

Green River District

HEALTH DEPARTMENT



Community Health Assessment Update

2019

Green River District Health Department

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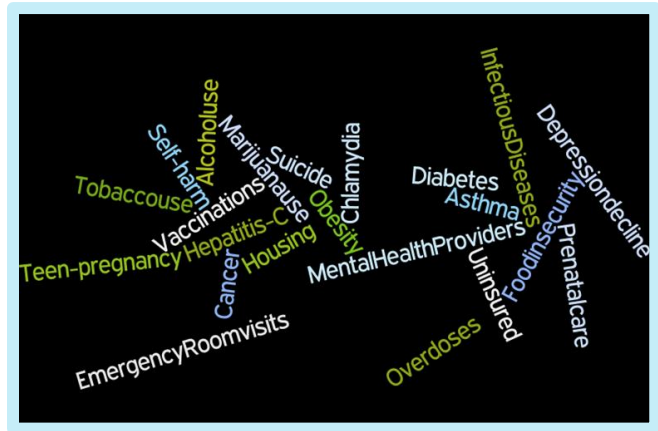
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This document provides updated information on key health needs and issues for the Green River District. The content is a complement to the 2018 Green River Community Health Assessment. The original document can be found at <http://healthdepartment.org>

Methodology

The Community Health Assessment is a developmental process that is added to and amended over time. This 2019 document provides updated information for specific aspects of the 2018 GRDHD Community Health Assessment. Topics selected for inclusion were based on feedback received from community members during the 2018 forums as well as local coalitions. The data is intended to assist in the investigation of root cause or contributing factors in order to direct community health initiatives which will have the greatest impact.



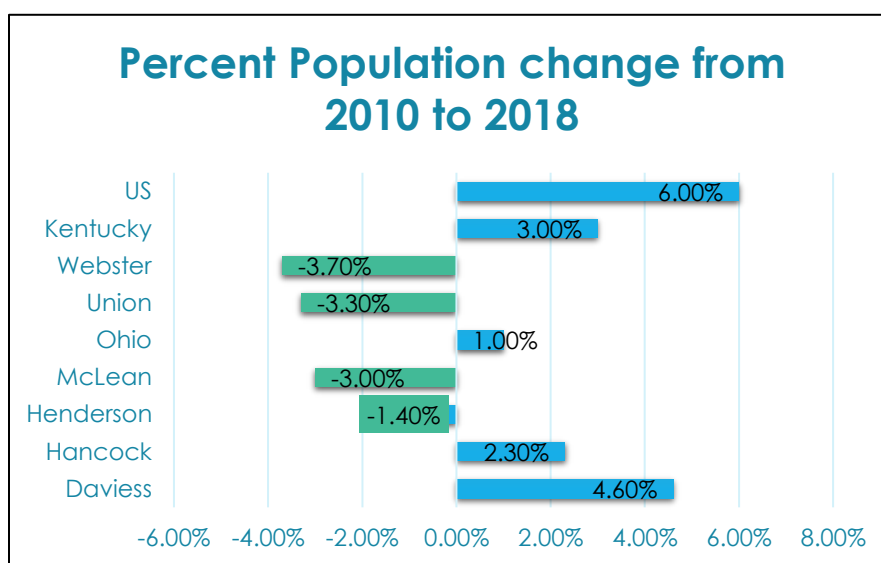
Acknowledgments

The Green River District Health Department would like to express its gratitude for the contributions made by those who participated in the development of this assessment. Special thanks to the following agencies and individuals that contributed completion of this report:

- *Audubon Area Community Services*
- *Healthy Horizons Health Coalition*
- *Hancock County Health Coalition*
- *Henderson County Health Coalition*
- *Partnership for a Healthy McLean County*
- *Ohio County Health Coalition*
- *Union County Health Coalition*
- *Webster County Health Coalition*
- *River Valley Behavioral Health*
- *Henderson Collaborative Partners*
- *United Way*
- *SparkODC*

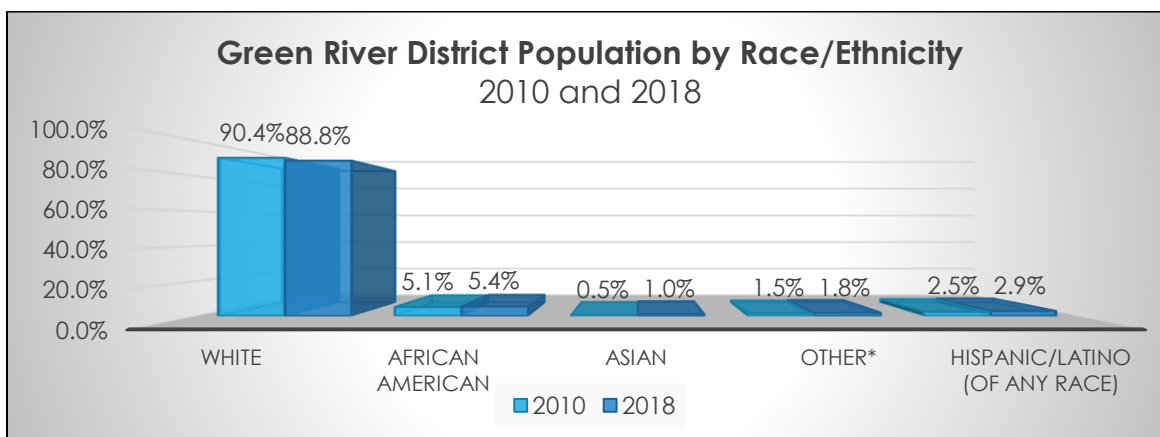
Demographics

The Green River District is home to more than 216,000 individuals. The overall population of the Green River District has increased by 1.36% between 2010 and 2018. During that time, we have seen a slight movement away from some of our more rural settings and growth in our largest county and counties with more industry. The decrease in population in Henderson County is thought to be associated with movement to the closest metropolitan city in Evansville, Indiana. We know that history and science tells us that where you live, work, and play impacts your overall health, which is why the demographics of our community are so very important.



Source: U.S. Census Bureau American Community Survey 2013-17

The Green River District has seen a gradual increase in diverse races/ethnicities within the past 8 years. Owensboro/Daviess County has seen an increase in refugees from Myanmar, Somalia, and Iraq. Industry in Webster and Ohio Counties has also drawn refugees and other minority groups from other areas because of job availability.



Source: U.S. Census Bureau American Community Survey 2013-17

An estimated 23.72% of the population in the Green River District is under the age of 18 according to the U.S. Census Bureau American Community Survey 2013-17, 5-year estimates. An estimated total of 51,170 youths resided in the area during this time period. The number of persons under age 18 is relevant because this population has unique health needs which should be considered separately from other age groups and health behaviors in their youth can have lasting impacts to the quality of life in their adult and senior years.

Report Area	Total Population	Population Age 0-17	Percent Population Age 0-17
Report Location	215,728	51,170	23.72%
Daviess County	99,258	24,214	24.4%
Hancock County	8,700	2,209	25.39%
Henderson County	46,252	10,761	23.27%
McLean County	9,361	2,236	23.89%
Ohio County	24,062	5,681	23.61%
Union County	14,915	3,027	20.3%
Webster County	13,180	3,042	23.08%
Kentucky	4,424,376	1,012,592	22.89%
United States	321,004,407	73,601,279	22.93%

Data Source: US Census Bureau, American Community Survey. 2013-17. Source geography: Tract

Community Health Status Assessment Update

The Community Health Status Assessment helps to provide a quantitative analysis of the health of the community. In Green River District, several data sets and collections contributed to assessing the community's health. These include, but are not limited to, Healthy People 2020, coalition needs and chosen strategic initiatives as well as a variety of new data from other sources helped to guide the indicator topics. The following health indicator topics were selected after thorough review, cross evaluation and discussions:

- Access to Care (including Prevention services)
- Environmental Quality
- Infectious Disease
- Maternal, Infant, and Child Health
- Mental Health
- Mortality
- Nutrition, Physical Activity, Obesity
- Social Determinants
- Substance Abuse & Tobacco

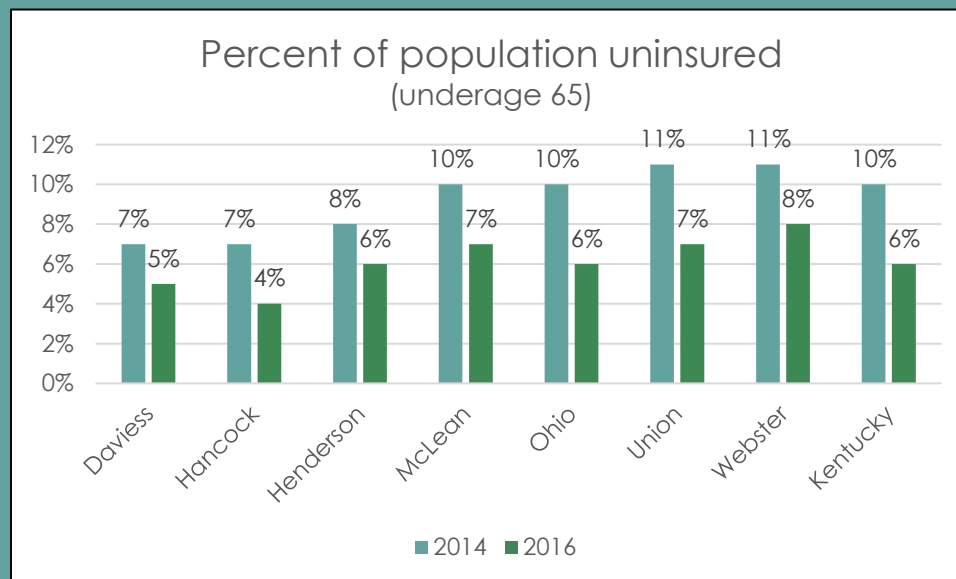
Access to Care

We know that the ability to access health services profoundly affects the overall health of a person. The availability of providers within close proximity of your community allows for more convenient and probable access. Having a variety of specialized, quality providers to see in your community will obviously increase the access to care. Increasing access to preventative and specialty health care as well as quality health insurance is vital in improving the health of our community.

	Daviess	Hancock	Henderson	McLean	Ohio	Union	Webster	Kentucky
Primary care physicians	1780:1	0:0	1930:1	9480:1	3480:1	4960:1	4440:1	1520:1
Mental health providers	380:1	1470:1	850:1	3070:1	2690:1	7330:1	2170:1	490:1
Percent uninsured (under 65 years)	5%	4%	6%	7%	6%	7%	8%	6%

Source: www.countyhealthrankings.org

Insurance and the ability to pay for care also affects overall health. Kentucky has seen a considerable decrease in the percent of uninsured persons under the age of 65 due to the expansion of Medicaid in 2014. This allows for greater access to needed care and increased overall wellness.



The compelling story with reference to access to care is that every county in the Green River District decreased their percentage of uninsured persons in their community. Access to insurance allows for more preventative care and reduces the number of people who defer care because of cost.

Environmental Quality

In 2018, we reported on number of “Extreme Heat Days” in the Green River District. The counties with higher number of “Extreme Heat Days” incurred a higher number of Heat Stress related emergency department (ED) visits and a higher number of ED visits associated with Asthma which can both be directly impacted by heat and the possibility that temperatures are gradually getting warmer on average. This causes more stress on bodies. Especially bodies who are already overweight or in poor overall health.

	Daviess	Hancock	Henderson	McLean	Ohio	Union	Webster	Kentucky
Heat Days	29	21	35	26	21	43	37	N/A
Heat Stress ED visits /10,000 pop.	6.17	2.93	6.64	7.94	5.64	9.88	7.32	3.43
Asthma ED visits /10,000 pop.	53.62	24.37	51.91	36.10	56.03	73.82	35.53	9.38

Source: Emergency Department Dataset, Office of Health Policy, Kentucky Department for Public Health. Kentucky State Data Center, University of Louisville 2013-2017.

Infectious Disease

Awareness and education concerning infectious diseases is essential. In the last decade, we have seen public health emergencies caused by emerging infectious diseases such as Ebola and Zika Virus. The burden of illness caused in a single flu season has inundated the news cycle for weeks and we have seen a resurgent of vaccine-preventable diseases that once seemed close to eradication. Infectious disease can be costly and even lead to death in some situations. Kentucky State Law requires that local health departments conduct disease surveillance which is dependent on local healthcare providers reporting pre-identified diseases to GRDHD. The chart below outlines the diseases reported for Green River District over the past six years (2013 - 2018). It is the responsibility of local public health agencies to respond to reported diseases to prevent further spread of disease and provide education.

In 2018 Kentucky experienced the largest Hepatitis A Outbreak in the United States. As you can see in the table (on the next page), GRD saw an increase in cases which has continued into 2019. Vulnerable population groups include the homeless and illicit drug users. Outreach efforts to reach these identified risk groups have included educational presentations and vaccine clinics at substance abuse treatment facilities, homeless shelters, community events, and within local jails and detention centers. Information has been shared with community coalition groups, through social media, and print media to educate the community about prevention measure.

Green River District

HEALTH DEPARTMENT

Annual Disease Summary

	Suspect & Confirmed					
	2013	2014	2015	2016	2017	2018
Babesiosis	0	0	0	1	0	2
Botulism, infant	0	0	0	0	1	0
Campylobacteriosis	29	40	52	43	17	34
Cryptosporidiosis	0	0	2	5	2	5
Ehrlichiosis, chaffeensis	5	5	5	7	3	7
Group A Streptococcus, invasive	2	2	0	0	1	0
Haemophilus influenzae, invasive	9	3	2	2	2	8
Hepatitis A, acute	5	3	3	3	0	12
Hepatitis B, acute	1	2	4	5	4	3
Hepatitis C, acute	4	2	6	4	2	0
Histoplasmosis	1	2	2	2	1	0
Legionellosis	4	1	1	1	6	10
Listeria	1	0	0	0	0	0
Lyme disease	2	5	3	3	1	1
Malaria	0	1	0	1	0	0
Neisseria meningitidis, invasive	0	0	0	1	1	0
Pertussis	11	7	2	2	9	10
Q Fever	1	0	0	0	0	0
Salmonellosis	38	44	32	52	32	32
Shigellosis	1	12	54	21	4	1
Shiga toxin-producing Escherichia coli (STEC)	3	4	7	6	9	5
Spotted Fever Rickettsiosis	6	9	17	18	28	27
Streptococcus pneumoniae, invasive disease (IPD)	6	3	8	10	9	29
Toxoplasmosis	0	1	1	0	1	1
Tularemia	0	0	2	1	0	0
West Nile Fever	1	1	0	0	0	0
Total	130	153	217	188	133	187

Hepatitis

Though not thoroughly evident based on the above table, Hepatitis C is a major and costly issue in Kentucky. Kentucky only tracks acute Hepatitis C cases, therefore it is estimated that more than 40,000 Kentuckians are living with chronic hepatitis C but, according to the Kentucky Cabinet for Health and Family Services, "the actual number is likely four or five times that amount."

Below you can see the up and down fluctuation of patients seen in emergency departments in Henderson and Daviess County who have Hepatitis C or HIV diagnosis. These numbers helped to lay the foundation for establishing a Syringe Access Program,

The Green River Exchange, within the Green River District. The syringe access program exists to help reduce the spread of hepatitis and HIV as well as reduce harm and the risk of overdose for intravenous drug users within the community. There have been many opportunities to present data that will contribute to and increase public and professional knowledge of health issues. Please see Appendix A for a portion of a presentation: *Kentucky Hepatitis A Outbreak-GRDHD Response*. This was presented by GRDHD staff to a Healthcare Preparedness Group consisting of community partners.

Drug-related inpatient hospitalizations and ED visit data for Daviess County: 2013-2018						
	2013	2014	2015	2016	2017	2018
Hepatitis C	346	380	358	257	286	279
HIV	54	57	78	73	34	54

Source: KIPRC, Kentucky Department for Public Health, Kentucky Inpatient Hospitalization Claim Files, CHFS, Office of Health Policy. April 2019.

Drug-related inpatient hospitalizations and ED visit data for Henderson County: 2013-2018						
	2013	2014	2015	2016	2017	2018
Hepatitis C	93	81	102	113	80	69
HIV	≤5	11	10	17	16	27

Source: KIPRC, Kentucky Department for Public Health, Kentucky Inpatient Hospitalization Claim Files, CHFS, Office of Health Policy. April 2019.

The disparities in new HIV infections are widening according to the CDC. It is estimated that 1 in 7 people living with HIV do not know they are infected. Over half of all new HIV diagnoses in 2017 were concentrated in the South and 43% of newly diagnosed cases were black/African American, even though they only represent 13% of the U.S. population. This points to a disparity that needs attention. Education, testing, treatment, and prevention campaigns to ensure our black/African American communities are getting tested and treated adequately to reduce the further spread of HIV.

Chlamydia

When the county Chlamydia Rates (2012-2016) were presented to local communities during the release of the 2018 CHA, it was noted that Union County data appears to indicate an issue. However, Union County is home to the Earle C. Clements Jobs Corps, an education and training program for young adults from all over the country. All Job Corps participants must be tested; these higher levels of testing correlate to higher levels of positive results. Approximately 70-90% of the positive Union County Chlamydia rates depicted come from Job Corps.

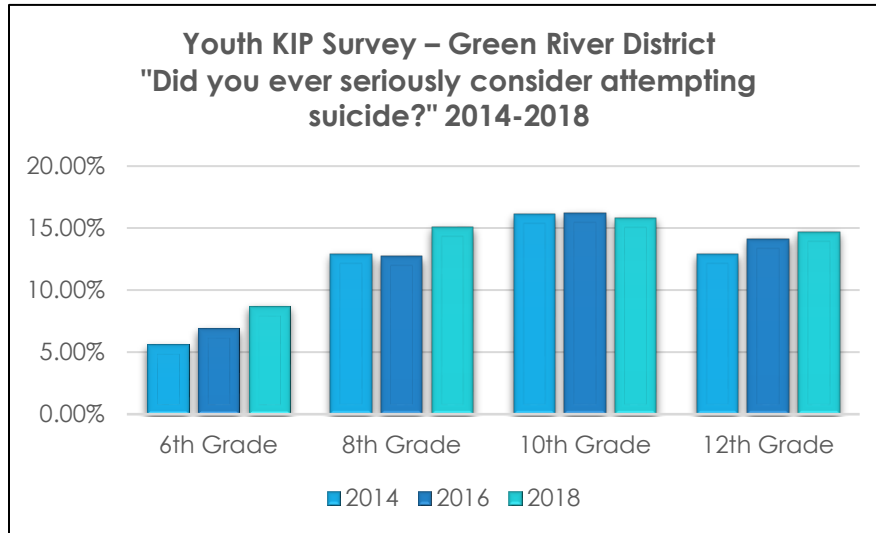
Pictured below is a graph showing trends of Chlamydia infections by county from 2012 to 2016. The CDC shows that sexually transmitted infection (STI) rates are heavily influenced by socioeconomic determinants and health disparities. Stigma around accessing reproductive and sexual health services is still a major barrier for testing for STI's and getting needed education and prevention.

Sexually Transmitted Diseases Chlamydia in Union County, KY 2009-2016						
	State of Kentucky		Union County		E.C. Clements JCC	
YEAR	CASES	Rate per 100,000	Cases	Rate per 100,000	Cases	% Cases*
2009	13,284	307.7	171	1139.7	144	84.2
2010	16,368	376.4	266	1740.0	248	93.2
2011	16,594	379.8	212	1387.7	187	88.2
2012	17,258	393.6	222	1468.8	179	80.6
2013	17,133	389.3	136	900.00	96	70.6
2014	17,661	400.2	217	1430.6	175	80.6
2015	17,436	394.1	157	1043.0	144	91.7
2016	18,283	412.1	154	1034.9	124	80.5
*Percentage of Chlamydia cases in Union County reported by E.C. Clements Job Corps Center.						

Source: KDPH. Sexually Transmitted Diseases: Chlamydia in Union County, KY 2009-2016. 2018

Mental Health

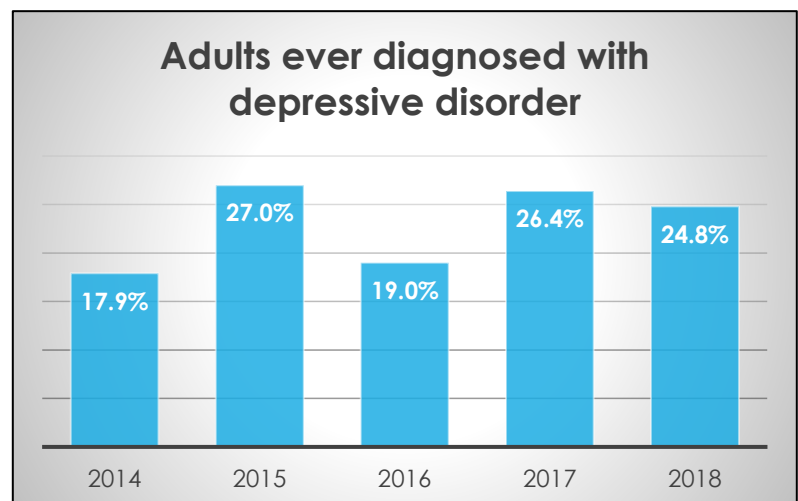
The 2018 Community Health Assessment really drew attention to mental health issues, especially among youth. The KIP Survey is the best source for local mental health data around bullying, suicidal thoughts, and other mental health related issues facing youth.



- 11.3 suicides per 100,000 population occurred in the US in 2007.
- Healthy People set the goal to reduce that to 10.2 suicides per 100,000 pop.
- Kentucky averaged 16.8 suicides per 100,000 in 2016. Up from 15.1 in 2007

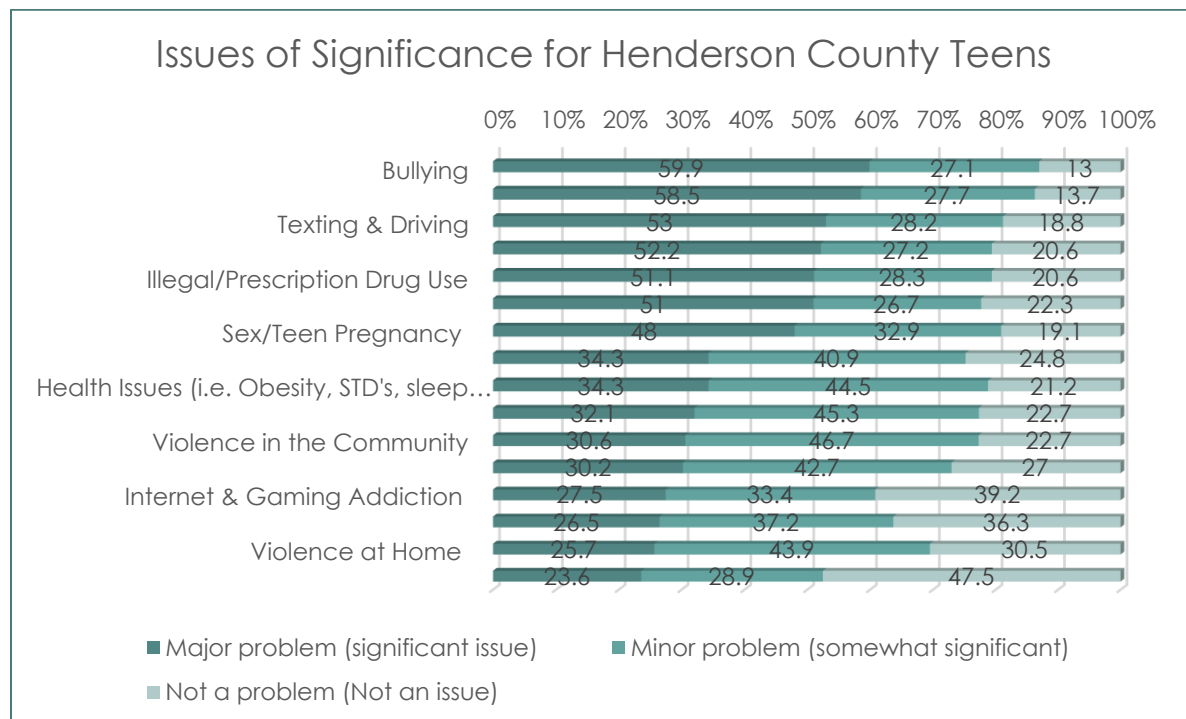
Contributors to the CHA feel it is essential to address mental health specifically among youth. There is a trend of recognizing mental health affecting one's whole body and sense of wellbeing and how we address that as a community. Because of this mind set shift, the local health coalitions are incorporating various aspects of mental health into their overall lifestyle, access to care, teen issues, and substance abuse sub committees.

The Henderson County Collaborative Partners is an established community partnership focused on the well-being of children in Henderson County. Members represent schools, Court Appointed Special Advocates (CASA), health providers, social services and other vested organizations within the community. The group meets monthly to discuss and address issues and problems facing Henderson County's youth. In 2012, the group began surveying Henderson residents and teens to identify top teen issues. Survey results indicated many issues with the highest priorities as Bullying, Substance Use and Sexual Activity.



Concerns for the health and safety of youth continues to be a focus for the Green River District. In subsequent CHA/CHIP Cycles, the Healthy Henderson Coalition has continued to survey Henderson County students and teachers to gather first hand data

about what issues and factors impact local teens the most. In the most recent (2016-2018) survey, more than 1,700 students and teachers representing grades 6 through 12 were asked to rank a series of issues in order of significance.

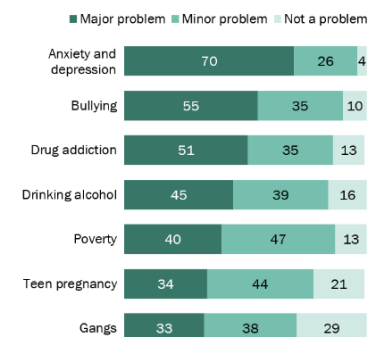


Bullying, Substance Use and Sexual Activity continue to remain significant issues among Henderson youth; as are depression and texting and driving. For Henderson County teens, depression among youth was ranked by 86% of respondents as a significant or somewhat significant issue. This correlates with national rates recently reported by the PEW Research Center indicating that Anxiety and Depression is on the rise. Please see Appendix B for portions of the survey results. (<https://www.pewsocialtrends.org/2019/02/20/most-u-s-teens-see-anxiety-and-depression-as-a-major-problem-among-their-peers/>)

Depression and anxiety affect mood, outlook, thoughts and behavior. There is a close connection between mental health and substance abuse; individuals with mental health disorders tend to engage in behaviors such as smoking, drug and alcohol use as coping mechanisms. Likewise, substance abuse can increase underlying risks for mental disorders.

Anxiety and depression top list of problems teens see among their peers

% of teens saying each of the following is a ____ among people their age in the community where they live



Note: Share of respondents who didn't offer an answer not shown.
Source: Survey of U.S. teens ages 13 to 17 conducted Sept. 17-Nov. 29, 2018.

"Most U.S. Teens See Anxiety and Depression as a Major Problem Among Their Peers"

PEW RESEARCH CENTER

Violence

During the 2018 Community Health Assessment County Forums, Ohio County attendees noted concern in the rates of violence in their community. Violence is obviously a hindrance on the well-being of the harmed individual but it extends beyond that. Violence can affect family, friends and communities. The aftermath of violent acts can lead to unhealthy coping mechanisms such as alcohol/drug use, overeating, lack of exercise and economic instability, indicating a greater need for mental health services and the whole body approach to wellness. According to Healthy People 2020, "both unintentional injuries and those caused by acts of violence are among the top 15 killers of Americans of all ages. Each year, more than 29 million people suffer an injury severe enough that emergency department treatment is needed. More than 180,000 people each year die from these injuries, with approximately 51,000 of these deaths resulting from a violent event. Many intentional and unintentional injuries are preventable."

Violent Crimes per County (2017)	Daviess County	Hancock County	Henderson County	McLean County	Ohio County	Webster County	Union County
Assault	1,355	8	701	36	191	53	90
Human Trafficking	1	0	0	0	0	0	0
Sex Offenses (forcible)	178	3	50	6	43	10	8
Homicide	12	0	7	0	0	0	2
Total arrests	14,744	223	7,177	1,099	3,896	1,158	1,131

Source: <http://kentuckystatepolice.org/>

Nutrition, Physical Activity, Obesity

Communities and County Coalition groups are currently and historically have been rallying around opportunities to increase physical activity opportunities and reduce obesity rates. Fitness centers and gyms are popping up, worksite wellness programs are growing, and education is everywhere. Behavior Risk Factor Surveillance Survey data is showing that GRD is moving in the right direction with reference to obesity rates, and adults who report getting any physical activity. Continued effort in this area, partnered with mental health campaigns will hopefully continue to see the needle move in a positive direction and improve the health of Kentuckians.

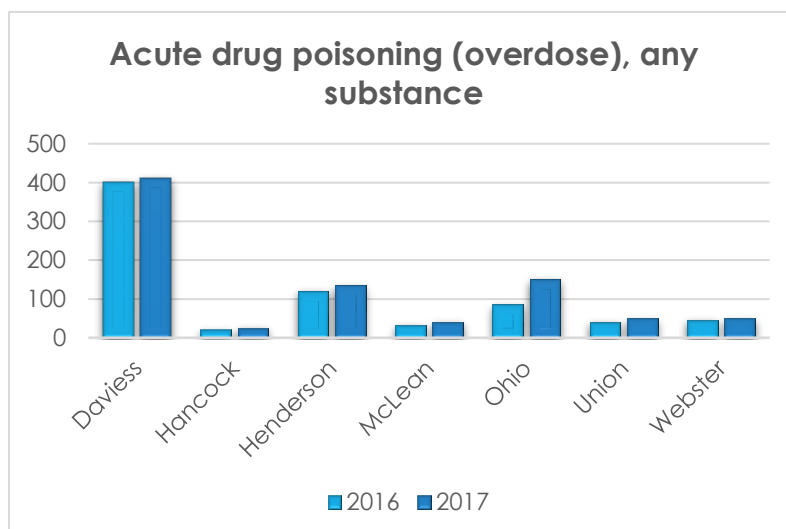
	2014	2015	2016	2017	2018
Obesity					
Green River District	31.3	34.2	30.1	32.4	31.7
Kentucky	33.2	31.6	34.6	34.2	34.3
Adults who get any physical activity					
Green River District			63.7	64.5	65.7
Kentucky			67.5	70.2	65.6
Adults diagnosed with Diabetes					
Green River District	11.9	13.6	12.1	17	13.5
Kentucky	10.6	12.5	13.4	13.1	12.9

Source: <http://www.cdc.gov/brfss>

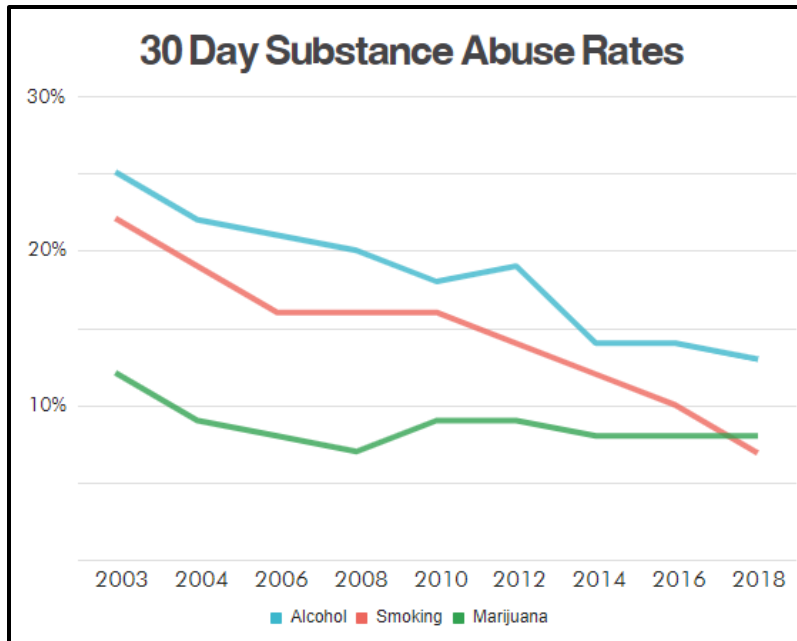
Tobacco & Substance Abuse

According to Healthy People 2020, Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes. Social attitudes and political and legal responses to the consumption of alcohol and illicit drugs make substance abuse one of the most complex public health issues. Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include:

- Teenage pregnancy
- Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- Other sexually transmitted diseases (STDs)
- Domestic violence
- Child abuse
- Motor vehicle crashes
- Physical fights
- Crime
- Homicide
- Suicide

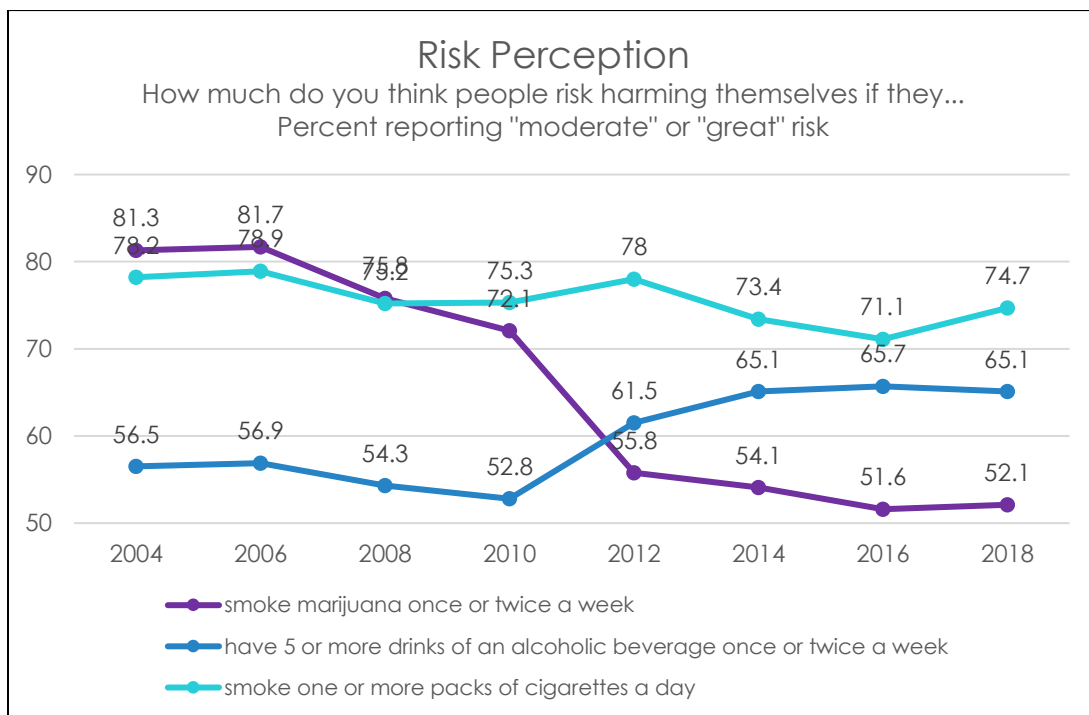


Source: Kentucky Injury Prevention and Research Center, KDPH, Kentucky Outpatient Services Database and Kentucky Inpatient Hospitalization Claims Files, Frankfort, KY; CHFS



Source: KIP Survey, Green River District, 30 Day Substance Abuse Rates among Youth 2003-2018

According to updated 2018 KIP Survey results conducted among Kentucky school youth, the risk perception that marijuana is harmful had dropped from 72.1% in 2010 to 52.1% in 2018. We could see this lead to an increase in marijuana use as the risk perception continues to decrease.



Source: KIP Survey, Green River District, Risk Perception among Youth 2004-2018



For more information about coalition activity,
please see the GRDHD CHIP @
<http://healthdepartment.org/>

Community Themes & Strengths Assessment

During the 2018 Community Health Assessment community members' discussions clustered around the following "themes"

- *Lack of Access to Healthcare*
- *Health Behaviors*
- *Health & Safety of Youth*

Discussions around strengths in the communities highlighted:

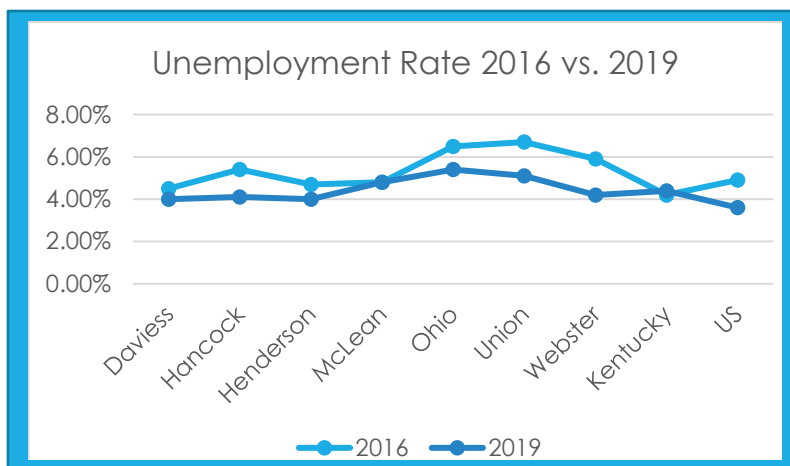
- *Engaged Community organizations*
- *Overall good quality of life*
- *Good support networks*
- *Community cohesion and trust*

Since the 2018 CHA document was published, county health coalitions have worked to engage more community partners in improving the overall health of the community through providing coalition meeting time to highlight efforts and events of different organizations and working together to increase expertise and resources (volunteers, educational materials, donations, etc.) going into these events. County health coalitions have multiple activities completed, or in the works to get their community members engaged in physical activity through the hosting of events such a bike rides and 5k run/walk.

Forces of Change Assessment

The Forces of Change Assessment, informed by the CASPER Survey in 2017 brought to light some non-traditional topics such as environmental issues in the community including mosquitos and other nuisances. We also heard the community saying there is

a strong need for more jobs in the community. We know that jobs and adequate wages can have a notable impact on social determinants and overall access. We felt this lead some counties to select focus areas we haven't seen previously, such as housing for McLean County and Violence for Ohio County. Both of these areas have very strong relationships with the opportunity and availability for a family to get a job with adequate income to sustain healthy housing and keep stressors down in the household.



Communities continue to mention addiction and substance abuse as a negative change in their community. Efforts are being made across the district to link individuals to substance abuse treatment and other community programs. This includes the newly established Green River Exchange, Syringe Access Programs in Daviess and Henderson Counties. These programs can be found at the County Health Centers. Green River District Health Department is excited to announce the newly acquired Mobile Unit that will be in the community for not only the Syringe Access Program but also various other Public Health Program outreach.

New community groups and partnerships are not only emerging to improve community health but the efforts to collaborate are growing stronger. The following opportunities are likely to influence community health, improve quality of life and impact the work of public health. SPARKodc is a pilot effort gaining momentum in Daviess County looking to "positively impact the lives of all children in Daviess County" through raising awareness of Adverse Childhood Experiences (ACEs) and working to build a stronger more resilient community. In early 2019 SPARKodc completed a community wide survey to establish data to work strategically from. SPARKodc is a collaborative of change makers from the 5 SURVIVE (mental health, medical/dental, food/nutrition assistance, affordable housing, and transportation) and 5 THRIVE (parent supports, early childhood learning, job training, youth mentors, and family centered schools) focus areas. For more information, please see Appendix C.

United Way has recently launched a new resource that will assist community members with referrals to needed resources including Housing, Food, Transportation, Legal & Public Safety, Mental Health, Wellness, Employment, Clothing, Consumer Information, Disabilities, Independent Living, Disaster Services, and Income Support. The United Way 211 Initiative is a free and confidential service.

Accessing the 211 resource database will be invaluable in gauging areas of need for our communities and to see where resources might need to be concentrated to alleviate needs. The database went "live" in March 2019. Initial data for the service ranks request for housing and shelter as the primary resources sought out to date. (See Appendix D for more information.)

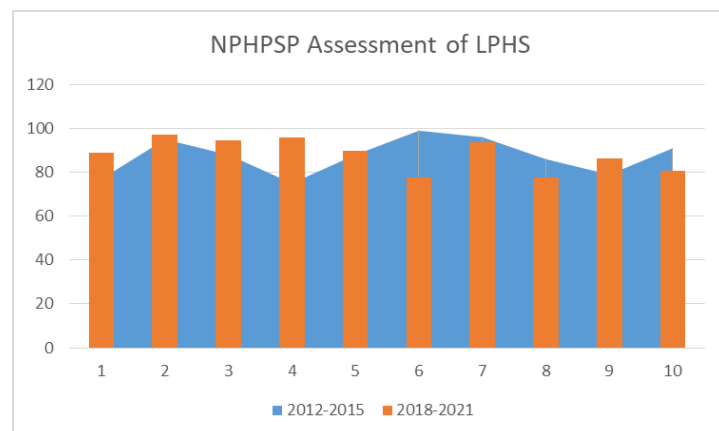
Local Public Health System Assessment

For the 2018 CHA, Green River District used the National Public Health Performance Standards Program (NPHPSP) tool to assess the Local Public Health System. This

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 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.

assessment is intended to measure the capacity and performance of the local public health system in meeting the Ten Essential Public Health Services (EPHS). Public health is the promotion and protection of the health of people and the communities where they live, learn, work and play. The local public health system refers to **all** public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction. The graph below shows a comparison of current scores to the initial assessment completed in the 2012-2015 CHA/CHIP Cycle.



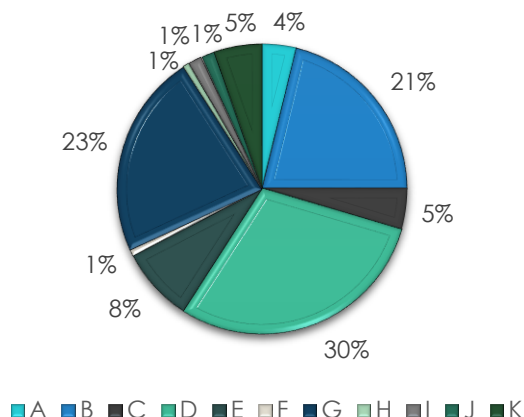
Overall, 2018 assessment scores placed Green River District in the “optimal activity” category for all ten categories of the EPHS. However, areas in need of improvement were identified within essential service 6: laws and regulations that protect health and ensure safety; specifically reviewing (6.1) and improving (6.2) laws, regulations and ordinances.

The Green River District Community scored extremely well in essential service 4: Mobilizing Partnerships; pairing this strength to policy influence will greatly improve our performance in essential service 6 while having the greatest impact on the community. For this reason, the 2018-2021 CHIP emphasized goals and objectives

that directly contribute to policy, systems and environmental changes to alleviate health inequities.

2018 Forum Participant Responses

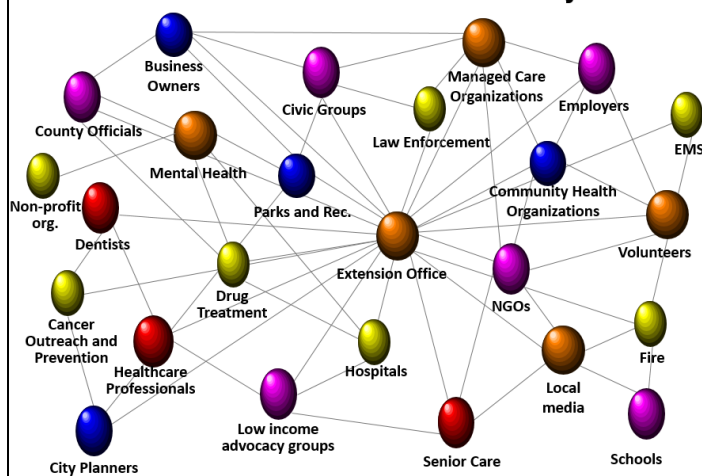
"Where do you fit into the Public Health System?"



The graph to the left reflects participation at 2018 Community Health Forums. It reflects community resources and assets that work together to improve the community's health. Because Public Health is constantly expanding upon partnerships and pooling resources it is not fully representative of community participation in local health coalitions and other CHA/CHIP events.

- A Economic of Philanthropic Organization (Local Business/Industry)
- B Educational or Youth Development Organization (Schools, College/University, Childcare, FRYSC, etc.)
- C Government - City, County
- D Healthcare / Hospital System
- E Human Service Organization (Food Pantry, Public Assistance, Transportation)
- F Media
- G Public Health Department (State or Local)
- H Public Safety Organization (Police, EMS, EM, etc.)
- I Recreational / Arts Related (YMCA, Fitness, Hobby, Theatre, etc.)
- J Public/Concerned Citizen
- K Other

Green River District Public Health System



Social Determinants

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as “place.” In addition to the more material attributes of “place,” the patterns of social engagement and sense of security and well-being are also affected by where people live. According to HealthyPeople.Gov, Healthy People 2020.

Social determinants play a colossal role in health outcomes and yet are the hardest often to overcome or change. Individuals that lack economic stability, including limited income, unemployment, live in poverty, in unsafe neighborhoods, have poor housing and lack access to affordable quality housing often have high levels of stress and poor access to health services. This is a cascading issue that without a network of support can lead to and is associated with poor overall health, increased risk of substance abuse, and is a generational cycle that often continues without education, support, and intervention of some sort.

Addressing some of the statistics below could improve the quality of life of a person, and improve the community as a whole. Every single person makes a difference.

	Daviess	Hancock	Henderson	McLean	Ohio	Union	Webster	Kentucky	US
Median Household Income*	48,371	49,135	43,458	44,242	41,470	42,139	39,273	46,535	57,652
Percent of Population below poverty*	15.80%	15.70%	19.30%	19.20%	21.30%	22.90%	21.40%	18.53	14.60%
Percent of population unemployed^	4.00%	4.10%	4.00%	4.80%	5.40%	5.10%	4.20%	4.40%	3.60%
Percent of persons (25 yrs +) with a High School Diploma*	89.10%	86.10%	86.30%	84.50%	79.90%	86.40%	79.40%	85.20%	87.30%
Food insecurity Rate+	13.50%	12.90%	15.50%	13.50%	14.80%	17.30%	14.70%	14.90%	
*American Community Survey 2013-2017									
+Map the Meal Gap, 2017									
^Bureau of Labor Statistics, 2019									

Housing

Housing is an issue that would be encompassed within the social determinants of health. Seeing a strong correlation between where you live, and how healthy and happy you are, especially for youths, The Partnership for a Healthy McLean County chose to focus on healthy housing for the 2018-2021 CHA/CHIP cycle. The availability and access to healthy housing is fundamental in maintaining overall health and wellbeing. The lack of healthy housing can have a significant impact on individual's mental health including self-esteem, socialization, depression, anxiety, exclusion in adults and children. The Partnership for a Healthy McLean County (PHMC) health coalition determined the need to focus on this issue during the CHA assessments.

Expanding upon the concern around housing in McLean County as part of the Community Health Assessment, we engaged the subject matter experts, Audubon Area Community Services, Inc. (AACS) which is a Community Action Agency that operates programming directed toward the eradication of poverty and promotion of self-sufficiency.

AACS shared data from their Community Needs Assessment on the identified needed services, contributors to poverty, and barriers or issues that citizens are currently experiencing. (The entire Audubon Area Community Services Community Health Assessment can be accessed at <https://audubon-area.com/docs.html>)

Portions of the data collected by AACS can be found in Appendix E. This information helped to guide the PHMC to focus on education and policy change around rental property and to seek out possible opportunities for more affordable, possibly income based housing for McLean County. The summary of issues for McLean County (see below) based on the AACS assessment helped to create a power point presentation for the local fiscal court to raise awareness around housing needs. Portions of the presentation can be found in Appendix E.

McLean County:

- Greatest Needs of the low-income: Lack of living wage jobs to support families, lack of food and basic necessities for families, lack of public transportation services, lack of safe and licensed childcare, lack of safe and affordable housing options, lack of substance abuse providers, ongoing generational cycles of poverty, lack of education/skills to obtain job, lack of providers to treat mental health issues
- Top 5 Needs Identified: Safe and affordable housing options, needed intervention to break generational cycles of poverty, lack of living wage jobs to support citizens, lack of providers to treat substance use disorders, and lack of public transportation services in county
- Top Three Community Improvements the Agency Should Focus: Technical education programs in schools or community, scheduled and regular community partners meetings, undertake and coordinate a poverty stimulation in the community

Appendix A

Kentucky Hepatitis A Outbreak-GRDHD Response Presentation

Kentucky Hep A Outbreak - GRDHD Response

JESSICA AUSTIN, MPH
SR. EPIDEMIOLOGIST

Hepatitis A

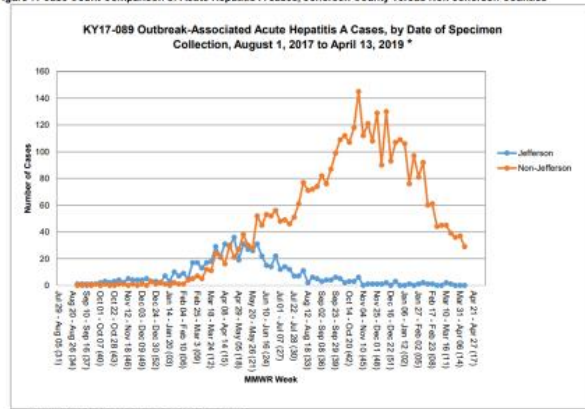
- Acute illness of the liver
- Transmitted person-to-person (fecal-oral route)
- Signs & symptoms
 - Fatigue
 - Low appetite
 - Stomach pain
 - Nausea
 - Jaundice
 - **Children less than 6 years usually do not have symptoms
- Antibodies produced in response to HAV last for life and protect against reinfection
- Best way to prevent HAV is through Vaccination

Largest Outbreak

November 2017 - Kentucky Department for Public Health identified an outbreak of acute Hepatitis A

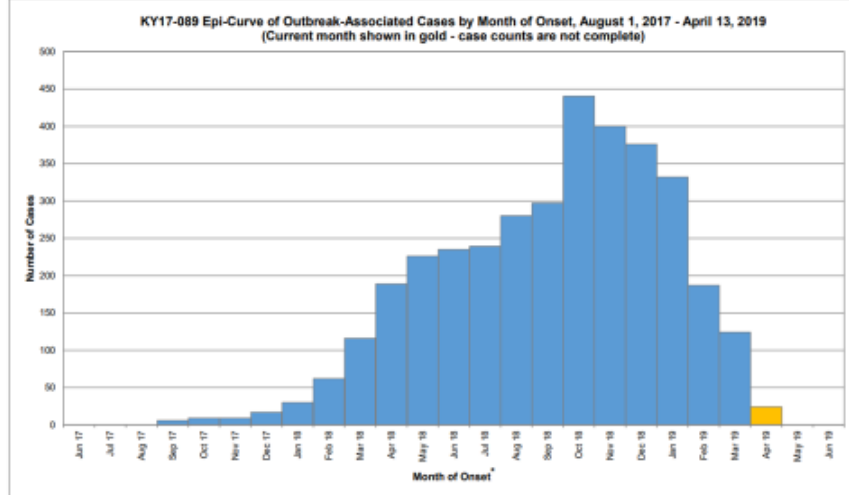
- Started in Louisville Metro area
- Cases linked to other outbreaks in California, Utah, and Michigan.
- As of April 13, 2019
 - Total cases: 4,543
 - Total # Hospitalizations: 2,199
 - Total number of deaths reported: 53

Figure 7: Case Count Comparison of Acute Hepatitis A Cases, Jefferson County versus Non-Jefferson Counties



* MMWR weeks are based on date of specimen collection.

Figure 6: Epidemic-curve (Epi-Curve) of Outbreak-Associated Cases by Month of Onset



* Date of onset has been reported for 79.2% (or 3598/4543) of cases.

Table 3: Frequent Risk Factors of Outbreak-associated Cases

KY17-089 Risk Factors of Outbreak-Associated Acute Hepatitis A Cases, August 1, 2017 – April 13, 2019 ^{#^}	
Risk Factor	Number of Cases Reporting Risk Factor (n=3684) ^{*†}
Homelessness + No/Unk Illicit Drug Use	57 (1.5%)
Illicit Drug Use + No/Unk Homelessness	2636 (72%)
Homelessness + Illicit drug use	294 (8.0%)
No Outbreak-Related Risk Factors	697 (19%)

^{*} Risk factor information is unavailable for 859 (18.9%) of all outbreak-associated cases.

[†] The categories below do not add up to the total number in this count due to other possible risk factor combinations not shown in the table.

[#] At this point in the outbreak, MSM is no longer considered an outbreak-related risk factor. Percentages in this table may have changed due to removing MSM from risk factor combinations.

[^] 35 MSM cases have been reported. Of those, 11 have reported no other risk factors.

GRDHD's Response

Confirmed, suspect, or connected cases in all 7 GRDHD counties – 14 cases

- Homeless Shelters
- Substance Abuse Treatment Centers
- Correction Facilities
- Emergency Departments
- Syringe Exchange

Harm Reduction – Syringe Exchange Program

- Senate Bill 192 - allowed LHD's to implement HRSEP's
- Community-based program that provides access to sterile needles and syringes free of cost, facilitate safe disposal of used needles and syringes and offer safer injection education. SEP's also provide linkages to critical services and programs, including substance abuse treatment programs, overdose prevention/education, naloxone distribution, screening for HCV, HIV and referrals to other health services.
 - Daviess County – February 2019
 - Henderson County – March 2019

GRDHD - SEP

- One – for – one exchange
- 23 participants
- 37 Total visits
- Overall Return Rate - 29%
- Return Rate after initial visit – 83%
- Counties – Daviess, Ohio, Hopkins, Henderson
- Drug of choice – Meth (65%)

Appendix B

Excerpt from Henderson County Teen Issues Survey (2017)

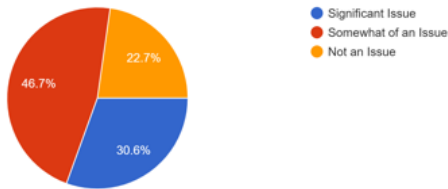
What factors do you feel contribute most to negative teen choices?

1,688 responses (qualitative data)

From your perspective, please rank the following issues in order of their significance for today's teens?

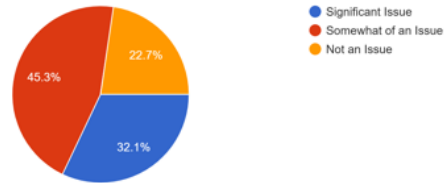
Violence in the Community

1,764 responses



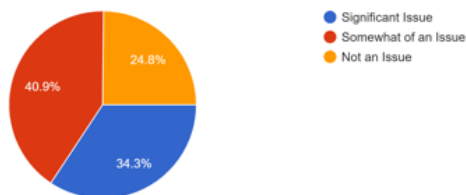
Violence at School

1,761 responses



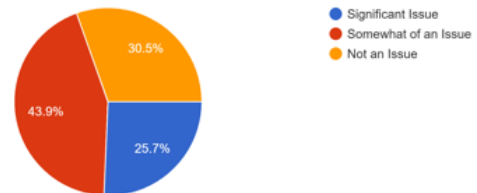
Abuse (Physical, Sexual, Emotional, or Neglect)

1,755 responses



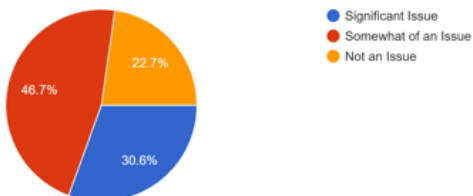
Violence at Home

1,760 responses



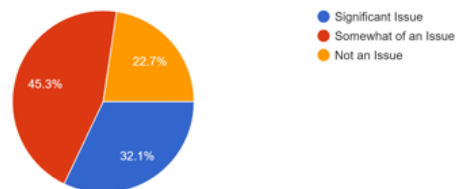
Violence in the Community

1,764 responses



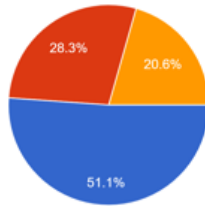
Violence at School

1,761 responses



Illegal/Prescription Drug Use

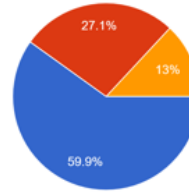
311 responses



Bullying

1,763 responses

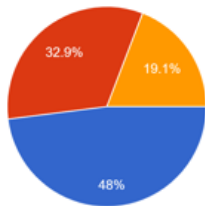
● Significant Issue
● Somewhat of an Issue
● Not an Issue



● Significant Issue
● Somewhat of an Issue
● Not an Issue

Sex/Teen Pregnancy

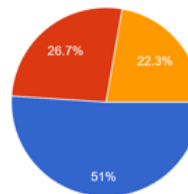
1,756 responses



Underage Drinking

292 responses

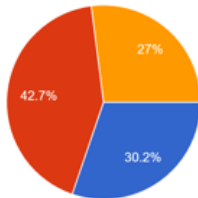
● Significant Issue
● Somewhat of an Issue
● Not an Issue



● Significant Issue
● Somewhat of an Issue
● Not an Issue

Single Parent Household

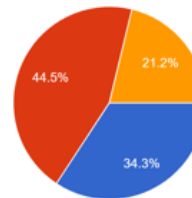
1,749 responses



● Significant Issue
● Somewhat of an Issue
● Not an Issue

Health Issues (i.e. Obesity, STD's, sleep problems)

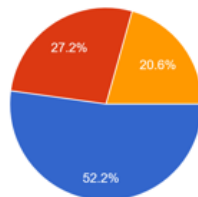
1,756 responses



● Significant Issue
● Somewhat of an Issue
● Not an Issue

E-Cigs/Smoking

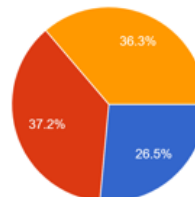
1,761 responses



● Significant Issue
● Somewhat of an Issue
● Not an Issue

Gang Activity

1,756 responses



● Significant Issue
● Somewhat of an Issue
● Not an Issue

Appendix C

Early Childhood Education Initiative Research + Prototypes Report

<http://www.plfo.org/>



TEN OPPORTUNITIES AREAS

The six month research phase produced a series of compelling insights. These insights were grouped into 10 opportunity areas, or themes from the research with the most potential for innovative, high-impact ideas. These themes were organized into three categories:

Support, Learn, and Connect.

SUPPORT

- FINDING MY POWER
- UPLIFTING FAITH
- 21st CENTURY CARE
- EXTENDED FAMILY & COMMUNITY AS CARETAKERS

LEARN

- MASTERS IN PARENTING
- HOW KIDS USE TECH
- PREPARING CHILDREN TO FLY ON THEIR OWN

CONNECT

- CHILD-CAREGIVER BONDING
- CAREGIVER-CAREGIVER BONDING
- IMPORTANCE OF SOCIAL PLAY & LEARNING FROM OTHERS

TOP THREE AREAS

Of these 10 Opportunity Areas, three were selected as top priorities.

- FINDING MY POWER
- MASTERS IN PARENTING
- CHILD-CAREGIVER BONDING

Appendix D:

<https://www.uwbg.org/>



United Way of the Bluegrass

Mar 08, 2019 to Jun 06, 2019

TOTAL CALLS **3,856**

TOTAL REQUESTS **3,842**



FOR COUNTIES: Daviess, KY, Hancock, KY, Henderson, KY, McLean, KY, Ohio, KY, Union, KY, Webster, KY

Top Request Categories

Housing & Shelter	33.5%
Food	9.8%
Utilities	28.7%
Healthcare	10.1%
Mental Health & Addictions	<1%
Employment & Income	3.4%
Clothing & Household	<1%
Child Care & Parenting	1.5%
Government & Legal	1.5%
Transportation Assistance	6.4%
Education	0%
Disaster	0%
Other	4.3%
Total for top requests	100%

Appendix E:

Audubon Area Community Services Community Health Needs Assessment 2019-2020.

<https://www.audubon-area.com/docs.html>

Housing - Housing Cost Burden (30%)

Report Area	Total Households	Cost Burdened Households (Housing Costs Exceed 30% of Income)	Percentage of Cost Burdened Households (Over 30% of Income)
Report Location	85,128	20,423	23.99%
Daviess County	39,531	9,700	24.54%
Hancock County	3,375	457	13.54%
Henderson County	18,719	5,359	28.63%
McLean County	3,826	714	18.66%
Ohio County	9,055	1,974	21.8%
Union County	5,527	1,070	19.36%
Webster County	5,095	1,149	22.55%
Kentucky	1,724,514	444,933	25.8%
United States	118,825,921	38,077,410	32.04%

Note: This indicator is compared to the state average (25.8%).

Data Source: US Census Bureau, American Community Survey. 2013-17. Source geography: Tract

Housing - Substandard Housing

Report Area	Total Occupied Housing Units	Occupied Housing Units with One or More Substandard Conditions	Percent Occupied Housing Units with One or More Substandard Conditions
Report Location	85,128	20,776	24.41%
Daviess County, KY	39,531	9,852	24.92%
Hancock County, KY	3,375	455	13.48%
Henderson County, KY	18,719	5,374	28.71%
McLean County, KY	3,826	769	20.1%
Ohio County, KY	9,055	2,084	23.01%
Union County, KY	5,527	1,012	18.31%
Webster County, KY	5,095	1,230	24.14%
Kentucky	1,724,514	455,661	26.42%
United States	118,825,921	39,200,876	32.99%

Note: This indicator reports the number and percentage of owner- and renter-occupied housing units having at least one of the following conditions: 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) with 1.01 or more occupants per room, 4) selected monthly owner costs as a percentage of household income greater than 30%, and 5) gross rent as a percentage of household income greater than 30%.

Note: This indicator is compared to the state average (26.42%).

Data Source: US Census Bureau, American Community Survey. 2013-17. Source geography: Tract

Substandard Housing: Number of Substandard Conditions Present

Report Area	No Conditions	One Condition	Two or Three Conditions	Four Conditions
Report Location	75.59%	23.33%	1.05%	0.03%
Daviess County, KY	75.08%	23.82%	1.04%	0.06%
Hancock County, KY	86.52%	12.74%	0.74%	0%
Henderson County, KY	71.29%	27.81%	0.9%	0%
McLean County, KY	79.9%	19.24%	0.86%	0%
Ohio County, KY	76.99%	21.93%	1.08%	0%
Union County, KY	81.69%	16.65%	1.66%	0%
Webster County, KY	75.86%	22.92%	1.22%	0%
Kentucky	73.58%	25.3%	1.11%	0.01%
United States	67.01%	31.04%	1.95%	0.01%

Data Source: US Census Bureau, American Community Survey. 2013-17. Source geography: Tract

Substandard Housing: Households Lacking Complete Plumbing Facilities

Report Area	Total Occupied Housing Units	Housing Units Lacking Complete Plumbing Facilities	Housing Units Lacking Complete Plumbing Facilities, Percent
Report Location	85,128	284	0.33%
Daviess County	39,531	113	0.29%
Hancock County	3,375	25	0.74%
Henderson County	18,719	21	0.11%
McLean County	3,826	32	0.84%
Ohio County	9,055	65	0.72%
Union County	5,527	21	0.38%
Webster County	5,095	7	0.14%
Kentucky	1,724,514	8,280	0.48%
United States	118,825,921	470,774	0.4%

Data Source: US Census Bureau, American Community Survey. 2013-17. Source geography: Tract

Substandard Housing: Households Lacking Complete Kitchen Facilities

Report Area	Total Occupied Housing Units	Housing Units Lacking Complete Kitchen Facilities	Housing Units Lacking Complete Kitchen Facilities, Percent
Report Location	93,831	2,482	2.65%
Daviess County	42,714	794	1.86%
Hancock County	3,744	80	2.14%
Henderson County	20,542	565	2.75%
McLean County	4,298	188	4.37%
Ohio County	10,347	375	3.62%
Union County	6,236	256	4.11%
Webster County	5,950	224	3.76%
Kentucky	1,965,202	72,469	3.69%
United States	135,393,564	3,859,746	2.85%

Data Source: US Census Bureau, American Community Survey. 2013-17. Source geography: Tract

Excerpt from GRDHD and Community Partner Presentation to McLean County Fiscal Court (March 2019)

Partnership for a Healthy McLean County (PHMC)

COMMUNITY HEALTH IMPROVEMENT PLAN 2018-2021
STRATEGIC INITIATIVE AREAS

PHMC – Community Health Improvement Plan

- ▶ Partnership for a Healthy McLean County is a local coalition that is focused on improving the health of our community.
- ▶ With the help of local partnerships PHMC has participated in a Community Health Assessment every 3 years for the past 9 years.
 - ▶ Past focus areas – Obesity, Substance Abuse, Teen Issues, Diabetes, Increasing Physical Activity, Access to Care

2018-2021 Strategic Initiative Areas

1. Healthy Housing
2. Mental Health
3. Improving Collaboration of Partners

Community Health Assessment – McLean County

Green River District Health Department

- ▶ CASPER Survey
- ▶ PhotoVoice
- ▶ Focus Group

Audubon Area

- ▶ Client Surveys
- ▶ Focus Group
- ▶ Data Presentation (Poverty, Housing, etc.)

Reoccurring Themes

- ▶ Inadequate Housing
- ▶ No jobs
- ▶ Obesity (Lack of Physical Activity & Poor Nutrition)
- ▶ Lack of support (family, community, etc.)
- ▶ Mental Health
- ▶ Substance Abuse
- ▶ Access to Fresh, Healthy Foods – NO Grocery
- ▶ Nothing to draw young adults back to our community

Audubon Area Survey Results

- ▶ Population of McLean County – 9,492 (US Census Bureau, American Community Survey, 2012-16)
- ▶ 18.33% of McLean County Population lives at or below 100% of Federal Poverty Level (US Census Bureau, American Community Survey, 2012-16)
- ▶ 14.2% Food Insecurity Rate in last year * consistent access to adequate food; struggling to avoid hunger or face the struggle of hunger in last year (Feeding America, 2014)
- ▶ 28.5% of renters are cost burdened; 20.8% of homeowners with mortgages are cost burdened * More than 30% of monthly income toward housing costs (US Census Bureau, American Community Survey, 2012-16)
- ▶ 17.9% live in substandard housing *owner- and renter-occupied housing units having one of these conditions – no plumbing; lack of kitchen facilities; more than 1.01 persons occupying a room; cost burdened monthly housing cost (US Census Bureau, American Community Survey, 2012-16)

Audubon Area Survey Results

Community Needs Assessment 2017-2018		
HOUSING - Mark the three most important needs.		
Answer Choices	Responses	
More monthly rental assistance programs	60.95%	64
Increased availability of security/utility deposit programs	28.57%	30
More counseling resources for homeowners	15.24%	16
More grants to make homeownership and home rehab affordable	28.57%	30
More grants to provide services that reduce energy cost	45.71%	48
More programs to provide free home repair	35.24%	37
More income based rental housing for disabled and seniors	40.00%	42
More community supports for homeless families	44.76%	47
Other	0.95%	1
Other (please specify)		1
	Answered	105

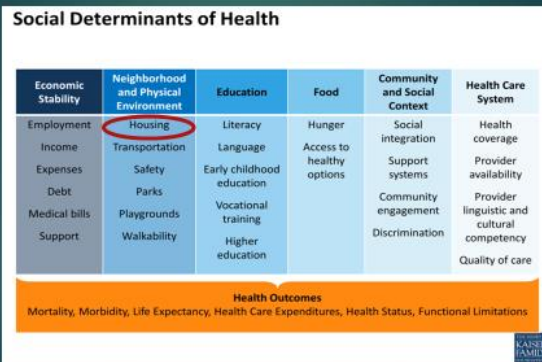
Community Needs Assessment 2017-2018		
OVERALL NEED		
Answer Choices	Responses	
Employment	32.38%	34
Education	8.57%	9
Income and Asset Building	1.90%	2
Housing	21.90%	23
Health	4.76%	5
Civic Engagement	0.95%	1
Support Services (supporting multiple domains)	29.52%	31
	Answered	105

Audubon Area – Assessment Results

Effects that poverty has on individuals/families

- ▶ Low self esteem
- ▶ Drug addiction
- ▶ Children do poorly in school, get picked on; bullied by other classmates
- ▶ Without transportation they are unable to get to all the resources the community provides
- ▶ (heating assistance, food banks, clothing store, library activities for the family)
- ▶ Children are unable to participate in summer activities
- ▶ Families are hungry
- ▶ Homes with no electricity or water because no income to pay bills
- ▶ No one to watch the kids while the parents work

Addressing Needs & Impact on Overall Health



Housing - Impact on Overall Health & Well-being

- ▶ Substandard housing perpetuates the Cycle of Poverty
 - ▶ Financial Drain with rent/utilities
 - ▶ Choosing which bills to pay causes basic needs not to be met
 - ▶ Utilities shut off
 - ▶ Risk of eviction
 - ▶ Limited Food

Housing - Impact on Overall Health

Mental Health

- ▶ Poor self esteem
- ▶ Limits socialization needed for growth and development
- ▶ Ostracizes due to housing conditions
- ▶ Depression and anxiety present in parents and children.