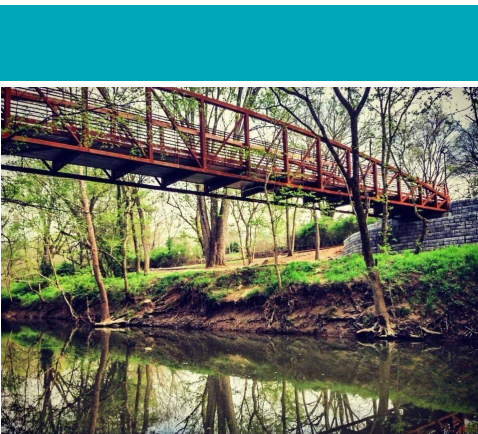




CCHD

Christian County
Health Department



2016

CHRISTIAN COUNTY

Community Health Assessment and Improvement Plan



Mission

The Christian County Health Department provides and promotes affordable medical services, community health education, and environmentally safe surroundings to improve the quality of life of present and future citizens of Christian County.

Vision

Be a leader in community partnerships to improve health outcomes.

Values

Service, Excellence, and Caring

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Christian County Health and Wellness Coalition

<u>Sector:</u>	<u>Representative:</u>	<u>Organization:</u>
Elected Officials	Carter Hendricks	Hopkinsville Mayor
	David Collins	Christian County Fiscal Court/Board of Health Member
Police	Michael Felts	Hopkinsville Police Department
Fire/EMS	Freddie Montgomery	Hopkinsville Fire Department
Emergency Preparedness	Randy Graham	Christian County Emergency Management
Corrections	Brad Boyd	Christian County Jail
Mental Health	Tracey Farmer	Pennyroyal Center
FQHC	Kecia Fulcher	Pennyroyal Healthcare Services
MCO	Jarrod Roberts	Wellcare
Economic Development	Vonda Gates	Hopkinsville Christian County Economic Development
Chamber of Commerce	Kelli Pendleton	Hopkinsville Christian County Chamber of Commerce
Mass Transit	Ken Johnston	PACS
Nursing Homes	Fran Marko	Christian Care Communities
Parks/Recreation	Tab Brockman	Christian County Recreation Department
Environmental Health	Chad Burch	Christian County Health Department
	Mike Ousley	Planning Commission
Employers/SHRM	Ken Grabara	City of Hopkinsville
Faith Organizations	Rev. Buddy Slaughter	Challenge House
Health Department	Amanda Bassingthwaite	Christian County Health Department
	Tara Hart	Christian County Health Department
Schools	Brad Hawkins	Christian County Public Schools
	Megan Kidd	Christian County Public Schools
	Peggy Bozarth	Hopkinsville Community College
Physicians	Dr. Keith Toms	Private Practice/ CCHD Medical Director
Hospitals	Beth McCraw	JSMC
	Jayne Tubbs	JSMC
Community Centers	Tracey Clark	Sanctuary House/St. Luke Free Clinic Board Member
	Vickie Smiley	Housing Authority of Hopkinsville
Non-Profit Agencies	Wynn Radford	Foundation for a Healthy Kentucky
	Paul Watts	YMCA
Government Agencies	Jill Collins	Pennyroyal Area Development District/Aging
	Karen Howell	Department of Community Based Services
	Tiffany Bolinger	UK Extension Office
Home Health/Hospice	Kelly Martin	Pennyroyal Hospice
Pharmacist	Mitzi Perkins	JSMC/Pharmacist
Dentist	Marty Gamble	Dentist/Board of Health Member

Introduction

Introduction

The Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP) has played a significant role in the health of our community over the last four years. The 2012 CHA identified a high instance of chronic disease, high smoking rates, high instance of cancer, and low access to health care and preventative health care. In addition, the 2011 County Health Rankings rated Christian County's infrastructure for access to health and wellness facilities as low. Three initiatives established within the 2012 CHIP were a smoke free ordinance, the renovation of an existing rail trail to become a walking/cycling trail, and the establishment of a public transportation system in Hopkinsville.



Ideas generated from the 2012 CHA and implemented in the CHIP have come to fruition and are now a working part of our community. Our community has successfully implemented a smoke free ordinance, contributing to the improvement of smoking rates from 36% of the population to 27%. The Hopkinsville Transit System, established in 2014, has now added a third route improving accessibility to health care providers and other facilities in the area. The city has completed phase one of the Hopkinsville Greenway System providing a safe, cost-effective opportunity for increased physical activity and are avidly working toward the completion of phase two.

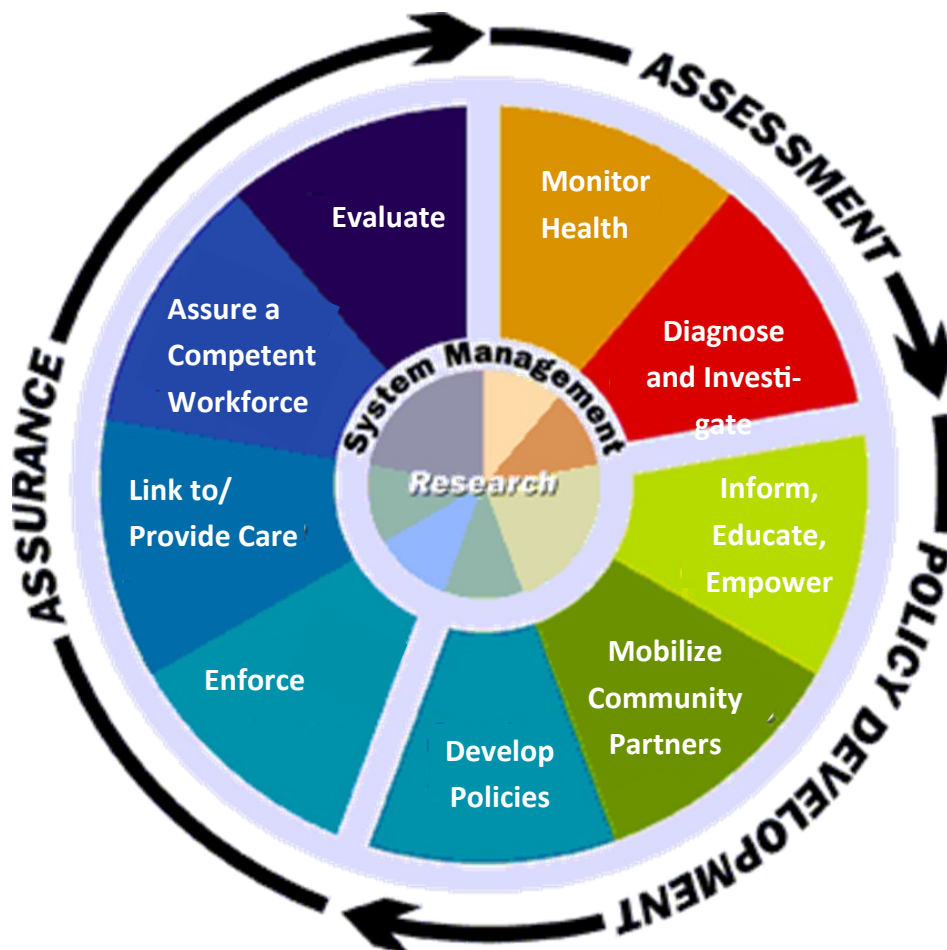
The Christian County Health Department has a vision to be a leader in community partnerships to improve the health outcomes in our county. We are committed to our vision as we continue to work closely with community members sharing the same passion in a combined effort to improve the quality of life among our citizens. It is our hope that the 2016 CHA and CHIP will continue to springboard community efforts and stimulate change in a healthy direction.

We would like to thank the community partners who joined the Christian County Health and Wellness Coalition and participated in the development of the 2016 CHA and CHIP. Without their insight, hard work, and dedication to the betterment of our community, this project would not be a success. We would also like to thank the hundreds of Christian County citizens who participated in surveys shedding light on the community's strengths and weaknesses. This project was truly a community effort and we appreciate your contribution.

We continue to welcome your feedback regarding the 2016 CHA and CHIP. Please visit us at www.christiancountyhd.com to download a copy, or visit the Christian County Health Department to obtain additional hard copy reports.

10 Essential Public Health Services

1. **Monitor** health status to identify community health problems.
2. **Diagnose and investigate** health problems and health hazards in the community.
3. **Inform, educate and empower** people about health issues.
4. **Mobilize** community partnerships to identify and solve health problems.
5. **Develop policies and plans** that support individual and community health efforts.
6. **Enforce** laws and regulations that protect health and ensure safety.
7. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. **Assure** a competent public health and personal health care workforce.
9. **Evaluate** effectiveness, accessibility and quality of personal and population-based health services.
10. **Research** for new insights and innovative solutions to health problems.

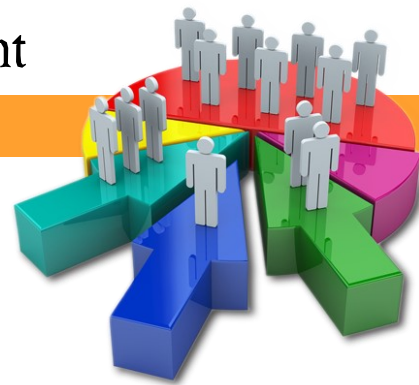


Mobilizing for Action through Planning and Partnerships (MAPP)



To begin the 2016 Community Health Assessment process, community feedback was solicited through surveys addressing matters pertaining to personal behaviors, socioeconomic factors, accessibility to health resources, and other key health concerns. In conjunction, the Christian County Health and Wellness Coalition began the process of collecting health data utilizing resources including the Robert Wood Johnson Foundation’s County Health Rankings, Kentucky Department for Public Health statistics, Kentucky Health Facts, etc. Data collected was compiled to craft the **(1) Community Health Status Assessment**, one of four assessments in the MAPP process (*Mobilizing for Action through Planning and Partnerships*) a detailed process conducted to evaluate a community’s overall health. The three remaining MAPP assessments including **(2) Local Public Health System Assessment, (3) Community Themes and Strengths Assessment, and (4) Forces of Change Assessment** were conducted and evaluated to identify key health issues and overall health concerns to be addressed. Results from each of these assessments can be viewed throughout this publication.

(1) Community Health Status Assessment



Christian County, located in the Pennyryle Region of Southwestern Kentucky, is predominately an agricultural community and home to over 74,000 citizens. Diversity is evident in the county with various ethnic groups represented as well as a significant military population.

Demographics				
Health Outcome	Source of Data	County	State	National
Population Estimate	2014 Census Bureau County Health Rankings (2016)	74,250	4,413,457	321,442,019
Under 18 years old	2014 Census Bureau County Health Rankings (2016)	27.7%	22.9%	23.1%
65 years and older	2014 Census Bureau County Health Rankings (2016)	11.1%	14.8%	14.5%
Caucasian	2014 Census Bureau County Health Rankings (2016)	66.8%	85.4%	77.4%
African American	2014 Census Bureau County Health Rankings (2016)	20.5%	8.0%	13.2%
American Indian/ Alaskan Native	2014 Census Bureau County Health Rankings (2015)	0.7%	0.3%	1.2%
Asian	2014 Census Bureau County Health Rankings (2016)	1.6%	1.4%	5.4%
Native Hawaiian/Pacific Islander	2014 Census Bureau County Health Rankings (2016)	0.4%	0.1%	0.2%
Multiple Races	2014 Census Bureau	3.1%	1.8%	2.5%
Hispanic/Latino	2014 Census Bureau County Health Rankings (2016)	7.6%	3.4%	17.4%
Female	2014 Census Bureau	47.3%	50.8%	50.8%
Male	2014 Census Bureau	52.7%	49.2%	49.2%
Fort Campbell (Military)	2010 Census Bureau	18.6%	N/A	N/A

According to a Princeton University study, socioeconomic status is one of the most influential risk factors for poor health outcomes with individuals suffering from nearly all diseases and having higher rates of mortality compared to people of higher socioeconomic status. Conditions such as overall mortality, cardiovascular disease, infant and maternal mortality, unintended injury, homicide, and suicide have been strongly associated with socioeconomic status along with the prevalence of various diseases including arthritis, heart disease, ulcers, diabetes, hypertension, and chronic bronchitis. Throughout the Community Health Assessment we will see many health issues where socioeconomic status is one of many contributing factors.

When studying the data collected for Christian County, we first notice that 57% of children are eligible for the free lunch program. To qualify, household income must be at or below 130% of poverty level. With more than half of the student population qualifying for free lunch services, high poverty rates are evident in the area.

Teen birth rates exceed both state and national statistics. According to an article published by National Conference of State Legislatures in 2015, teenage mothers are less likely to finish high school and are more likely to live in poverty, depend on public assistance, and be in poor health than slightly older mothers. Their children are more likely to suffer health and cognitive issues, come in contact with the child welfare and correctional systems, live in poverty, drop out of high school, and become teen parents themselves. These disadvantages can play a significant role in the overall current and future health condition of our community.

Socioeconomic				
Health Outcome	Source of Data	County	State	National
Children Eligible for Free Lunch	County Health Rankings (2015) *County Health Rankings (2016)	57%	*48%	N/A
Children in Poverty	County Health Rankings (2016)	30%	26%	N/A
High School Graduation	County Health Rankings (2016)	81%	88%	N/A
Median Household Income	County Health Rankings (2016)	\$36,700	\$42,900	N/A
Some College	County Health Rankings (2016)	60%	59%	N/A
Teen Birth Rate (per 1,000 population-ages 15-19)	KY Health Rankings (2016)	74	47	N/A
Unemployment	County Health Rankings (2016)	7.6%	6.5%	N/A

Community Health Status Assessment

Mortality rate, or death rate, is a measure of the number of deaths (in general, or due to a specific cause) in a particular population, scaled to the size of that population. When comparing leading causes of death, Christian County exceeds national statistics in the areas of heart disease, cancer, chronic lower respiratory issues, with stroke statistics surpassing both state and national numbers. Considering heart disease, cancer, chronic lower respiratory issues and stroke are all leading causes of death known to be associated with secondhand smoke exposure, it is evident with 27% of the Christian County population being smokers, smoking continues to be one of the leading contributing factors.

Mortality-Leading Causes of Death				
Health Outcome	Source of Data	County	State	National
+Heart Disease (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	197.3	205.6	173.7
+Cancer (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	180.2	195.9	168.6
+Chronic Lower Respiratory (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	58.6	63.1	42.7

Mortality-Leading Causes of Death-Continued

Health Outcome	Source of Data	County	State	National
+Stroke (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. National Vital Statistics Reports, (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	61.1	43.1	37.9
Infant Mortality (within 1 year per 1,000 live births)	County Health Rankings (2016)	8	7	N/A
Child Mortality (Per 100,000 under 18)	County Health Rankings (2016)	80	60	N/A
Injury Deaths (per 100,000 population)	County Health Rankings (2016)	70	82	N/A
Motor Vehicle Mortality (Per 100,000 population)	County Health Rankings (2016)	16	18	N/A
Alcohol-Impaired Driving Deaths	County Health Rankings (2016)	19%	29%	N/A
Homicide (Per 100,000 Population)	County Health Rankings (2016)	8	5	N/A

Community Health Status Assessment

Morbidity rates are the frequency with which a disease appears in a population. When looking at morbidity rates in Christian County, we notice BMI rates determining overweight and obese individuals are elevated exceeding both state and national statistics. Obesity is attributed to diabetes and hypertension and Christian County rates for diabetes and hypertension exceed both state and national data.

Alarming STD rates continue to be an area of concern in Christian County with county rates for Chlamydia and Gonorrhea well exceeding state rates. Unhealthy sexual practices and unprotected sex not only contribute to the rise in STD cases, but play a significant role in the rise of teen pregnancy influencing high school drop out rates and contributing to poverty.

Morbidity				
Health Outcome	Source of Data	County	State	National
BMI \geq 25 (Overweight or Obese)	KY Department for Public Health, 2012 BRFSS KY Health Facts (BRFSS) KY Department for Public Health, 2005-2011 BRFSS	71%	64%	63%
BMI > 30 (Obese)	County Health Rankings (2016) *UK College of Public Health County Health Data 2016	37%	32%	*27.1%
Diabetes	*UK College of Public Health County Health Data 2016 County Health Rankings (2016)	11%	12%	*9.1%
Hypertension	National Health and Nutrition Examination Survey, 2011-2012 CDC	48%	39%	29.1%
Low-Birth weight (<5 lbs.)	County Health Rankings (2016)	9%	9%	N/A
Preventable Hospital Stays (per 1,000 population)	County Health Rankings (2016)	89	85	N/A
Poor or Fair Health	County Health Rankings (2016)	25%	24%	N/A
Poor Physical Health Days	County Health Rankings (2016) (Average # physically unhealthy days reported in past 30 days)	5	5	N/A
Poor Mental Health Days	County Health Rankings (2016) (Average # mentally unhealthy days reported in past 30 days)	4.3	4.6	N/A
# of Mental Health Patients served in Christian County	Pennyroyal Mental Health Center 2015 (Numbers include Depression, Bipolar, and Schizophrenia patients)	1625	N/A	N/A
Chlamydia	2013 CDC NCHHSTP Atlas http://gis.cdc.gov/grasp/nchhstpatlas	617.8	391.2	N/A
Gonorrhea	2013 CDC NCHHSTP Atlas http://gis.cdc.gov/grasp/nchhstpatlas	221.4	98.5	N/A
Syphilis	2013 CDC NCHHSTP Atlas	1.3	2.8	N/A
HIV (# cases living)	June 2014 KY CFHS HIV/AIDS Surveillance Report	81	6052	N/A

Morbidity—Continued				
Health Outcome	Source of Data	County	State	National
HIV Testing (% adults under 65)	Kentucky Health Facts (BRFSS) 2011-2013	41%	31%	N/A
Hepatitis C	2012 CDC NCHH STP Atlas	N/A	178	1,778
Tuberculosis	2012 CDC NCHHSTP Atlas 2011 US Census Bureau Annual Estimates	2.7	1.8	N/A

According to the CDC, chronic diseases, such as heart disease and cancer, are among the most common, costly, and preventable of all health problems in the U.S.

Four personal behaviors that can affect chronic diseases are lack of physical activity, poor nutrition, tobacco use, and excessive alcohol consumption.

Personal Behaviors (Adults over 18)				
Health	Source of Data	County	State	National
Smoking	*UK College of Public Health County Health Data 2016 County Health Rankings (2016)	27%	26%	*18.1%
Physical Inactivity	*UK College of Public Health County Health Data 2016 County Health Rankings (2016)	31%	29%	*22.6%
≥ 5 Fruits/Vegetables Daily	KY Health Facts (BRFSS) KY Department for Public Health, 2005-2011 BRFSS	9%	11%	23%
Excessive Drinking	County Health Rankings (2016)	13%	14%	N/A
Binge Drinking	UK College of Public Health County Health Data 2016	14%	12.2%	16.9%

These behaviors play a part in the illness, suffering, and early death related to chronic diseases. You can reduce your risk for illness and death due to chronic disease by engaging in healthy behaviors, such as getting regular physical activity, eating healthy, not using tobacco, and reducing excessive alcohol use.

With 31% of the Christian County population lacking healthy physical activity practices, coupled with only 9% of the population consuming more than 5 fruits and vegetables daily, the stage is set for the rise of various chronic diseases. The county has seen a definite increase in obesity rates, diabetes, etc.

Smoking rates over the last four years have decreased from 36% to 27%, however, smoking behaviors still play a significant role in the health of our community contributing to cancer, heart disease, respiratory issues, and stroke.

Community Health Status Assessment



Limited access to health care impacts people’s ability to reach their full health potential, negatively affecting their quality of life. Barriers to accessing health services—including lack of availability, high cost, and lack of insurance coverage—lead to unmet health needs, delays in receiving appropriate care, inability to get preventable services, and hospitalizations that could have been prevented.

Observing the health care statistics below, we find that 23% of Christian County residents are uninsured and 21% have Medicaid. Access to health care is largely determined by one’s ability to pay for care. Because uninsured/underinsured individuals are less apt to seek medical services due to high medical costs, patients are often at risk for increased morbidity and mortality from disease. In many cases we find that this barrier also leads to inappropriate utilization of emergency services.

Improvements have been made concerning access to health care over the last four years. The Hopkville Transit has been established and is now frequently utilized providing affordable transportation services to the public whether it be to the grocery store or to visit their local medical provider.

Health Care (Access & Quality)	
Health Outcome	Source of Data
Uninsured Adults (% under age 65)	County Health Rankings (2016)
Uninsured Children	County Health Rankings (2016)
% Population on Medicaid	KY Health Facts (KY Health Care Market Report [KY Department of Medicaid Services]) (2008)
**Dentists	County Health Rankings (2016)
Primary Care Providers	County Health Rankings (2016)
Mental Health Care Providers	County Health Rankings (2016)

***At first glance, the availability of dental services seem to be quite good compared to state dentist to patient ratio rates, however, dentists who serve at Ft. Campbell’s military base and serve only military individuals, are included in this ratio. This inclusion skews the actual statistics and can be misleading when discussing access to dental care for all Christian County citizens both military and civilians. In addition, a very limited number of dental providers in the area accept Medicaid, further limiting access to dental care.*

Christian County Connection

The Christian County Health Department continues to publish the quarterly edition of the Christian County Connection Community Asset Resource Guide. This guide links individuals to valuable resources concerning medical providers, accepted insurances per facility, information concerning the acceptance of new patients or patients without insurance, Medicaid, or Medicare, and numerous other services offered in the area. Derived as a need in the 2012 Community Health Assessment and Improvement Plan, this document was first published in January of 2014. The project continues to be an asset in our community reaching 8,000-10,000 individuals quarterly. A Christian County Health Department Continuous Quality Improvement team has re-evaluated the Christian County Connection during 2016 identifying strengths and opportunities to improve this asset in our community and better serve the population.



County	State	National
23%	21%	N/A
7%	6%	N/A
21%	22%	N/A
760:1	1610:1	N/A
1,950:1	1,500:1	N/A
310:1	560:1	N/A

Community Health Status Assessment...continued

Physical Environment				
Health Outcome	Source of Data	County	State	National
Air Pollution-Particulate Matter	County Health Rankings (2016) (Average daily density of fine particulate matter in micrograms per cubic meter)	14.5	13.5	N/A
Air Pollution-Ozone Days	County Health Rankings (2011-2013)	5	2	0
Food Insecurity	County Health Rankings (2016)	20%	16%	N/A
Limited Access to Healthy Foods (% of population)	County Health Rankings (2016)	9%	5%	N/A
Access to Recreational Facilities (% of population)	County Health Rankings (2016)	62%	70%	N/A
Drinking Water Violations (% of population)	County Health Rankings (2015)	10%	9%	N/A
Severe Housing Problems	County Health Rankings (2016)	15%	14%	N/A
Number of Liquor Stores (Rate per 10,000 Population)	Kentucky Department for Public Health 2009 BRFSS	2.6	0.90	1.0
Violence and Crime (# reported violent crime offenses per 100,000 population)	County Health Rankings (2016)	254	235	N/A



Many factors affect the health of individuals and communities. As previously identified, factors such as income and education level can have a considerable impact on health, but where we live and the state of our environment can also play a significant role. When evaluating the physical environment of our community, we notice that 20% of the population has been identified as having a food insecurity and 9% of the population has limited access to *healthy* foods. Each statistic exceeds state numbers and coupled with a lack of access to recreational facilities, all are contributing factors of obesity and other health related issues in the community. Environmental improvements have been made as a result of the 2012 CHA and CHIP including the implementation of the Hopkinsville Greenway System and city no-smoking ordinance.

Food Insecurity—limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

(2) Forces of Change Assessment

The Forces of Change assessment is conducted to help the community answer the following questions:

1. *What is occurring, or might occur, that affects the health of our community or the public health system?*
2. *What specific threats or opportunities are generated by the occurrences?*

Many Forces of Change identified in the 2012 Community Health Assessment are still applicable in 2016, however, additional forces of change were identified that could potentially impact the health of Christian County.

2016 Forces of Change

- ◇ Change in government officials
- ◇ Healthcare reform—changes to and/or elimination of KYNECT- *Kentucky's Health Benefit Exchange program.*

2012 Forces of Change

- ◇ Aging population
- ◇ Electronic Medical Records
- ◇ Changes in reimbursement for insurance, Medicaid, and Medicare payments
- ◇ Provider shortage
- ◇ Community/economic development
- ◇ Increases in higher education/medical training opportunities



(3) Community Themes and Strengths Assessment



The Christian County Chamber of Commerce conducted its annual Community Perception Survey in 2015. The following results were collected from 164 community participants.

COMMENTS

"I'm not native to this area, but am proud to call it home. I like the direction the city/county has been going in the last few years. Keep it up!"

"The work on the flowers on Ft Campbell Blvd is great. The downtown signage is very good."

"I love the downtown stretch. It would be nice if the buildings were used for shops and such."

"I love Christian County. I think it has the possibility to catch up and become a great community, but a lot of work has to be done."

* all quotes are from the comments section of the survey

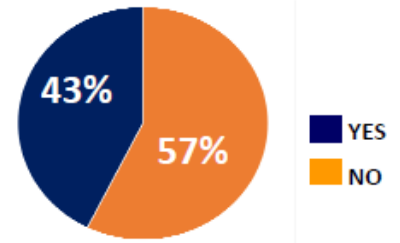
95% of respondents state they have not been a victim of crime in Christian County in the last 5 years.

93% of people surveyed gave a positive response when asked if they were proud to live in Christian County.

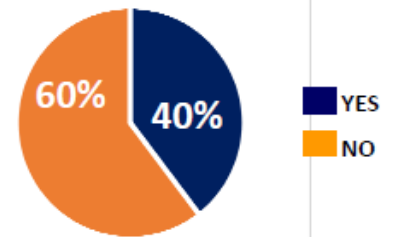
Of those surveyed, "I feel safe..."

Living in Christian County	84%
Walking alone in my neighborhood	82%
Walking in downtown Hopkinsville	71%
Allowing my kids to play unattended in my neighborhood	63%

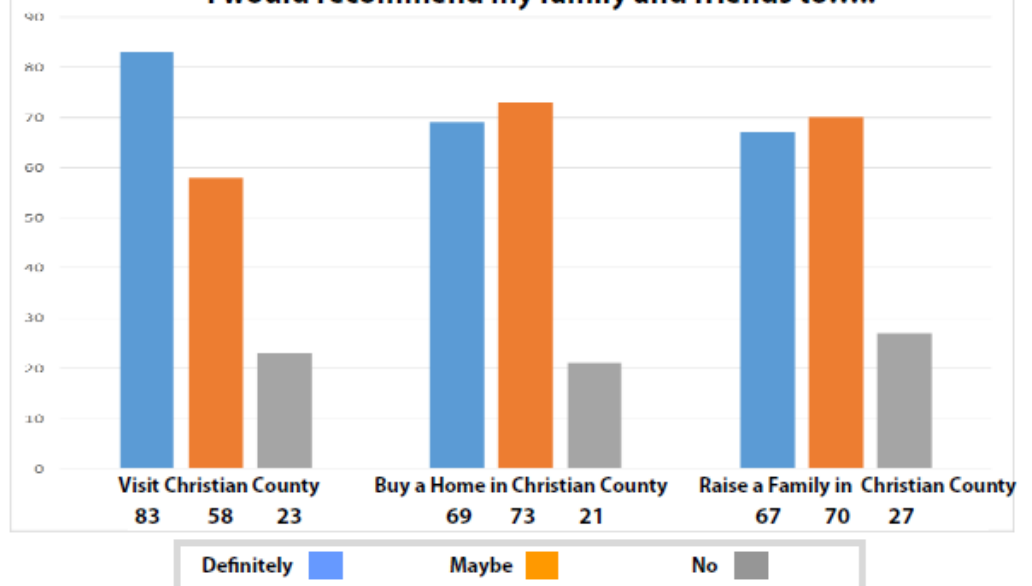
Is this the first time you have taken the Community Perception Survey?



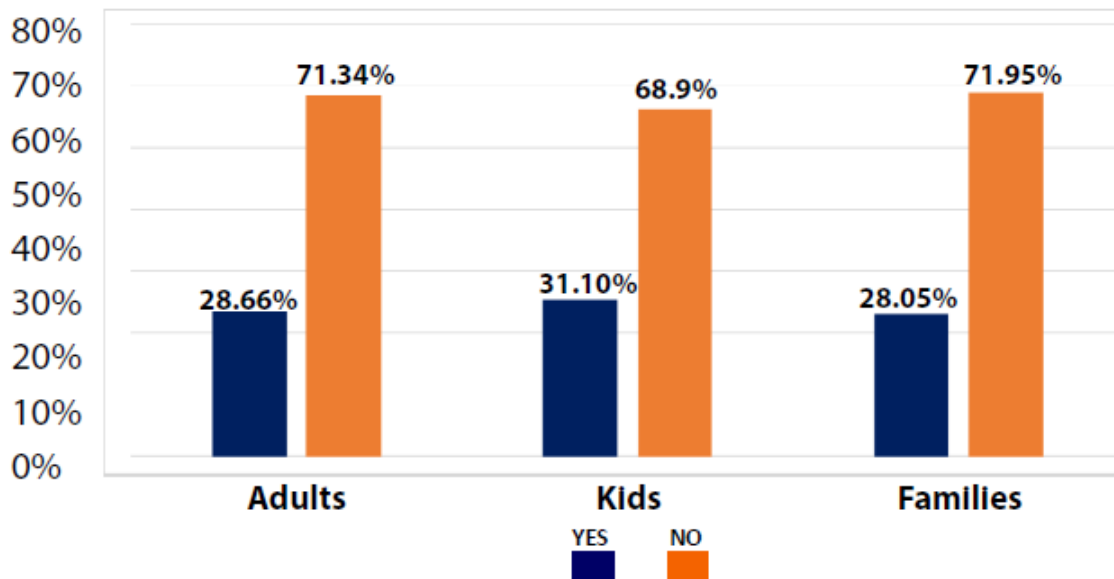
Do you feel like there are enough job opportunities in Christian County?



I would recommend my family and friends to.....



Do you think there are enough recreational activities for adults, kids, and families?



“There are more pleasing aesthetics across the community. Suggest improving sidewalks, but overall great job on enhancing the current parks and community.”

* quote taken from the comments section of the survey

Christian County offers a good quality of life.



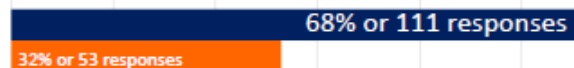
Christian County provides adequate directional and attraction signage to help people get to their point of destination.



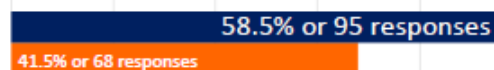
Christian County is a safe place to raise a family.



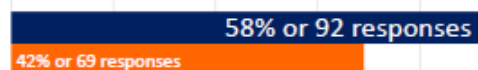
Christian County is a clean and attractive community.



Hopkinsville has a consistent look and feel to main attractions and corridors.



Christian County does enough to maintain a clean and attractive look.



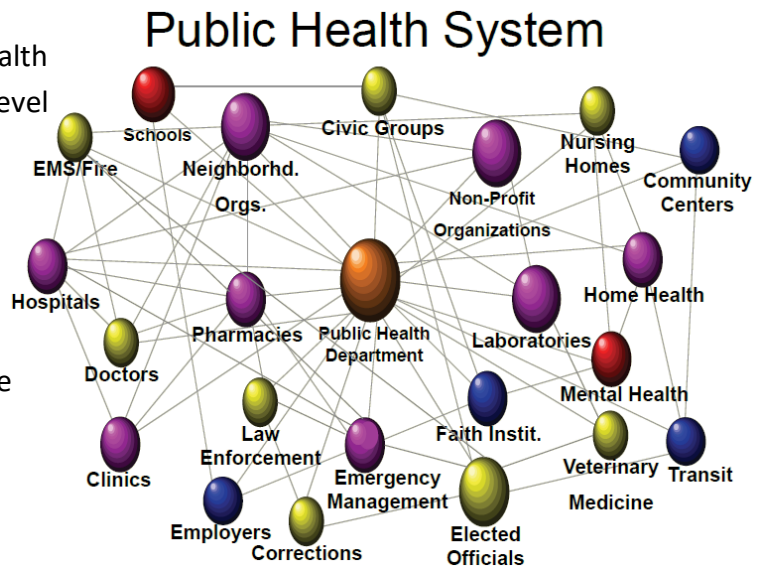
Agree / Somewhat Agree Somewhat Disagree / Disagree

(4) Local Public Health System Assessment

A public health system includes all public, private, and voluntary entities that contribute to public health activities within a given area. Each of these entities play a role in working to improve the public's health. The Christian County public health system was assessed using the National Public Health Performance Standards Program (NPHPSP) developed by the Centers for Disease Control (CDC).

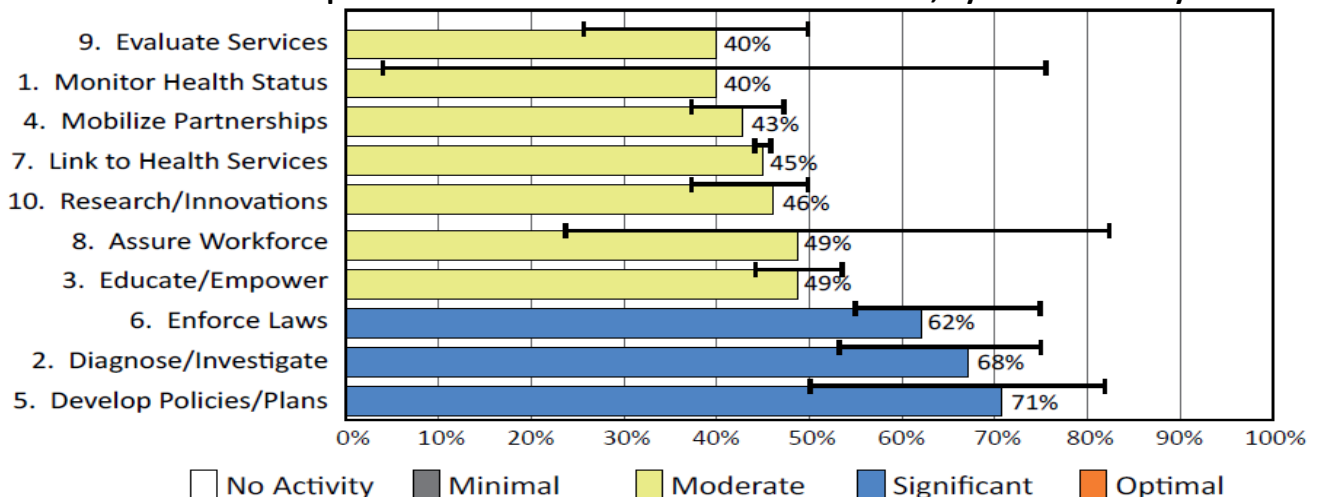
The findings of the NPHPSP rated the delivery of the 10 essential public health services. The following public health services were rated in the moderate ranking based on level of activity:

- Evaluate effectiveness, accessibility, and quality of personal and population based health services.
- Monitor health status to identify community health problems.
- Mobilize community partnerships to identify and solve health problems.
- Link people to needed personal health services and assure provision of health care when otherwise unavailable.



Services and activities in these areas are being performed by many organizations at satisfactory levels. However, the coordination of these services as a public health system falls below standard. These findings support the need for electronic medical records, centralized systems for reporting of health data, formation of a health care coalition, and a one stop location with services to help link people to needed personal health services. In addition, the NPHPSP illustrates a need for the public health system to provide additional research for new and innovative solutions to health problems, inform and educate people about health issues, and assure a competent public and personal health care workforce.

Ranked Ordered performance scores for each Essential Service, by level of activity:



Identifying Strategic Planning Priorities

Following an in-depth examination of the four MAPP assessments, including data collected from 435 community members who completed the Community Health Assessment Survey, the Christian County Health and Wellness Coalition listed the following key health issues identified in our community.

Health Access

- High uninsured/underinsured population
- Primary care physician to patient ratio
- Lack of access to dental care
- Access to transportation
- Lack of treatment options for sickle cell disease
- Inappropriate utilization of Emergency Services

Health Outcomes

- Cardiovascular/heart disease deaths
- Prevalence of hypertension/stroke
- Prevalence of diabetes
- Cancer deaths-lung, colorectal, breast, prostate
- High instance of pulmonary issues
- High instance of untreated mental illness

Behavioral/Social Factors

- Obesity
- Low fruit and vegetable consumption/poor dietary habits
- Lack of physical activity
- Prevalence of smoking and E-Cigarettes/Tobacco Usage
- High teen pregnancy
- High instance of sexually transmitted disease
- Drug abuse/Alcohol abuse
- Homelessness
- Unemployment/Workforce Development
- Lack of education
- Deterioration of the family unit
- Increase in pregnant women with dependency issues
- Poverty Level/Median Income
- Child Abuse/Neglect

Surveillance/Environmental

- Aging facilities and housing
- No centralized location/vendor for up-to-date health data



Strategic Planning Priorities

Following the identification and examination of key health issues, community partners recognized the following six strategic planning priorities.

2016 Strategic Planning Priorities
1. Obesity
2. High instance of untreated mental illness
3. High Sexually Transmitted Infection (STI)/Teen Pregnancy rate
4. High instance of chronic disease and cancer
5. Inappropriate utilization of emergency department services
6. Lack of dental care

PRIORITIES

- 1.
- 2.
- 3.



Focus groups were commissioned for each strategic planning priority to assess root causes as well as define the current health status by examining local, state, and national health data. Based on data and defined health status, focus group members identified contributing factors and proposed interventions within the geographical region. Proposed interventions are illustrated in the Community Health Improvement Plan (CHIP).



Focus Group Studies

1.) Obesity

Collected Data:

Table 1

	County	State	National
Adult Obesity	37%	32%	27.6*
Physical Inactivity	31%	29%	22.9*
Access to Exercise Opp.	62%	70%	n/a
Limited Access to Healthy Foods	9%	5%	n/a

Robert Wood Johnson Foundation - County Health Rankings 2016
 *BRFSS 2012 - <http://chfs.ky.gov/NR/rdonlyres/B83944D8-A64F-4C6E-B9AC-303C89313FE5/0/2012KyBRFSSAnnualReport.pdf>

Table 2

	County	State	National
Adult Obesity	33.5%	n/a	n/a
Physical Inactivity	32.7%	n/a	n/a
Access to Parks – Living within .5 mile of a park	10.0%	n/a	n/a
Limited Access to Healthy Foods – low income and do not live close to grocery store	8.6%	n/a	n/a

CDC, US Dept. of Health & Human Services – CHSI – Community Health Status Indicators 2015

Table 3

	National	State	County
Adult Obesity	35.3%	n/a	n/a
Healthy Weight	29.5%	n/a	n/a
Obesity: Children ages 2-19	16.9%	n/a	n/a

National Health and Nutrition Examination Survey (NHANES) – 2009-2012

Focus Group Studies

OBESITY

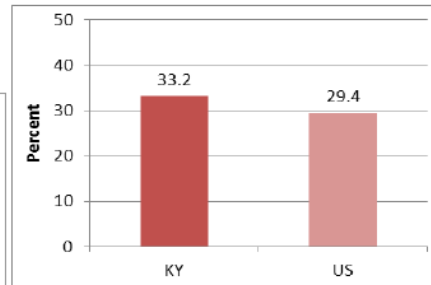
Question: Body Mass Index (BMI) was calculated based on data collected from:
 1) How much do you weigh without shoes?
 2) How tall are you without shoes?

At Risk: Adults with BMI scores greater or equal to 30.0 are considered obese.

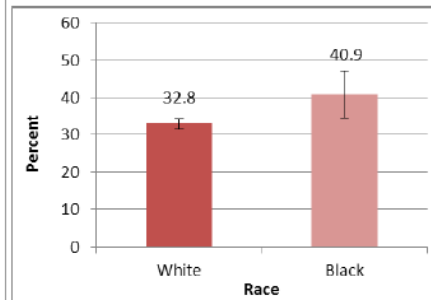
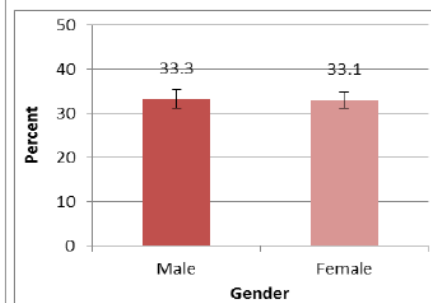
Who is at risk in Kentucky?

- An estimated 33.2% of adults in Kentucky were classified as obese (i.e. Body Mass Index greater or equal to 30); this was a higher estimate compared to 29.4% in the United States.
- Prevalence of obesity was similar among men and women (33.3% vs 33.1%).
- Obesity prevalence was higher among black adults than among white adults (40.9% vs. 32.8%). However, this estimate was not statistically significant.
- Among the different age groups used in this report, obesity prevalence was highest among adults aged 50-64 years (39.3%); this was a significantly higher estimate compared to obesity prevalence among adults aged 18-34 years (24.5%).
- Prevalence of obesity was significantly higher among adults with less than a high school education (34.2%) compared to adults who graduated with a college degree (25.7%).
- Obesity prevalence was significantly higher among adults with household income of less than \$25,000 a year, compared to those with household income of \$50,000 or more a year (37.8% vs. 30.7%).

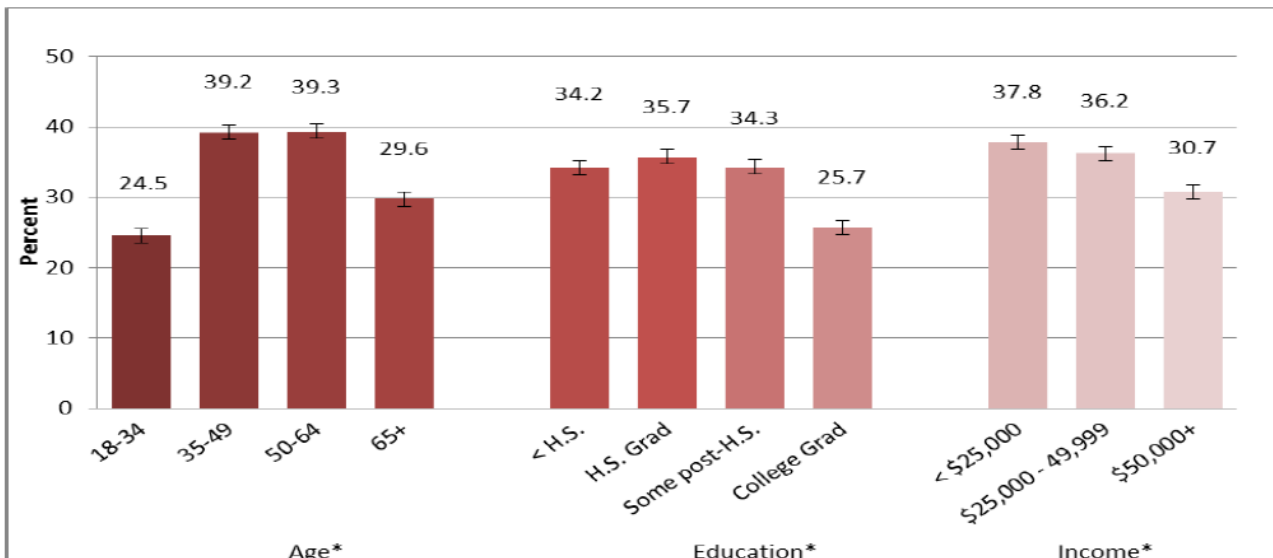
Percent of Adults who are Obese: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who are Obese, by Gender, and by Race — 2013



Percent of Kentucky Adults who are Obese, by Age*, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

PHYSICAL ACTIVITY

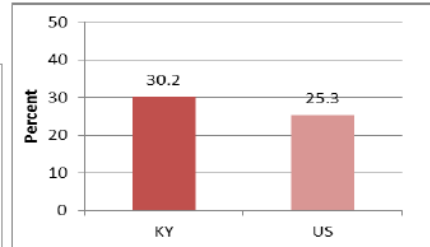
Question: During the past 30 days, other than your regular job, did you participate in any physical activity or exercise such as running, calisthenics, golf, gardening, or walking for exercise?

At Risk: Adults who did not participate in any physical activity or exercise during the last 30 days are considered at risk.

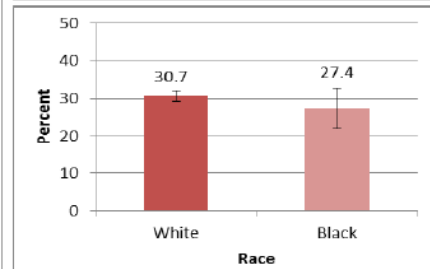
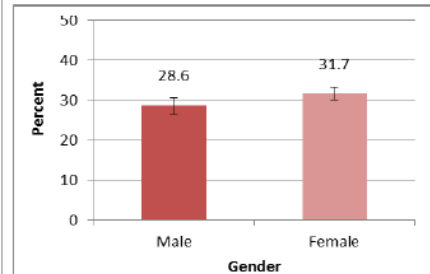
Who is at risk in Kentucky?

- In 2013, 30.2% of Kentuckians reported not participating in any physical activity during the past month. The prevalence of not participating in any physical activity among Kentucky adults was higher than the U.S. median prevalence (25.3%).
- Prevalence of not participating in any physical activity during the past month did not significantly differ by gender.
- Prevalence of not participating in any physical activity during the past month was higher among white adults than black adults (30.7% vs 27.4%).
- Lack of physical activity significantly increased with age, with the highest proportion being reported among adults aged 65 years and older (40.2%).
- Adults with less than a high school education (43.2%) were significantly more likely to report lack of physical activity compared to adults with higher levels of educational attainment.
- The prevalence of lack of physical activity was significantly higher among adults with a household income less than \$25,000 compared to those with a household income \$50,000 or more.

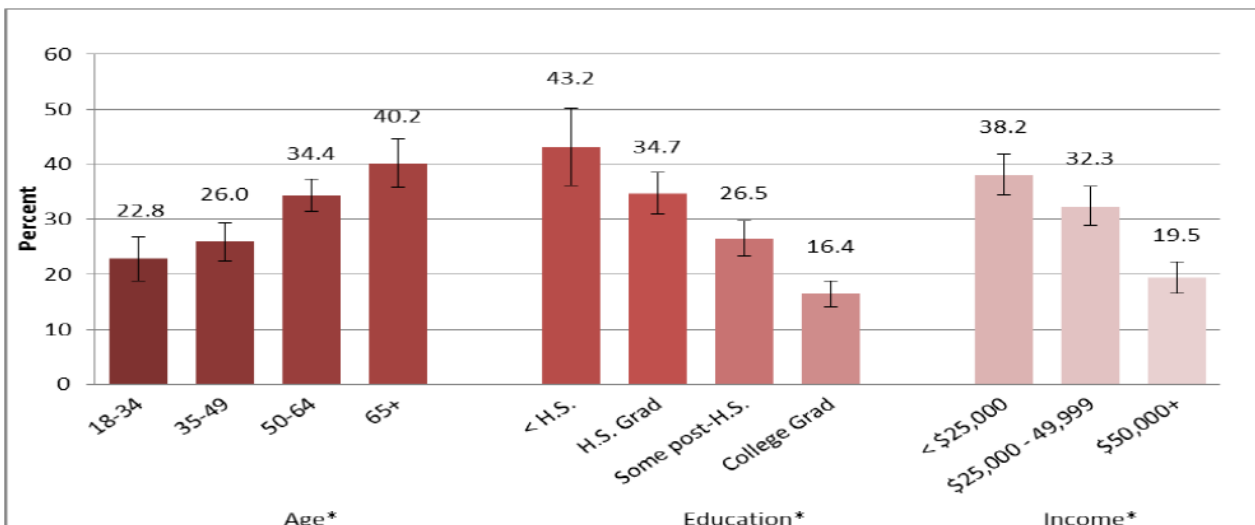
Percent of Adults who did not Participate in any Physical Activity in the Past 30 days: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who did not Participate in any Physical Activity in the Past 30 Days, by Gender, and by Race — 2013



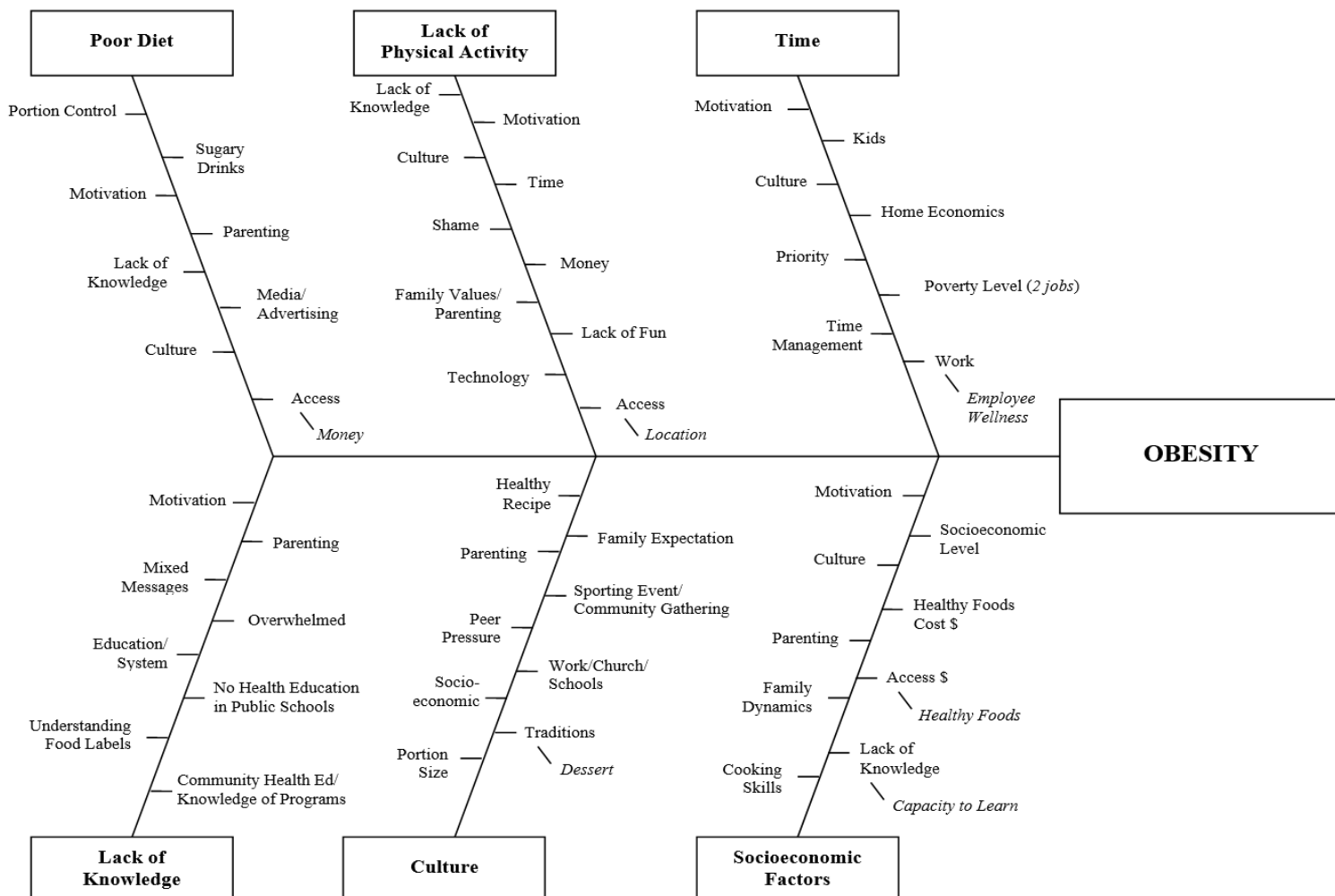
Percent of Kentucky Adults who did not Participate in any Physical Activity in the Past 30 Days by Age*, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

Focus Group Studies

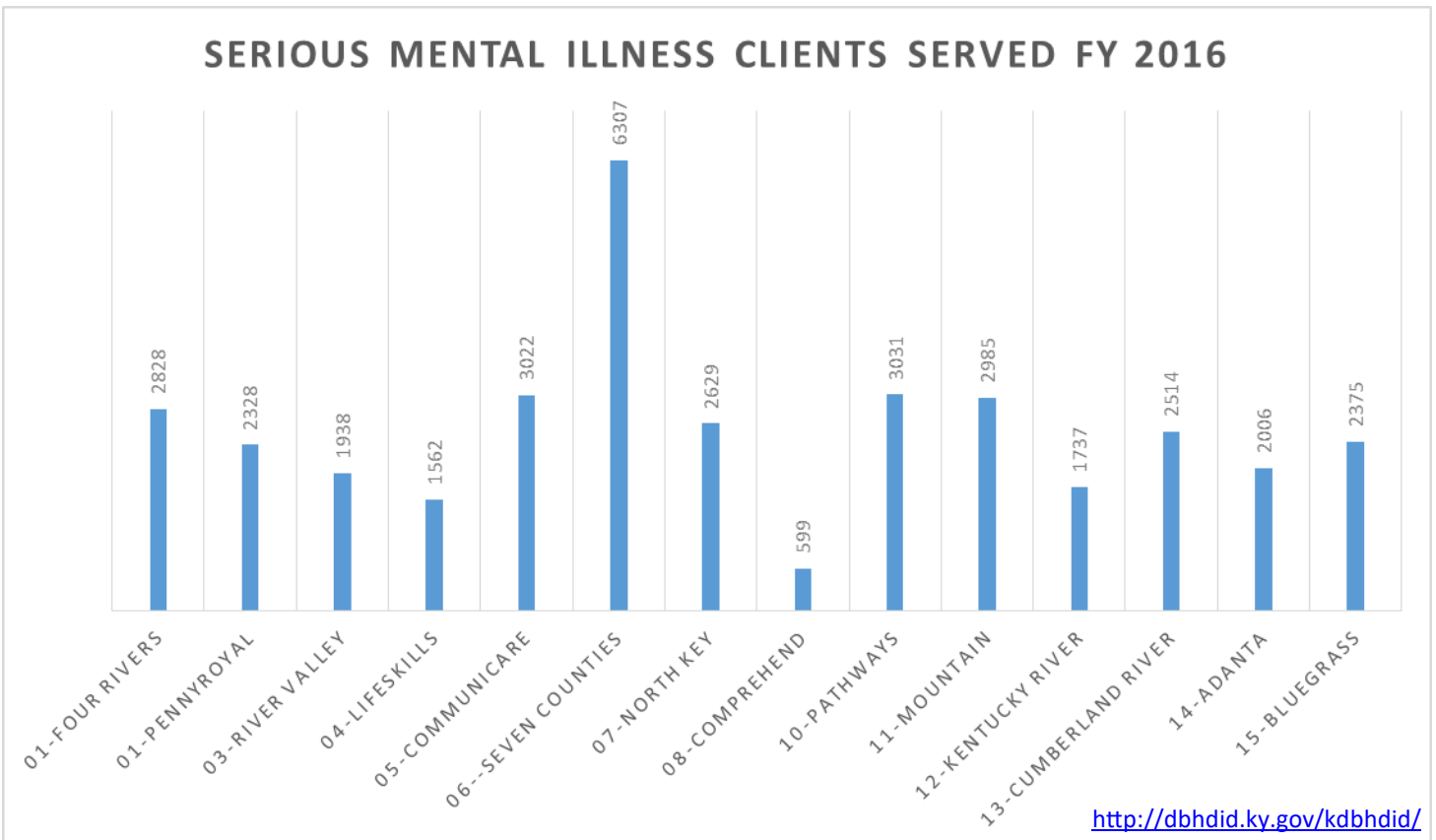
Contributing Factors:



2.) High Instance of Untreated Mental Illness

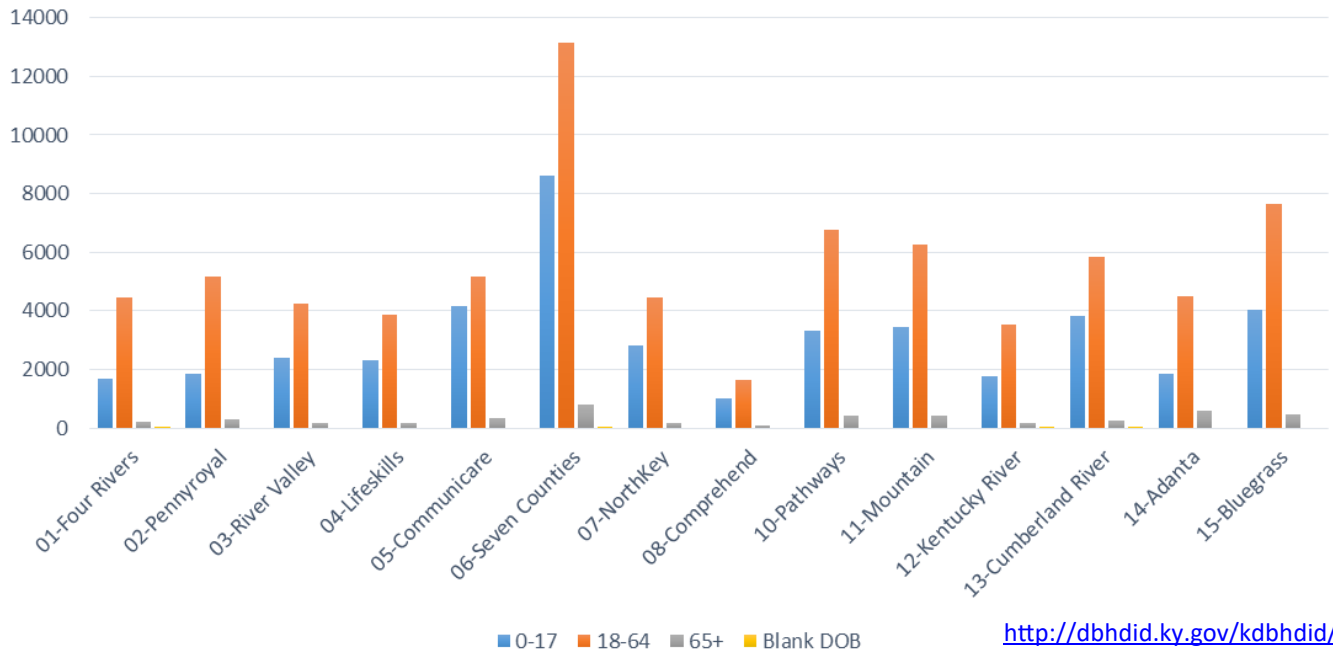
Collected Data:

Health Outcome	Source of County Data	County	State	National
Poor Mental Health Days	County Health Rankings (2016) (Average # mentally unhealthy days reported in past 30 days)	4.3	4.6	N/A
# of Mental Health Patients served in Christian County	Pennyroyal Mental Health Center 2015 (Numbers include Depression, Bipolar, and Schizophrenia patients)	1625	N/A	N/A



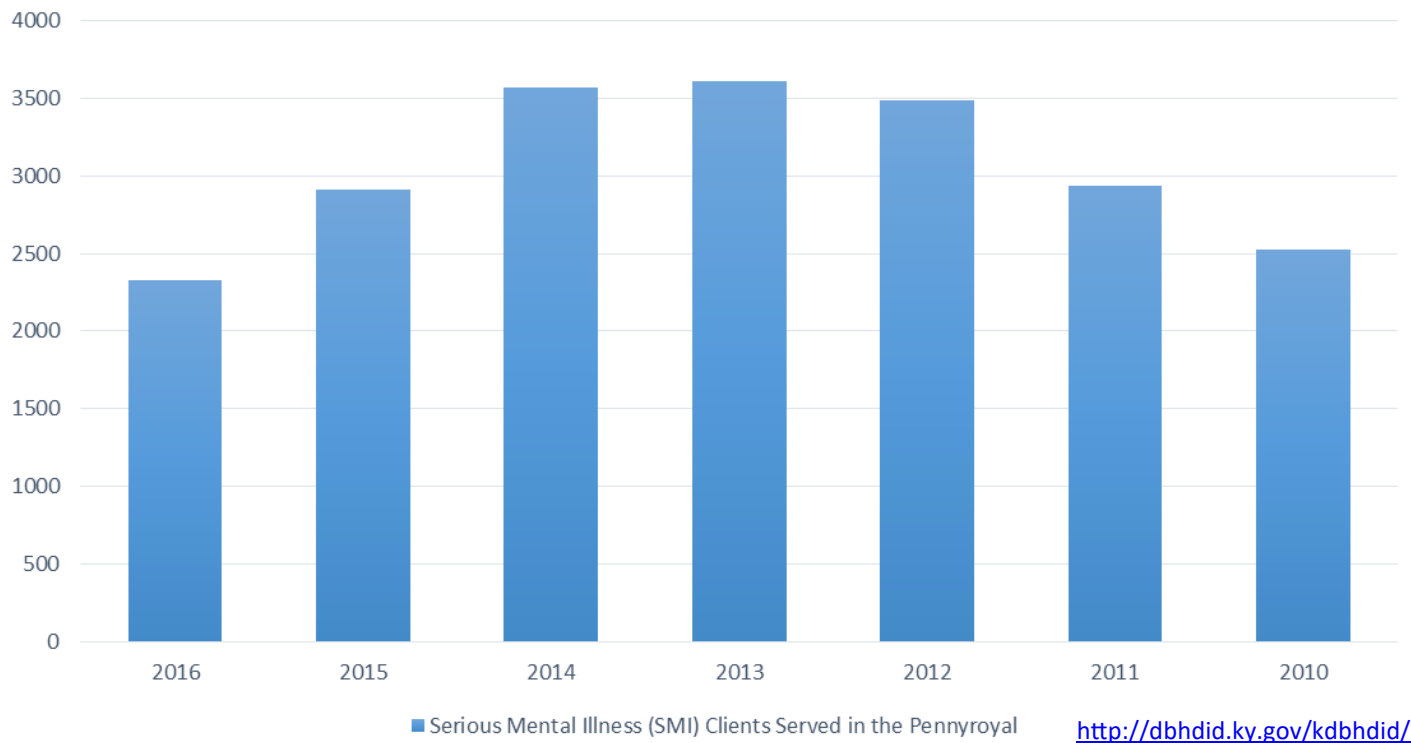
Focus Group Studies

**State Community Mental Health Centers
Mental Health Clients by Age Group
FY 2016**



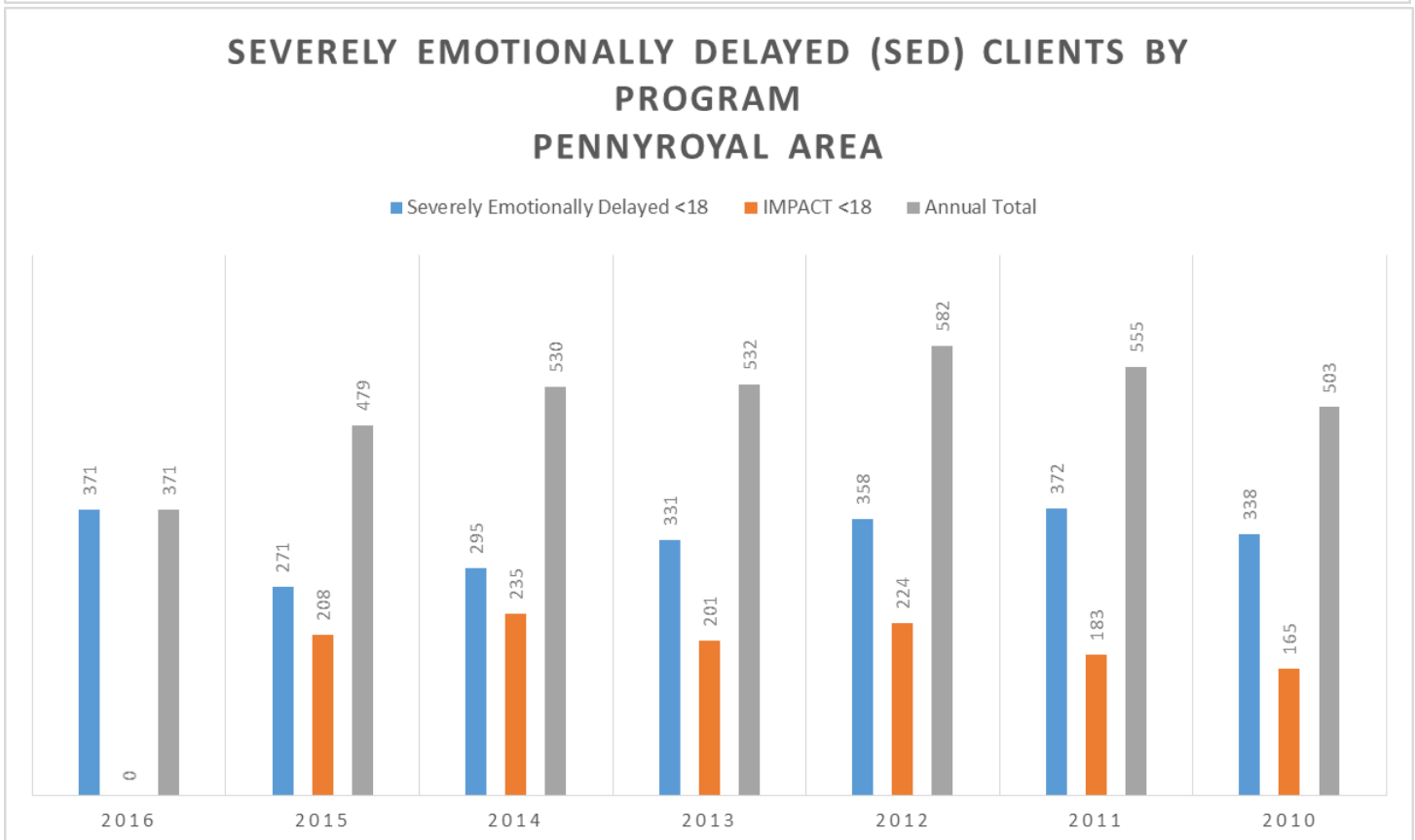
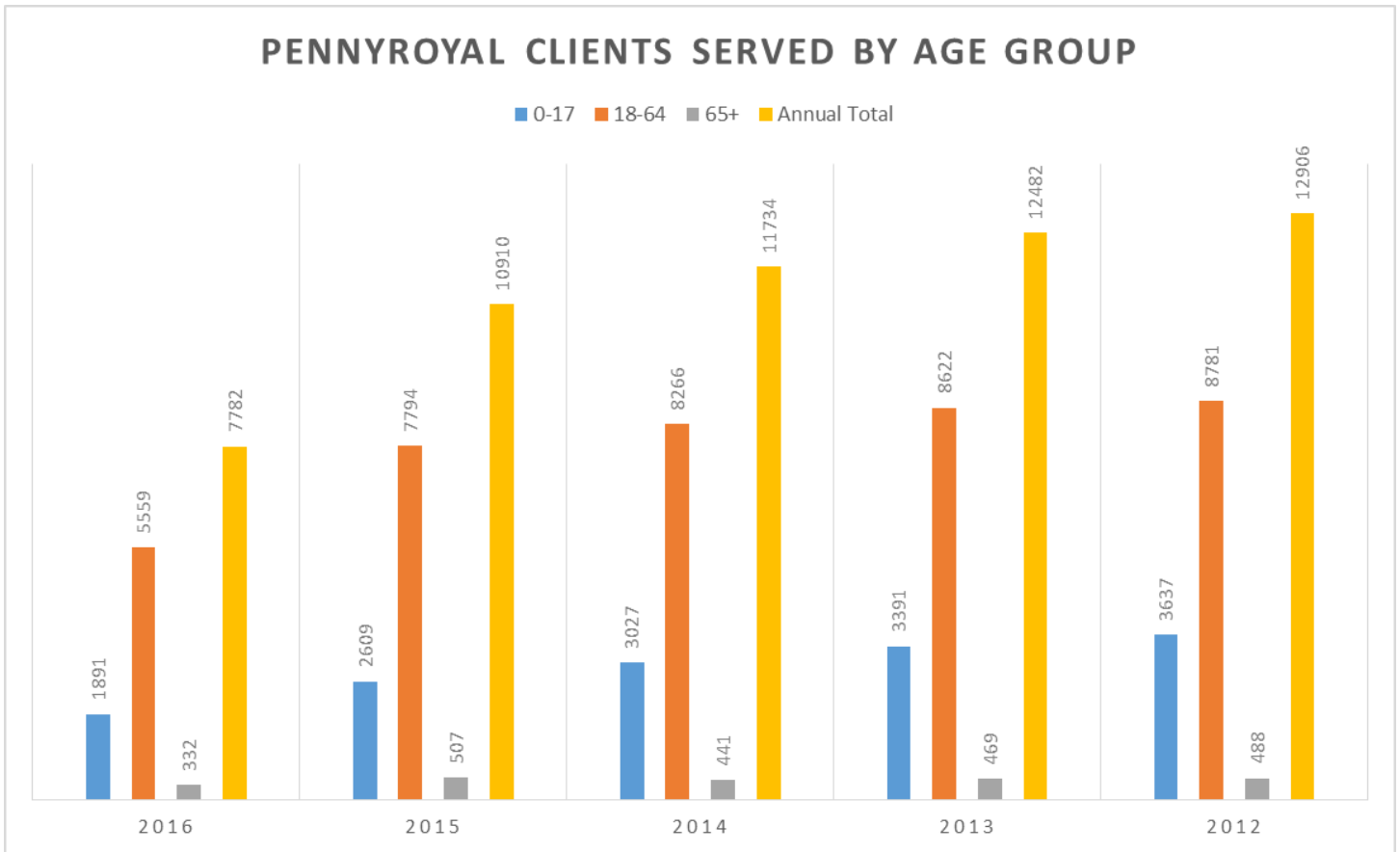
Location	0-17	18-64	65+	Blank DOB	Total
01-Four Rivers	1698	4454	204	19	6375
02-Pennyroyal	1847	5169	315	0	7331
03-River Valley	2377	4235	150	0	6762
04-Life Skills	2304	3861	167	0	6332
05-Communicare	4139	5148	322	0	9609
06-Seven Counties	8605	13140	808	22	22,575
07-NorthKey	2807	4464	190	0	7461
08-Comprehend	997	1656	99	0	2752
10-Pathways	3313	6763	418	0	10,494
11-Mountain	3442	6241	404	0	10,087
12-Kentucky River	1749	3535	157	1	5442
13-Cumberland River	3824	5850	261	4	9939
14-Adanta	1834	4484	594	0	6912
15-Bluegrass	4049	7646	455	0	12,154
Unduplicated Statewide	42,502	75,747	4510	49	122,808

Serious Mental Illness (SMI) Clients Served in the Pennyroyal

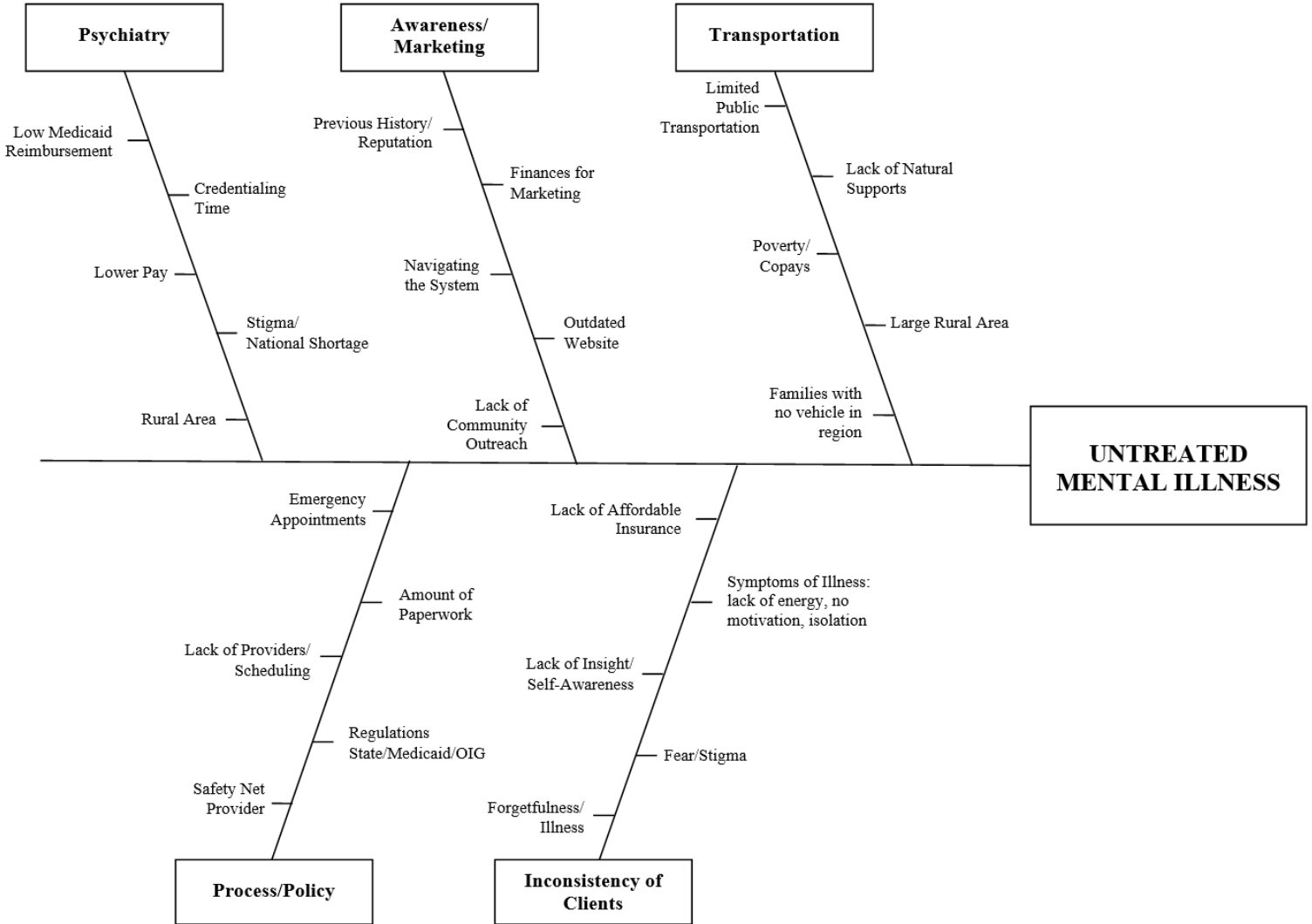


Year	Clients Served
2016	2328
2015	2907
2014	3567
2013	3612
2012	3485
2011	2938
2010	2527

Focus Group Studies



Contributing Factors



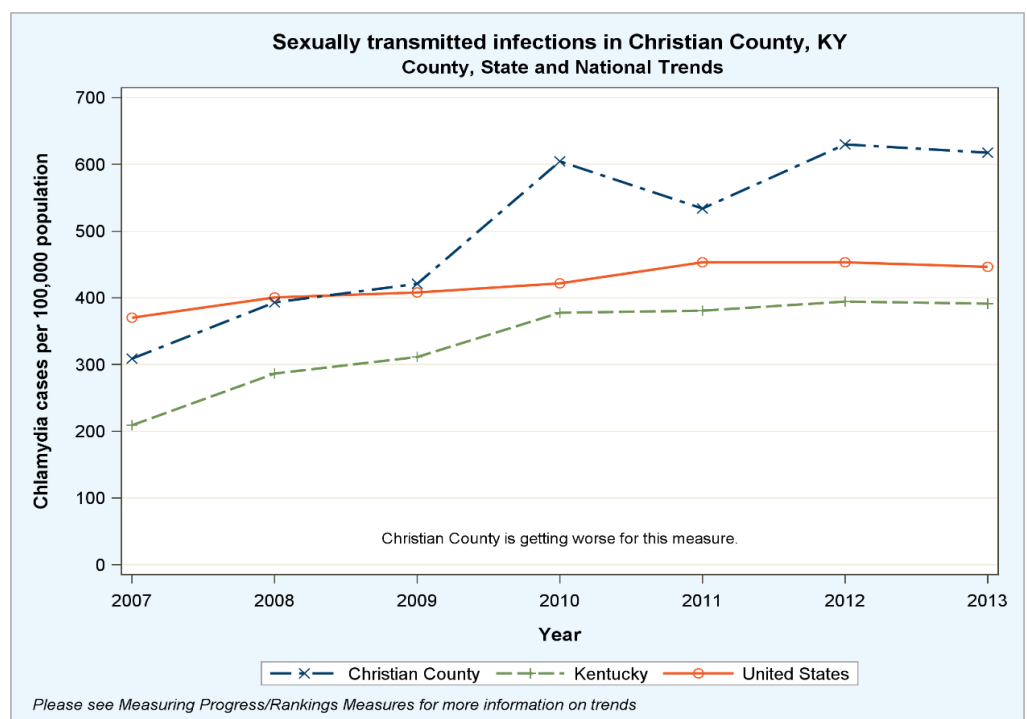
Focus Group Studies

3.) High Sexually Transmitted Infection (STI)/Teen Pregnancy rate

This specialized focus group included multijurisdictional participants from the Christian County Health Department (KY), Montgomery County Health Department (TN), and Fort Campbell Public Health. This team meets on a quarterly basis to identify health trends and interventions in the region concerning the rate of sexually transmitted diseases.

Collected Data:

Health Outcome	Source of County Data	County	State	National
Chlamydia	2013 CDC NCHHSTP Atlas http://gis.cdc.gov/grasp/nchhstpatlas	617.8	391.2	N/A
Gonorrhea	2013 CDC NCHHSTP Atlas http://gis.cdc.gov/grasp/nchhstpatlas	221.4	98.5	N/A
Syphilis	2013 CDC NCHHSTP Atlas	1.3	2.8	N/A
HIV (# cases living)	June 2014 KY CFHS HIV/AIDS Surveillance Report	81	6052	N/A
HIV Testing (% adults under 65)	Kentucky Health Facts (BRFSS) 2011-2013	41%	31%	N/A
Hepatitis C	2012 CDC NCHH STP Atlas	N/A	178	1,778



HIV/AIDS SCREENING

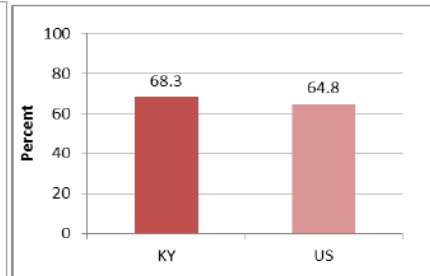
Question: Have you ever been tested for HIV?

At Risk: Adults who answered “No” are considered at risk.

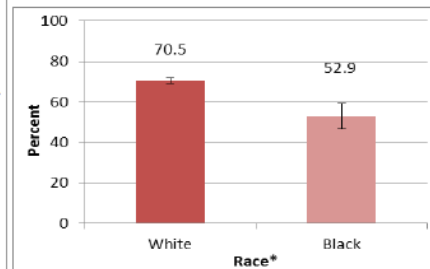
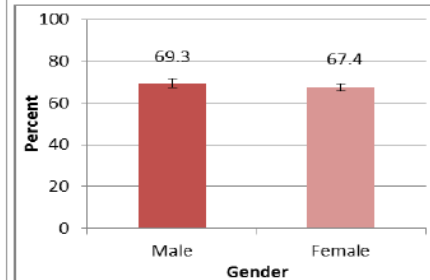
Who is at risk in Kentucky?

- In 2013, 68.3% of adults in Kentucky have never been tested for HIV. The estimate was higher compared to 64.8% in the United States.
- The prevalence of HIV testing did not significantly differ by gender.
- The prevalence of white adults who have never been tested for HIV was significantly higher when compared to black adults (70.5% vs. 52.9%).
- About 90.6% of adults aged 65+ years have never been tested for HIV; this was a significantly higher estimate compared to adults aged 18-34 years (57.8%).
- About 71.6% of adults with a high school diploma as their highest level of educational attainment, have never been tested for HIV; this was a significantly higher estimate compared to adults with some post-high school education (64.3%) or those who graduated from college (66.3%).
- A higher proportion of adults with annual household income of \$50,000 or more (67.6%) have never been tested for HIV, compared to adults with household income of less than \$25,000 per year (64.1%). However this estimate was not statistically significant.

Percent of Adults who have never been tested for HIV: Kentucky vs. Nationwide (States and DC) — 2013

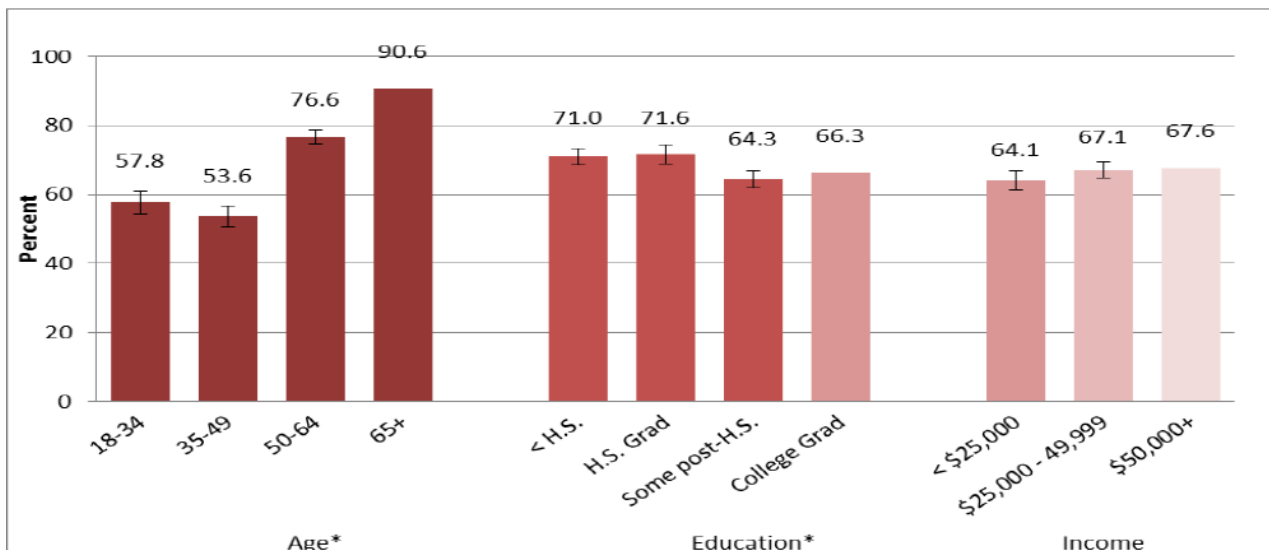


Percent of Kentucky Adults who have never been tested for HIV, by Gender, and by Race* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

Percent of Kentucky Adults who have never been tested for HIV, by Age*, Education*, and Income — 2013

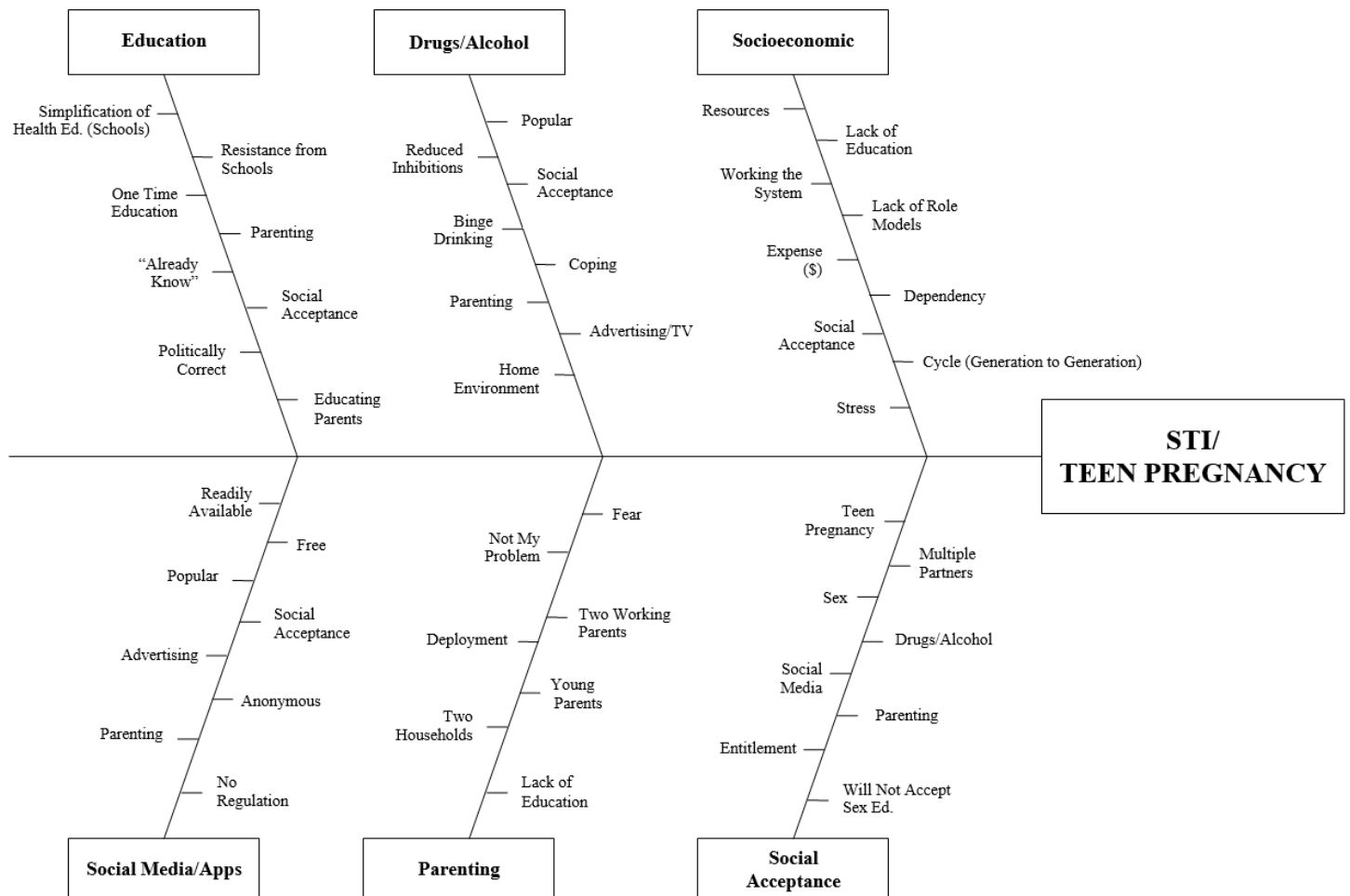


Focus Group Studies

Health Outcome	Source of County Data	County	State	National
Teen Birth Rate (per 1,000 population-ages 15-19)	KY Health Rankings (2016)	74	47	N/A

County	Teen Births	Teen Population	Teen Birth Rate (per 1000)
Christian	1083	14,724	74

Contributing Factors:



4.) Chronic Disease and Cancer

Collected Data:

Health Outcome	Source of County Data	County	State	National
+Heart Disease (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	197.3	205.6	173.7
+Cancer (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	180.2	195.9	168.6
+Chronic Lower Respiratory (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	58.6	63.1	42.7
+Stroke (Per 100,000 population)	+Leading causes of death known to be associated with secondhand smoke exposure. 2011 Vital Statistics Report from the Cabinet for Health and Family Services Age adjusted rates per 100,000 2011 population Estimates reflect only Kentucky residents who died in Kentucky. Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. <i>National Vital Statistics Reports</i> , (61)6. Hyattsville, MD: National Center for Health Statistics, 2012	61.1	43.1	37.9
Diabetes	*UK College of Public Health County Health Data 2016 County Health Rankings (2016)	11%	12%	*9.1%
Hypertension	National Health and Nutrition Examination Survey, 2011-2012 CDC	48%	39%	29.1%

Focus Group Studies

ASTHMA

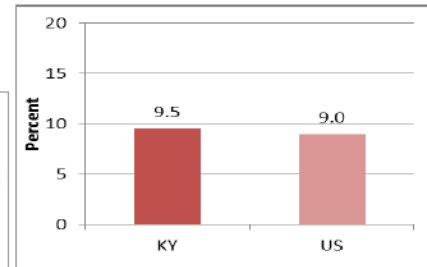
Question: 1. Have you ever been told by a doctor, nurse, or other health professional that you had asthma? (lifetime)
2. Do you still have asthma? (current)

At Risk: Adults who answered “Yes” to both questions (i.e. currently have asthma are considered at risk.)

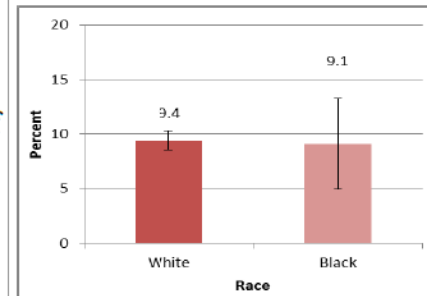
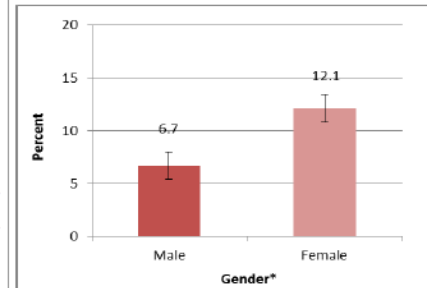
Who is at risk in Kentucky?

- In 2013, an estimated 9.5% of Kentucky adults reported that they currently have asthma as compared 9.0% in the nation.
- Women (12.1%) were significantly more likely to report that they currently have asthma than men (6.7%).
- Current asthma prevalence did not significantly differ by race.
- Current asthma prevalence did not significantly differ across age groups.
- When compared by education level, current asthma prevalence was significantly higher among adults with less than a high school education as compared to those with a college education (14.8% vs. 6.5%).
- Prevalence of current asthma significantly decreased as household income increased; 13.8% of adults with household income of less than \$25,000 a year reported that they currently have asthma compared with 6.1% of those with household income of \$50,000 or more.

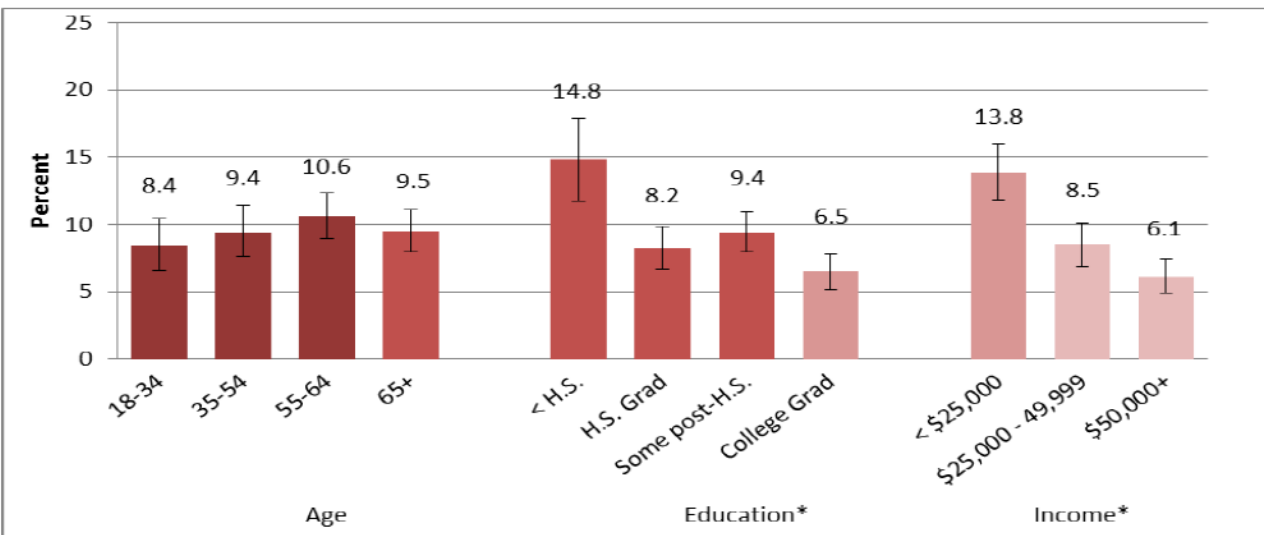
Percent of Adults who have Current Asthma: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who have Current Asthma, by Gender*, and by Race — 2013



Percent of Kentucky Adults who have Current Asthma, by Age, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

CORONARY HEART DISEASE

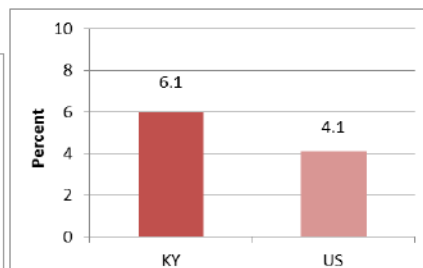
Question: Have you ever been told by a doctor, nurse, or other health professional that you had angina or coronary heart disease?

At Risk: Adults who answered “Yes” are considered at risk.

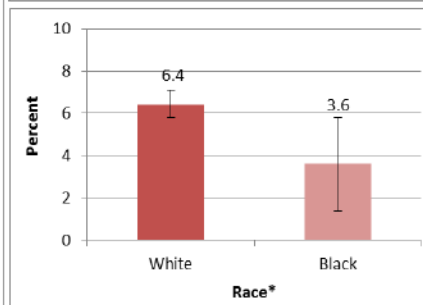
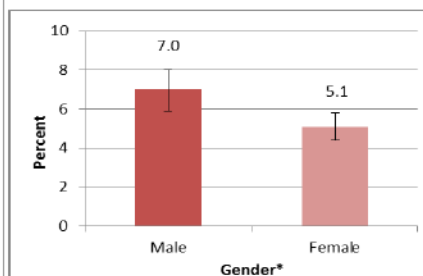
Who is at risk in Kentucky?

- In 2013, an estimated 6.1% of adults in Kentucky have been told by a health professional that they have coronary heart disease or angina; this was a higher estimate compared to the U.S median of 4.1%.
- Prevalence of coronary heart disease was significantly higher among men (7.0%) than women (5.1%) .
- Prevalence of coronary heart disease was significantly higher among white adults (6.4%) compared to black adults (3.6%) .
- As would be expected, prevalence of coronary heart disease was significantly higher among adults aged 65+ years compared to other age groups.
- Adults with less than a high school education reported a significantly higher prevalence of coronary heart disease compared to those with a college degree (8.9% vs. 4.2%)
- Prevalence of coronary heart disease was significantly higher among adults with an annual household income of less than \$25,000 compared to adults with an annual household income of \$50,000.

Percent of Adults who have Coronary Heart Disease: Kentucky vs. Nationwide (States and DC) — 2013

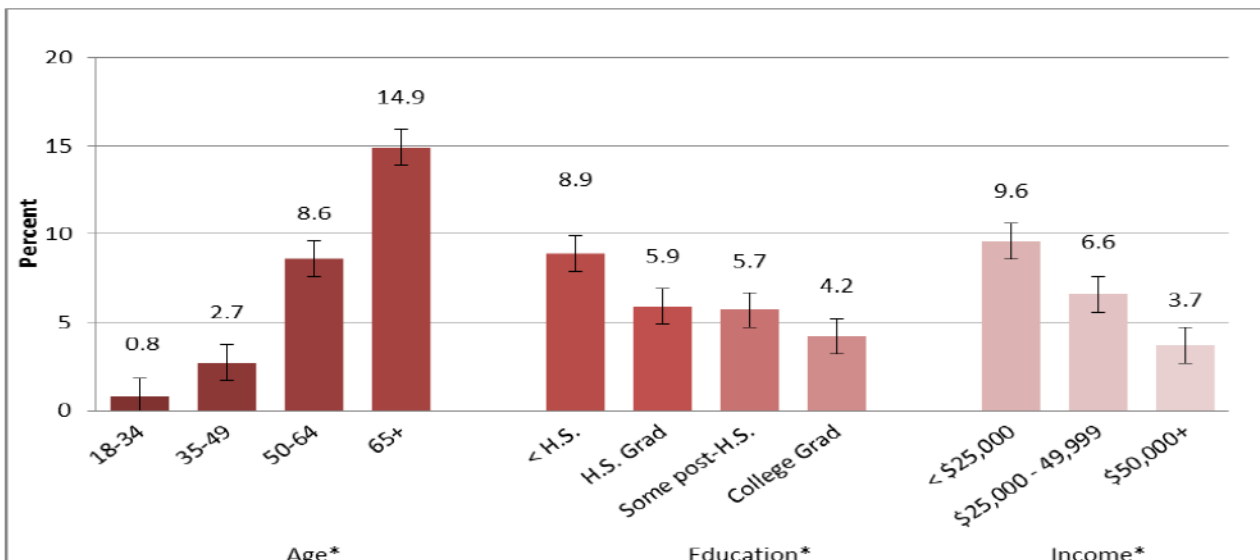


Percent of Kentucky Adults who have Coronary Heart Disease by Gender*, and by Race* — 2013



* Denotes a statistically significant difference among the values. In this report, the term ‘significant’ only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

Percent of Kentucky Adults who have Coronary Heart Disease, by Age*, Education*, and Income* — 2013



Focus Group Studies

DIABETES

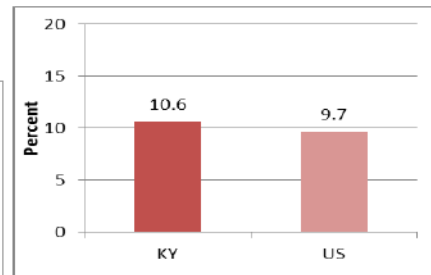
Question: Have you ever been told by a doctor, nurse, or other health professional that you have diabetes?

At Risk: Adults who answered “Yes” are considered at risk. Those with responses for gestational diabetes, pre-diabetes or borderline diabetes are excluded.

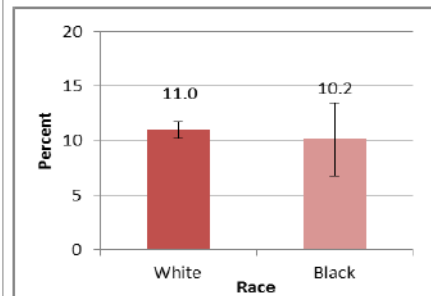
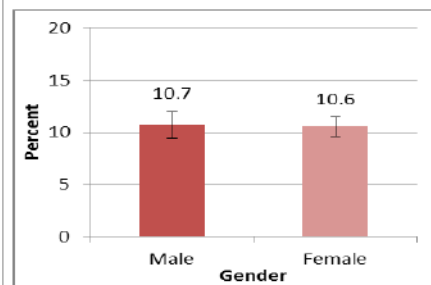
Who is at risk in Kentucky?

- In 2013, 10.6% of Kentucky adults reported that they have been told by a doctor that they have diabetes compared to 9.7% in the United States.
- Diabetes prevalence was slightly higher among men (10.7%) than women (10.6%).
- Diabetes prevalence did not significantly differ by race.
- Diabetes prevalence increased significantly with age; adults 65 years or older had the highest prevalence of diabetes (23.2%).
- Diabetes prevalence was significantly higher among adults with less than a high school education (13.8%) compared to adults with a college degree (7.4%).
- Adults with an annual household income of less than \$25,000 had a significantly higher prevalence of diabetes compared to adults with household income of \$50,000 or more a year (14.5% vs. 6.8%).

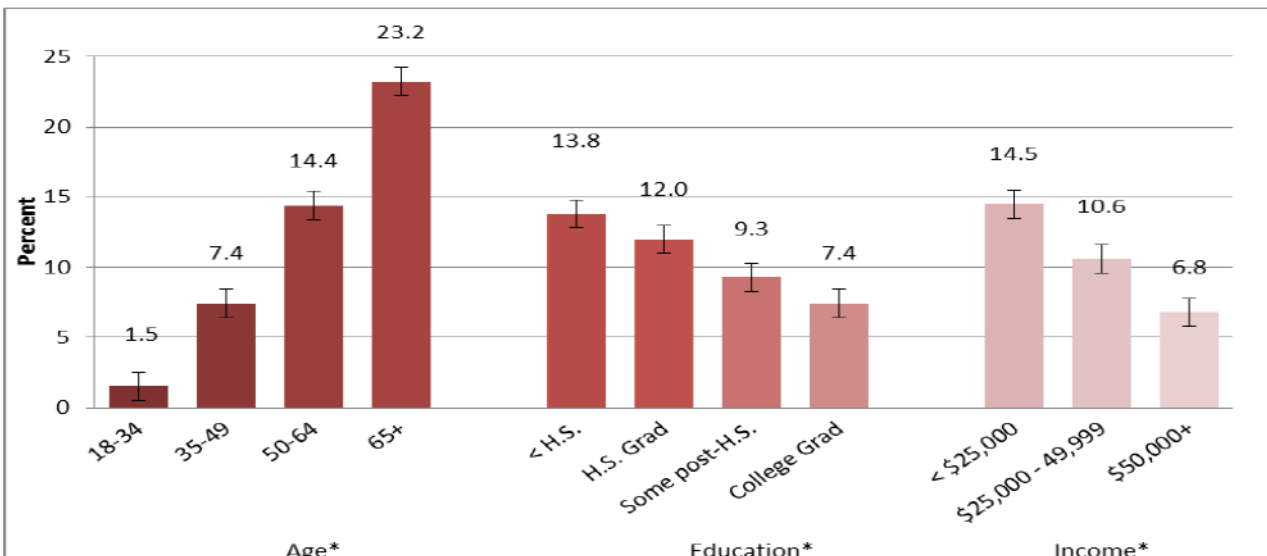
Percent of Adults who have Diabetes: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who have Diabetes by Gender, and by Race — 2013



Percent of Kentucky Adults who have Diabetes, by Age*, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term “significant” only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

HEART ATTACK

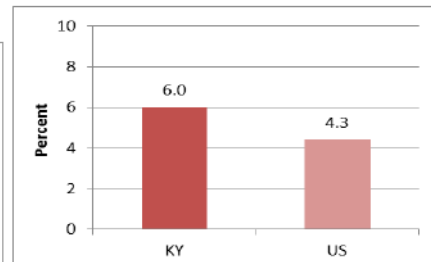
Question: Have you ever been told by a doctor, nurse, or other health professional that you had a heart attack, also called a myocardial infarction?

At Risk: Adults who answered “Yes” are considered at risk.

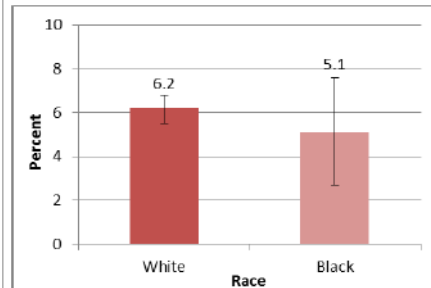
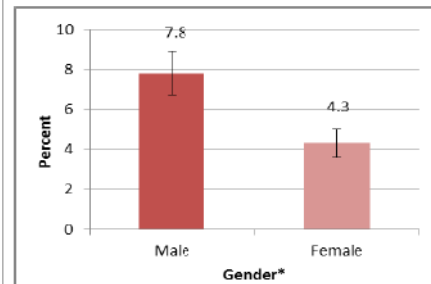
Who is at risk in Kentucky?

- An estimated 6% of adults in Kentucky have been told by a health professional that they had a heart attack; this was a higher estimate compared to the U.S median of 4.3%.
- Men (7.8%) reported a significantly higher prevalence of heart attack than women (4.3%).
- Prevalence of heart attack did not differ significantly by race.
- As expected, prevalence of heart attack increased significantly with age; the highest prevalence was among adults 65 years or older (14.9%).
- Heart attack prevalence was significantly higher among adults with less than a high school education (9.8%) compared to adults with other levels of educational attainment.
- Heart attack prevalence was significantly higher among adults with an annual household income of less than \$25,000 compared to adults with household income of \$50,000 or more a year (8.1% vs. 3.9%).

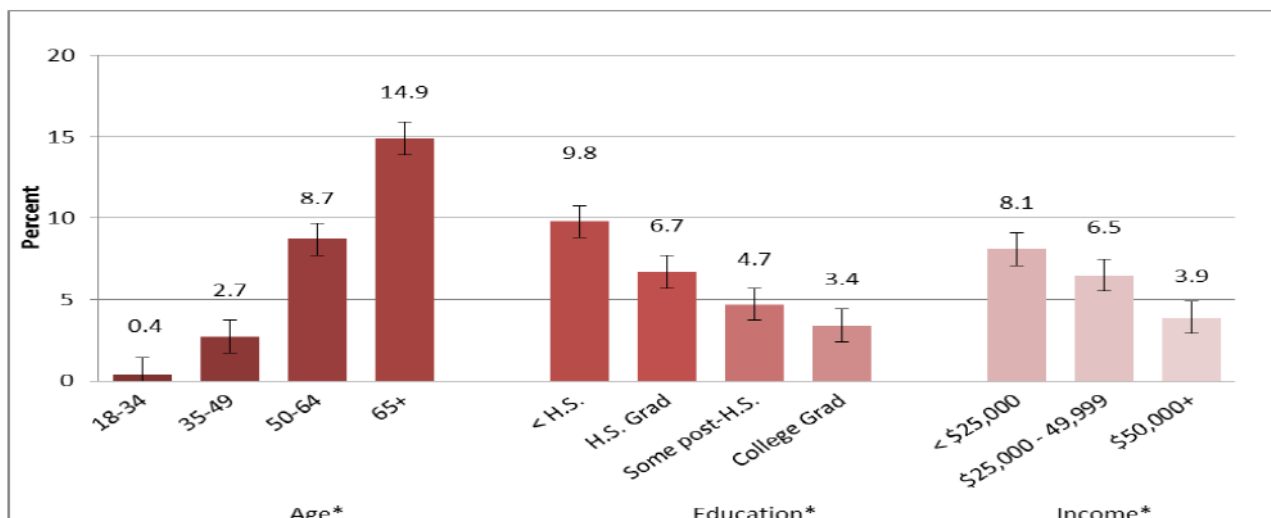
Percent of Adults who have ever been told that they had a Heart Attack: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who have ever been told they had a Heart Attack, by Gender*, and by Race — 2013



Percent of Kentucky Adults who have ever been told that they had a Heart Attack, by Age*, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

Focus Group Studies

HIGH BLOOD CHOLESTEROL

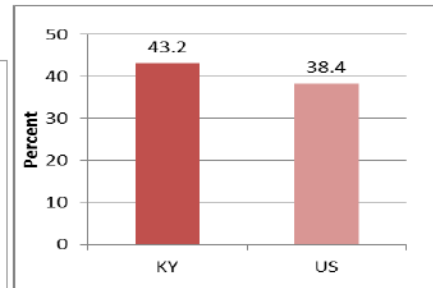
Question: Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high?

At Risk: Adults who answered “Yes” are considered at risk.

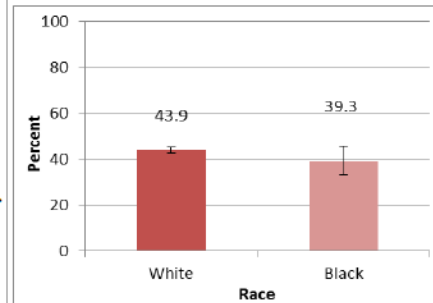
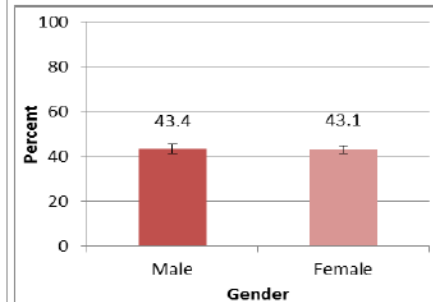
Who is at risk in Kentucky?

- In 2013, there were 43.2% of Kentucky adults who had been told by a health professional that they have high blood cholesterol; this estimate was higher compared to 38.4% in the nation.
- Prevalence of high blood cholesterol was slightly higher among men (43.4%) than women (43.1%).
- Prevalence of high blood cholesterol did not differ significantly by race.
- Prevalence of adults with high blood cholesterol increased significantly with age; the highest prevalence was among adults aged 65 years or older (59.6%).
- Prevalence of high blood cholesterol significantly decreased as education level increased. Around 51.8% of adults with less than high school education reported high blood cholesterol compared with 37.6% of college graduates.
- Prevalence of high blood cholesterol significantly decreased as annual household income increased. Adults with annual household income under \$25,000 reported a higher prevalence of high blood cholesterol than adults with annual household income of \$50,000 or more (52.2% vs. 36.5%).

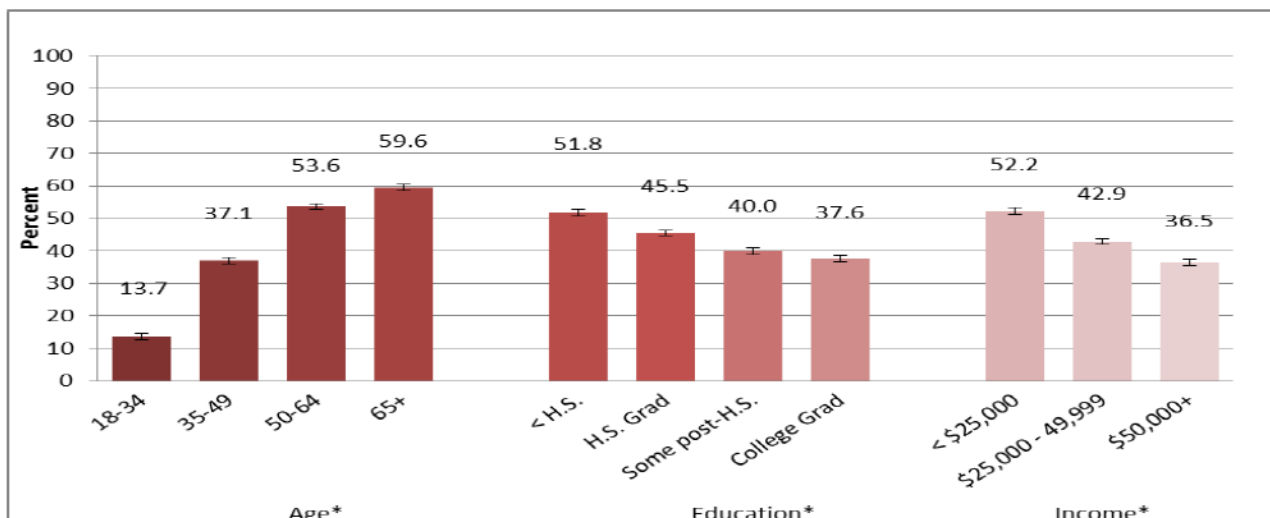
Percent of Adults who have High Blood Cholesterol: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who have High Blood Cholesterol, by Gender, and by Race — 2013



Percent of Kentucky Adults who have High Blood Cholesterol, by Age*, Education*, and Income* — 2013



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HIGH BLOOD PRESSURE

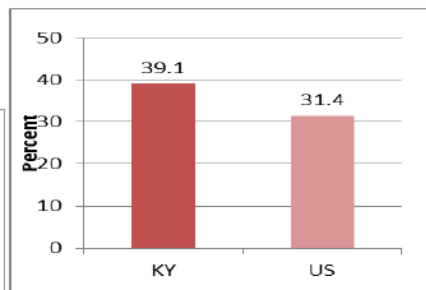
Question: Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?

At Risk: Adults who answered “Yes” are considered at risk. Those who were borderline hypertensive and women who had high blood pressure only during pregnancy are excluded

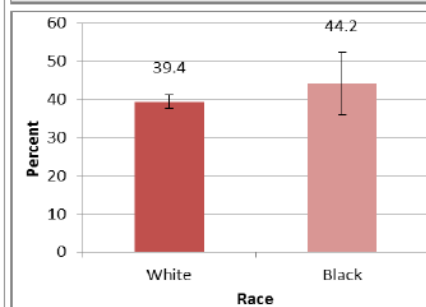
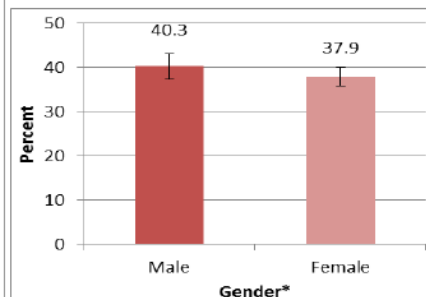
Who is at risk in Kentucky?

- In 2013, 39.1% of Kentucky adults had been told by a health professional that they have high blood pressure; this estimate was higher compared to 31.4% in the United States.
- Males (40.3%) reported a higher prevalence of high blood pressure than females (37.9%).
- Prevalence of high blood pressure did not significantly differ by race.
- Prevalence of adults with high blood pressure increased significantly with age, with the highest prevalence been reported among adults aged 65 years or older (65.8%).
- High blood pressure was significantly more prevalent among adults with less than high school education compared with adults who graduated from college (45.6% vs 31.9%).
- Prevalence of high blood pressure significantly decreased as household income increased; 47.5% of adults with annual household income under \$25,000 a year have had high blood pressure compared with 34.3% adults with annual household income of \$50,000 or more.

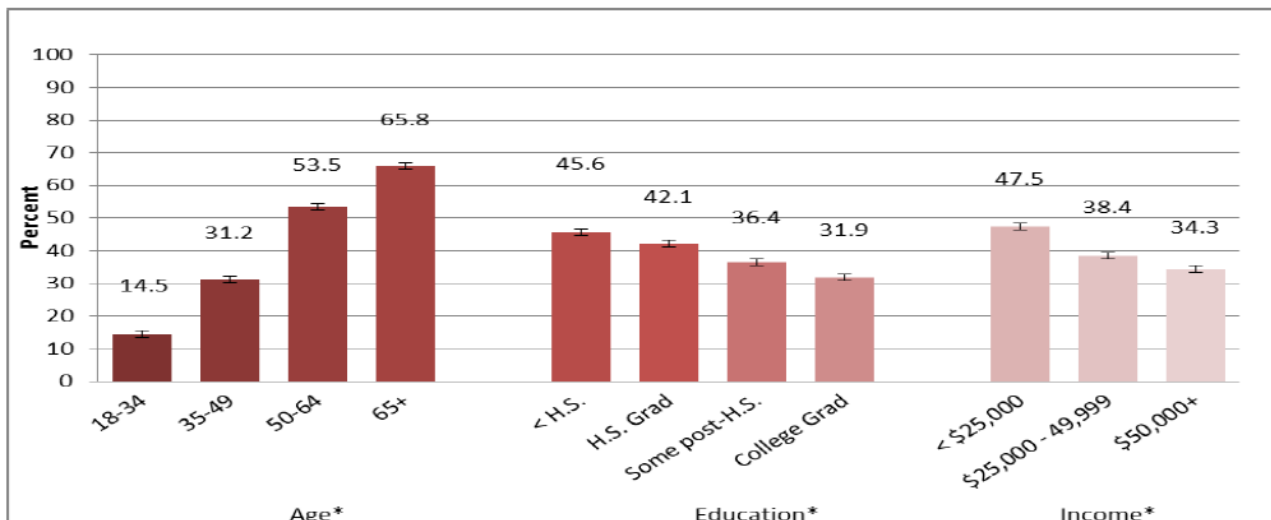
Percent of Adults who have High Blood Pressure: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who have High Blood Pressure, by Gender*, and by Race — 2013



Percent of Kentucky Adults who have High Blood Pressure, by Age*, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

Focus Group Studies

STROKE

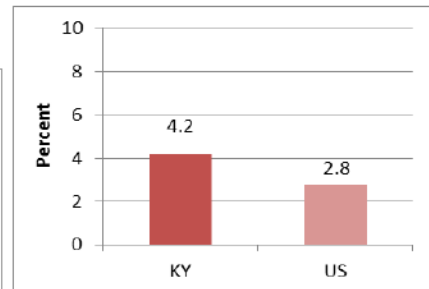
Question: Have you ever been told by a doctor, nurse, or other health professional that you had a stroke?

At Risk: Adults who answered “Yes” are considered at risk.

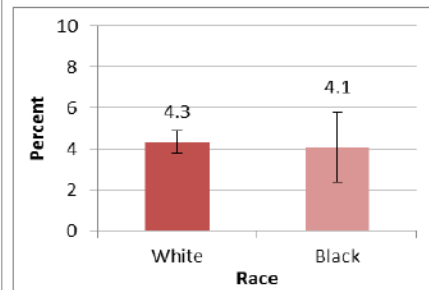
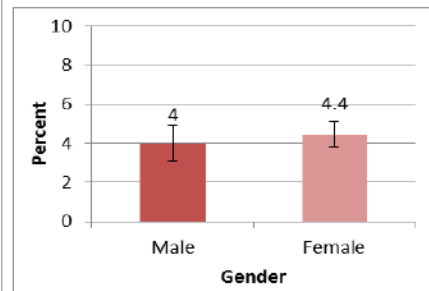
Who is at risk in Kentucky?

- An estimate 4.2% of adults in Kentucky have been told by a health professional that they had a stroke; this was a higher estimate than the U.S median prevalence (2.8%).
- Prevalence of stroke did not differ significantly by gender.
- There were no statistically significant differences in the prevalence of stroke between white and black adults.
- Prevalence of stroke increased significantly as age increased. The highest prevalence was among adults 65 years or older (9.3%).
- When compared by educational level, prevalence of stroke was significantly higher among adults with less than a high school education (7.4%) than those with other levels of educational attainment.
- Prevalence of stroke significantly decreased as household income increased. Adults with an annual household income of less than \$25,000 had a higher prevalence of stroke compared to adults with household income of \$50,000 or more a year (7.3% vs. 1.3%).

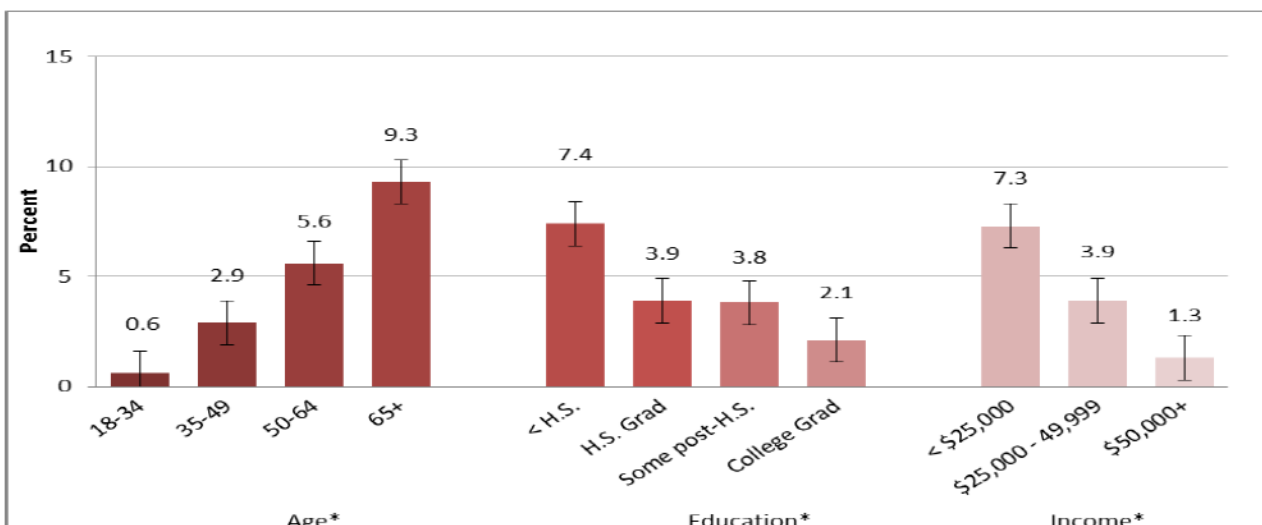
Percent of Adults who have ever been told that they had a Stroke: Kentucky vs. Nationwide (States and DC) — 2013



Percent of Kentucky Adults who have ever been told they had a Stroke, by Gender, and by Race — 2013

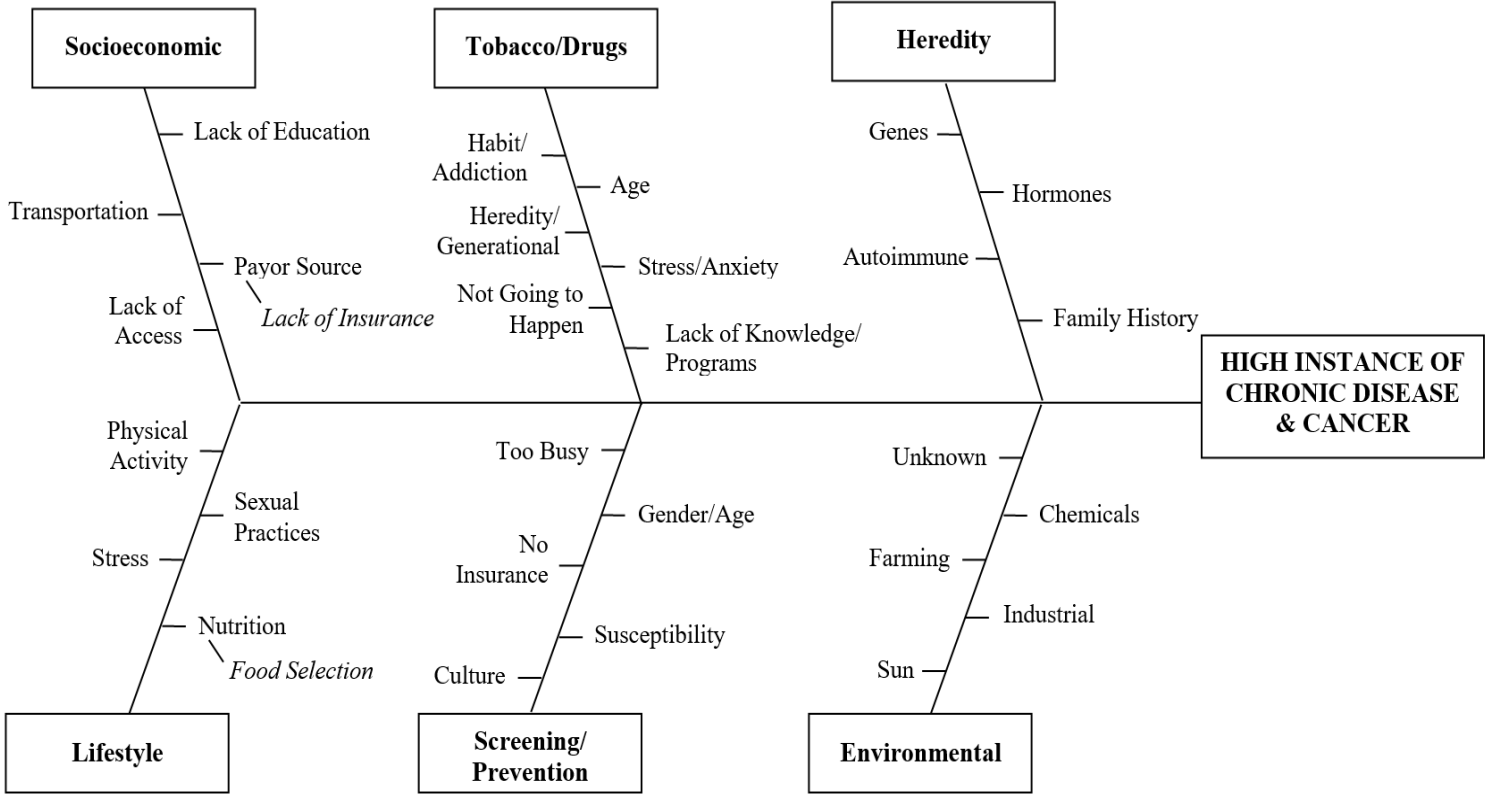


Percent of Kentucky Adults who have ever been told they had a Stroke, by Age*, Education*, and Income* — 2013



* Denotes a statistically significant difference among the values. In this report, the term 'significant' only refers to statistically significant differences in prevalence. Due to BRFSS methodology changes in 2011, estimates from 2013 cannot be directly compared to estimates from years prior to 2011.

Contributing Factors:



Focus Group Studies

5.) Inappropriate Utilization of Emergency Department Services

Inappropriate Utilization of Emergency Department Services (5) was identified by the Christian County Health and Wellness Coalition as a problem in the region, however, due to a lack of supporting data, community members assigned to this focus group were unable to define the current health status nor identify contributing factors and proposed interventions. The Community Health Improvement Plan illustrates the need to collect appropriate data to further identify health issues relating to the inappropriate utilization of emergency department services.

6.) Lack of Access to Dental Care

Lack of Access to Dental Care (6) was also identified as an issue in the community, however there was a lack of concern from dental providers in identifying interventions to combat the lack of access to dental services. The Community Health Improvement Plan illustrates the need to form a focus group of dental providers dedicated to identifying root causes and interventions to combat the lack of access to dental care in the region.

Focus Group Members

Obesity:

Jessica Gapp
Chastity Thomas
Kellye Howell
Cassie Dougherty
Pam Rudd
Sue Spurlin
Elizabeth Toms
Linsey Ramage

High Instance of Untreated

Mental Illness:

Rise Herndon
Donna Woodard
Amber Hackney
Audra Hall
Tracey Farmer
Melissa DeCoursey
Zachary Meny
Travis Flener
Mark Strickland
Eric Embry
Don Goble

High Teen Pregnancy/STD

Rates

Susan Thomas
Maria Bolton
Terah Cofield
Amanda Sholar
Kristie Smith
Patti Hill

Chronic Disease/Cancer

Ann Isom
Jackie Strickland
Jessica Meredith
Amanda Sholar
Jeanine Evans
Jennifer Boone
Amber Roeder
Linsey Ramage

Summary of Contributing Factors

With the four MAPP assessments completed and strategic planning priorities and contributing factors identified, the Christian County Wellness Coalition was able to effectively design the Community Health Improvement Plan (CHIP). Strategies identified in the CHIP are based on local, state, and national health improvement priorities including *Hoptown WINS* and *Healthy People 2020*, and will be utilized and referenced over the next four years as our community evolves toward a culture of health.

2016 Strategic Planning Priorities	Contributing Factors
<p>1. Obesity</p>	<p>Poor Diet Lack of Physical Activity Time Socioeconomic Factors Culture Lack of Knowledge</p>
<p>2. High instance of untreated mental illness</p>	<p>Psychiatry Awareness/Marketing Transportation Inconsistency of Clients Process/Policy</p>
<p>3. High teen pregnancy rate/sexually transmitted diseases</p>	<p>Education Drugs/Alcohol Socioeconomic Social Acceptance Parenting Social Media/Apps</p>
<p>4. High instance of chronic disease and cancer</p>	<p>Socioeconomic Tobacco/Drugs Heredity Environmental Screening/Prevention Lifestyle</p>
<p>5. Inappropriate utilization of emergency services</p>	<p style="background-color: #cccccc; text-align: center;">[Redacted]</p>
<p>6. Lack of access to dental care</p>	<p style="background-color: #cccccc; text-align: center;">[Redacted]</p>

Community Health Improvement Plan

1.) Obesity:

Strategies	Timeline	Responsible Party
Establish a nutrition education program incorporating cooking classes, grocery store tours, adult and child education	Fall 2017	CCHD, UK Extension Office
Advocate for legislative restrictions regarding use of government assistance for purchase of unhealthy foods	2017 Legislative Session	All
Establish mandatory nutrition education curriculum in schools	Fall 2017	Christian County Board of Education, Private Schools
Advocate for the expansion of the Hopkinsville Greenway System	Ongoing	All
Increase awareness of Hopkinsville Greenway System and rail-trail safety	Spring 2017	City of Hopkinsville, Recreation Department, CCHD
Strengthen, establish, and promote walking, running, and cycling clubs	Ongoing	CCHD
Educate employers on benefits of corporate employee wellness programs	Ongoing	JSMC, CCHD, YMCA
Utilize schools, churches, Challenge Houses, and Boys and Girls Club as points of contact for physical activity and nutrition education for kids.	Spring 2017	CCHD
Expand farmers market concept to include second possible location	Spring 2017-Spring 2018	City of Hopkinsville
Establishment of community gardens	Spring 2018	Churches, Civic Organizations, Christian County Jail

2.) High Instance of Untreated Mental Illness:

Strategies	Timeline	Responsible Party
Explore the use of telehealth practices for mental health services	Spring 2018	Pennyroyal Mental Health

Strategies	Timeline	Responsible Party
Establish practices such as sub-contracting, higher pay scales, student loan forgiveness, sharing of physician privileges, and other practices that address shortage of mental health providers in the community	Spring 2017-Spring 2018	Pennyroyal Mental Health
Advocate for significant increase in mental health reimbursement rates and/or the renegotiating of cost based reimbursement with MCO providers	Ongoing	Pennyroyal Mental Health, CCHD
Increase outreach and education regarding mental health and mental health services with local primary care physicians	Spring 2017	Pennyroyal Mental Health
Develop a new identity package to increase community presence, increase awareness, and advertise mental health services	Fall 2017	Pennyroyal Mental Health
Continue to support services provided through Hopkinsville Transit and PACS services: issue transportation vouchers, schedule appointments for patient.	Ongoing	All
Improve aesthetics and atmosphere relating to improved client experience	Fall 2018	Pennyroyal Mental Health
Establish parent support groups for court ordered program	Fall 2017	Pennyroyal Mental Health
Advocate for a law to enforce court ordered mental health treatment	2017 Legislative Session	All
Advocate for increased state allocations for mental health services	Ongoing	All
Explore the need and feasibility of a Needle Exchange program in our county.	Summer 2017	CCHD, Local Elected Officials, Hopkinsville City Council

Community Health Improvement Plan

3.) High Teen Pregnancy/STI Rate:

Strategies	Timeline	Responsible Party
Develop media campaign publicizing teen pregnancy and STI statistics	Spring 2017	CCHD, Alpha Alternative
Promote messages and use materials from It's Your (Sex) Life campaign—an Emmy and Peabody Award-winning public information partnership between the Kaiser Family Foundation (KFF) and MTV to support young people in making responsible decisions about sexual health.	Summer 2017	CCHD
Work with the public school system to ensure standardized, evidence based, sex education curriculum is delivered through trained personnel.	Fall 2016	CCHD, Christian County Public School, Alpha Alternative
Continue partnership with Ft. Campbell and Montgomery County (TN) addressing multijurisdictional public health issues	Ongoing	CCHD, MCHD, Ft. Campbell Public Health
Research and adopt evidence based curriculum within multijurisdictional areas of Christian County (KY), Montgomery County (TN), and Ft. Campbell for parent/teen and parent only classes regarding safe sex practices	Spring 2017	CCHD, MCHD, Ft. Campbell Pubic Health
Advertise available services through the Christian County Connection	Ongoing	CCHD
Advocate for mandatory disclaimers associated with STI on all social media sites promoting dating, sex, and/or hook-ups	2017 Legislative Session	CCHD, MCHD, Ft. Campbell Public Health, Community
Educate community on the dangers associated with social media sites that promote dating, sex, and/or hookups	Fall 2017	CCHD, MCHD, Ft. Campbell Public Health, Community
Educate community members on the use of permanent birth control options when appropriate.	Fall 2017	CCHD

4.) High Instance of Chronic Disease and Cancer:

Strategies	Timeline	Responsible Party
Continue to support services provided through Hopkinsville Transit and PACS services: issue transportation vouchers, schedule appointments for patient.	Ongoing	All
Advocate for the continuation of KyNECT and/or the promotion of a Federal healthcare exchange	2016 Legislative Session	All
Increase and/or continue tobacco and drug education in schools	Ongoing	CCHD
Offer free Freedom from Smoking classes through employers, churches, etc.	Spring 2017	CCHD
Increase awareness of genetic testing	Fall 2017	CCHD
Educate community on healthier foods in cafeterias and vending machines	Ongoing	UK Extension Office, CCHD
Increase availability of free screenings in the community through health fairs, etc.	Ongoing	CCHD, JSMC
Advocate for the expansion of the Hopkinsville Greenway System	Ongoing	All
Expand farmers market concept to include second possible location	Spring 2017-Spring 2018	City of Hopkinsville
Adopt a comprehensive smoke-free ordinance for Christian County	Spring 2018	All
Advocate for Smoke-Free Kentucky	Ongoing	All

Community Health Improvement Plan

5.) Inappropriate Utilization of Emergency Department Services:

Strategies	Timeline	Responsible Party
<p>Develop an internal JSMC focus group to define the definition of non-urgent emergency room visits. Once identified, analyze the data to determine the inappropriate utilization of emergency room visits. The data will be disseminated to the medical staff at JSMC and a community focus group will be formed. The community focus group will consist of both lay person community members and community healthcare providers. The group will formulate potential contributing factors, identify causes and/or barriers, and formulate proposed interventions to combat inappropriate utilization of emergency services in the geographic region serviced by JSMC.</p>	<p>Fall 2016-Fall 2017</p>	<p>JSMC will take the lead on the development of the focus group and report back to the Christian County Health and Wellness Coalition.</p>
<p>Address lack of access to primary care providers in the area in an effort to provide other avenues to obtain care other than the utilization of emergency services.</p>	<p>Spring 2017</p>	<p>JSMC, CCHD</p>
<p>Establish a Community Healthcare Foundation.</p>	<p>Fall 2017</p>	<p>JSMC, CCHD</p>

6.) Lack of Access to Dental Care:

Strategies	Timeline	Responsible Party
<p>Develop a focus group to examine the root causes of lack of access to dental care in the geographic region of Christian County. The focus group will collect data, define the current status, list contributing factors, identify causes and/or barriers, and formulate proposed interventions to combat the lack of access to dental care within the geographical region.</p>	<p>Fall 2016-Fall 2017</p>	<p>CCHD will take the lead on the development of the focus group consisting of dental providers in the area. Results will be reported back to the Christian County Health and Wellness Coalition.</p>



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