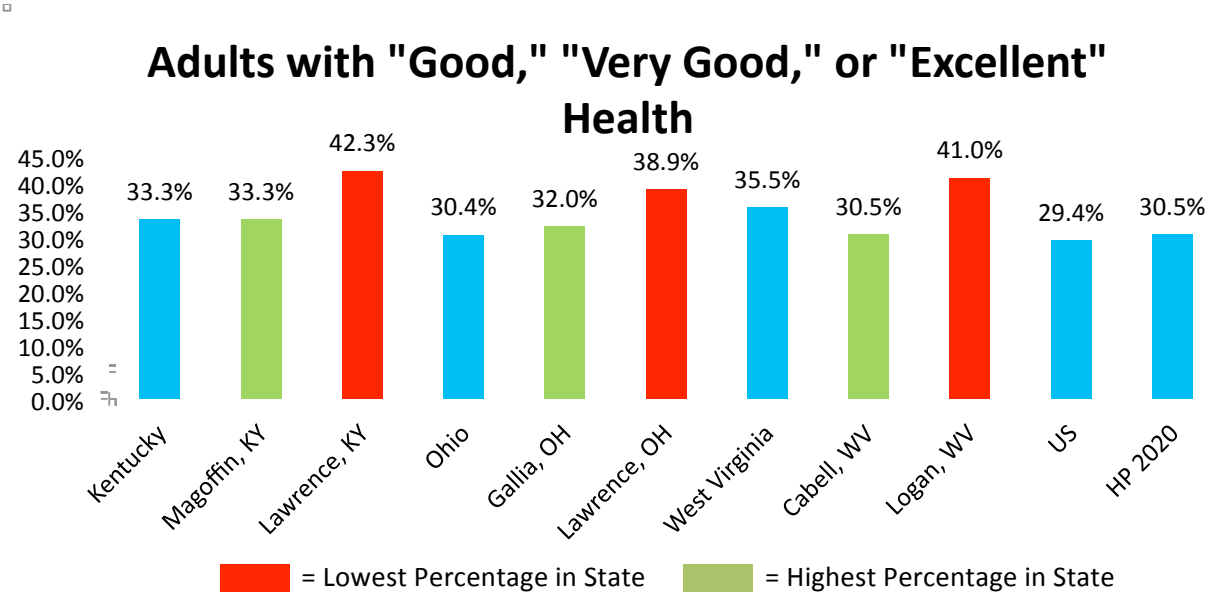
Population without a Recent Dental Exam

County	Percentage	County	Percentage
Lincoln County, WV	55.2%	Meigs County, OH	45.9%
Logan County, WV	50.9%	Johnson County, KY	45.1%
Lawrence County, KY	50.1%	Mingo County, WV	45.1%
Floyd County, KY	48.1%	Magoffin County, KY	44.8%
Boone County, WV	46.3%	Wayne County, WV	44.8%
Fayette County, WV	46.0%	Raleigh County, WV	41.8%
Carter County, KY	45.9%		

Source: Centers for Disease Control and Prevention,

Overall Health Status

Overall health status is measured by self-reported health status and premature death. The following graph depicts self-reported health status by state and the counties in each state with the **highest** and **lowest** percentage of adults with good or better health.



Source: Behavioral Risk Factor Surveillance System, 2014

The premature death rate measures the years of potential life lost before age 75. All three states have a higher premature death rate than the nation. The following table depicts the 10 counties with the highest premature death rate across the service area.

Premature Death Rate by State and Select Counties

	Premature Death Rate
Logan County, WV	15345.7
Mingo County, WV	14525.0
Floyd County, KY	14462.6
Pike County, KY	12903.3
Lawrence County, KY	12673.1
Martin County, KY	12654.0
Boone County, WV	12134.4
Raleigh County, WV	12077.7
Johnson County, KY	11735.8
Magoffin County, KY	11627.5
Kentucky	**8,831.0**
Ohio	**7,533.6**
West Virginia	**9,731.1**
United States	**6,600**

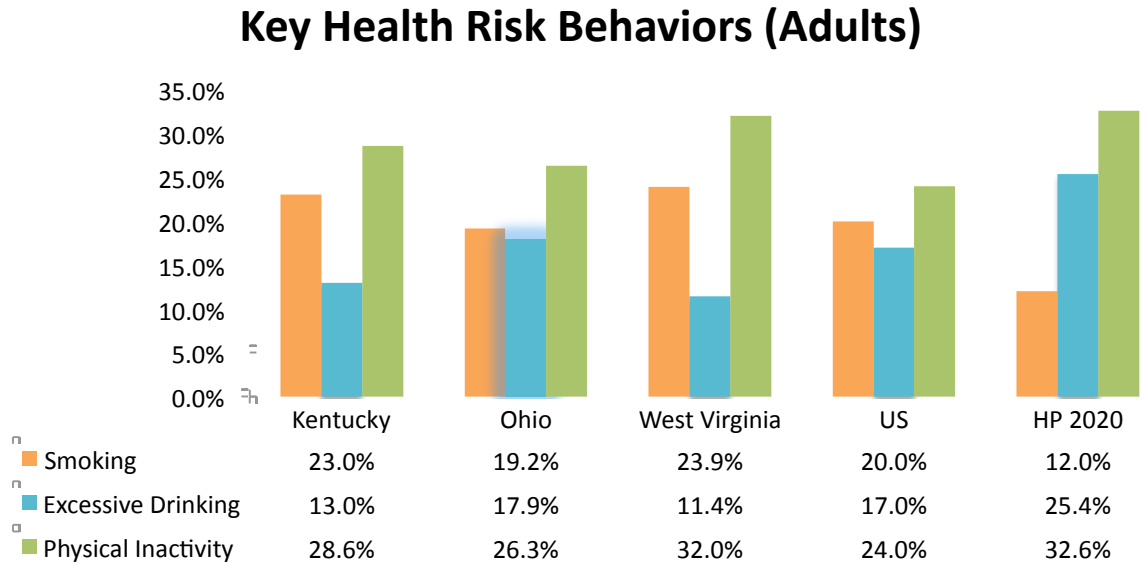
Source: National Center for Health Statistics, 2011-2013

Risk Behaviors

Individual health risk behaviors, including smoking, excessive drinking, physical inactivity, and obesity contribute to an increased risk of disease. The prevalence of these health behaviors is provided below by state in comparison to the nation and Healthy People 2020 goals.

Adults across West Virginia have the highest rates for smoking and physical inactivity in comparison to Ohio and Kentucky. However, adults in Martin, KY have the highest rate of smoking (29.3%).

29% of adults in Martin, KY smoke; 41% of adults in Mingo, WV are physically inactive



Source: Behavioral Risk Factor Surveillance System, 2014 & Centers for Disease Control and Prevention, 2012 & Healthy People 2020

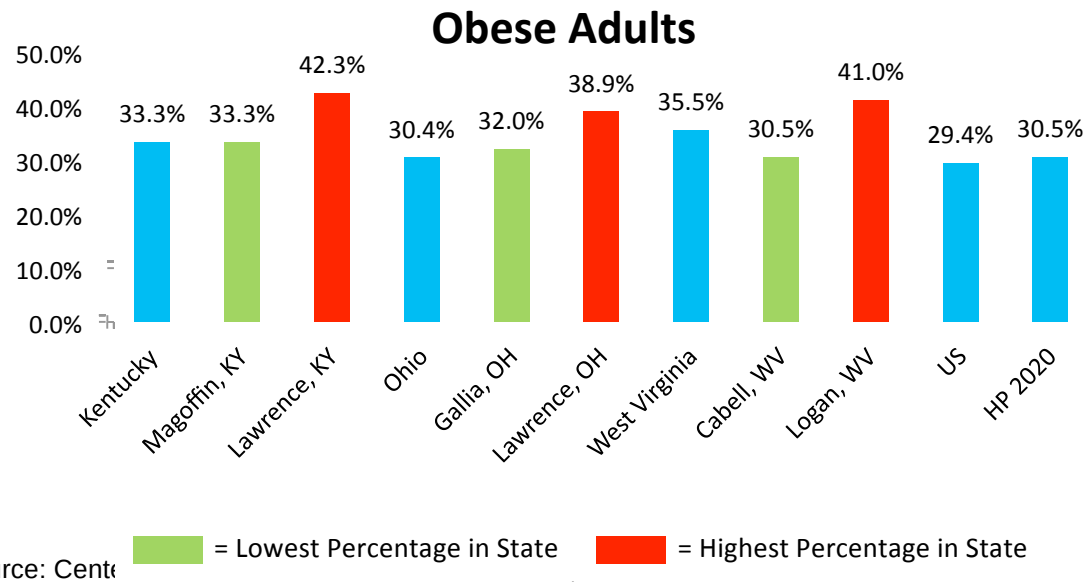
Key Health Risk Behaviors among Adults by Top and Bottom Performing Counties

Health Risk Behaviors	Top Performing County		Bottom Performing County	
Smoking	Putnam, WV	18.8%	Martin, KY	29.3%
Excessive Drinking	Raleigh/Wayne, WV	10.3%	Gallia/Scioto, OH	16.7%
Physically Inactive	Putnam, WV	28.5%	Mingo, WV	40.7%

Source: Behavioral Risk Factor Surveillance System, 2014 & Centers for Disease Control and Prevention, 2012

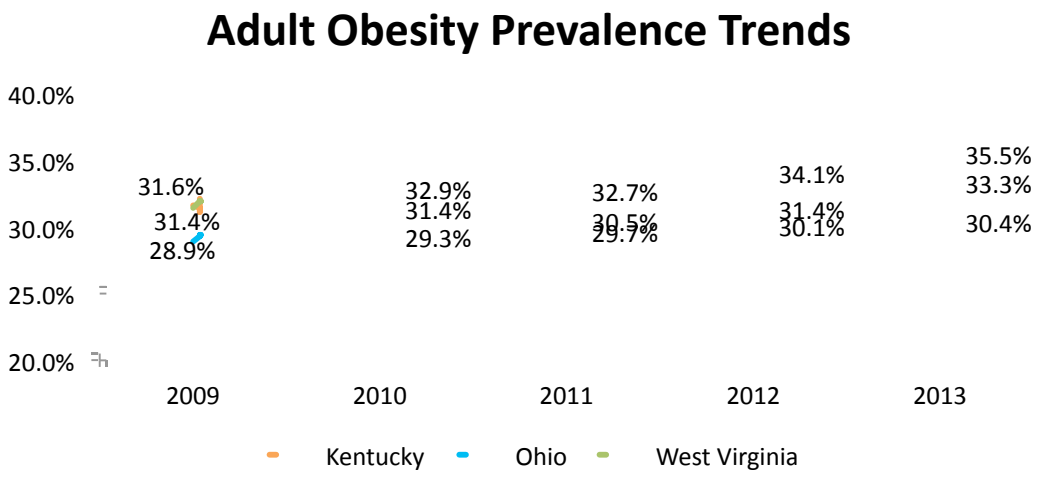
According to aggregated data reported by Community Commons, based on CDC reports, 35.3% of adults in the CHH service area were obese in 2012 (most recent aggregate data available). Age-adjusted 2013 data is depicted by state and the counties in each state with the highest and lowest percentage of obese adults in the following graph. The percentage of adults who are obese is higher in all three states compared to the nation; Kentucky and West Virginia also exceed the Healthy People 2020 goal. In addition, all counties in the CHH service area, except Cabell, WV, have a higher percentage of obese adults when compared to the Healthy People 2020 goal.

Adults in all CHH service counties, except Cabell, WV, exceed the HP 2020 goal for obesity



Source: Cente

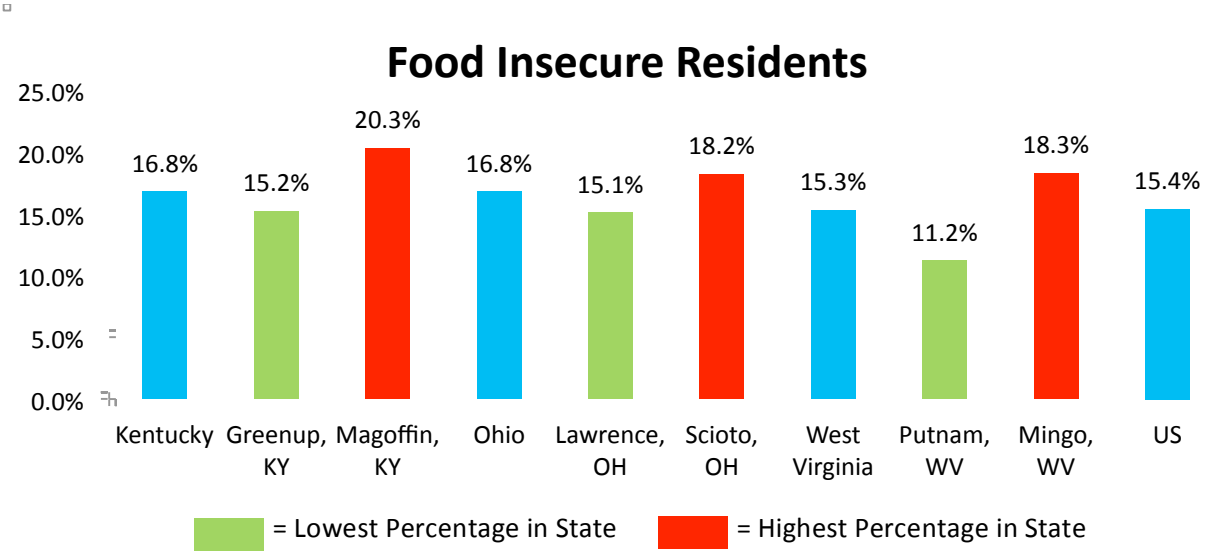
Adult obesity increased in all three states from 2009 to 2013. West Virginia experienced the greatest increase from 31.4% to 35.5%, a 4 point difference.



Source: Centers for Disease Control and Prevention, 2009-2013
*A change in methods occurred in 2011 that may affect the validity of comparisons to past years

Food Security

Food insecurity, defined as being without a consistent source of sufficient and affordable nutritious food, contributes to obesity rates. Kentucky and Ohio residents are more likely to be food insecure compared to the nation. Magoffin, KY has the highest percentage of food insecure residents (20.3%).

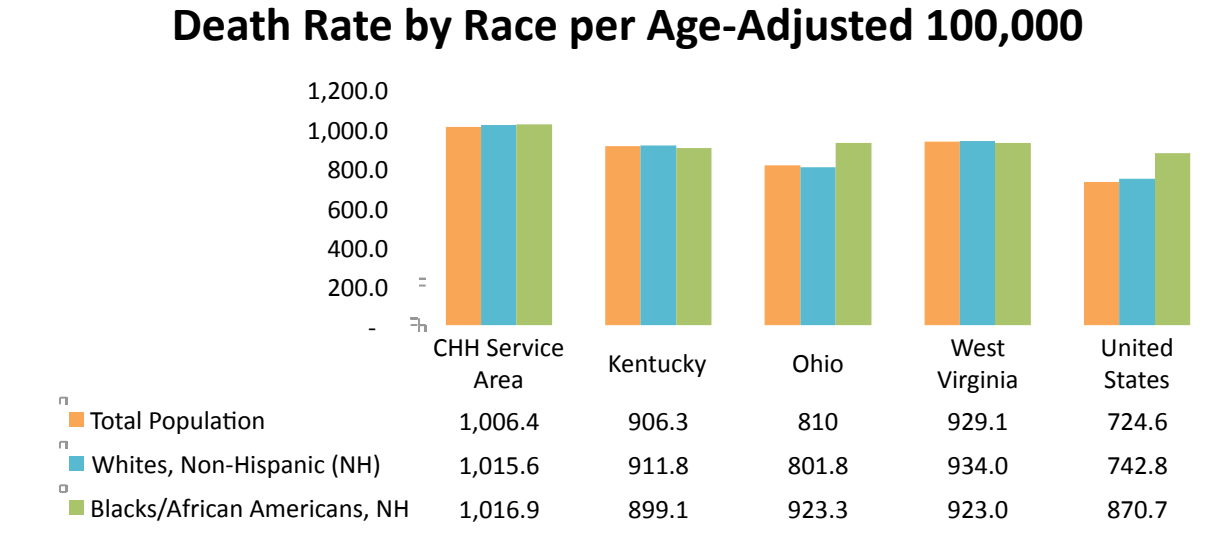


Source: Feeding America, 2014

Mortality

The CHH service area overall death rate exceeds the nation by 282 points

The 2014 all cause age-adjusted death rate across the CHH service area (1,006.4 per 100,000) exceeds both state and national benchmarks. The death rate among Whites and Blacks/African Americans is equivalent; a rate is not reported for Hispanics/Latinos due to a low death count.

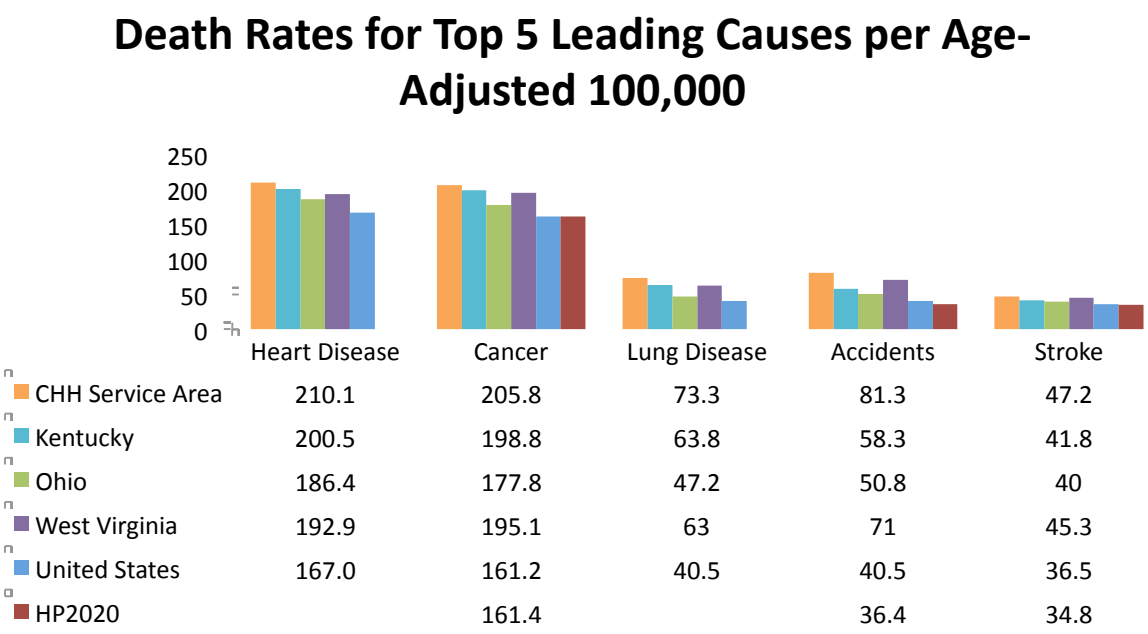


Source: Centers for Disease Control and Prevention, 2014

Top Causes of Death

The CHH service area has higher rates of death for the top five causes compared to state and national benchmarks. Death rates due to cancer and accidents exceed Healthy People 2020 goals by approximately 45 points. The following graph depicts 2014 death rates and the most recent health status of the entire service area. Throughout the remainder of the report, year-over-year trending data and county-specific data is often provided to show areas of improvement and opportunity.

The CHH service area has higher rates of death for the top five causes compared to state and national benchmarks



	Heart Disease	Cancer	Lung Disease	Accidents	Stroke
CHH Service Area	210.1	205.8	73.3	81.3	47.2
Kentucky	200.5	198.8	63.8	58.3	41.8
Ohio	186.4	177.8	47.2	50.8	40
West Virginia	192.9	195.1	63	71	45.3
United States	167.0	161.2	40.5	40.5	36.5
HP2020		161.4		36.4	34.8

Source: Centers for Disease Control and Prevention, 2014 & Healthy People 2020

Chronic Disease

Chronic disease rates are increasing across the nation and are the leading causes of death and disability. Chronic diseases are often preventable through reduced health risk behaviors like smoking and alcohol use, increased physical activity and good nutrition, and early detection of risk factors and disease.

Heart Disease and Stroke

The heart disease death rate decreased 61 points from 2005, but still exceeds state and national benchmarks

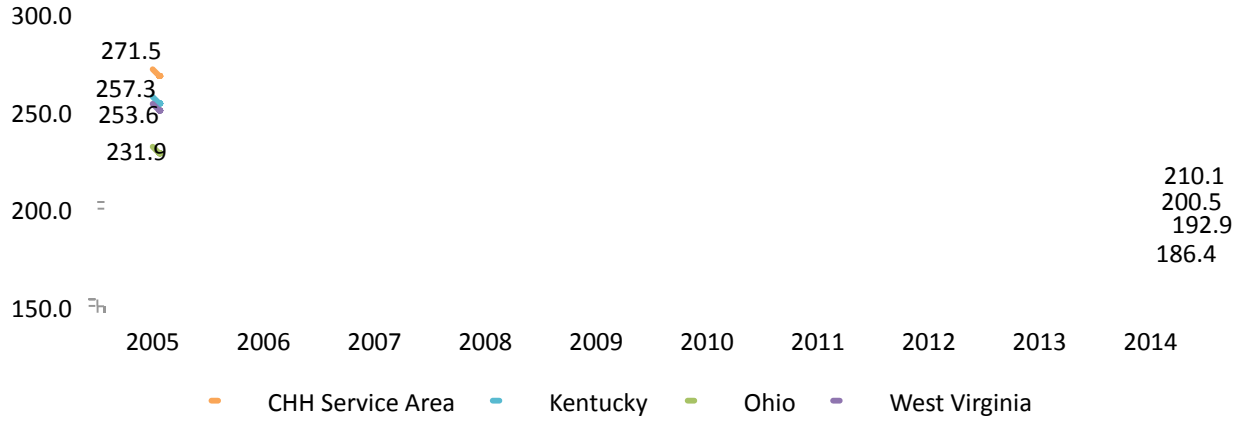
Heart disease is the leading cause of death in the nation. The CHH service area heart disease death rate is higher when compared to state and national benchmarks. However, the death rate is declining, falling 61 points from 2005. Across the service area and Kentucky and West Virginia, the heart disease death rate is higher among Whites compared to Blacks/African Americans. The CHH service area death rate for Blacks/African Americans represents 77 deaths.

Heart Disease Death Rate by Race per Age-Adjusted 100,000

	Total Population	Whites, Non-Hispanic (NH)	Blacks/African Americans, NH
CHH Service Area	210.1	212.5	203.3
Kentucky	200.5	203.0	197.8
Ohio	186.4	185.5	212.1
West Virginia	192.9	195.4	180.4
United States	167.0	169.9	210.8

Source: Centers for Disease Control and Prevention, 2014

Heart Disease Death Rate Trend per Age-Adjusted 100,000



Source: Centers for Disease Control and Prevention, 2005-2014

Heart Disease

The following counties exceed the CHH service area heart disease death rate (210.1 per 100,000) by at least 15 points:

Heart Disease Death Rate per Age-Adjusted 100,000 by County

County	Death Rate	County	Death Rate
Mingo County, WV	298.8	Johnson County, KY	253.9
Lawrence County, KY	297.7	Boyd County, KY	252.9
Scioto County, OH	293.8	Floyd County, KY	252.3
Pike County, KY	277.7	Mason County, WV	228.7
Magoffin County, KY	259.8	Boone County, WV	227.6
Carter County, KY	259.4		

Source: Centers for Disease Control and Prevention, 2014

Residents in the CHH service area have a higher prevalence of coronary heart disease and a higher death rate

Coronary heart disease is a form of heart disease characterized by the buildup of plaque inside the coronary arteries. CHH service area adults are more likely to have been told by a doctor that they have coronary heart disease or angina compared to state and national benchmarks. Percentages are highest in Boone County, WV (13.7%), Mingo County, WV (12.7%), and Pike County, KY (10.5%).

Coronary Heart Disease

The coronary heart disease death rate in the CHH service area is also higher than state and national benchmarks. The rate exceeds the Healthy People 2020 goal by 28 points.

Coronary Heart Disease Prevalence & Disease Death

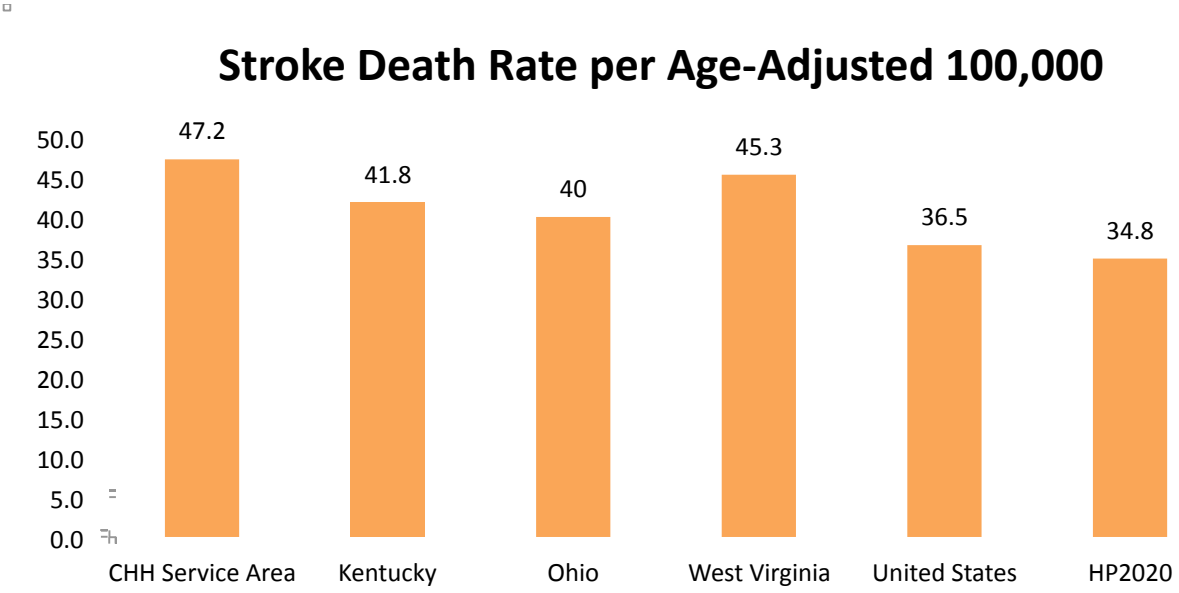
	Adult Coronary Heart Disease Prevalence*	Coronary Heart Disease Death Rate per Age-Adjusted 100,000
CHH Service Area	8.1%	131.8
Kentucky	5.9%	109.8
Ohio	5.1%	111.1
West Virginia	7.6%	122.2
United States	4.4%	98.8
HP 2020	NA	103.4

Source: Behavioral Risk Factor Surveillance System, 2011-2012 & Centers for Disease Control and Prevention, 2014 & Healthy People 2020

*Data includes coronary heart disease and angina

Stroke

Several types of heart disease, including coronary heart disease, are risk factors for stroke, the fifth leading cause of death in the nation. The stroke death rate in the CHH service area is higher than state and national benchmarks, and exceeds the Healthy People 2020 goal by 12 points.



Source: Centers for Disease Control and Prevention, 2014 & Healthy People 2020

The following counties exceed the CHH service area stroke death rate (47.2 per 100,000) by at least 10 points. Note: 11 counties do not report a death rate due to low death counts.

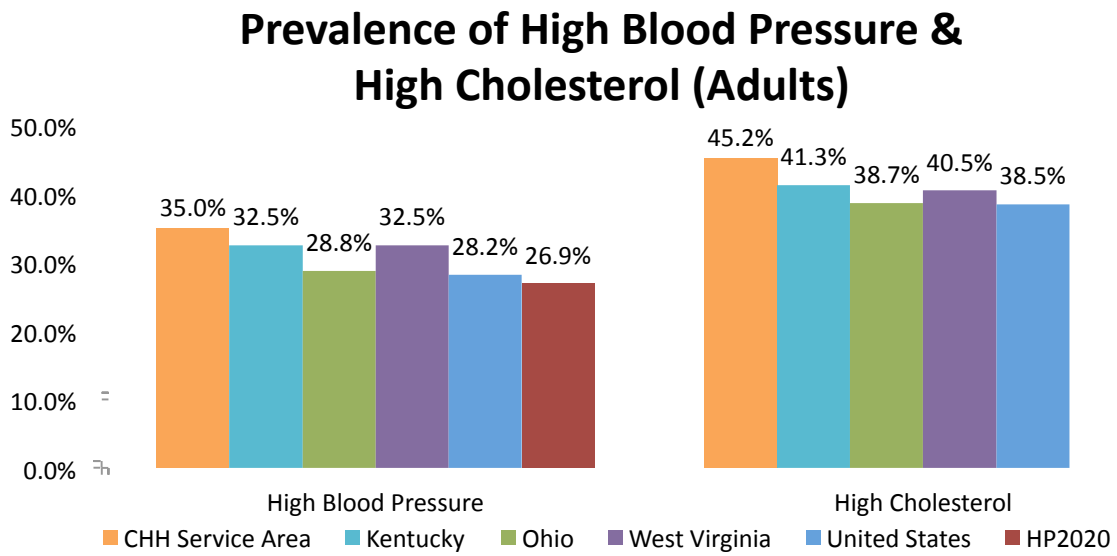
Stroke Death Rate per Age-Adjusted 100,000 by County

County	Death Rate
Logan County, WV	80.3
Mingo County, WV	77.5
Fayette County, WV	66.6
Gallia County, OH	60.7

Source: Centers for Disease Control and Prevention, 2014

Heart Disease

Heart Disease is often a result of high blood pressure and high cholesterol, which can result from poor diet and exercise habits. The CHH service area has a higher percentage of adults with high blood pressure and high cholesterol when compared to state and national benchmarks; percentages account for one-third to nearly one-half of all adults.



Source: Behavioral Risk Factor Surveillance System, 2006-2012 & 2011-2012 & Healthy People 2020

The following counties within the CHH service area have the highest percentage of adults with high blood pressure and/or high cholesterol:

Nearly 60% of residents Boone County, WV, Johnson County, KY, and Pike County, KY have high cholesterol

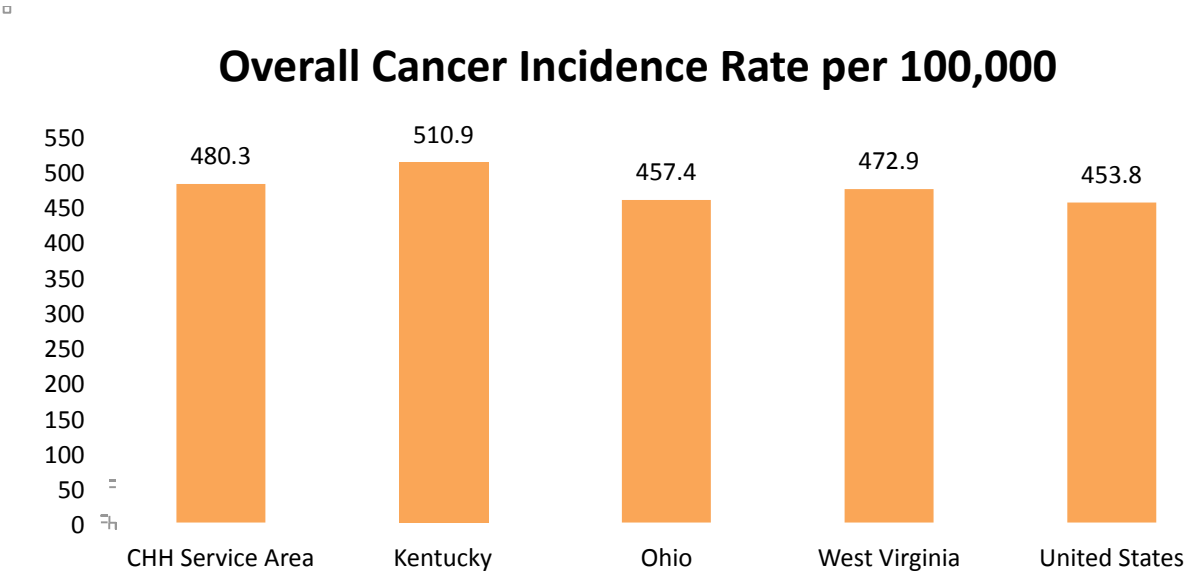
Adult Prevalence of High Blood Pressure and High Cholesterol by County

County	High Blood Pressure Prevalence	County	High Cholesterol Prevalence
Mingo County, WV	43.6%	Boone County, WV	59.7%
Jackson County, WV	43.5%	Johnson County, KY	58.8%
Magoffin County, KY	43.4%	Pike County, KY	58.6%
Pike County, KY	41.9%	Meigs County, OH	57.4%
Lincoln County, WV	41.0%	Mingo County, WV	54.4%
Carter County, KY	40.3%	Martin County, KY	53.6%

Source: Behavioral Risk Factor Surveillance System, 2006-2012 & 2011-2012

Cancer

Cancer is the second leading cause of death in the nation behind heart disease. The overall cancer incidence rate in the CHH service area (480.3 per 100,000) is higher than the nation by 31 points and all reported states, except Kentucky.



Source: National Cancer Institute, 2008-2012

The following counties exceed the CHH service area cancer incidence rate (480.3 per 100,000) by at least 15 points:

Cancer Incidence Rate per 100,000 by County

County	Incidence Rate	County	Incidence Rate
Magoffin County, KY	554.7	Pike County, KY	518.3
Floyd County, KY	550.3	Lincoln County, WV	513.2
Carter County, KY	541.3	Kanawha County, WV	508.7
Greenup County, KY	531.3	Johnson County, KY	507.4
Martin County, KY	529.6	Mingo County, WV	507.0
Boyd County, KY	525.0	Scioto County, OH	503.0
Lawrence County, KY	524.8	Boone County, WV	501.8
Logan County, WV	523.9	Putnam County, WV	497.2

Source: National Cancer Institute, 2008-2012

Cancer screenings are essential for early diagnosis and preventing cancer death. CHH service area residents are less likely to receive both colorectal cancer screenings and mammograms. In the CHH service area, 56.2% of adults age 50 years or over have had a colorectal cancer screening. Percentages are lowest in Logan County, WV (43.4%), Scioto County, OH (46.7%), and Mingo County, WV (46.9%).

Cancer

Mammograms are recommended to detect breast cancer. In the CHH service area, 56.9% of female Medicare enrollees age 67 to 69 had a mammogram within the past two years. Percentages are lowest in Martin County, KY (45.9%), Mingo County, WV (47.5%), and Elliott County, KY (50%).

Cancer Screenings

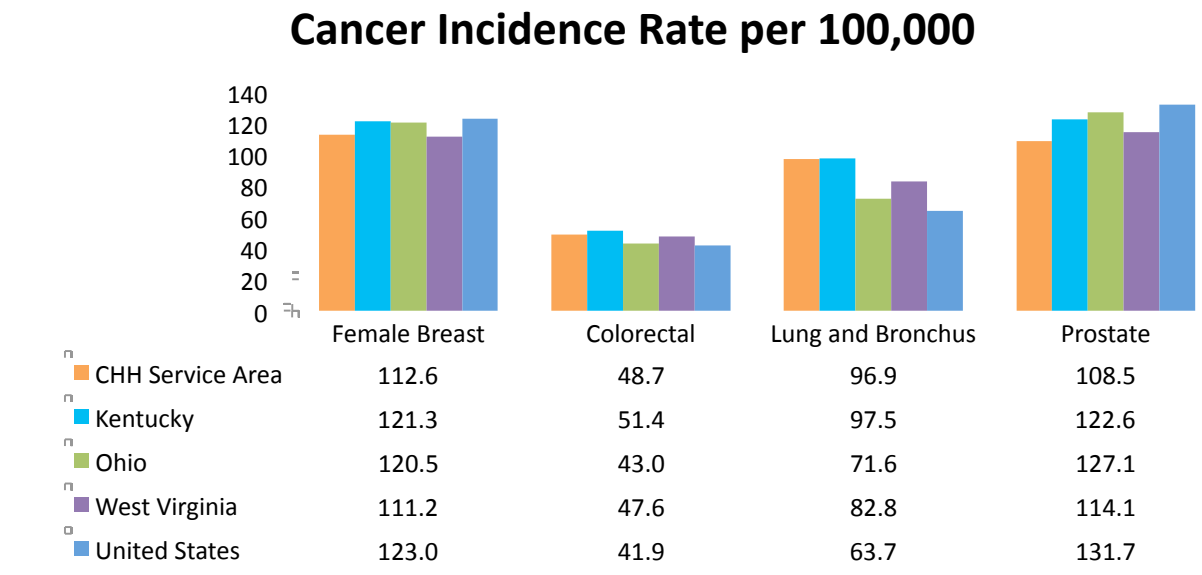
	Colorectal Cancer Screening Ever	Mammogram in Past Two Years
CHH Service Area	56.2%	56.9%
Kentucky	61.4%	60.1%
Ohio	60.0%	60.3%
West Virginia	53.7%	58.3%
United States	61.3%	63.0%

Source: Behavioral Risk Factor Surveillance System, 2006-2012 & Dartmouth Atlas of Health Care, 2012

Presented below are the incidence rates for the most commonly diagnosed cancers: breast (female), colorectal, lung, and prostate (male). Rates for female breast and prostate cancer are lower than state and national benchmarks. Rates for colorectal and lung cancer exceed the nation and all reported states, except Kentucky. The lung cancer rate is particularly high, exceeding the nation by 33 points. Higher incidence rates can be linked to increased screenings; however, CHH service area adults are less likely to receive cancer screenings.

The lung cancer incidence rate exceeds the nation by 33 points.

Kentucky has the highest lung cancer incidence rate and one of the highest adult smoking rates.

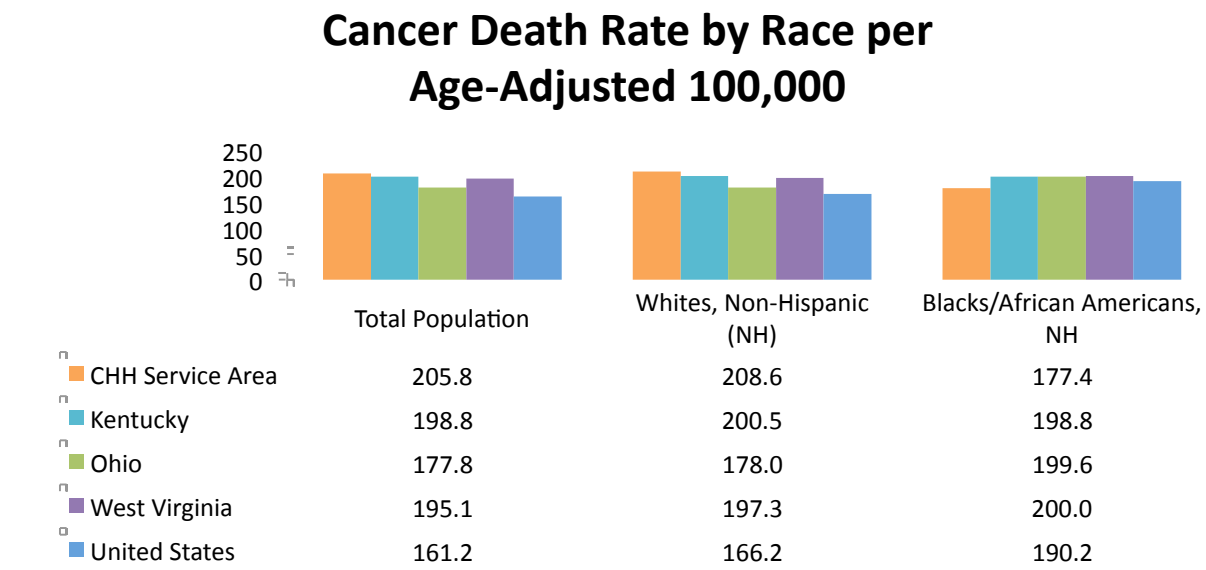


Source: National Cancer Institute, 2008-2012

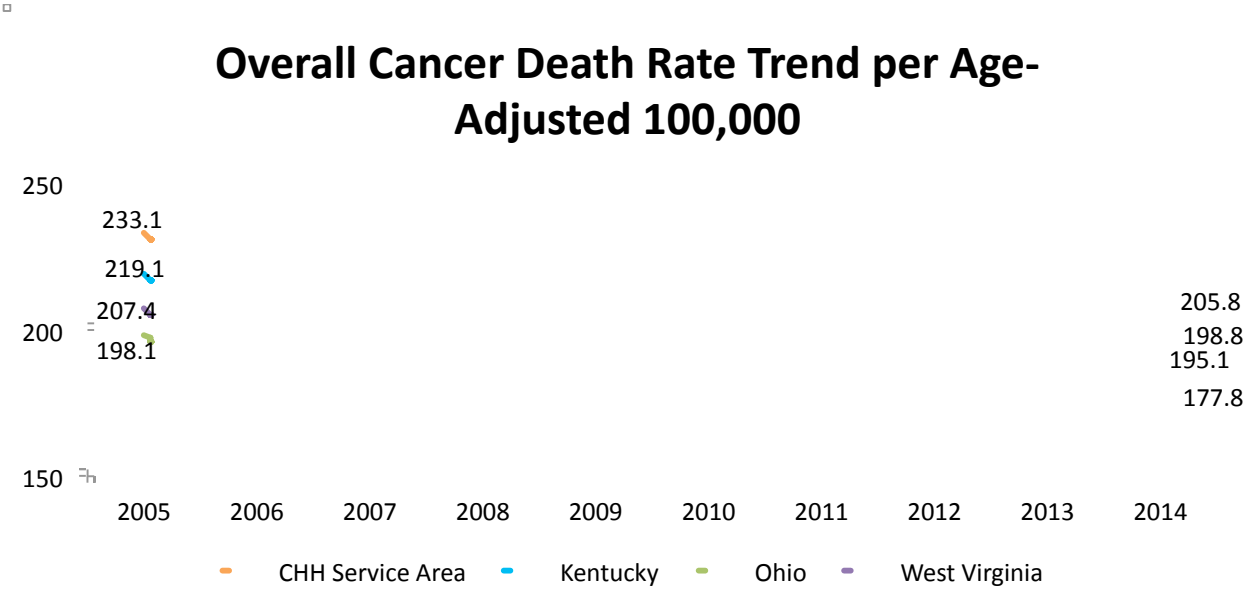
Cancer

Age-adjusted cancer death rates are measured below. The overall cancer death rate in the CHH service area is higher than state and national benchmarks and does not meet the Healthy People 2020 goal (161.4 per 100,000). However, the death rate is declining, falling 27 points from 2005. Across the service area, the cancer death rate is higher among Whites compared to Blacks/African Americans. The CHH service area death rate for Blacks/African Americans represents 71 deaths.

The CHH overall cancer death rate decreased 27 points from 2005, but still exceeds state and national benchmarks



Source: Centers for Disease Control and Prevention, 2014



Source: Centers for Disease Control and Prevention, 2005-2014

The following counties exceed the CHH service area cancer death rate (205.8 per 100,000) by at least 15 points:

Cancer Death Rate per Age-Adjusted 100,000 by County

County	Death Rate	County	Death Rate
Lawrence County, KY	269.7	Mingo County, WV	244.0
Boon County, WV	244.4	Pike County, KY	230.9
Fayette County, WV	244.4	Meigs County, OH	224.0

Source: Centers for Disease Control and Prevention, 2014

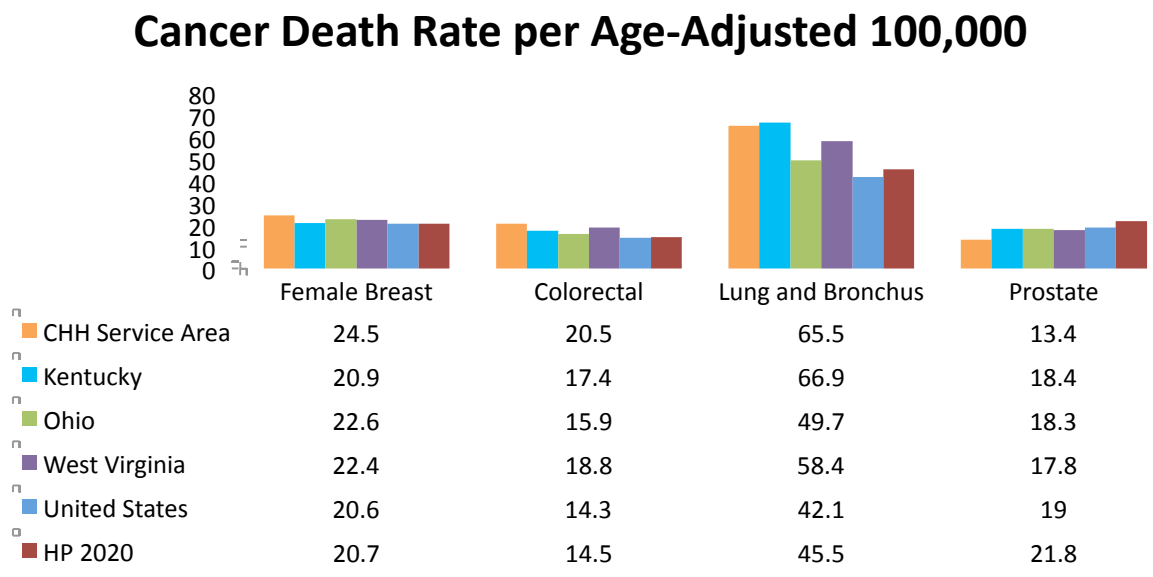
Presented below are the death rates for the most commonly diagnosed cancers. Death rates for female breast, colorectal, and lung cancer are higher than state and national benchmarks. However, death rates for all cancer types declined from 2005.

CHH service area residents have higher incidence and death rates due to lung cancer

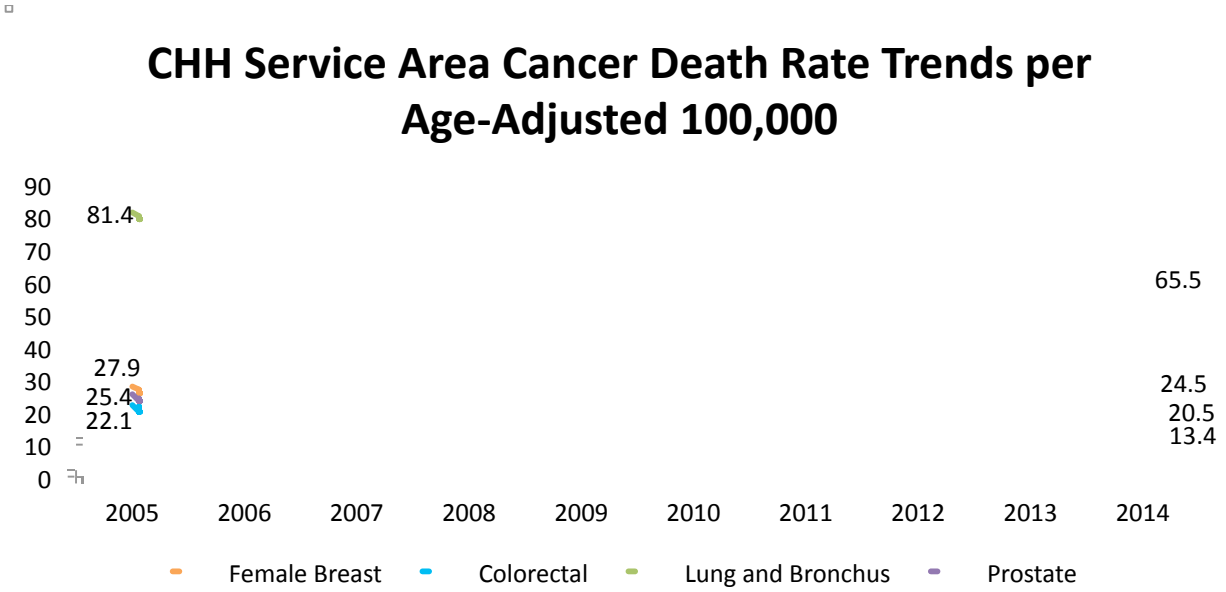
The lung cancer death rate experienced the greatest decline between 2005 and 2014 (16 points). However, the rate is the highest of the four cancer types and exceeds the nation by 23 points. CHH service area residents have higher incidence and death rates due to lung cancer.

The CHH service area has a lower incidence of female breast cancer compared to the nation, but a higher death rate, indicating that while fewer women develop breast cancer, more women die from the condition.

Fewer women in the CHH service area develop breast cancer, but the death rate exceeds all state and national benchmarks



Source: Centers for Disease Control and Prevention, 2014 & Healthy People 2020



Source: Centers for Disease Control and Prevention, 2005-2014

Chronic Lower Respiratory Disease

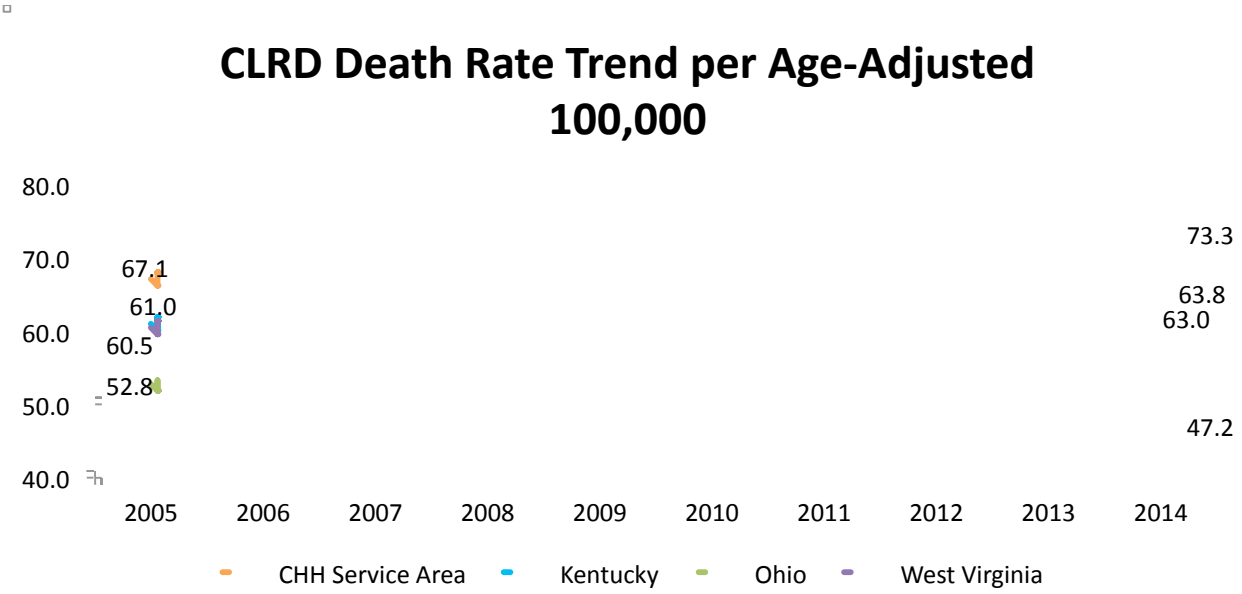
Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. It encompasses diseases like chronic obstructive pulmonary disorder (COPD), emphysema, and asthma.

The CLRD death rate is higher in the CHH service area when compared to state and national benchmarks. The rate has been variable over the past 10 years, but on the rise over the past five years. Adult asthma prevalence is consistent with state and national benchmarks.

Asthma Prevalence & Chronic Lower Respiratory Disease Death

	Adult Asthma Prevalence	CLRD Death Rate per Age-Adjusted 100,000
CHH Service Area	14.4%	73.3
Kentucky	15.5%	63.8
Ohio	13.8%	47.2
West Virginia	12.3%	63.0
United States	13.4%	40.5

Source: Behavioral Risk Factor Surveillance System, 2011-2012 & Centers for Disease Control and Prevention, 2014



Source: Centers for Disease Control and Prevention, 2005-2014

The following counties exceed the CHH service area CLRD death rate (73.3 per 100,000) by at least 15 points:

CLRD Death Rate per Age-Adjusted 100,000 by County

County	Death Rate	County	Death Rate
Magoffin County, KY	223.0	Floyd County, KY	106.5
Mingo County, WV	118.6	Logan County, WV	104.2
Lawrence County, KY	112.8	Pike County, KY	90.5

Source: Centers for Disease Control and Prevention, 2014

Smoking cigarettes contributes to the onset of CLRD. Kentucky and West Virginia have the highest rates of CLRD death and the highest rates of adult smoking (23% and 23.9% respectively). In addition, the counties of Magoffin and Mingo have the highest rates of CLRD death per age-adjusted 100,000 and some of the highest smoking rates (27.5% and 27% respectively).

Kentucky and West Virginia have the highest CLRD death rates and the highest rates of adult smoking

Diabetes

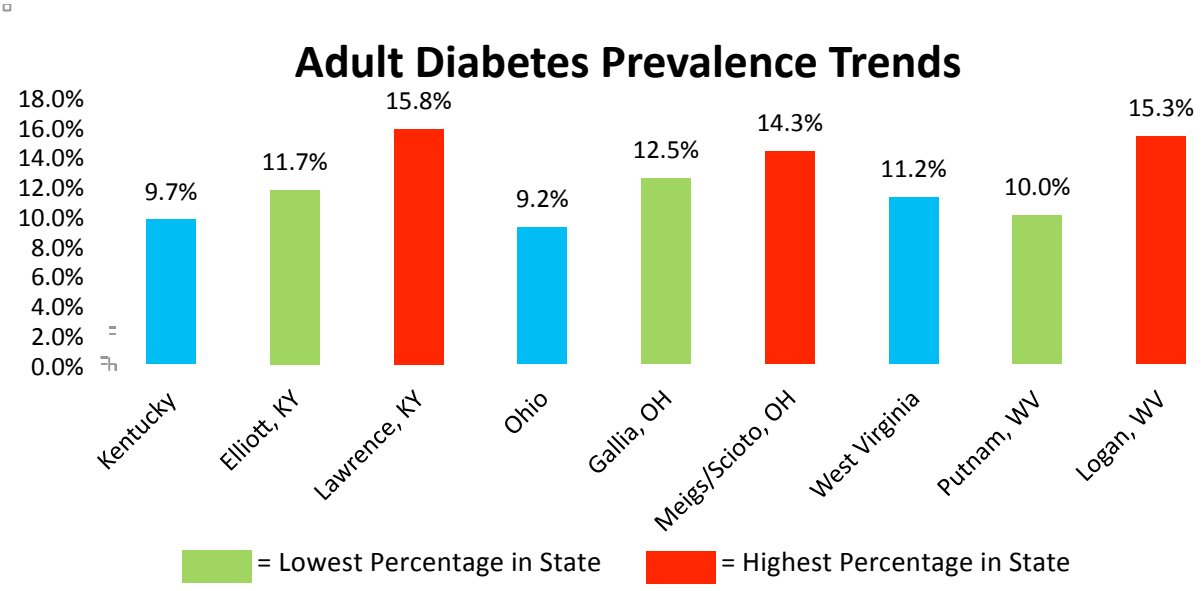
Diabetes is caused either by the body's inability to produce insulin or effectively use the insulin that is produced. Diabetes can cause a number of serious complications, but Type II diabetes, the most common form, is largely preventable through diet and exercise.

According to aggregated data reported by Community Commons, based on CDC reports, 12.2% of adults in the CHH service area had diabetes in 2012 (most recent aggregate data available).

Nearly all CHH service counties have a higher prevalence of adult diabetes compared to their respective state

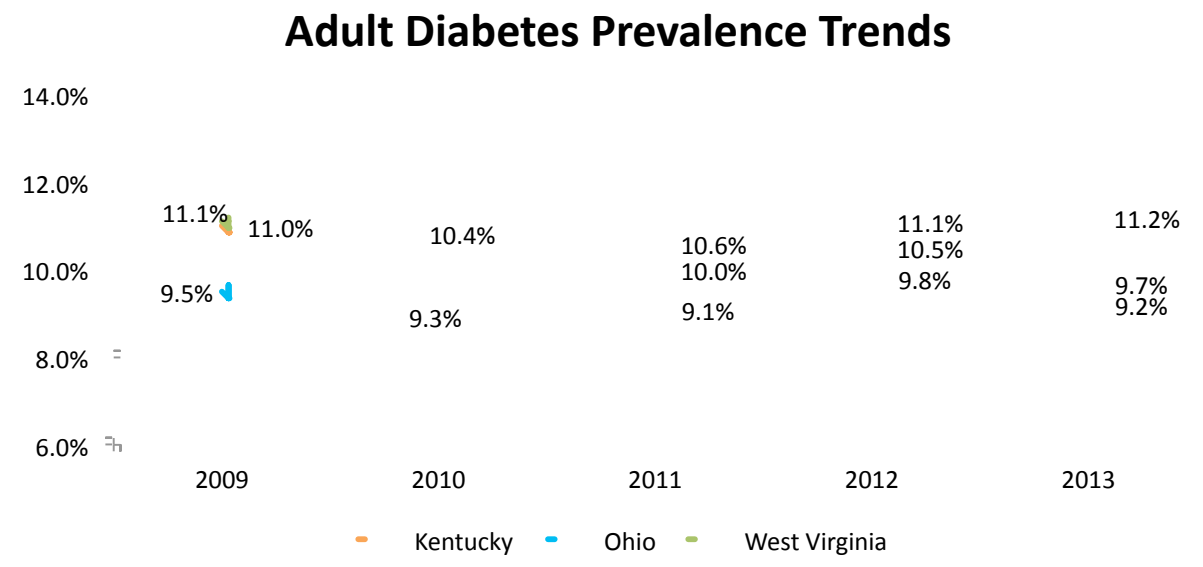
Diabetes

The following graph depicts 2013 age-adjusted adult diabetes prevalence by state and the counties in each state with the highest and lowest percentage of diabetic adults. All counties in the CHH service area, except Jackson, Mason, and Putnam, WV, have a higher prevalence of adult diabetes when compared to their respective state.



Source: Centers for Disease Control and Prevention, 2013

Adult diabetes trends vary in each state; West Virginia is the only state to have a consistently increasing rate.



Source: Centers for Disease Control and Prevention, 2009-2013

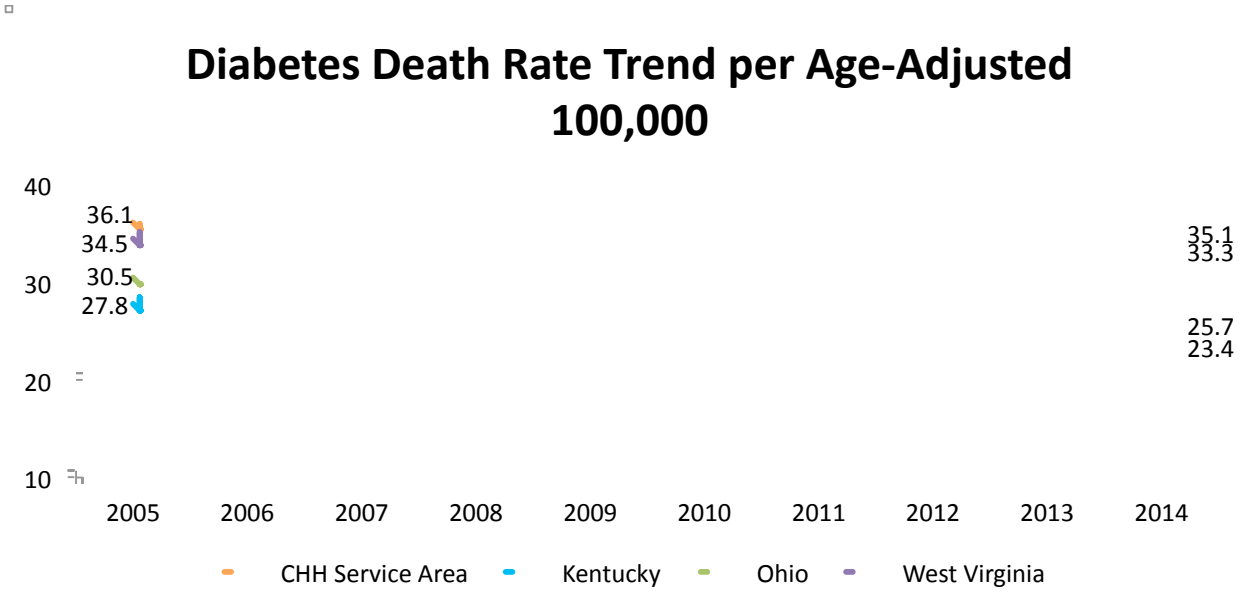
*A change in methods occurred in 2011 that may affect the validity of comparisons to past years

Diabetes

The age-adjusted diabetes death rate in the CHH service area is higher in comparison to all three states and the nation (20.9 per 100,000). The death rate has been variable over the past 10 years, but on the rise over the past four years.

Logan County, WV and Meigs County, OH have the highest diabetes death rate and some of the highest diabetes prevalence rates

The counties of Logan, WV and Meigs, OH have the highest diabetes death rate per age-adjusted 100,000 (78.2 and 64.2 respectively) and some of the highest prevalence rates of adult diabetes (15.3% and 14.3% respectively). Diabetes death rates are not reported for 16 of the CHH service counties due to low death counts.



Source: Centers for Disease Control and Prevention, 2005-2014

Senior Health

Seniors face a number of challenges related to health and well-being as they age. They are more prone to chronic disease, social isolation, and disability. The following table notes the percentage of Medicare Beneficiaries 65 years or over who have been diagnosed with a chronic condition.

Chronic Conditions

Medicare Beneficiaries 65 years or over across Kentucky, Ohio, and West Virginia are more likely to have a chronic condition when compared to the nation, with the exception of Alzheimer's disease/dementia, asthma, cancer, and stroke.

Chronic Conditions Among Medicare Beneficiaries 65 Years or Over

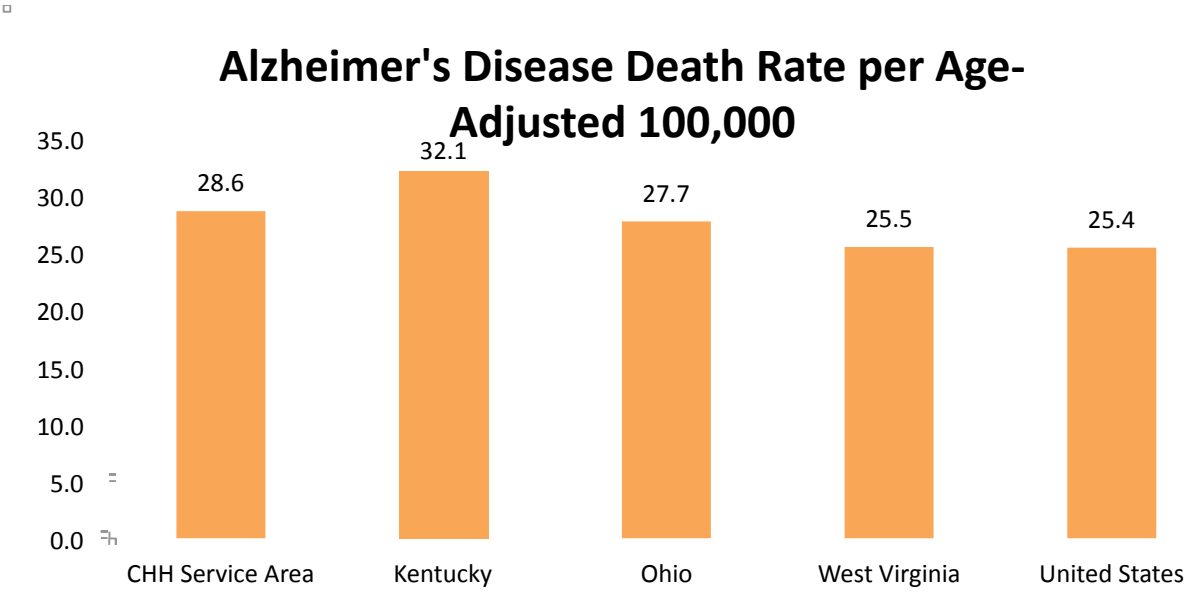
	Kentucky	Ohio	West Virginia	Tri-State	United States
Alzheimer's Disease/ Dementia	11.9%	12.0%	11.0%	11.5%	11.5%
Arthritis	33.6%	33.1%	32.8%	33.17%	30.7%
Asthma	4.4%	4.6%	4.4%	4.47%	4.5%
Cancer	8.3%	8.8%	7.8%	8.30%	8.9%
COPD	16.2%	13.0%	15.4%	14.87%	11.0%
Depression	15.8%	15.3%	15.4%	15.50%	13.6%
Diabetes	29.2%	28.0%	30.6%	29.27%	27.1%
Heart Failure	16.9%	16.0%	14.9%	15.93%	14.6%
High Cholesterol	50.6%	50.0%	51.3%	50.63%	47.9%
Hypertension	64.0%	61.6%	63.3%	62.97%	58.4%
Ischemic Heart Disease	32.8%	30.7%	32.5%	32.00%	29.3%
Stroke	4.0%	4.3%	3.8%	4.03%	4.0%

Source: Centers for Medicare & Medicaid Services, 2014

Alzheimer's Disease

According to the National Institute on Aging, "Although one does not die of Alzheimer's disease, during the course of the disease, the body's defense mechanisms ultimately weaken, increasing susceptibility to catastrophic infection and other causes of death related to frailty."

Medicare Beneficiaries age 65 years or over in the three reported states are just as likely to have Alzheimer's disease when compared to the nation; however, the age-adjusted death rate due to Alzheimer's disease is higher when compared to the nation in all states, except West Virginia. The CHH service area also has a higher rate of Alzheimer's disease death, exceeding the nation by 3 points.

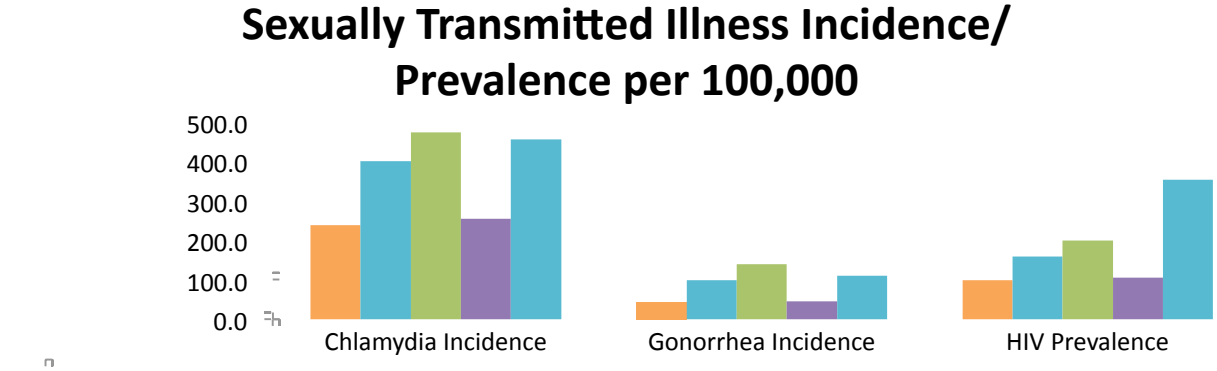


Source: Centers for Disease Control and Prevention, 2014

Sexually Transmitted Illnesses

Sexually transmitted illness rates are lower in the CHH service area compared to state and national benchmarks

The CHH service area has a lower incidence of chlamydia and gonorrhea, and prevalence of HIV, compared to state and national benchmarks. The chlamydia incidence rate is 217 points lower than the nation and the HIV prevalence rate is 253 points lower than the nation. The counties of Cabell, WV, Kanawha, WV, Raleigh, WV, and Boyd, KY have the highest rates of each illness, although rates are still below or equivalent to national averages.



	Chlamydia Incidence	Gonorrhea Incidence	HIV Prevalence
CHH Service Area	239.3	43.7	99.8
Kentucky	400.4	99.0	159.4
Ohio	474.1	140.3	200.5
West Virginia	254.5	45.4	105.2
United States	456.1	110.7	353.2

Source: Centers for Disease Control and Prevention, 2013 & 2014

Behavioral Health

Mental Health

The average number of poor mental health days among adults over a 30-day period is higher in all three states compared to the nation. Averages are highest in the West Virginia counties of Fayette (5.1), Mingo (5.1), Wayne (5.0), Lincoln (4.9), and Logan (4.9).

The suicide death rate in the CHH service area is on par with the nation, but does not meet the Healthy People 2020 goal. The rate increased 4 points between 2005 and 2013, but decreased 3.5 points between 2013 and 2014. Among the CHH service counties, suicide data is only reported for Kanawha County (19.2 per 100,000; n=40) due to low death counts.

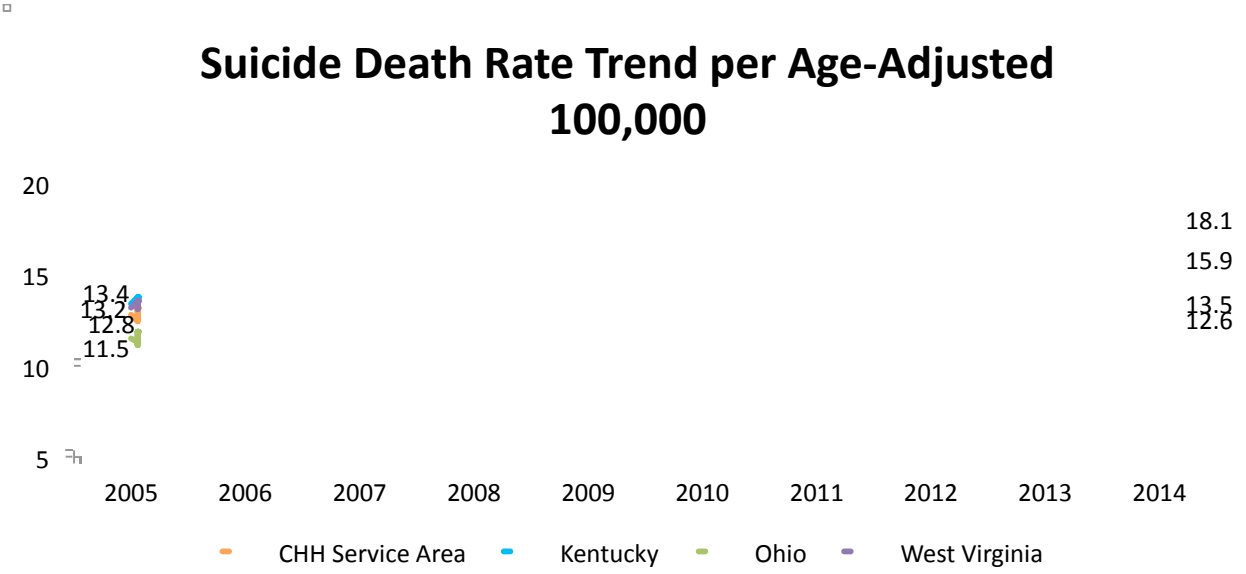
The mental and behavioral disorders death rate is higher in the CHH service area compared to state and national benchmarks and increasing. The rate increased 32 points between 2005 and 2014.

The mental and behavioral disorders death rate in the CHH service area exceeds state and national benchmarks and is increasing

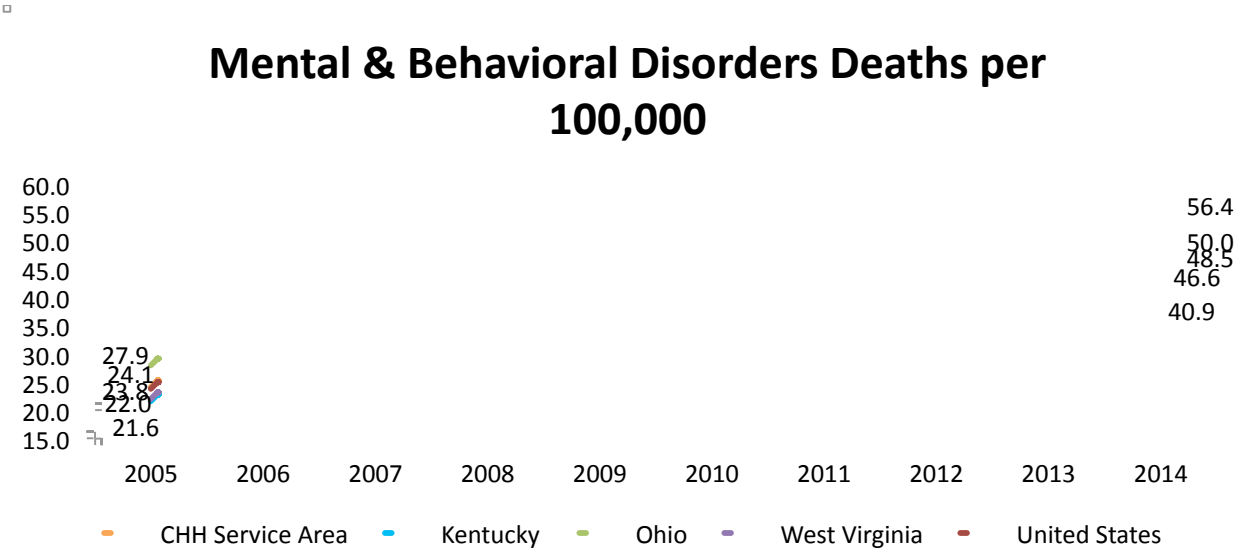
Mental Health Measures

	Poor Mental Health Days	Suicide Rate per Age-Adjusted 100,000	Mental & Behavioral Disorders Death rate per Age-Adjusted 100,000
CHH Service Area	NA	13.5	56.4
Kentucky	4.1	15.9	50.0
Ohio	4.0	12.6	48.5
West Virginia	4.7	18.1	46.6
United States	3.7	13.0	40.9
HP 2020	NA	10.2	NA

Source: Centers for Disease Control and Prevention, 2014; Healthy People 2020



Source: Centers for Disease Control and Prevention,



Source: Centers for Disease Control and Prevention, 2005-2014

The following counties exceed the CHH service area mental and behavioral disorders death rate (56.4 per 100,000) by at least 10 points. Note: 13 counties do not report a death rate due to low death counts.

Mental and Behavioral Disorders Death Rate per Age-Adjusted 100,000 by County

County	Death Rate
Putnam County, WV	77.4
Cabell County, WV	75.2
Kanawha County, WV	73.5
Gallia County, OH	70.9
Fayette County, WV	69.7

Source: Centers for Disease Control and Prevention, 2014

Substance Abuse

Substance abuse includes both alcohol and drug abuse. Across all three states, the percentage of adults who report drinking excessively meets the Healthy People 2020 goal (25.4%). Among CHH service counties, Gallia and Scioto Counties have the highest percentage (16.7%) of adults who drink excessively. Excessive drinking includes heavy drinking (15 or more drinks per week for men and eight or more drinks per week for women) and binge drinking (five or more drinks on one occasion for men and four or more drinks on one occasion for women).

Across the CHH service area, 15 counties have a higher percentage of driving deaths due to DUI compared to the nation. Meigs County, OH and Martin County, KY have the highest percentages (47.4% and 45.5% respectively).

The percentage of driving deaths due to DUI is higher in 15 CHH service counties compared to the nation

The drug-induced death rate in the CHH service area exceeds the nation by 27 points and has increased 23 points since 2009. Among CHH service counties, the rate is highest in Mingo

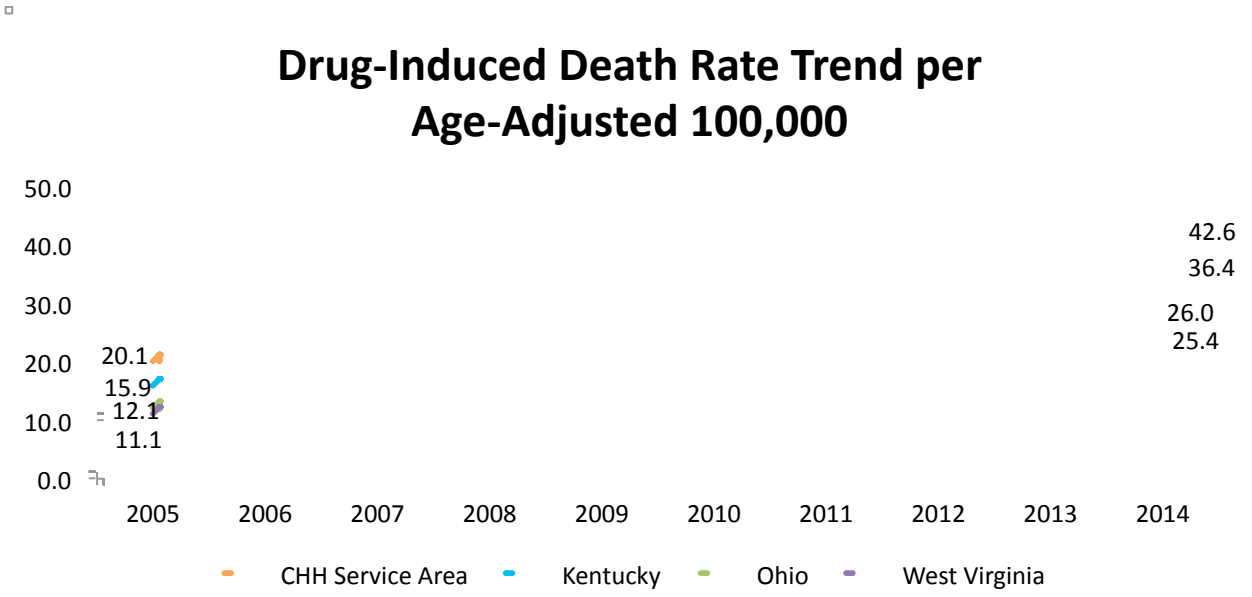
County, WV (100.6 per 100,000; n=25), Boone County, WV (89.3 per 100,000; n=23), and Floyd County, KY (62.8 per 100,000; n=22). Death rates are not reported for 17 of the CHH service counties due to low death counts.

The CHH service area drug-induced death rate exceeds the nation by 27 points and is increasing

Substance Abuse Measures

	Percent of Driving Deaths due to DUI	Drug-Induced Death Rate per Age-Adjusted 100,000
CHH Service Area	NA	42.6
Kentucky	28.8%	26.0
Ohio	35.3%	25.4
West Virginia	32.8%	36.4
United States	31.0%	15.5

Source: Centers for Disease Control and Prevention, 2014 & National Highway Traffic Safety Administration, 2010-2014



Source: Centers for Disease Control and Prevention, 2005-2014

The following counties exceed the national average for driving deaths due to DUI (31%) by at least 5 points:

Percentage of Driving Death due to DUI by County

County	Percentage
Meigs County, OH	47.4%
Martin County, KY	45.5%
Putnam County, WV	40.6%
Mingo County, WV	40.5%
Jackson County, WV	39.5%
Gallia County, OH	36.4%

Source: National Highway Traffic Safety Administration, 2010-2014

Maternal and Child Health

Infant Mortality

According to the Centers for Disease Control and Prevention, more than 23,000 infants died before their first birthday in the United States in 2014. The agency cites that the infant mortality rate "is often an indicator to measure the health and well-being of a nation, because factors affecting the health of entire populations can also impact the mortality rate of infants." The leading causes of infant mortality are birth defects, preterm births, and maternal complications during pregnancy, all of which can be impacted by early and adequate prenatal health and health care.

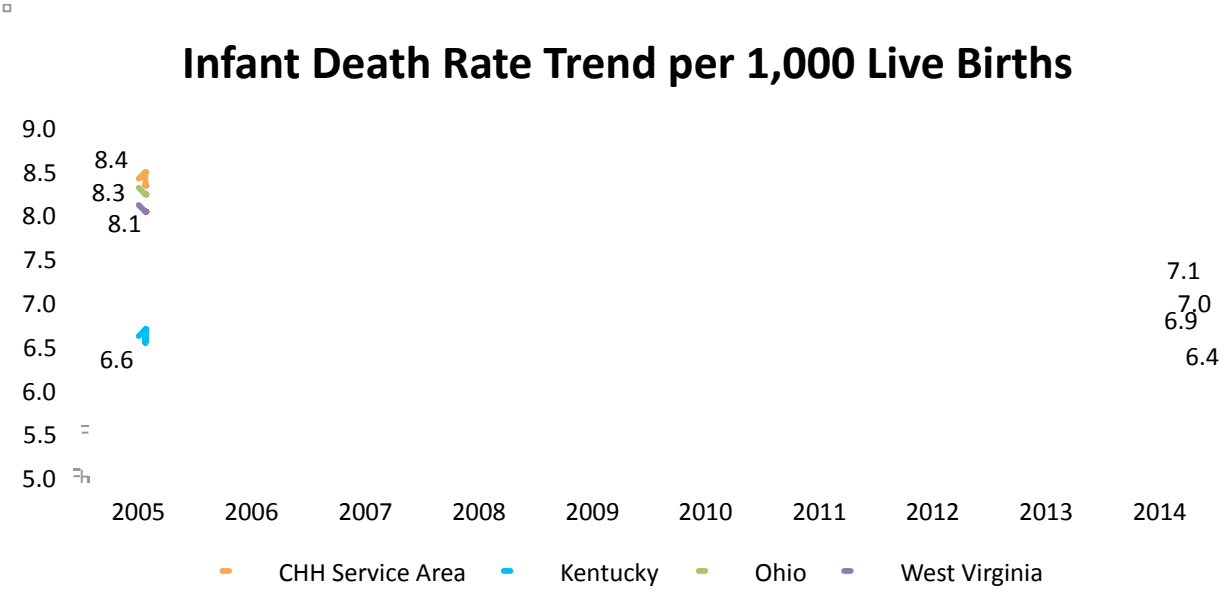
The CHH service area infant mortality rate (6.4 per 1,000 live births) represents 84 infant deaths across the 26 counties. The rate is lower when compared to state benchmarks and nearly meets the Healthy People 2020 goal of 6.0 per 1,000 live births. The rate declined 2 points from 2005 to 2014.

The CHH service area infant mortality rate nearly meets the HP 2020 goal and is declining

Infant Mortality per 1,000 Live Births

	Infant Mortality Rate
CHH Service Area	6.4
Kentucky	7.1
Ohio	6.9
West Virginia	7.0
United States	6.0
HP 2020	6.0

Source: Centers for Disease Control and Prevention, 2014



Source: Centers for Disease Control and Prevention, 2005-2014

County-level annual infant death rates are unreliable due to low death counts. The following table depicts five year (2010-2014) rates and counts for reported counties.

Infant Mortality per 1,000 Live Births by County

	Infant Mortality Rate	Infant Death Count
Gallia County, OH	11.5	22
Pike County, KY	11.3	41
Lawrence County, OH	10.1	36
Floyd County, KY	8.5	22
Cabell County, WV	8.0	48
Putnam County, WV	7.7	23
Boyd County, KY	6.9	20
Scioto County, OH	6.5	29
Raleigh County, WV	6.5	31
Kanawha County, WV	6.2	68
CHH Service Area	**7.2**	**484**

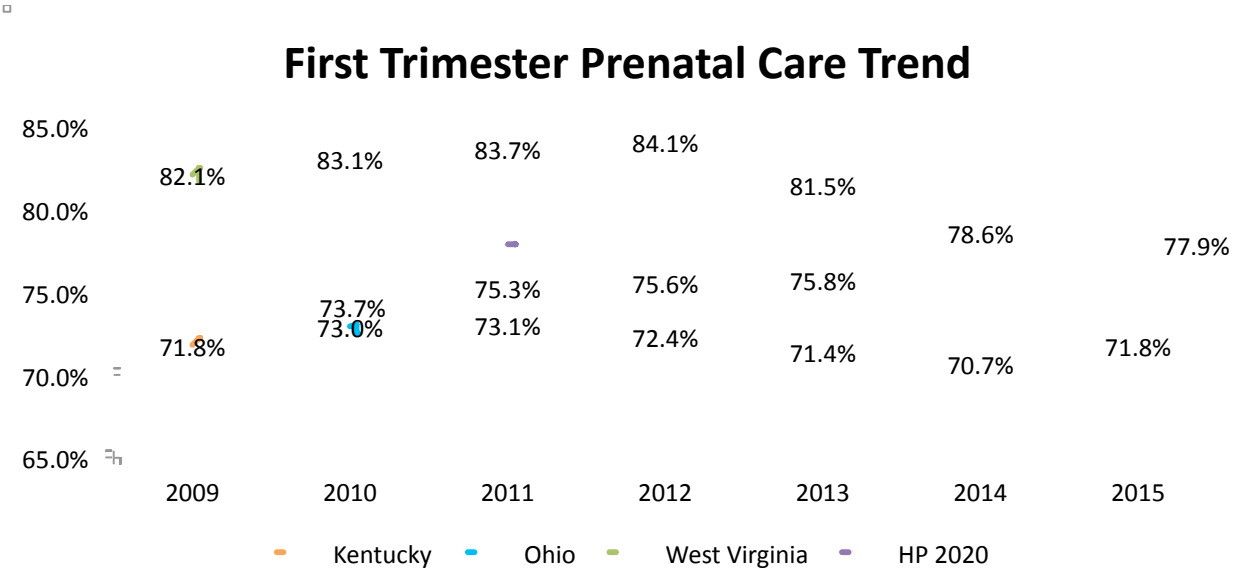
Source: Centers for Disease Control and Prevention, 2010-2014

The following sections depict maternal and child health indicators contributing to infant death. Kentucky, Ohio, and West Virginia report unique maternal and child health indicators with differing years and level of detail publicly available. Ohio reports the most recent data (2015), but it is preliminary. Both Ohio and West Virginia report most indicators by county and race, but Kentucky indicators are only reported at the state level. Year-over-year comparisons are provided for each state to illustrate trends.

Prenatal Care

Prenatal care should begin during the first trimester to ensure a healthy pregnancy and birth. The percentage of Kentucky and West Virginia mothers receiving first trimester prenatal care meets the Healthy People 2020 goal (77.9%). In Kentucky, the percentage of mothers receiving early prenatal care increased 7 points between 2009 and 2014. The percentage of Ohio mothers receiving first trimester prenatal care does not meet the Healthy People 2020 goal and declined between 2010 and 2014.

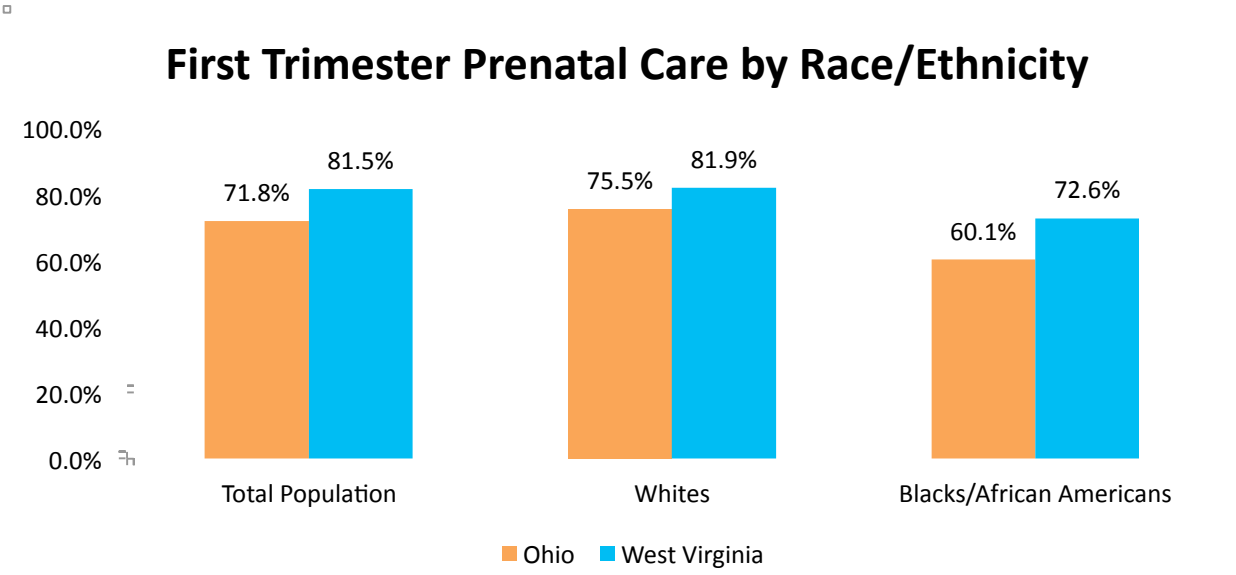
Kentucky and West Virginia meet the HP 2020 goal for first trimester prenatal care; Ohio does not meet the goal by 6 points



Source: Centers for Disease Control and Prevention; Ohio Department of Health; West Virginia Department of Health & Human Resources Bureau of Public Health; Healthy People 2020

Black/African American mothers in Ohio and West Virginia are less likely to receive first trimester prenatal care than Whites. In Ohio, the percentage of Black/African American mothers receiving first trimester prenatal care is 15 points lower than the percentage among Whites. Blacks/African Americans in both states do not meet the Healthy People 2020 goal.

Black/African American mothers are less likely to receive first trimester prenatal care than Whites and do not meet the HP 2020 goal



Source: Ohio Department of Health, 2015 & West Virginia Department of Health & Human Resources Bureau of Public Health, 2013
*Ohio racial data represents Non-Hispanic populations; West Virginia data represents all populations regardless of ethnicity

All of the CHH service counties in Ohio have a higher percentage of mothers receiving first trimester prenatal care than the state. Lawrence and Meigs Counties also meet the Healthy People 2020 goal.

First Trimester Prenatal Care by Ohio County

	Percentage
Lawrence County	82.9%
Meigs County	82.4%
Scioto County	76.8%
Gallia County	72.9%

Source: Ohio Department of Health, 2015

All CHH service counties in West Virginia, with the exception of Fayette, Raleigh, Mingo, and Logan, meet the Healthy People 2020 goal for first trimester prenatal care.

First Trimester Prenatal Care by West Virginia County

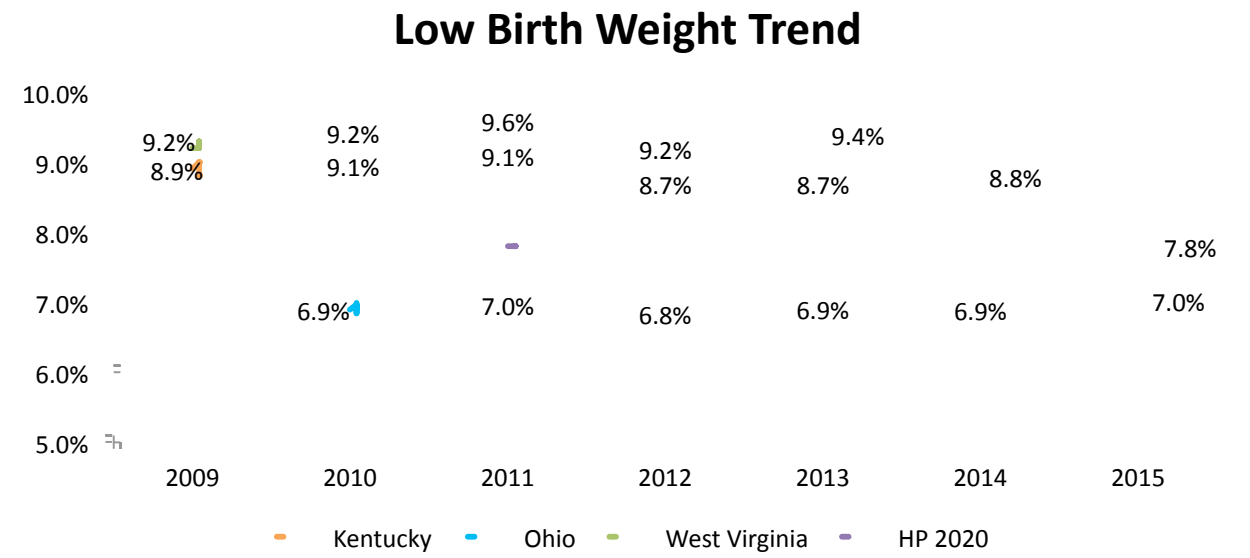
	Percentage
Putnam County	87.7%
Jackson County	87.1%
Wayne County	85.7%
Cabell County	84.3%
Kanawha County	82.2%
Lincoln County	79.0%
Boone County	78.3%
Mason County	78.2%
Logan County	77.8%
Mingo County	77.3%
Raleigh County	66.1%
Fayette County	63.1%

Source: West Virginia Department of Health & Human Resources Bureau of Public Health, 2013

Low Birth Weight

Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces. It is often a result of premature birth, fetal growth restrictions, or birth defects. The percentage of low birth weight babies in Kentucky and West Virginia has remained stable since 2009 and does not meet the Healthy People 2020 goal (7.8%). The percentage of low birth weight babies in Ohio has also remained stable, but meets the Healthy People 2020 goal.

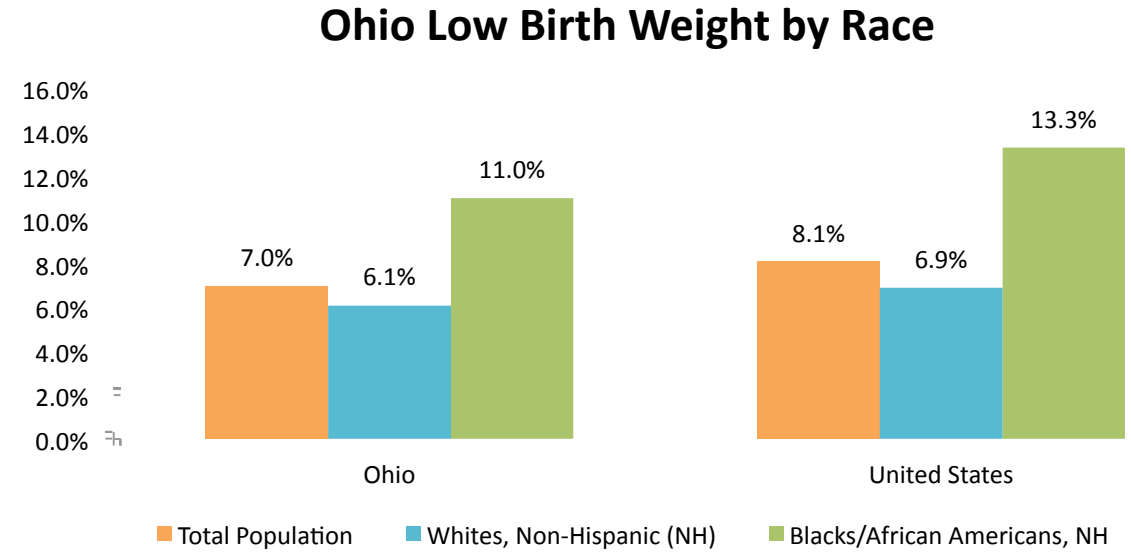
Kentucky and West Virginia do not meet the HP 2020 goal for low birth weight



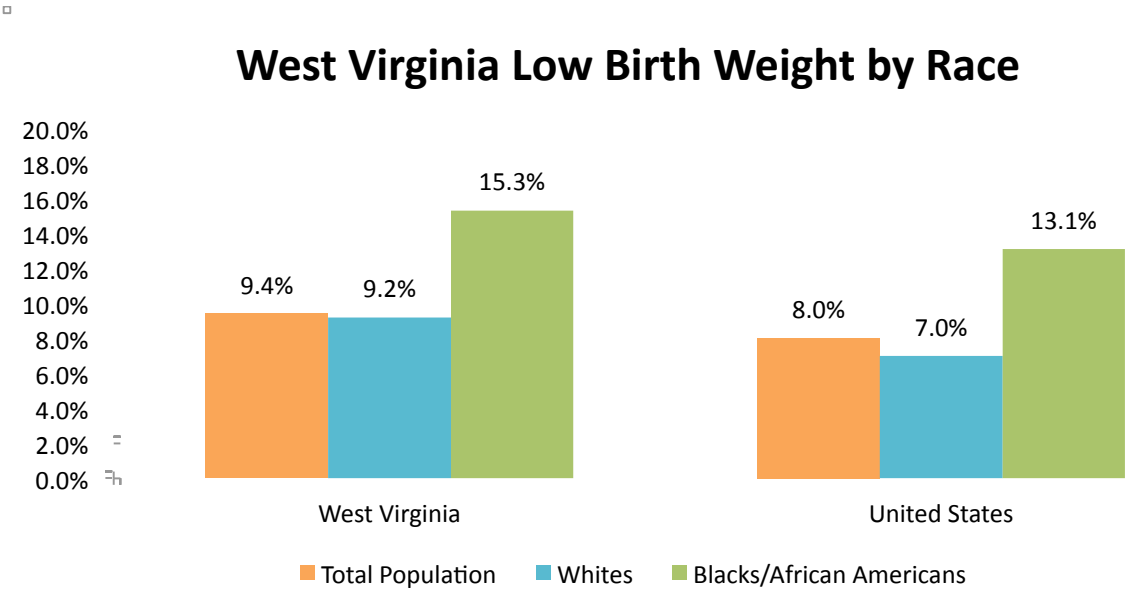
Source: Centers for Disease Control and Prevention; Ohio Department of Health; West Virginia Department of Health & Human Resources Bureau of Public Health; Healthy People 2020

Low birth weight data by race is presented separately for Ohio and West Virginia due to differences in years and populations reported, and to be consistent with national benchmarks. In both states, Black/African American mothers are more likely to deliver low birth weight babies than White mothers and do not meet the Healthy People 2020 goal. In Ohio, the percentage among Black/African American mothers is 5 points higher than the percentage among Whites. In West Virginia, the percentage is 6 points higher than the percentage among Whites. Black/African American mothers in West Virginia are also more likely to deliver low birth weight babies compared to their counterparts nationally.

Black/African American mothers are more likely to deliver low birth weight babies than Whites and do not meet the HP 2020 goal



Source: Ohio Department of Health, 2015 & Centers for Disease Control & Prevention, 2015 & Healthy People 2020



Source: West Virginia Department of Health & Human Resources Bureau of Public Health, 2013 & Centers for Disease Control & Prevention, 2013
*United States racial data represent Non-Hispanic residents

All of the CHH service counties in Ohio, except Gallia, meet the Healthy People 2020 goal for low birth weight babies.

Low Birth Weight by Ohio County

	Percentage
Gallia County	8.8%
Meigs County	7.6%
Scioto County	7.5%
Lawrence County	6.6%

Source: Ohio Department of Health, 2015

All CHH service counties in West Virginia, with the exception of Putnam, do not meet the Healthy People 2020 goal for low birth weight. In addition, all counties, except Putnam, Mason, and Wayne, have a higher low birth weight percentage than the state.

Low Birth Weight by West Virginia County

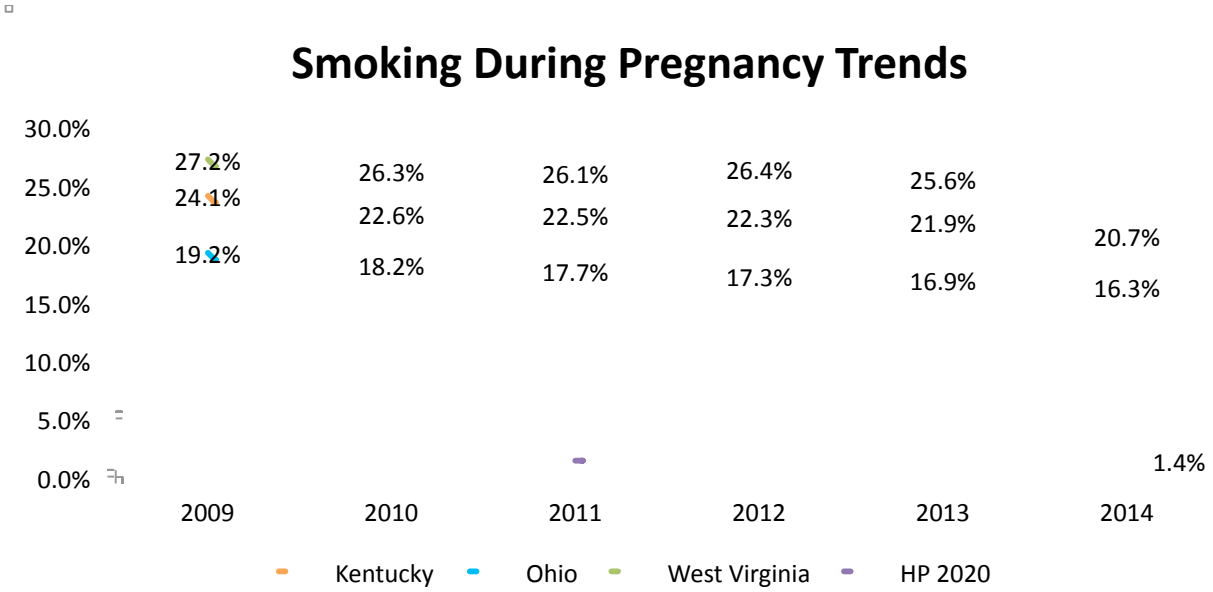
	Percentage
Lincoln County	13.2%
Mingo County	12.9%
Jackson County	11.6%
Logan County	11.3%
Kanawha County	11.1%
Boone County	10.8%
Cabell County	10.2%
Raleigh County	9.6%
Fayette County	9.5%
Wayne County	9.4%
Mason County	9.3%
Putnam County	7.0%

Source: West Virginia Department of Health & Human Resources Bureau of Public Health, 2013

Smoking during Pregnancy

The percentage of mothers in Kentucky, Ohio, and West Virginia who smoke during pregnancy is decreasing, but still accounts for one-fifth to one-quarter of all mothers and does not meet the Healthy People 2020 goal. The rate of mothers who smoke during pregnancy is highest in West Virginia and exceeds the Healthy People 2020 goal by more than 24 points. Kentucky and Ohio exceed the Healthy People 2020 goal by 19 and 15 points respectively. Data by race is not reported.

Approximately one-fifth to one-quarter of pregnant mothers in all three states smoke during pregnancy



Source: Centers for Disease Control and Prevention; Ohio Department of Health; West Virginia Department of Health & Human Resources Bureau of Public Health; Healthy People 2020

County-level data for smoking during pregnancy is only reported for West Virginia. All West Virginia CHH service counties do not meet the Healthy People 2020 goal for this indicator. In addition, all counties, except Putnam, Kanawha, Jackson, and Raleigh have a higher percentage of smoking pregnant mothers compared to the state.

Tobacco Use during Pregnancy by West Virginia County

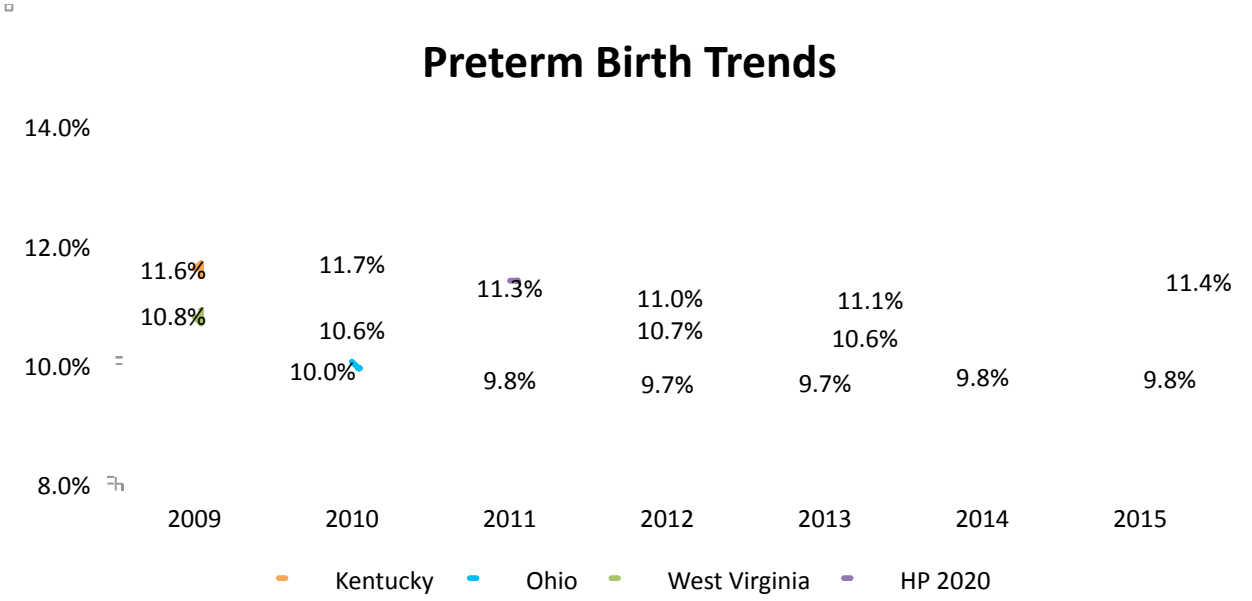
	Percentage
Lincoln County	35.1%
Mingo County	34.7%
Logan County	32.8%
Mason County	32.3%
Boone County	28.8%
Wayne County	28.7%
Fayette County	27.2%
Cabell County	26.7%
Raleigh County	25.5%
Jackson County	24.7%
Kanawha County	22.1%
Putnam County	13.3%

Source: West Virginia Department of Health & Human Resources Bureau of Public Health, 2013

Preterm Birth

Premature births are births that occur earlier than the 37th week of pregnancy. The percentage of premature births in Kentucky, Ohio, and West Virginia has remained stable in recent years and meets the Healthy People 2020 goal.

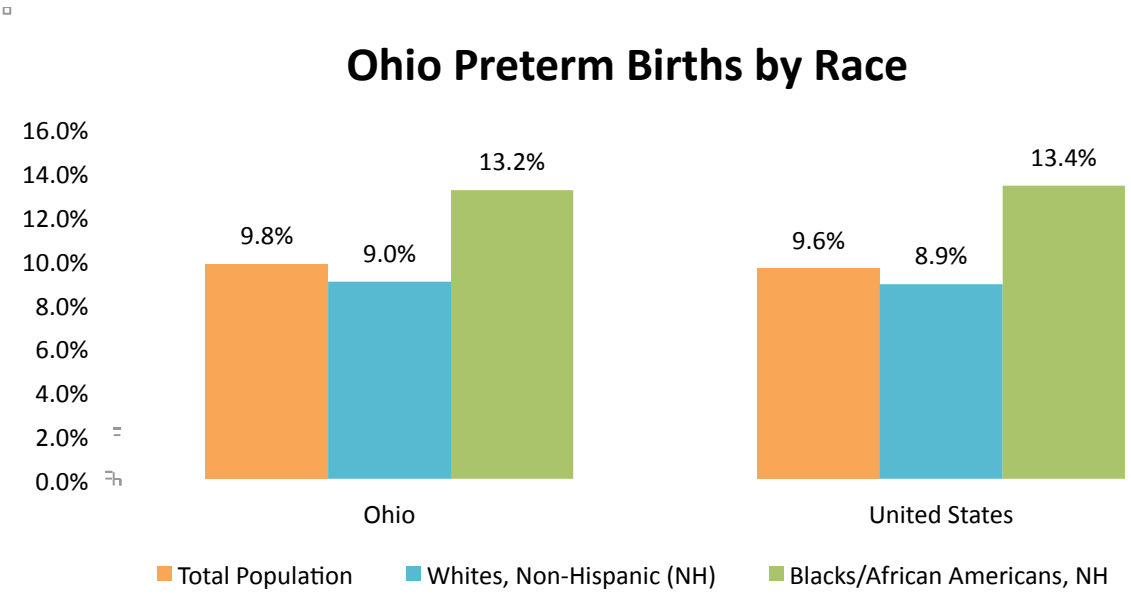
All states meet the HP 2020 goal for preterm births



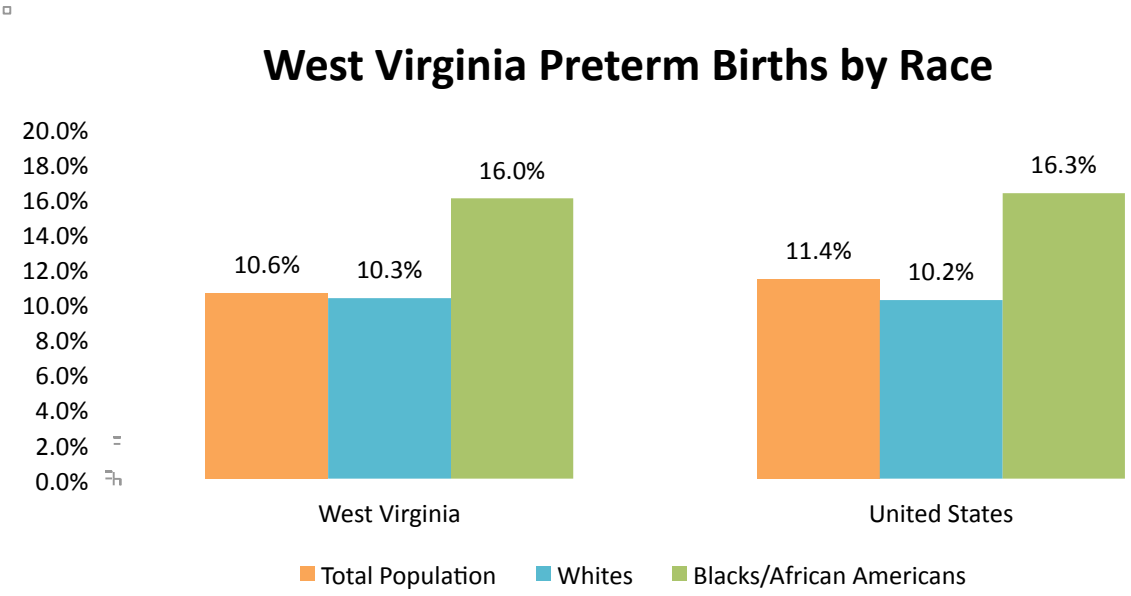
Source: Centers for Disease Control and Prevention; Ohio Department of Health; West Virginia Department of Health & Human Resources Bureau of Public Health; Healthy People 2020

Preterm birth data by race is presented separately for Ohio and West Virginia due to differences in years and populations reported, and to be consistent with national benchmarks. In both states, Black/African American mothers are more likely to deliver preterm babies than White mothers and do not meet the Healthy People 2020 goal. In Ohio, the percentage among Black/African American mothers is 4 points higher than the percentage among Whites. In West Virginia, the percentage is 6 points higher than the percentage among Whites.

Black/African American mothers are more likely to deliver preterm babies than Whites and do not meet the HP 2020 goal



Source: Ohio Department of Health, 2015 & Centers for Disease Control & Prevention, 2015 & Healthy People 2020



Source: West Virginia Department of Health & Human Resources Bureau of Public Health, 2013 & Centers for Disease Control & Prevention, 2013
*United States racial data represent Non-Hispanic residents

Preterm Births

County-level data for preterm births is only reported for Ohio. All of the CHH service counties in Ohio have a similar or lower preterm birth percent, compared to the state, and meet the Healthy People 2020 goal.

Preterm Births by Ohio County

	Percentage
Gallia County	11.0%
Lawrence County	10.5%
Scioto County	10.5%
Meigs County	8.9%

Source: Ohio Department of Health, 2015

Neonatal Abstinence Syndrome

According to the National Institutes of Health, National Library of Medicine, "Neonatal abstinence syndrome (NAS) is a group of problems that occur in a newborn who was exposed to addictive opiate drugs while in the mother's womb." Symptoms of withdrawal from these drugs include irritability, poor feeding, seizures, sleep problems, and diarrhea and vomiting. Across all three states, the number of babies born with NAS is increasing.

Across all states, the number of babies born with NAS is increasing

A report by the Kentucky Department for Public Health found that the number of newborns with NAS increased from 19 in 2000 to 1,060 in 2014. The following table depicts the most common substances of exposure for NAS based on positive drug testing of infants.

Most Common Substances of Exposure for NAS Based on Positive Drug Tests on Infants

	Percent
Other Opiates	27.6%
Buprenorphine	26.1%
Benzodiazepines	12.2%
Cannabinoid	11.5%
Oxycodone	10.0%
Heroin	5.7%

Source: Kentucky Department for Public Health, 2015

According to the Ohio Department of Health, "Between 2004 and 2014 in Ohio, 9,498 hospitalizations resulted from Neonatal Abstinence Syndrome in inpatient settings. In 2014 alone, there were 1,875 admissions, which equates to more than five admissions per day. The rate of NAS grew nearly ten times from 14 per 10,000 live births in 2004 to 134 per 10,000 live births in 2014."

Neonatal abstinence syndrome is also increasing in West Virginia. A report by the National Institutes of Health, National Library of Medicine found that the NAS incidence rate per 1,000 live births increased four-fold from 7.7 in 2007 to 31.6 in 2013. The southeastern portion of the state had the highest incidence rate (48.8 per 1,000 live births).

Key Informant Survey Results

Background

A Key Informant Survey was conducted with 72 community representatives to solicit information about health needs and disparities across the CHH service area. Key informants were asked a series of questions about their perceptions of health needs in the community, health drivers, barriers to care, quality and responsiveness of health providers, and recommendations for community health improvement.

Key informants represent the entire CHH service area and diverse populations, including medically underserved, low-income, and minority populations. A list of organizations represented by the key informants is included in Appendix B. The following tables depict the counties and populations served by the represented organizations, as identified by the participants.

Counties Served by Key Informants

County	Percent of Key Informants	Number of Key Informants
Cabell, West Virginia	91.7%	66
Wayne, West Virginia	69.4%	50
Lincoln, West Virginia	52.8%	38
Logan, West Virginia	50.0%	36
Lawrence, Ohio	45.8%	33
Putnam, West Virginia	43.1%	31
Mason, West Virginia	41.7%	30
Mingo, West Virginia	40.3%	29
Boyd, Kentucky	37.5%	27
Kanawha, West Virginia	37.5%	27
Lawrence, Kentucky	33.3%	24
Gallia, Ohio	33.3%	24
Greenup, Kentucky	31.9%	23
Carter, Kentucky	27.8%	20
Scioto, Ohio	26.4%	19
Boone, West Virginia	26.4%	19
Pike, Kentucky	23.6%	17
Floyd, Kentucky	20.8%	15
Raleigh, West Virginia	20.8%	15
Elliott, Kentucky	19.4%	14
Meigs, Ohio	19.4%	14
Fayette, West Virginia	19.4%	14
Jackson, West Virginia	19.4%	14
Martin, Kentucky	18.1%	13
Johnson, Kentucky	16.7%	12
Magoffin, Kentucky	13.9%	10

Key Informants

Children/Youth and low income/poor individuals are the most commonly served populations by key informants. However, more than half of informants serve at-risk populations, including uninsured/underinsured individuals, seniors/elderly, and homeless individuals and families.

Populations Served by Key Informants

Population	Percent of Key Informants	Number of Key Informants
Children/Youth	78.7%	48
Low income/Poor	73.8%	45
Families	63.9%	39
Women	63.9%	39
Uninsured/Underinsured	59.0%	36
Seniors/Elderly	57.4%	35
Men	54.1%	33
Homeless	52.5%	32
Disabled	44.3%	27
Black/African American	37.7%	23
Hispanic/Latino	31.1%	19
Asian/Pacific Islander	24.6%	15
American Indian/Alaska Native	21.3%	13
Immigrant/Refugee	21.3%	13
LGBTQ community	21.3%	13

Survey Findings

The following tables show the rank order of health conditions and contributing factors affecting residents, as indicated by key informants.

Top Health Conditions Affecting Residents

Ranking	Condition	Percent of Key Informants	Number of Key Informants
1	Drug (Prescription and illegal) Abuse	21.5%	46
2	Overweight/Obesity	15.0%	32
3	Access to Health Care	10.7%	23
4	Tobacco Use	7.0%	15
5	Cancer	6.5%	14
6	Diabetes	6.5%	14
7	Heart Disease	6.1%	13
8	Mental Health	6.1%	13
9	Children's Health	4.2%	9
10	Injury and Violence	3.3%	7
11	Other	2.8%	6
12	Neonatal Abstinence Syndrome	2.3%	5
13	Disability	1.9%	4
14	Immunization	1.4%	3
15	Prenatal Care/Mother & Infant Health	1.4%	3
16	Alcohol Abuse	0.9%	2
17	Alzheimer's Disease/Dementia	0.9%	2
18	Asthma/COPD/Respiratory Disease	0.9%	2
19	HIV/AIDS	0.5%	1

Top Contributing Factors to Conditions Affecting Residents

Ranking	Contributing Factor	Percent of Key Informants	Number of Key Informants
1	Poor diet/Lack of physical activity	19.6%	40
2	Drug/Alcohol abuse	18.6%	38
3	Social determinants (e.g. poverty, education)	17.6%	36
4	Education/Awareness regarding health	12.7%	26
5	Inability to afford care	6.4%	13
6	Other	4.9%	10
7	Crime/Violence/Community blight	4.4%	9
8	Stress (work, family, school, etc.)	4.4%	9
9	Lack of health providers available	2.9%	6
10	Lack of preventative care/screenings	2.9%	6
11	Lack of transportation to access health services	2.9%	6
12	Lack of health insurance	2.0%	4
13	Environmental quality	0.5%	1

Survey Findings

Drug abuse was identified by more than one-fifth of key informants as being the top health concern in the area. Overweight/Obesity and access to health care followed drug abuse as the next most pressing health concerns. “Other” health conditions cited by key informants included oral health and youth fitness and nutrition. Key informants also identified a lack of adequate and reliable transportation and a lack of knowledge among residents about their own health status.

Key informants saw poor diet/lack of physical activity, drug/alcohol abuse, and social determinants as top contributors to the health conditions affecting residents. “Other” contributors identified by respondents addressed a number of factors, including:

- Exposure to trauma
- Inappropriate prescribing of opioids
- Lack of access to mental health care
- Smoking
- The breakdown of family, community, personal responsibility

Key informants were asked to share insight to support their ranking of the top health concerns and contributing factors. Respondents shared that access to health care is improving, but many services are still concentrated in urban areas and at-risk populations (e.g. uninsured, Medicaid patients, etc.) continue to be underserved by the health care system. In addition, despite improvements in health care, residents are remiss in adopting healthy lifestyle behaviors. Informants noted the impact of mental health and substance abuse on adopting healthy lifestyle behaviors and the need to monitor opioid prescriptions to prevent abuse.

The following are direct quotes by respondents, grouped by overarching theme.

Access to Care

- *“ObamaCare did not touch a large community of uninsured, homeless, etc. because they cannot afford even the "low cost" options and don't file tax returns. They will not suffer a financial "penalty" for not having health insurance!”*
- *“Some examples of barriers include centralization of health care services within urban areas, rural roads, commuting time, declining industry, increasing unemployment, transportation expenses, physical ability of patients in traveling long distances, lack of transportation, under insured or not insured, inadequate distribution of current rural health care services and limited services available to rural/underserved areas.”*
- *“The ability of insurance companies to delay approval for care dramatically drains resources from providers and their staff. A state law requiring response within 48 hours for pre-approval would expedite care.”*
- *“WV Medicaid billing codes are inadequate so companies can't bill for services. There is no way to access funds set aside for addiction treatment through Medicaid. Addiction Recovery Care is 30 minutes away with empty beds while people in Huntington OD and die. We accept private insurance and private pay but people in addiction rarely have anything but Medicaid. We are ready and able to move into WV, but because Medicaid will not move we can't offer needed services.”*

Healthy Lifestyle Behaviors

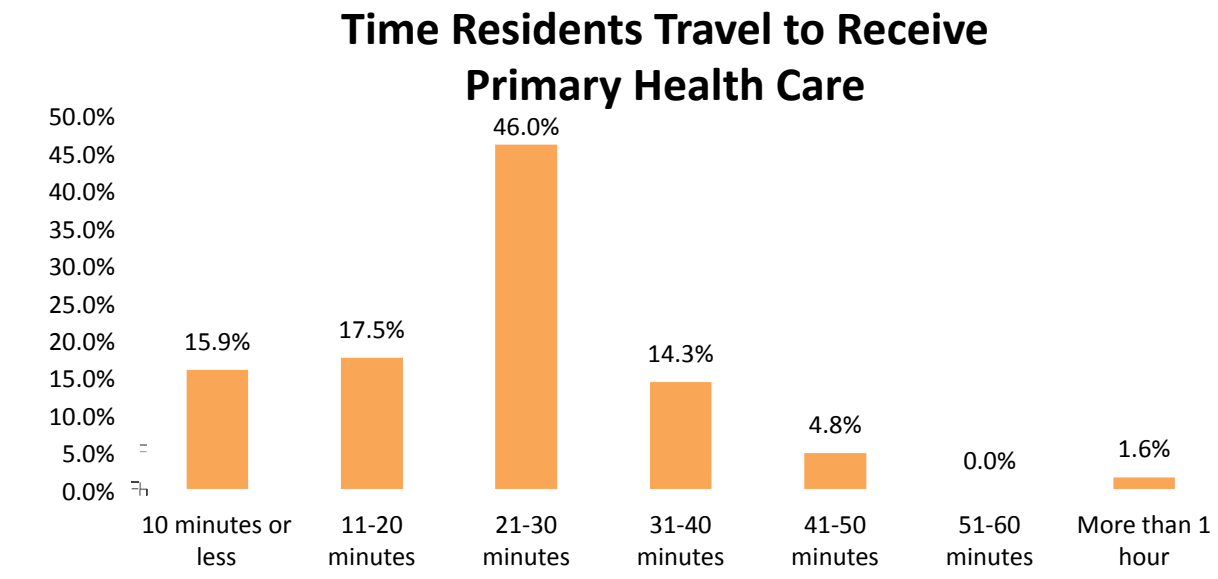
- *"Access to health care, healthy food, and exercise are all available in our community, yet the consequences of poor health choices persist. The social determinates of health appear to be key."*
- *"Area is making strides with insurance and access, but more need to take advantage of opportunities to change lifestyles."*

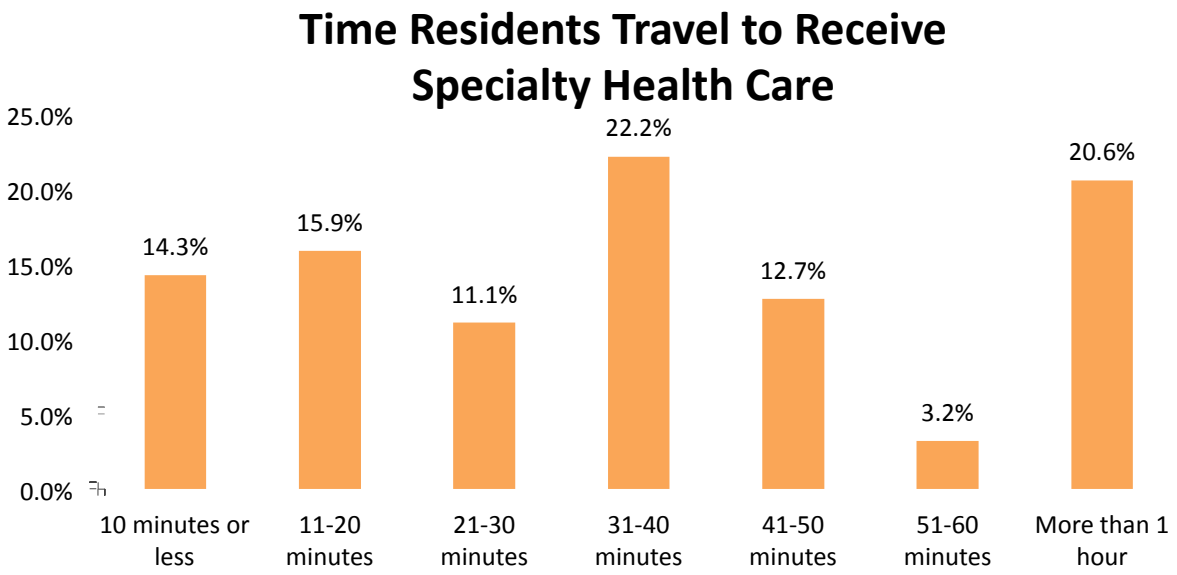
Mental Health/Substance Abuse

- *"Depression causes obesity and obesity causes many health issues. The community needs to be educated in how to eat a healthy diet and the need to exercise for a healthier body."*
- *"Hopelessness keeps coming to the top. This affects mental health and ultimately, physical health. Economic development will assist in these areas but overall education on health specific to diseases and disease management with non-pharmacologic interventions must have a priority."*
- *"Virtually all of the crime in Cabell County is driven by our prescription and black tar heroin drug problem. DO and MD professional associations have been remarkably disinterested in policing our own beyond talk."*

Travel Time

Travel time to primary and specialty care providers was assessed to gather perception on access to care within the region. Respondents shared that access to both primary and specialty care depends on whether residents reside in an urban or rural area. One participant stated, "Both [services] could be 10 minutes or less or more than an hour depending on where they [residents] live." In general, respondents thought residents had less travel time to reach primary care providers than specialty care. Approximately 59% of key informant reported that specialty care is more than 30 minutes away from residents.



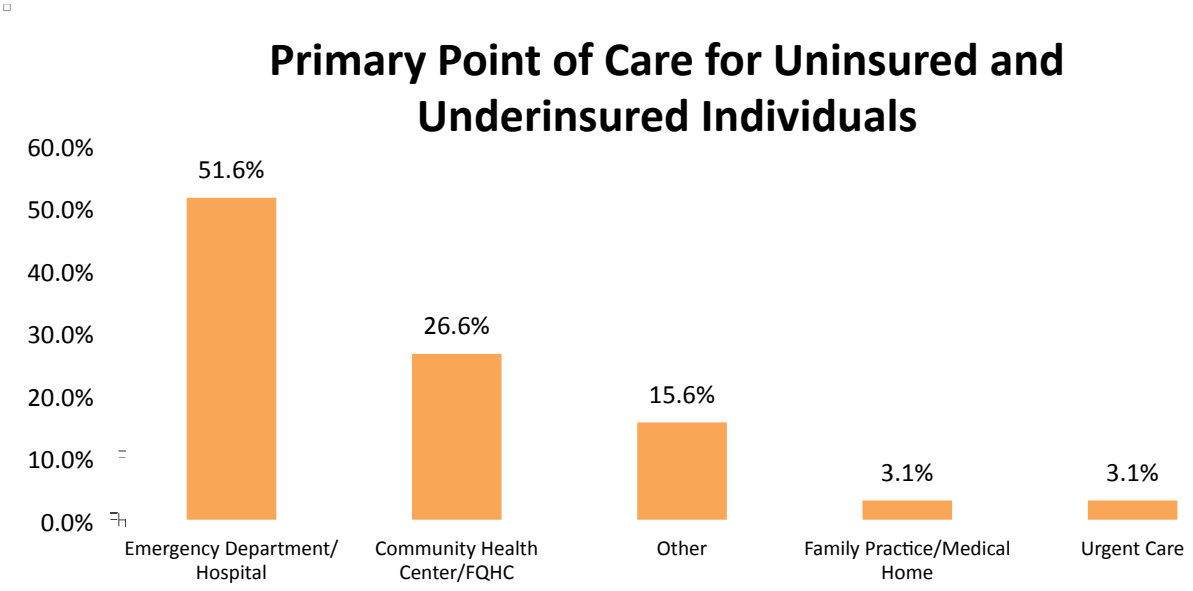


Key informants who reported that specialty care is more than 30 minutes away from residents were asked to identify the services that are not available within the community. Maternal and child health services, cancer, and cardiac care were identified as the most needed services. Other identified specialty services are listed in the table below in order by number of mentions by key informants.

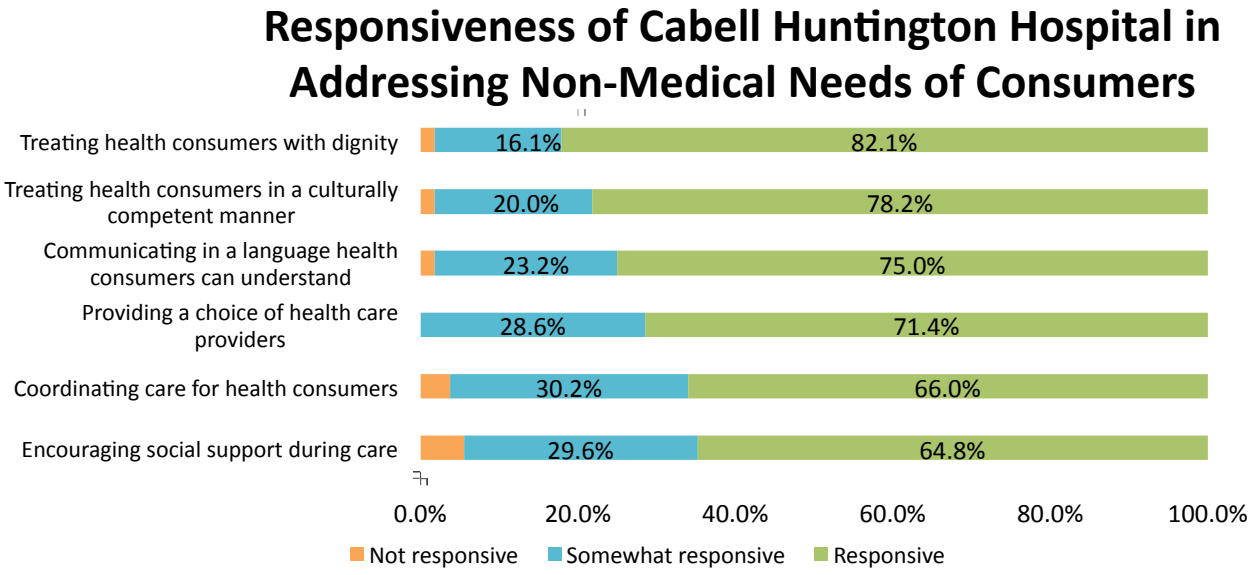
Ranking	Specialty Care Services	Number of Key Informants Identifying the Service as a Need
1	Maternal & Child Health (prenatal, OB/GYN, neonatal, pediatric subspecialties)	6
2	Cancer Treatment	5
3	Cardiac Care	4
4	Emergency Care/Trauma Care	3
5	Burn Intensive Care	2
6	Dermatology	2
7	Renal Disease/Dialysis	2
8	Cleft Care	1
9	Endocrinology	1
10	Joint Replacement	1
11	Medical Imaging	1
12	Mental Health	1
13	Neurology	1
14	Orthopedics	1
15	Stroke care	1
16	Surgery	1

Primary Point of Care

Key informants reported that the emergency department/hospital is the primary point of care for uninsured and underinsured individuals, followed by community health centers/federally qualified health centers (FQHCs). Informants who identified "other" locations stated that health departments, family nurse practitioners, and medical homes are primary points of care.



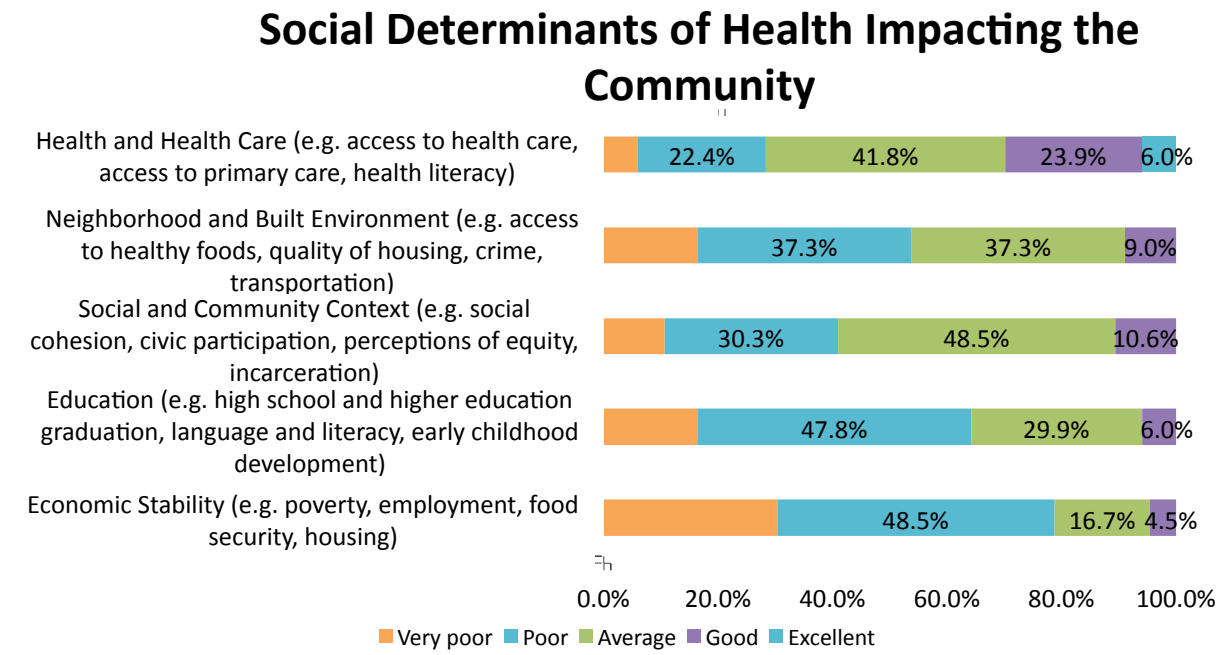
Respondents rated Cabell Huntington Hospital as responsive to the non-medical needs of consumers. Key informants stated that CHH is most responsive to "Treating health consumers with dignity" and "Treating health consumers in a culturally competent manner." CHH is least responsive to "Encouraging social support during care."



Social Determinants

Key informants were also asked to rate social determinants of health in the region. The majority of key informants rated the factors as “poor” or “average.” Health and health care was rated the highest with 30% of informant stating it is “good” or “excellent,” while economic stability was rated the lowest with 79% of informants stating it is “very poor” or “poor.”

Key informants offered limited feedback on their rankings of the social determinants of health. Their comments repeated disparities in access to services and economic opportunity between urban and rural areas. They also noted the need to promote health education and a built environment that facilitates the adoption of healthy lifestyles.



Key informants were asked to share open-ended feedback regarding health-related assets and barriers in the community and their recommendations for helping residents optimize their health.

Informants were first asked to provide examples of programs/initiatives/partnerships that have been successful in helping residents in the community optimize their health. Informants referenced a number of community initiatives, including:

- Cabell Huntington Health Department Needle Exchange Program
- Cabell Huntington Hospital SeniorWise and SeniorFest
- Case managers in the emergency department
- Coalitions/Forums
    - Appalachian Diabetes Coalitions
    - Health Action Team Coalition (Lawrence County, KY)
    - Healthy Families Coalition in Boyd and Greenup Counties

    - Regional Health Connect (Cabell Huntington Health Department)
    - Sustainable Williamson (Williamson, West Virginia)
- Disease-specific education, self-management courses, and support groups
- Employer-based health services
- Free community screenings and health fairs
- Health Providers
    - Ebenezer Medical Outreach
    - Lily's Place
    - Paul Ambrose Trail for Health (PATH)
    - Recovery Point of Huntington
    - Tug Valley ARH Regional Medical Center
    - Valley Health Systems
    - Williamson Health and Wellness Center
- Huntington's Kitchen
- Integrated behavioral health and medical services (e.g. CHH neurology/psychiatry inter-clinic referral system and Prestera Center)
- Mobile mammography van
- Ohio Department of Health Children with Medical Handicaps Program & Reproductive Health and Wellness Program
- School education programs (e.g. nutrition and sex education)
- St. Mary's Joslin Diabetes Center

Key Informants were then asked what resources are needed in the community to promote health in the region. Informants overwhelmingly identified the need to create a culture of health through community education and outreach programs and improved access to year-round healthy foods and exercise opportunities. Approximately one-quarter of informants also identified the need to address the region's "complicated drug problem" through mental health awareness initiatives, enforcement of appropriate prescribing guidelines, and increased behavioral health services. Key informants identified a lack of substance abuse counseling, drug rehab and detox centers, and psychiatrists within the region.

Another theme among informants is the need for better access to primary care. Informants identified the need for more providers, particularly in rural areas, low income clinics, mobile services, and transportation services for medical appointments. Informants also stated the need to improve health insurance coverage rates.

Additional resources needed within the community, as identified by informants, include:

- Back to work programs for injured and displaced workers
- Community health workers
- Economic development initiatives
- Low income dental care
- Pain management clinics
- Weight loss management programs

Key informants were then asked what local and regional health care providers could do better to optimize the health of residents in the community. Informants made the following recommendations:

- Collaborate with community partners to address pressing health needs (e.g. substance abuse, healthy lifestyles) and improve access to services
- Educate medical staff on national opioid prescribing guidelines
- Implement screening tools and improve patient education to identify addictions (tobacco, drugs, alcohol, etc.), promote healthy lifestyles, and encourage patients to be active participants in their health care
- Implement systems for care coordination between providers
- Improve access to care through provider recruitment, telemedicine services, remote clinics, and free medical services
- Increase health education and outreach efforts, particularly among rural and youth populations. One respondent emphasized the need to work with schools stating, “School nurses are often the first and only line of care for too many children in Appalachia.”

Key informants expressed their commitment to improving health across the region. They are aware of the most pressing health needs within the community and are dedicated to addressing health disparities. Informants recognize the need to address health cohesively and from multiple approaches. They are eager to collaborate as partners in ongoing community health improvement initiatives.

Focus Group Results

Three focus groups with individuals managing chronic conditions were held to solicit feedback to better understand community resources, barriers to accessing care, and individual experiences associated with chronic conditions. The focus groups were conducted at the following dates and times in Huntington, West Virginia:

- Monday, June 27, 2016; 11:30-1:00pm
- Monday, June 27, 2016; 5:30-7:00pm
- Tuesday, June 28, 2016; 11:30-1:00pm

The focus groups brought together 36 community residents from across the tri-state region. Participants were recruited by publicity through local community organizations and social media. Demographic information was collected from respondents and considered in participant selection to ensure a diverse representation of community residents. Participants were given $50 in exchange for their time and insight.

The discussion guide was developed in consultation with Cabell Huntington Hospital and was used to facilitate discussion on the following topics:

- Access to Care & Health Care Delivery
- Chronic Condition Management
- Healthy Behaviors

The Impact of Chronic Conditions

Focus group participants experienced a number of chronic conditions, including arthritis, cancer, diabetes, heart disease, obesity, and respiratory disease, which were seen as the most common conditions in the community. Half of the participants manage multiple chronic conditions and nearly one-fifth of participants manage co-occurring behavioral health conditions, mostly depression. .

Participants differ in how they manage their conditions. Some are motivated to make healthy lifestyle choices because they feel better when they eat healthy foods and are active. Others struggle on a daily basis to maintain their health and quality of life. One participant's perception was, "I caused it, I can fix it." Another stated, "I was doing fine until I got sick. Now I can't do anything I used to."

The following community assets and positive influencers were identified as helping residents manage their conditions:

- CHH Diabetes Exercise Center
- CHH SeniorWise Senior Program
- Ebenezer Outreach
- Family Resource Network

- Huntington Internal Medicine Group (HIMG)
- Increased access to fresh, affordable fruits and vegetables (stores, farmer's markets, and assistance programs)
- Parks and recreation groups (e.g. hiking clubs)
- Peer support/partnering with individuals with similar conditions
- Public Employees Insurance Agency fitness incentives and classes
- Social media resources for support groups and information
- St. Mary's Medical Center Joslin Diabetes Center
- YMCA

Individuals who struggled to maintain their health and quality of life identified barriers related to access, culture, depression, pain management, and time. They made the following observations and statements regarding each barrier:

> Access: Affordability and availability of healthy food and exercise options are limited across the region. Focus group participants agreed that services are concentrated in Huntington and other metro areas, with limited options for rural residents. Lack of public transportation further limits residents' ability to access these resources. Healthy foods are seen as more expensive than lower cost fast-food options. Gym membership fees are not affordable for individuals on fixed incomes.
>
> Depression: Depression was a common theme within the focus groups. Six participants listed depression as a co-occurring condition for them. Other participants acknowledged depression as a result of managing a chronic condition and the challenges of caring for oneself when you are depressed.
>
> Pain Management: Many participants stated they are impeded from exercising due to pain from their chronic conditions. Some described "shooting pains" in their feet while others struggle to walk or are afraid they will fall.
>
> Time: Participants discussed the lack of time they have to prepare healthful meals. Many families use convenience or "fast" food as a staple and few healthy options exist. "We used to go to McDonald's as a treat; now kids eat there every day."

Participants did not view their communities as "healthy." While they were very aware of the national lens on the obesity trends in the state, participants did not think the community at large was concerned with promoting health. In addition to a lack of emphasis on health improvement, many residents feel a sense of despair. "It's really hard to develop a positive attitude here because there is just not a lot of opportunity." Another stated, "People have a fatalistic view here." Participants thought that economics take priority over health. "When it's a matter of survival, you don't have a lot of time to worry about health issues." Education, drug and alcohol abuse, mental health, and culture all play a part in reducing individual's proclivity to improve their health. "Residents don't have the time or resources. They don't think about their health until they are sick."

Focus group participants recommended wider promotion of community activities and resources that promote health. Some thought a book of resources was needed. Others preferred to receive information electronically.

The need for increased health education was identified across all focus groups. One participant said, “I don’t have a clue of what it means to eat healthy.” “People think taking care of themselves is so expensive that they can’t afford it.”

Education that encourages early healthy behaviors was recommended. “We let kids eat whatever they want, but as they get older, it’s hard to change those behaviors.” “We used to go to McDonald’s as a treat. Now kids eat there every day.”

Participants made the following recommendations for resources to improve health:

- Free or low cost exercise facilities and group exercise programs
- Free or low cost dental care
- Nutrition counseling for patients with chronic conditions
- Support groups for individuals managing chronic conditions

Access to Care & Health Care Delivery

Participants placed a high emphasis on their relationship with their doctor in managing their conditions. They stressed the importance of having one provider who knows their entire medical history and coordinates their care. Participants valued doctors that took the time to listen to their concerns and answer their questions. “If I can’t ask my questions and they can’t give me answers, then they are not my doctor.”

Participants identified the following qualities as key to a positive patient-provider relationship:

Care Coordination: Participants shared that managing care and medications across multiple providers is a barrier to achieving optimal health. They stated the importance of having one provider who knows their entire medical history and assists with care coordination.

Customized Care: Participants thought that doctors are too quick to act on symptoms without “doctoring.” One participant stated, “Before you’re even done talking, doctors are already writing a prescription.” Participants appreciate when their doctor takes the time to listen to their concerns and have a dialogue about options.

Provides Personal Attention: One participant described his provider as his “biggest cheerleader.” Follow-up after appointments, closely managing and making adjustments to medications, and providing encouragement were listed as positive experiences.

Provides Proactive Care: Recommending health screenings and promoting healthy behaviors is seen as important in promoting good health.

Access to Care & Health Care Delivery
Participants thought highly of the health system and providers in the area. "We have phenomenal doctors here." Insurance was recognized as a determinant of the quality and availability of services. "I had the best insurance, but when I got sick I lost everything. I know I'm not getting the care that I need, but there is nothing I can do about it."

Additional barriers that were identified included:

> After Hours Care: Urgent care centers have become more prevalent within the community and are considered a convenient health care option by residents. However, they are the only evening option other than the emergency department. Participants suggested 24 hour urgent care. "Because, you know babies only get sick in the middle of the night", one participant quipped.
>
> Dental Insurance and Education: The area is "overloaded" with dentists, but many residents do not regularly see a dentist. Focus Group participants thought that residents do not recognize the importance of oral health. Affordability is also an issue.
>
> Affordability Gaps: Residents who earn too much for Medicaid, but still do not make enough money to afford services need assistance in affording health care.
>
> Prescription Opioids: Heightened concerns over drug seekers have made it harder for patients to receive pain medication quickly. The inability to obtain pain medication or needing to wait makes patients endure pain more than they should.

Health Information
Participants thought that residents are generally unaware of the services available within the community to promote health. "I know that there are some things out there, but it's like they're hidden." Other participants did not think residents looked for services until they needed them and services are not well advertised and are time-consuming to access.

The Internet was identified as the primary source for health information. However, not all residents use or have access to the Internet. Cross-posting of information and printed materials are needed to reach all residents. Participants identified the following community resources:

- Cabell County Public Library Information and Referral
- Cabell Huntington Hospital patient portal and SeniorWise
- Health fairs
- Healthgrades
- Insurance company newsletters
- Internet (Mayo Clinic, Web MD, health blogs)
- Newspaper calendar of events
- Pharmacists, physicians, and other providers
- St. Mary's Medical Center Joslin Diabetes Center and The Total Woman

Health Information
Participants recommended that health and social service providers utilize social media, Marshall University bulletins, local television stations, direct emails, and grocery store/library bulletin boards to further promote health information and services.

Participant Suggestions
Participants offered the following suggestions to improve the health of the community, stressing that cost was a barrier for people to participate in programs.

- Conduct monthly seminars or public forums to provide community health education.
- Create a community resource for medical and social services within the region. Participants noted that the current resource database available through the Cabell County library is out of date.
- Develop a “Total Care Response” or “Chronic Health Center” to address care coordination among individuals receiving care from multiple doctors.
- Host community-based annual health fairs at local schools, partnering with community agencies to provide education and increase service awareness.
- Provide dental services at hospitals to increase access to services for residents.
- Initiate school-based health clinics, providing basic medical and dental services and education for both children and parents. Participants referenced the Valley Health Systems school-based clinic as a model.
- Use patient records to customize health information and education for patients

Evaluation of Community Health Impact from the 2013 CHNA Implementation Plan

Background

In March 2013, the CHH core planning team met to review the results of the Community Health Needs Assessment and identify the needs and issues that, as a health care provider, it is best able to address, based on capacity and resources currently available, as well as those that most closely align with CHH. Guided by CHH's Mission and Healthy People 2020, CHH leadership identified the following priorities for 2014-2016:

- Healthy Lifestyles: Nutrition education for disease and obesity prevention
- Youth obesity prevention and intervention
- Access to free or low cost screenings to encourage earlier detection and awareness of disease
- Access to free or low cost Influenza Immunizations

2013 CHNA Evaluation of Impact

Cabell Huntington Hospital developed and implemented a plan to address community health needs that leverages resources across the hospital and the community and employs the hospital's services for chronic disease prevention and improved access to care.

Nutrition Education

Goal Statement: To work with community partners and launch Huntington's Kitchen, a community kitchen to broaden community access to nutrition education, alert people to the real impact of obesity; thus positively impacting the rates of consumption of healthy foods in the CHH Service Area.

Impact:
On August 1, 2013, Cabell Huntington Hospital assumed full management and oversight of Huntington's Kitchen, and with the input and assistance from an active community advisory panel, began to offer a wide array of cooking classes, demonstrations and events designed to measurably improve the health status of the community.

In January 2016, Cabell Huntington Hospital partnered with Marshall University Department of Dietetics at Huntington's Kitchen. The Department of Dietetics moved to the Kitchen to advance their shared mission and to enhance, promote and improve healthy eating, education and quality of life for residents of Huntington and surrounding Tri-State area.

Huntington's Kitchen promoted nutrition education among thousands of Tri-State residents. In 2014, classes, seminars and events held at Huntington's Kitchen drew 1,268 participants. In 2015, that number increased by 66% to 2,106. The annualized participant count for 2016 is 2,222.

Nutrition Education

During the 2014-2016 implementation plan cycle, Cabell Huntington Hospital offered a free monthly physician-led educational series called the Healthy Living Series at Huntington's Kitchen. The Kitchen also offered a variety of cooking classes and cooking-related events at no cost or nominal cost to participants. Classes offered to the community at Huntington's Kitchen in 2014, 2015, and through June 2016 covered a wide range of topics including diabetes, heart health, bariatric-focused cooking, healthy weight, living with food allergies, learn your fruits & vegetables, stroke prevention, Mediterranean cooking, and nutrition for an active or athletic lifestyle.

At the end of the educational sessions, participants were asked what they would start doing tomorrow as a result of attendance. Answers consistently included:

- calculate protein intake/body weight
- change my food routine
- download an app and get to work making diet changes
- exercise more
- hydrate better – drink more water
- pay more attention to nutrition
- switch to multigrain breads
- track my BMI
- try to eat in moderation
- use electrolytes during recovery
- use supplements
- use the recipe learned in the class at home
- utilize fitness apps on my phone
- watch meal portions

Youth Obesity Prevention and Intervention

Goal Statement: To work with community partners, including Cabell County Schools, Marshall University Joan C. Edwards School of Medicine, the Huntington YMCA and St. Mary's Medical Center, to launch "Kids in Motion," an exercise program designed to identify and provide appropriate counsel and intervention to obese and at-risk children (and their parents) from the Cabell County Schools system. Additionally, during the Fall 2013 semester, Cabell Huntington Hospital will partner with Marshall University Joan C. Edwards School of Medicine and Cabell County Schools on a study to determine if the hospital's 2010 grant of $100,000 to fund the overhaul of the Cabell County Schools lunch menu has resulted in measurable student health improvement and reduction in body mass index (BMI).

Impact:
Kids in Motion was successfully launched at the YMCA in Huntington, WV and serves youth across the tri-state area. The goal of *Kids in Motion* is to get kids from kindergarten through high school (ages 5-17) moving and having fun, while learning about fitness and nutrition.

Kids in Motion is customized to every individual child or teen to ensure the healthiest results. The program offers 10 weeks of unique peer group exercise training and nutrition education. Children experience exercise like never before through the use of exergaming equipment and a state of the art fitness studio. Nutrition education is provided through two opportunities for hands on learning at Huntington's Kitchen and one grocery store tour that gives parents further nutrition education guided by a registered dietitian. Youth also receive a one year membership to the YMCA. Body Mass Index (BMI), body measurements, weight, height, and performance measurements are tracked to measure each participant's progress.

From the time *Kids in Motion* was developed, Cabell Huntington Hospital has worked with over 215 youth participants in our *Kid Fit* program and over 83 families in our *Family Fit* program. Our *Kid Fit* and *Family Fit* program participants have lost a combined total of over 485 pounds since 2013.

***Kids in Motion* Objective One: Reduce participants BMI/Body Fat by 10 percent**

Body Mass Index or BMI is the measure of body fat based on an individual's height and weight. Since 2013, we have seen the following statistical data among our youth participant's ages 5-12 years old:

- Average initial BMI/Body Fat percentage at the start of each 10-week session: 20.7
- Average final BMI/Body Fat percentage upon completion of 10-week session: 20.8
- Number of participants who decreased BMI within their 10-week session: 18
- Largest reduction of BMI seen by one individual participant within the 10-week session: 1 point deduction from 34 to 33

***Kids in Motion* Objective Two: Reduce LDL levels in participants to reflect a closer ideal range of 100-129 mg/dL**

Low-density lipoprotein (LDL) is considered to be "bad" cholesterol because it contributes to the build-up of plaque within the arteries. The presence of high levels of LDL cholesterol in our youth is on the rise. A recent study by the CDC National Center for Health Statistics found that one in five children are tested with high cholesterol. Children diagnosed with high LDL levels should engage in increased physical activity and exercise, avoid food high in saturated fat, and work towards a healthy weight.

The *Kids in Motion* initiative works to uniquely develop a program that incorporates physical activity with nutrition education and awareness, in hopes that those participants with high LDL levels will be able to naturally lower and balance their cholesterol levels. Grant funding policies restricted our ability to take blood to track participant LDL levels. However, based on reductions in BMI and other measurements, the program expects reduced LDL levels among participants.

***Kids in Motion* Objective Three: Reduce the number of children who are obese**

Obesity, as defined by the Body Mass Index scale, is a body fat percentage of 30 or greater. Since 2013, we have seen the following statistical data among our youth participants' ages 5-12 years old:

- Average weight of our youth participants at the initial weigh-in of each 10-week session: 92.5lbs
- Average weight of our youth participants at the final weigh-in of each 10-week session: 91.7lbs
- Number of youth that lost weight during their 10-week session: 19
- Largest reduction in weight seen by one individual participant within the 10-week session: 7lbs
- Average number of youth participants classified as obese when starting their 10-week session: 5
- Average number of youth participants classified as obese upon completing their 10-week session: 5

Since the beginning of the *Kids in Motion* program we have seen a dramatic difference in our participants' personalities, lifestyles, and self-esteems. Through the unique combination of fitness and nutrition programming, many of our participants have adopted new eating and physical activity habits outside of the studio. One of our greatest successes comes from a family who started with the *Kids in Motion* program in 2013. Through their continual participation and positive lifestyle changes they have lost a combined total of 140 pounds.

We continually have a large number of returning participants each session as well as new youth and families. We have found that the *Kids in Motion* program is 100% successful with those youth and families who attend class regularly and adopt the preferred nutrition plan. Not only have those participants lost weight, but they report a greater sense of pride and increased self-esteem. Although we have a very consistent group of participants, those participants who inconsistently attend class may not experience the same results, which affects the consistency of data tracking. The program is piloting a new class schedule to increase attendance among all participants.

Cabell Huntington Hospital is active in the community and provided a number of other community initiatives promoting youth obesity prevention. The hospital presented youth programs in partnership with the Cabell County School system and educational materials at area health fairs and recreation events.

Screenings: Cancer, Heart Disease, and Lung Disease

Goal Statement: To reduce causes of death and positively impact the rates of chronic disease in the CHH service area.

Objectives:

1. Provide increased community education regarding chronic disease prevention
2. Conduct disease-specific, community-based screenings
3. Expand disease management opportunities

Impact:
Between fiscal years 2013 and 2015, Cabell Huntington Hospital provided community-based education and outreach opportunities to more than 18,000 tri-state residents. The programs addressed diverse health concerns, including:

- Back to school preparedness
- Bone health
- Caregiver support
- Child health, development, and safety
- Exercise education and classes
- Heart disease
- Lung disease
- Insurance education
- Maternal and child health (breastfeeding, baby care, and sibling classes)
- Nutrition
- Parenting
- Senior health
- Support groups (Alzheimer's disease, Parkinson's disease, stroke)
- Women's health

During the same fiscal year time period, Cabell Huntington Hospital provided free health screenings to more than 6,000 Tri-State residents. Screenings included clinical breast exams, Pap tests, calcium and osteoporosis analysis, and heart and lung disease assessments. Health screenings were provided at various locations throughout the community, targeting underserved and at-risk populations. A survey conducted among women who received free screenings (Pap smear, breast exam, and pelvic exam) asked respondents, "If this service today was not provided free of charge, how likely is it that you would have seen a provider for an exam within a year." Thirty-eight percent of respondents stated that they were "not at all likely" to have received the exams.

Senior Services
Cabell Huntington Hospital focused community education and outreach on promoting senior health and wellness. The hospital hosted SeniorWise, a free membership program for adults 50 or over to share current information about healthy lifestyles and healthy aging. SeniorWise

offers many free opportunities for education and screenings, along with a wide variety of free or discounted services that support a healthy lifestyle:

- Lifeline home monitoring system $40 activation fee waived
- Medicare enrollment and information assistance
- Free or discounted health screenings
- Free educational opportunities
- Free exercise classes
- Free biannual review of medications by a CHH pharmacist
- Free Advance Directive assistance with notary service
- Free smoking cessation classes
- One free Healthy Numbers Profile (fasting blood test)
- One free abdominal aortic aneurysm screening (certain criteria apply)
- Catalyst Scripts prescription drug discount program
- $5 monthly membership discount for CHH Diabetes Exercise Center
- $5 monthly membership discount for CHH Cardiopulmonary Rehabilitation Maintenance Program

Cabell Huntington Hospital also hosted Senior Focus Fridays and an annual SeniorFest program. Senior Focus Fridays were conducted at Huntington's Kitchen on the third Friday of every month, focusing on a different health topic each month. Participants received health education and/or a screening related to the health topic, a healthy cooking demonstration and lunch, and instructions on maintaining physical activity.

SeniorFest is a celebration of people over 50 years of age. The event was designed to help older adults take an active approach to continued or improved good health. Participants learned about current health issues for seniors, received free screenings and flu vaccines, and enjoyed social networking with peers. SeniorFest evaluations were completed by 2,396 participants between 2012 and 2015, with 71% or greater rating their experiences as Excellent each year. The event continues to grow in popularity, attracting new attendees each year, and 40% of 2015 participants saying they had not attended SeniorFest the year before.

Influenza Immunizations

Goal Statement: To positively impact the rates of morbidity and mortality related to influenza in the CHH service area.

Objectives:

1. Increase community demand for vaccinations
2. Enhance access to vaccinations
3. Offer provider-based interventions and provide site-specific interventions to the targeted populations aged >65 and vulnerable populations

Impact:
Cabell Huntington Hospital, through its Senior Services program and Family Medical Centers, and in partnership with the Cabell-Huntington Health Department, administered the following number of free influenza vaccinations to people 65 years of age or older during the following years:

2012 – 673 vaccines
2013 – 1179 vaccines
2014 – 1006 vaccines
2015 – 1200 vaccines

A national study quoted by the Centers for Disease Control and Prevention (CDC) found that the flu vaccination was associated with a 77% reduction in flu-related hospitalizations among adults 50 years or older during the 2011-2012 season. The flu vaccine is less effective among older adults 65 years or older, but it is still the best protection available. The CDC quotes another study estimating that one death is prevented for every 4,000 people who are vaccinated against the flu.

Cabell Huntington Hospital Implementation Plan for Community Health Improvement

Cabell Huntington Hospital has developed a Community Health Implementation Plan for 2016 through 2019 to guide community benefit and population health improvement activities across our service area. The plan builds upon past efforts and measures ongoing initiatives for community health improvement.

Cabell Huntington Hospital recognizes that across all health needs within the community, access to care continues to be a barrier to residents achieving optimal health. The hospital has identified access to care as an overarching priority for the 2016-2019 Implementation Plan and will address it as a cross-cutting strategy for all other priority areas.

Priority Area: Access to Care

Goal: Improve access to comprehensive, quality health care services.

Objectives:

- Conduct health care summit with other providers to identify health care access needs, resources and opportunities
- Summit outcomes may lead to an increase in the proportion of individuals who have a specific source of ongoing care
- Summit outcomes may lead to a reduction in the proportion of persons who are unable to obtain or delay in obtaining necessary medical care

Strategies:

- Collaborate with community partners to provide primary, preventative care in communities
- Enhance partnerships with community agencies to support behavioral health treatment services
- Provide disease-specific community-based screenings, targeting underserved and at-risk populations
- Provide insurance enrollment and information assistance at the hospital and in partnership with community agencies

Priority Area: Chronic Disease Prevention & Management

Goal: Reduce causes of death and positively impact the rates of chronic disease in the CHH service area.

Objectives:

- Provide community education and outreach that promotes chronic disease prevention
- Provide knowledge and education to help reduce prevalence of obesity for those at risk or diagnosed with chronic conditions
- Provide awareness and knowledge as well as work with community partners to reduce the initiation of tobacco use among children, adolescents, and young adults

Strategies:

- Continue to host senior-specific programming (e.g. SeniorFest, Senior Focus Fridays, and SeniorWise) to provide health education, screenings, and services that support a healthy lifestyle
- Provide education about healthy lifestyles and chronic disease prevention at Huntington's Kitchen and at community events
- Support the *Kids in Motion* program to provide counsel and intervention to obese and at-risk children and families
- Provide support groups specific to health conditions and target populations

Priority Area: Behavioral Health

Goal: Improve outcomes for residents with a mental health or substance abuse condition and their families.

Objectives:

- Increase public education and awareness for signs and symptoms of mental health and substance abuse issues, and awareness of available community resources
- Increase understanding of root causes of behavioral health needs and opportunities for collective impact among partner organizations

Strategies:

- Encourage the ongoing placement of drug disposal drop boxes through the region
- Host a regional behavioral health summit, convening community agencies and potential partners for addressing prevention and management needs
- Implement the use of early identification substance abuse screening tools throughout the lifespan among all Cabell Huntington Hospital primary care patients
- Provide community education and outreach through collaboration with partner agencies
- Provide educational training and materials to dispensers and prescribers on appropriate opiate prescribing guidelines
- Provide support for Lily's Place, a non-profit leader in Neonatal Abstinence Syndrome, in caring for drug-exposed newborns and their families
- Provide discharge education to Cabell Huntington Hospital patients re: use of opiates to patients discharged with opiate prescriptions.

Board Approval and Dissemination

The Cabell Huntington Hospital Board of Directors reviewed and approved the report of the Community Health Needs Assessment and adopted the Implementation Plan to address the priority areas on September 27, 2016. Both reports were made widely available to the public through the hospital's website (http://cabellhuntington.org/about/community-health-needs-assessment/).

Cabell Huntington Hospital leadership and staff share a common value of providing excellent care that promotes lifelong good health. Cabell Huntington Hospital has a long tradition for caring for the needs of the communities it serves. The hospital continually assesses how it serves communities and, as part of its mission, is dedicated to on-going education regarding health and well-being. Cabell Huntington Hospital provides a number of outreach activities on a regular basis and is dedicated to improving the health of the region.

Appendix A: Public Health Data References

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Appendix B: Key Informant Interviews

A key informant survey was conducted with 72 community representatives. The organizations represented by key informants, and their respective role/tile, included:

Key Informant Organization	Key Informant Title/Role
Addiction Recovery Care	Marketing/Client Care
Beckley-Raleigh County Health Department	Nursing Director/Acting Administrator
Cabell County School System	Director
Cabell Huntington Health Department	Regional Tobacco Prevention Coordinator
Cabell Huntington Hospital	Chief Financial Officer
Cabell Huntington Hospital	Secretary
Cabell Huntington Hospital	Nurse Practitioner
Cabell Huntington Hospital	Medical Director
Cabell Huntington Hospital	Trauma Nurse Practitioner
Cabell Huntington Hospital	Certified Registered Nurse Anesthetist
Cabell Huntington Hospital	Physician
Cabell Huntington Hospital	Physician
Cabell Huntington Hospital	Resident physician
Cabell Huntington Hospital	Physician
Cabell Huntington Hospital	Physician
Cabell Huntington Hospital Emergency Department	Physician
Cabell Huntington Hospital Interventional Radiology	Physician Assistant
Cabell Huntington Hospital NICU	Neonatologist
Cabell Huntington Pain Management	Nurse Practitioner
Cabell-Huntington Health Department	Administrator
Cabell-Huntington Health Department	Sanitarian Supervisor
Cabell-Huntington Health Department	Secretary
Cabell-Huntington Health Department	Physician Director
Cabell-Huntington Health Department	Supervisor
CONTACT Rape Crisis Center	Sexual Assault Response Team Coordinator
Edwards Comprehensive Cancer Center	Medical oncologist
Edwards Comprehensive Cancer Center	Breast Surgeon
ESA	Chief Executive Officer
Financial Services	Financial Advisor
Foundation for the Tri-State Community, Inc.	President
Gallia County Health Department	Director of Nursing
Gallia County Health Department	Public Health Nurse
Huntington Behavioral Health Services	Psychologist
Huntington Housing Authority	Board President
Huntington Steel & Supply Co., Inc.	CEO
Huntington Symphony Orchestra	Director
Huntington Symphony Orchestra	President
Ironton-Lawrence County Community Action Partnership	Pediatric Dentist
Kentucky General Assembly	Representative, 96 District

Key Informant Organization	Key Informant Title/Role
Kids in Motion/YMCA	Health and Wellness Director
Kyova Interstate Planning Commission/Region II Planning and Development Council	Executive Director/Transition
Lawrence County Health Department	Public Health Director
Layne Consulting, Inc.	President
Marshall Cardiology	Physician
Marshall Dietetics	Chair/Professor
Marshall Family Medicine	Professor
Marshall Health	Physician
Marshall Health	Physician
Marshall Health	Pediatric Plastic Surgeon
Marshall Health	Physician
Marshall Health Pediatrics	Physician specialist surgeon
Marshall Health Psychiatry	Physician
Marshall Health/Cabell Huntington Hospital	Family Nurse Practitioner
Marshall Medical Outreach	Physician
Marshall Psychiatry	Resident Physician
Marshall University	Faculty
Marshall University Family Medicine Residency Program	Postgraduate Year 3, Faculty in August
Marshall University Joan C. Edwards School of Medicine	Professor and Chairman Emeritus
Marshall University Joan C. Edwards School of Medicine	Associate Professor, Clinician
Marshall University Joan C. Edwards School of Medicine Neurology	Physician
Marshall University, Department of Pediatrics	Pediatric Attending
Marshall Urology	Urologist
Mingo County Schools	Director
OccuMed, LLC/Cabell Family Urgent Care	Provider
Prestera Center	Director of Corporate Development
St. Mary's Women & Family Care	Certified Nurse Midwife
The Herald-Dispatch	Publisher
United Way of the River Cities	Executive Director
Valley Health Systems	provider
Valley Health Systems	Adolescent health coordinator and NP
West Virginia House of Delegates	Delegate
West Virginia Local Health Inc.	Executive Director

Appendix C: Key Informant and Focus Group Surveys and Invitations

Rebecca Bookwalter

From: Community Health Needs Assessment
Sent: Thursday, June 09, 2016 4:23 PM
To: Rebecca Bookwalter
Subject: Cabell Huntington Hospital - Community Health Needs Assessment

Dear Community Partner:

To gain a better understanding of health needs across the communities we serve, Cabell Huntington Hospital is undertaking a Community Health Needs Assessment (CHNA). The 2016 CHNA builds upon our 2013 study and will guide our community benefit and community health improvement efforts.

As we begin our research, we are reaching out to our community partners to solicit your input and participation in the CHNA process. Among the opportunities for partnership, we invite you to participate in an online survey to provide your thoughts and individual comments on a wide variety of health issues and community benefit efforts. You may access a link to the survey **here.**

Your candid input is essential to prioritize community health needs. With your input, Cabell will identify needs within the communities we serve and work with our partners to take a collaborative approach to address community health improvement and direct resources. Results of the survey and overall findings from the CHNA will be shared with participants for further feedback. Please take the time to provide us with your input by June 30.

If you have questions about the survey or the Community Health Needs Assessment, please contact me.

Thank you in advance for your participation. We look forward to hearing your views.

Kind regards,

Lisa Chamberlin Stump
Vice President, Strategic Marketing & Planning
Cabell Huntington Hospital
chna@chhi.org
304.399.6854

Your Partners for Life
Cabell Huntington Hospital

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Introduction

Dear Community Partner:

To gain a better understanding of health needs across the communities we serve, Cabell Huntington Hospital is undertaking a Community Health Needs Assessment (CHNA). The 2016 CHNA builds upon our 2013 study and will guide our community benefit and community health improvement efforts.

As we begin our research, we are reaching out to our community partners to solicit your input and participation in the CHNA process. Among the opportunities for partnership, we invite you to participate in an online survey to provide your thoughts and individual comments on a wide variety of health issues and community benefit efforts. You may access a link to the survey here.

Your candid input is essential to prioritize community health needs. With your input, Cabell will identify needs within the communities we serve and work with our partners to take a collaborative approach to address community health improvement and direct resources. Results of the survey and overall findings from the CHNA will be shared with participants for further feedback. *Please take the time to provide us with your input by June 30.*

If you have questions about the survey or the Community Health Needs Assessment, please contact me.

Thank you in advance for your participation. We look forward to hearing your views.

With regards,

Lisa Chamberlin
Vice President, Strategic Marketing & Planning
Cabell Huntington Hospital
Lisa.Chamberlin@chhi.org
(304) 526-2007

CONFIDENTIALITY STATEMENT: The information provided within this survey will be held in strict confidence by our research partner, Baker Tilly. No responses will be attributed to you or your organization without your permission. Survey responses will be compiled in an overall report of the study with a list of respondents by title and organization only, as required by the IRS Mandate for the Conduct of a Community Health Needs Assessment for Non-Profit Hospitals. More information about the requirements for Non-Profit hospitals to conduct a CHNA can be found at http://www.irs.gov/irb/2015-5_IRB/ar08.html.

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Your Organization & Community

* 1. Organization:

* 2. Title/Role

* 3. Please indicate which county(ies) your organization serves (check as many as apply):

- [ ] Boyd, Kentucky
- [ ] Carter, Kentucky
- [ ] Elliott, Kentucky
- [ ] Floyd, Kentucky
- [ ] Greenup, Kentucky
- [ ] Johnson, Kentucky
- [ ] Lawrence, Kentucky
- [ ] Magoffin, Kentucky
- [ ] Martin, Kentucky
- [ ] Pike, Kentucky
- [ ] Gallia, Ohio
- [ ] Lawrence, Ohio
- [ ] Meigs, Ohio
- [ ] Scioto, Ohio
- [ ] Boone, West Virginia
- [ ] Cabell, West Virginia
- [ ] Fayette, West Virginia
- [ ] Jackson, West Virginia
- [ ] Kanawha, West Virginia
- [ ] Lincoln, West Virginia
- [ ] Logan, West Virginia
- [ ] Mason, West Virginia
- [ ] Mingo, West Virginia
- [ ] Putnam, West Virginia
- [ ] Raleigh, West Virginia
- [ ] Wayne, West Virginia

4. Please check any special populations within the community for which your organization has a special focus (check as many as apply):

- [ ] American Indian/Alaska Native
- [ ] Asian/Pacific Islander
- [ ] Black/African American
- [ ] Children/Youth
- [ ] Disabled
- [ ] Families
- [ ] Hispanic/Latino
- [ ] Homeless
- [ ] Immigrant/Refugee
- [ ] LGBTQ community
- [ ] Low income/Poor
- [ ] Men
- [ ] Women
- [ ] Seniors/Elderly
- [ ] Uninsured/Underinsured
- [ ] Other (please specify)

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Community Health Needs

5. What are the top three health concerns affecting the residents in the community that your organization serves?

	Health Concerns
#1 Health Concern	
#2 Health Concern	
#3 Health Concern	

Other (please specify):

6. What are the top three causes of these health conditions in the community that your organization serves?

	Causes of Health Conditions
#1 Cause	
#2 Cause	
#3 Cause	

Other (please specify)

7. What are the top health resources needed to promote health in the region?

8. Please share any additional insight to support your responses to Questions 5, 6, and 7.

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Social Determinants of Health

9. Please rate the following Social Determinants of Health impacting the community/special population that your organization serves using a scale of "very poor" to "excellent." Social Determinants of Health, as defined by Healthy People 2020, are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, function, and quality of life outcomes and risks.

	Very poor	Poor	Average	Good	Excellent
Economic Stability *(consider poverty, employment, food security, housing stability)*	○	○	○	○	○
Education *(consider high school graduation, enrollment in higher education, language and literacy, early childhood education and development)*	○	○	○	○	○
Social and Community Context *(consider social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)*	○	○	○	○	○
Neighborhood and Built Environment *(consider access to healthy foods, quality of housing, crime and violence, environmental conditions, transportation)*	○	○	○	○	○
Health and Health Care (consider access to health care, access to primary care, health literacy)	○	○	○	○	○

10. Please share any additional insight to support your responses to Question 9.

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Delivery of Care

11. What is the primary point of care for *uninsured and underinsured* individuals within your community?

- ◯ Community Health Center/Federally Qualified Health Center
- ◯ Emergency Department/Hospital
- ◯ Family Practice/Medical Home
- ◯ Urgent Care
- ◯ Other (please specify)

12. How long do residents in your community need to travel to receive *primary* health care?

- ◯ 10 minutes or less
- ◯ 11-20 minutes
- ◯ 21-30 minutes
- ◯ 31-40 minutes
- ◯ 41-50 minutes
- ◯ 51-60 minutes
- ◯ More than 1 hour

13. How long do residents in your community need to travel to receive *specialty* health care?

- ◯ 10 minutes or less
- ◯ 11-20 minutes
- ◯ 21-30 minutes
- ◯ 31-40 minutes
- ◯ 41-50 minutes
- ◯ 51-60 minutes
- ◯ More than 1 hour

14. If you selected 31 minutes or more for Question 13, please specify the type of health care residents travel for.

15. How effective is Cabell Huntington Hospital in responding to the non-medical needs of consumers? Please rate the following factors on a scale of "not responsive" to "responsive."

	Not responsive	Somewhat responsive	Responsive	N/A
Treating health consumers with dignity	○	○	○	○
Communicating in a language health consumers can understand	○	○	○	○
Treating health consumers in a culturally competent manner	○	○	○	○
Coordinating care for health consumers	○	○	○	○
Providing a choice of health care providers	○	○	○	○
Encouraging social support during care	○	○	○	○

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Community Resources

16. Please provide a few examples of programs/initiatives/partnerships that have been successful in helping residents in the community you serve optimize their health?

17. What could local and regional health care providers do better to optimize health for the community you serve?

Cabell Huntington Hospital 2016 CHNA Key Informant Survey

Name and Contact Information

18. Optional: Including your name and email below will allow Baker Tilly to contact you to clarify your responses or to participate in additional research.

Name

Email Address

19. On behalf of Cabell Huntington Hospital, thank you for taking the time to complete this survey. Results will be compiled by our research partner, Baker Tilly, and included in the final report of the Community Health Needs Assessment. We welcome any additional thoughts you would like to share regarding community health needs or the CHNA.

Participants Needed for Chronic Condition Management Focus Groups

Participants will receive $50

If you are 25 years or older and are diagnosed with a chronic condition or know someone who is, we want to hear from you.

Diabetes*Heart Disease*High Blood Pressure
COPD*Obesity*Depression*Arthritis*Stroke*Cancer
or Other Chronic Condition

We are looking for individuals who **have health insurance and those that do not have health insurance** to participate in a 90-minute group discussion about their health status.

Focus Group Dates & Times

Focus Group #1:	Monday, June 27, 2016; 11:30-1:00pm
Focus Group #2:	Monday, June 27, 2016; 5:30-7pm
Focus Group #3:	Tuesday, June 28, 2016; 11:30-1:00pm

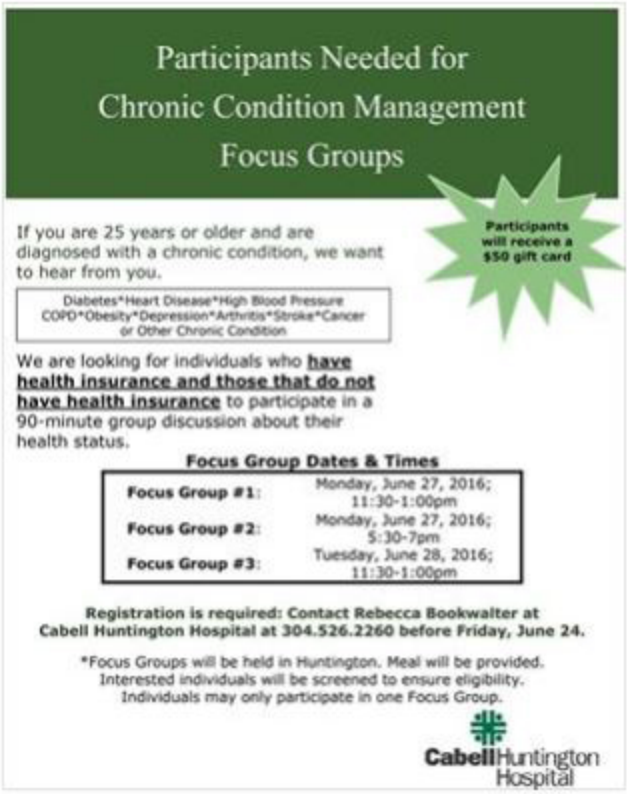
Registration is required: Contact Rebecca Bookwalter at Cabell Huntington Hospital at 304.526.2260 before Friday, June 24.

*Focus Groups will be held at Huntington's Kitchen. Meal will be provided. Individuals may only participate in one Focus Group.

Cabell Huntington Hospital

Cabell Huntington Hospital
Published by Shawn Meade Jordan [?] · June 15 ·

Your opinion matters! Join us!



1,865 people reached

Boost Post

Like Comment Share

7

1 share

Write a comment...

Cabell Huntington Hospital 2016 CHNA
Focus Group Discussion Guide
Chronic Disease Management & Prevention

Opening Script:

Thank you for taking the time to participate in this focus group regarding chronic disease management & prevention. I am Colleen Milligan/Catherine Birdsey from Baker Tilly, Cabell Huntington Hospital's consultant in its Community Health Needs Assessment.

This focus group is sponsored by Cabell as part of its CHNA. The CHNA will help Cabell gain a better understanding of health needs across the communities it serves. Cabell is taking a regional approach to determine common and unique health needs across the communities it serves. Cabell aims to identify needs within the community and work with partners to take a collaborative approach to community health improvement while directing resources to improve population health throughout the region.

Your candid input is essential to community health improvement planning efforts. All of your comments will be kept confidential. I may include direct quotations from this session to illustrate discussion points; however I will not attribute quotes to individuals or organizations. I will be recording our session to ensure I accurately report our discussion and specific feedback. Did everyone sign a consent form?

I anticipate that the session will last approximately 90 minutes. You are here voluntarily and may leave at any time. However, individuals who stay until the end will be given $50 in appreciation of their time. To ensure our group runs smoothly, I'd like to review our ground rules. Please,

1) Only one person speaking at time.
2) Respect every person's right to his or her own opinion.
3) Respect my role as facilitator.

Before we get started, does anyone have any questions?

Focus Group Research Objectives:

- Understand attitudes and awareness toward risk factors for chronic disease
- Assess health behaviors related to chronic disease prevention and management
- Determine community assets and barriers that improve or impede chronic disease management
- Identify effective communication channels/messaging to improve patient engagement and self-management

Managing Your Chronic Condition

1. How would you describe your health?

2. What would you say are the top conditions affecting people in your community? What do you think are the causes that people have those conditions?

3. How does your chronic condition(s) impact your life?
   Probes: Have you changed your lifestyle, if so why? Are there activities you can no longer do?

4. How well do you manage your health and your condition?
   Probes: What makes it easy to manage your health? What makes it hard to maintain your health? What resources are available to help you to take care of yourself? Are there services you to need to manage your condition that you currently don't have?

Healthy Behaviors

1. Do you think your chronic condition(s) could have been prevented? If so, how could it have been prevented?
   Probes: What do you think caused you to have that condition?

2. What types of activities do you do to stay healthy?
   Probes: Do you exercise? How frequently do you exercise? Do you eat a special diet?

3. Does your community encourage healthy behaviors?
   Probes: Do you have access to local parks/recreational areas? Are they maintained? Can you get fresh fruits and vegetable when you want them? What types of community resources are missing to encourage health? What challenges do you think people in the community face in trying to stay physically fit and eat healthier?

4. What keeps you from being as healthy as you would like?
   Probes: Does your family support your health? What would encourage you to be healthier?

Health Care Delivery

1. How would you describe your relationship with your doctor?
   Probes: Do you have a regular doctor(s) that you see? Are you always honest with your provider about your health conditions/concerns? Why or why not? Is there anything that you would like to improve about your doctor?

2. How do you receive information related to your health?
   Probes: What is your preferred way to receive information? What/who do you consider a trusted source for health information? Do you actively seek information about your health?

Access to Care

1. Has there been a time that you needed healthcare, but did not get it? What kept you from getting care?
   Probes: Do you have health insurance? Do local providers accept your insurance? Are you able to make appointments with providers in a timely manner? Are appointment times convenient? Are you able to access specialty care services? How far do you travel for primary vs. specialty care? Are there enough providers in your area? What are the most significant barriers that keep people in the community from accessing health care? What about access to other health services like dental care?

2. How do you typically get to your medical appointments or other destinations?
   Probes: Is public transit available/convenient?

3. If you have one suggestion on what could be done to improve the health of the community overall, what would it be?