OpioidTaskforce

Community Assessment

Grantee Organization	Purchase District Health Department	
Grant Number	G25RH32994	
Address	916 Kentucky Ave, Paducah Kentucky 42003	
Service Area	Purchase Area: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall, and McCracken counties	
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Contributing Consortium Members and Stakeholders	County/District Health Departments, Behavioral Health Providers, Primary Health Providers, Regional Prevention Center, Purchase Area School Districts, Kentucky Chamber, West Kentucky Workforce Board, Drug Court, Reentry Council, Department of Corrections, Kentucky Department of Public Health, Universities, Hospitals, Emergency Departments, Community Service Organizations, FQHC	

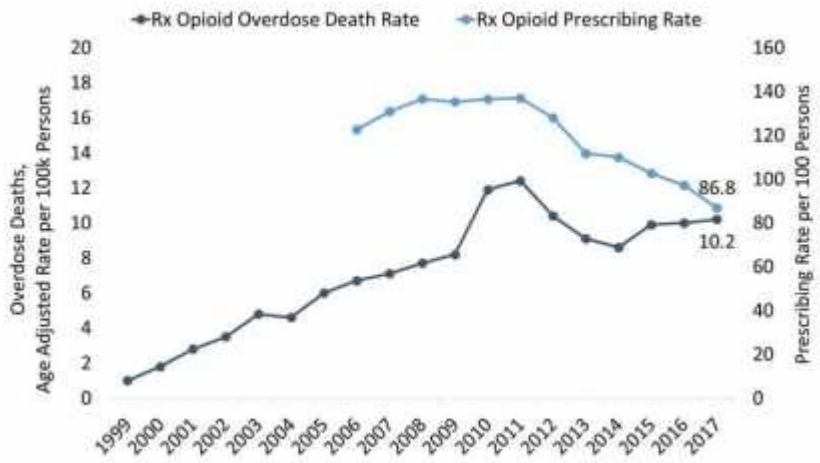
The needs assessment: Introduction

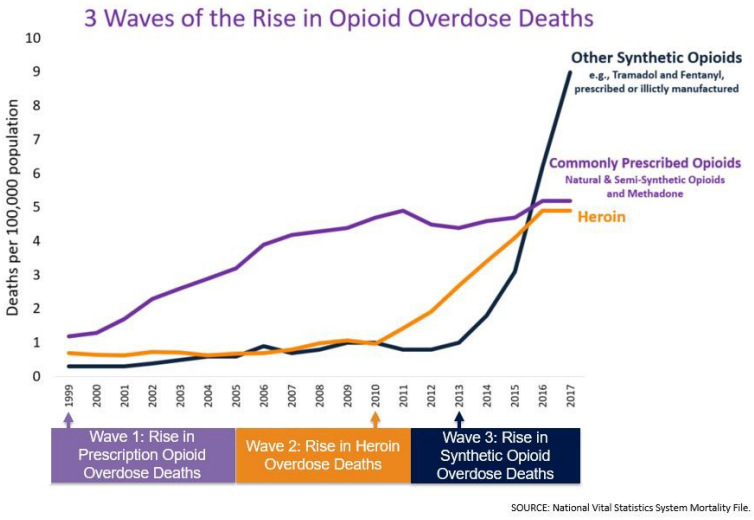
In the United States from 1999-2017 there have been almost 400000 fatal over doses involving any opioid. In 2017 alone there were 70237 drug overdose deaths, 67.8% of those deaths involved an opioid. Between 2016 and 2017 the age-adjusted rate increased significantly from 19.8 per 100k in 2016 to 21.7 per 100k in 2017. Kentucky was one of the states with the highest fatal overdose rate which was 37.2 per 100k and was also one of the states with a statistically significant increase in drug overdose death rates from 2016 to 2017. (CDC)

There have been a documented three waves of the opioid epidemic as is depicted by the CDC below. The US is currently in the third wave which is rise in synthetic opioid overdose deaths, prescribed or illicitly manufactured. It is sometimes theorized that the implementation of prescription monitoring systems after the rampant prescribing of opioids created a void to be filled by other means.

The opioid epidemic has touched many lives and has caused ripples through out the community. Addiction touches every race, gender, and socioeconomic class. This community assessment will provide a deeper look at the environment, indicators, and outcomes in the 8 counties of the Purchase Area from Prevention to Recovery.

This is provided as a tool to allow the community stakeholders to work together to develop strategies for prevention, identification, treatment, recovery, and harm reduction.





About Purchase Area Health Connections Opioid Taskforce:

Purchase Area Health Connections (PAHC) is a regional health coalition that serves the 8 counties of the Purchase Area. It was created in 2015 and comprises of many different community stake holders and county health coalitions. PAHC has four different taskforces/ workgroups: the Transitional Care Team, the WKY Mental Health Workgroup, the Childhood Obesity Prevention Action Team, and now the Opioid Taskforce.

The Opioid taskforce is a group of community stake holders that came together to address the rising prevalence of opioid use disorder and substance use disorder in our area. The purpose of the Opioid Taskforce is tri-fold: to understand the community needs through a needs assessment, to develop a plan to address the information gathered, and to create a workforce plan specific to the Purchase Area to get OUD/SUD persons not in the workforce back into the workforce through a career path or a higher education path.

PARTNERS: (EVER EXPANDING)

All Area ASAP's
Ballard County Schools
Baptist Health-Paducah
Calloway County Health Department
Carlisle County Schools
Department of Corrections
Four Rivers Behavioral Health
Fulton County School Systems
Graves County Health Department
Hickman County Schools
Kentucky Courts
Kentucky Legal Aide
KentuckyCare
Lotus
Marshall County Health Department
McCracken County Drug Court
McCracken County Sheriff
McCracken Fire Department
McCracken-Paducah United Way
Mercy Hospital
Merryman House
Murray Calloway County Hospital
Murray State University
Paducah Independent School System
Paducah Life Line
Paducah Police
Purchase Area Development District
Purchase Area Health Education Center
Reentry Council
Regional Prevention Center
Sullivan University
University of Kentucky Extension Offices
West Kentucky Community and Technical College
West Kentucky Workforce Board

Grant Deliverables:

Needs Assessment

- The needs assessment will identify gaps and barriers in fight the opioid epidemic in our area:
- We will ask and answer questions like:
  - How many people are affected? Why are they affected here?
  - What services are available? What are the barriers and gaps in accessing services?

Strategic Plan

- Focuses on evidence based strategies chosen based on needs identified in the needs assessment and given priority by the community stakeholders. We will follow the casecade of care model for the opioid epidemic.

Workforce Development Plan

- The Workforce Development Plan focuses on identifying gaps in our workforce necessary to address the services gap and how to recruit and retain homegrown talent in the Purchase Area with a focus on creating a recovery friendly approach to get those no longer or not ever in the workforce due to Opioid Use Disorder.

Sustainability Plan

- The Sustainability Plan addresses ways to ensure that it plans come to furition and stakeholders continue to address this problem in the future.

Needs Assessment Methodology:

This needs assessment uses both quantitative and qualitative data to better understand Substance Use Disorder and Opioid Use Disorder in our area and the severity of the Opioid Epidemic. Local data is often lacking for our rural communities and for this assessment care was taken to ensure adequate data on many fronts were included but many barriers and gaps exist in accessing data for small rural populations with limited resources.

Quantitative Data:

- Includes demographic, economic, workforce, and various indictors. Reference list is included at the close of this document.

Qualitative Data:

- A Community Attitudes Survey was conducted that received 494 responses.
- A barriers to integrated and co-located primary and behavioral health care survey
- A opioid use disorder provider survey
- A focus group of males currently in residential treatment
- Two focus groups of decision makers in 5 of the 8 counties

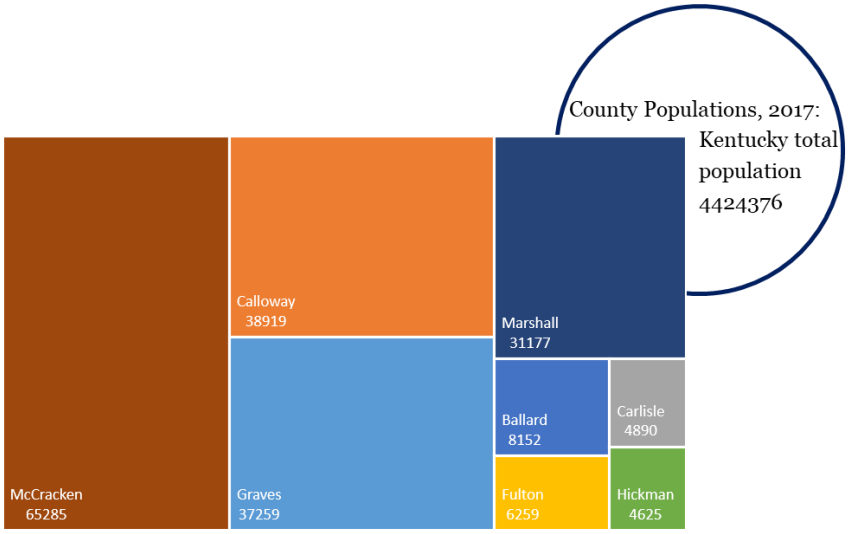
This is the needs assessment. We are treating it as a living document, as we have more information and data available it will be revised to reflect it.

Purchase Area Description:

The Purchase Area is in far western Kentucky and is comprised of 8 counties: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall, and McCracken. All of the counties in the Purchase Area are either in part or entirety a Medically Underserved Area (MUA) and a Health Professional Shortage Area (HPSA). There are few, if any options, for recovery, treatment, primary health care, or mental health care in many of our counties. We are geographically large although our population is small, often requiring commuting long distances for work, healthcare, and basic needs. This is confounded by the fact that we have limited public transportation resources throughout the region. The Purchase Area is bordered by Illinois to the north, Missouri to the west, and Tennessee to the south. Missouri does not currently have a controlled prescription tracking system. The Land between the Lakes, Kentucky lake, and Barkley lake bring in tourists every year for the boating season, fishing, and hunting.

One county in the Purchase Area, Hickman County, was also identified by the Center of Disease Control (CDC) as a one of the 220 most vulnerable counties to a Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs. Indicators were identified and considered from six domains: 1) drug-overdose mortality, 2) access to prescription opioids (e.g., production, sales, prescriptions), 3) access to care (e.g., evidence of use of care or treatment services related to IDU), 4) drug-related criminal activity (e.g., arrests for drug possession or sales), 5) prevalence of IDU (e.g., survey-based data), and 6) sociodemographic characteristics associated with geographic areas with higher IDU prevalence (https://www.ncbi.nlm.nih.gov/pubmed/27763996). Fifteen indicators were assessed for association with acute Hepatitis C virus infection as proxy for unsafe injection drug use and HIV proximity for an outbreak of HIV among people who inject drugs (PWID). The proximity measurement was based on prevalence of HIV in the county and nearby counties, a 20-mile radius from county boundaries was used (https://www.ncbi.nlm.nih.gov/pubmed/27763996). Every county in the Purchase Area falls into that radius.

Demographics:

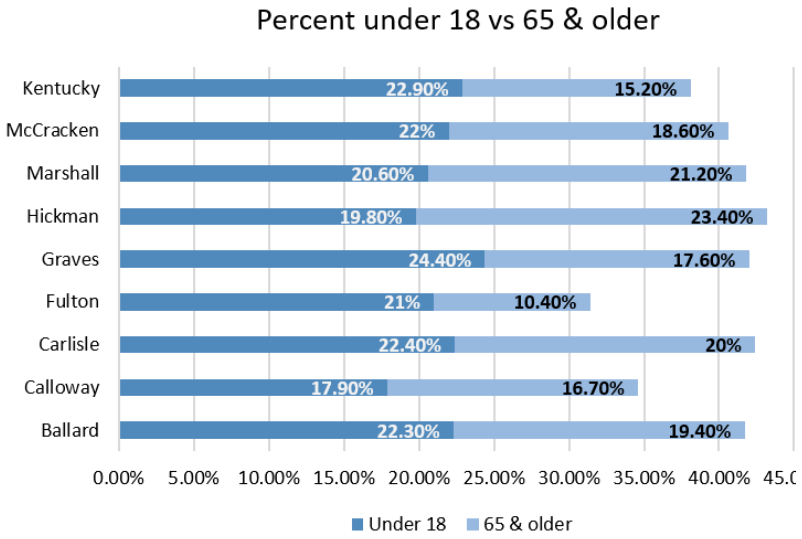


The Purchase Area is over all not very diverse with the exception that a handful of our counties are more diverse than the state as a whole. In 2019 Paducah was the 4th city in the state of Kentucky with the largest black population.

Many counties have aging populations and less than the state percentage for under 18.

The approximate total population for the Purchase Area is 196,563, approximately 4.4 percent of Kentucky's total population.

All of the counties combined are 2371 square miles which is 6% of Kentucky's total square mileage.



	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	Kentucky
Female	50%	51.20%	51.40%	50.60%	50.90%	53.40%	50.90%	52.30%	50.70%
Hispanic	1.2%	2.60%	1.40%	0.60%	6.10%	1.30%	1.40%	2.40%	3.40%
Non-Hispanic White	93.60%	89.60%	94.40%	71.20%	87.10%	87.20%	96.70%	83.60%	85.10%
Non-Hispanic Black	3.90%	3.80%	1.60%	24.40%	4.50%	8.70%	0.60%	11.10%	7.90%
Other	0.80%	2.70%	0.80%	0.40%	0.90%	0.70%	0.50%	0.90%	1.60%
Two or more races	1.60%	2.40%	0.90%	3.40%	1.50%	2.10%	0.75%	1.90%	1.90%

American Community Survey, 2017

Socioeconomics:

The Purchase Area has many counties with higher than the state and national rate for poverty, childhood poverty, unemployment rates, grandparents raising grandchildren, and children in single parent households. Many also have a lower life expectancy, median income, and educational attainment.

Certain individual and communities are known to have an association with increased risk of substance use disorder and opioid use disorder while certain factors are protective. Many of our counties have many risk factors and associations with increased risk of substance use disorder and mental health disorders.

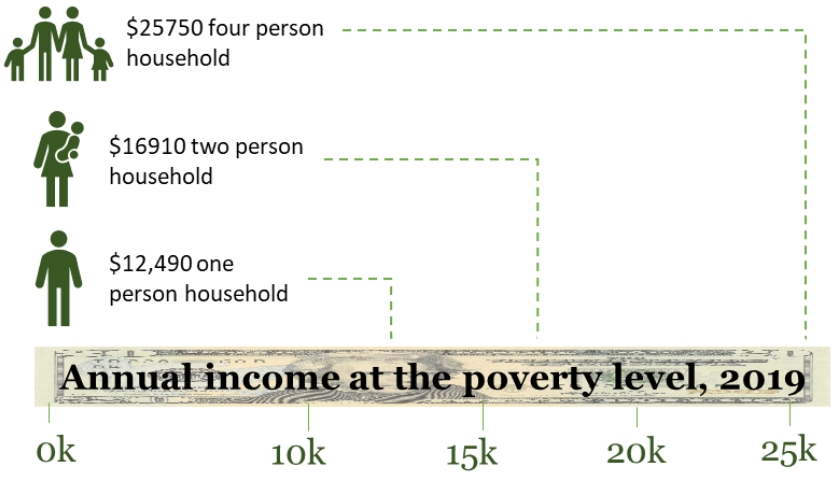
	Unemployment rate	Median Income
Ballard	**5.50%**	**$42,988**
Calloway	**4.10%**	**$39,269**
Carlisle	**4.30%**	**$38,860**
Fulton	**4.90%**	**$28,274**
Graves	**4.70%**	**$40,369**
Hickman	**4.90%**	**$38,036**
Marshall	**4.30%**	**$49,126**
McCracken	**4.90%**	**$42,894**
Kentucky	**4.30%**	**$46,535**

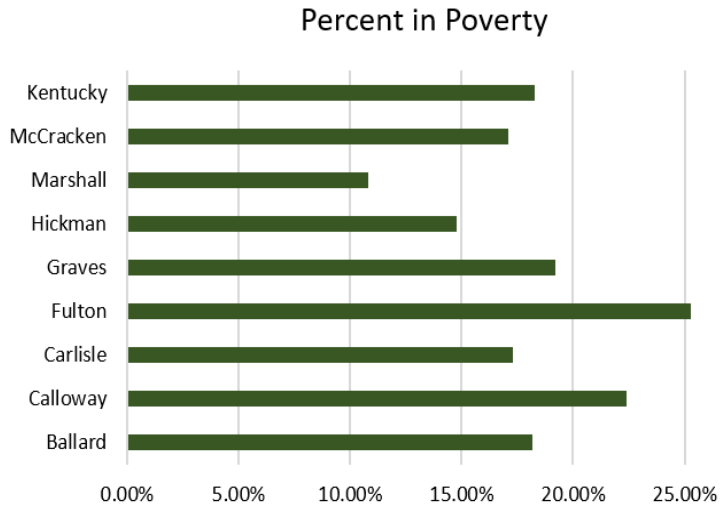
7 of 8

7 out of 8 our counties has a **lower median income** than that of the state.

5 of 8

5 out of 8 our counties has a **higher unemployment rate** than that of the state.





American Community Survey

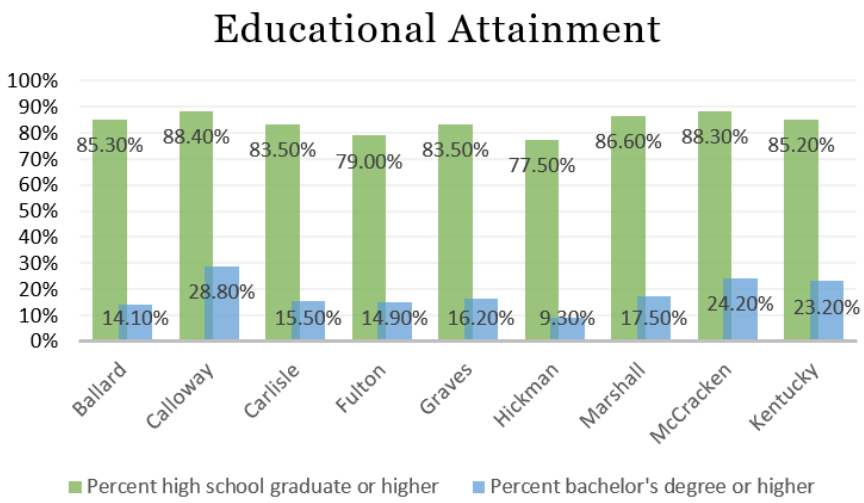
Robert Wood Foundation

County Health Rankings

https://kygeonet.ky.gov/Content/Reports/201908_CountyLAUSMaps.pdf

National poverty rate is 11.7%

Workforce:



Many of our counties are not considered work ready, and have low work force participation rates. Overwhelmingly the metric that is not met in the counties that are considered not work ready is due to educational attainment.

	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken
Meets all criteria to be work ready	No	Yes	No	No	Yes	No	Yes	Yes
workforce participation rate (18-64 5 year estimate)	56%	57%	62%	43%	54%	50%	61%	58%

Criteria to be considered Ready to Work									
	Score needed	**Ballard**	**Calloway**	**Carlisle**	**Fulton**	**Graves**	**Hickman**	**Marshall**	**McCracken**
Internet availability and speed	100%	100%	100%	100	100%	100	100%	100%	100%
high school graduation	90%+	91%	96%	94%	96%	94%	100%	95%	91%
some college or higher de-	43%+	53%	68%	51%	47%	50%	37%	51%	60%
associate degree or higher	25%+	24%	29%	24%	19%	25%	18%	28%	37%
working age population (18-64) without a high school di-	<15%	12%	7%	15%	19%	14%	20%	12%	10%

Economics:

When looking at adult education, GED graduation rates for all but two counties (McCracken and Hickman) surpass the state GED graduation rate.

Skills U (adult education)									
	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	Kentucky
Total enrollees	71	282	37	72	242	71	252	544	48283
GED enrollees	57	176	27	62	199	65	148	352	28440
All other	14	106	10	10	43	6	104	192	19843
% Females	46.5	47.9	45.9	61.1	47.5	25.5	42.9	55	48.9
Median Age	31	32	31	28	35	33	35	33	33
GED graduates	28%	32%	30%	23%	11%	24%	35%	20%	22%

Graduation is considered successful completion within 2 years of enrollment, data from the Skills U Feedback Report produced by the KYSTATS. Only those tat enrolled for the first time in adult education in FY 2014-2016 are included in this report.

Many of our residents work in accident prone employment. Half of the counties have higher percentages working in accident prone employment than the state. Many counties have greater than 45% of those in the workforce working in accident prone employment. Additionally owing to the manual labor that many Kentuckian's perform as part of their employment, rates of worker's compensation claims are among the highest in the Nation. Rates of disability in some of our counties are near or more than the national average of 8.7%.

Accident Prone Employment 2013-2017 and Disability (%)									
	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	Kentucky
Construction	10	4	8.7	2.1	3.6	0	13.7	4	4
Mining and natural resources	0.6	0.3	5.1	2.5	1.9	8.3	0.4	0	1.2
Manufacturing	23.2	15	6.9	16.9	17.9	0	22.3	5.9	13.1
Trade, Transportation & Utilities	11.9	26.7	13.5	26.3	24.2	14.1	16.9	28.5	20.9
Total	45.7	46	34.2	47.8	47.6	22.4	53.3	38.4	39.2
Under 65 w disabil-	10.50	9.50	9.70	19.40	11.40	18.10	13.90	11.00	13.00

https://opioidmisusetool.norc.org/

Many of our residents rely on the larger counties for work and other needs. These commuting patterns help to show the entanglement of each county with each other, where the region as a whole is intricately entwined. Many of the counties operate in silos while the population that is served often moves throughout the counties.

living in county (x-axis) working in another (y-axis)								
	Ballard	**Calloway**	**Carlisle**	**Fulton**	**Graves**	**Hickman**	**Marshall**	**McCracken**
total commuters	2140	10586	1344	1422	10884	1302	10262	21393
Ballard	766				144		73	641
Calloway	29	8463		47	1134	64	1132	344
Carlisle	23		428		89	58		
Fulton		38	19	726	142	129		
Graves	70	484	226	139	5867	203	444	685
Hickman	32		75	54	88	563		
Marshall	128	555	42		623	25	5187	1550
McCracken	992	680	365	86	2441	129	2559	17016
Other counties	55	239	52	15	356	63	867	671
Illinois	45							486
Tennessee		127		83		71		
Other counties can include all other counties within the state or outside of it including the ones in the Purchase Area without a designation of workers due to size or variety.								

Working in county (x-axis) living in another (y-axis)								
	Ballard	**Calloway**	**Carlisle**	**Fulton**	**Graves**	**Hickman**	**Marshall**	**McCracken**
total commuters	1848	12440	625	1609	8427	865	9207	28096
Ballard	766		23			32	128	992
Calloway		8463		38	484	22	555	680
Carlisle			428	19	226	75		365
Fulton				726	139	54		
Graves	144	1134	89	142	5867	88	623	2441
Hickman	13	64	58	126	203	563		
Marshall	73	1132		17	444	7	5187	2559
McCracken	641	344	27		685		1550	17016
Other counties	16	617		13	241		1026	2373
Illinois	58						138	1670
Tennessee		686		65	138	24		
Other counties can include all other counties within the state or outside of it including the ones in the Purchase Area without a designation of workers due to size or variety.								

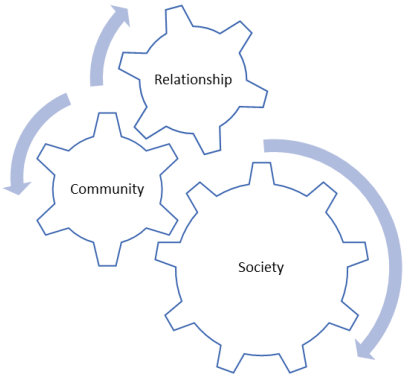
Risk and Protective Factors:

Multiple factors influence a persons risk of developing a substance use or mental health disorder. Risk factors are biological, psychological, family, community, or cultural that are associated with a higher likelihood of negative outcomes. Some of these overlap with Adverse Childhood Experiences (ACEs) and include ACEs as a variable risk factor. Protective factors are associated with a lower likely hood. Some risk factors are fixed and some are variable risk factors. Variable include income level, peer group, ACE's, and employment status. Risk factors are correlated cumulative meaning that people with some risk factors have a greater chance of experiencing even more risk factors and are less likely to have protective factors. Risk and protective factors influence over a lifetime as in early risk factors can contribute to substance use and mental health disorders later in life. And protective factors can influence factors outside of its context and mediate effects of multiple risk factors (SAMHSA).

Relationship

Risk Factors include: parents who use drugs and alcohol, mental illness, child abuse and maltreatment, inadequate supervision.

Protective Factors include: parental involvement.



Community

Risk Factors include: neighborhood poverty and violence

Protective factors include: availability of faith-based resources and after-school activities

Society

Risk factors: norms and laws that are favorable to substance use, racism, lack of economic opportunity.

Protective factor include: hate crime laws or policies limiting the availability of tobacco or alcohol.

What are the ACEs?

All ACE questions refer to the respondent's first 18 years of life. Retrieved from the CDC.

Abuse

- **Emotional abuse:** A parent, stepparent, or adult living in your home swore at you, insulted you, put you down, or acted in a way that made you afraid that you might be physically hurt.
- **Physical abuse:** A parent, stepparent, or adult living in your home pushed, grabbed, slapped, threw something at you, or hit you so hard that you had marks or were injured.
- **Sexual abuse:** An adult, relative, family friend, or stranger who was at least 5 years older than you ever touched or fondled your body in a sexual way, made you touch his/her body in a sexual way, attempted to have any type of sexual intercourse with you.

Household Challenges

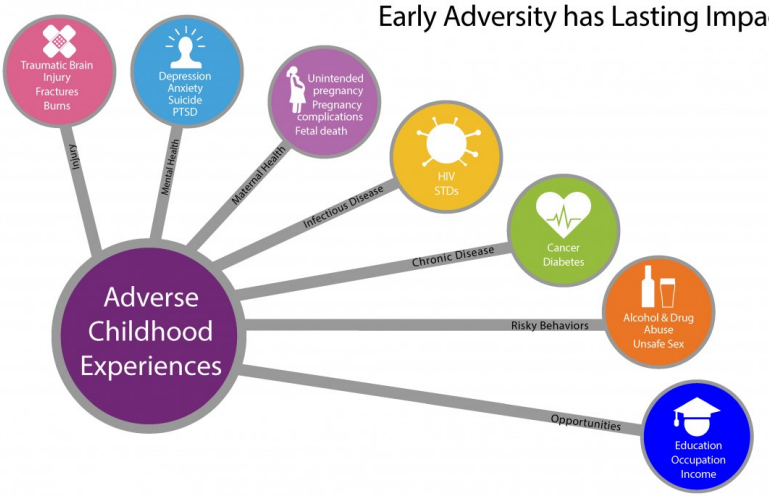
- **Mother treated violently:** Your mother or stepmother was pushed, grabbed, slapped, had something thrown at her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes, or ever threatened or hurt by a knife or gun by your father (or stepfather) or mother's boyfriend.
- **Substance abuse in the household:** A household member was a problem drinker or alcoholic or a household member used street drugs.
- **Mental illness in the household:** A household member was depressed or mentally ill or a household member attempted suicide.
- **Parental separation or divorce:** Your parents were ever separated or divorced.
- **Incarcerated household member:** A household member went to prison.

Neglect

- **Emotional neglect:** Someone in your family helped you feel important or special, you felt loved, people in your family looked out for each other and felt close to each other, and your family was a source of strength and support.
- **Physical neglect:** There was someone to take care of you, protect you, and take you to the doctor if you needed it[2], you didn't have enough to eat, your parents were too drunk or too high to take care of you, and you had to wear dirty clothes.

Why are they important?

Early Adversity has Lasting Impacts



Adverse Childhood Experiences

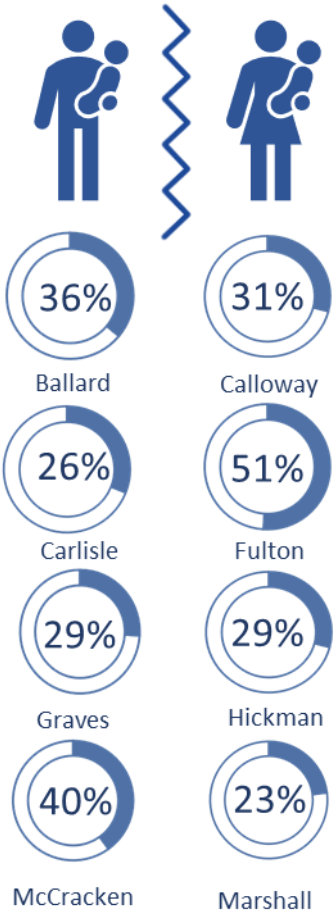
ACES contribute to the risk of future substance use disorder among many other poor health outcomes. Based on the 2015 KY BRFSS, 59% of Kentucky adults have at least 1 ACE, of those 64% have two or more, while 17.5% of the total population have at least 4 ACEs (KYBRFS, Data Brief 2016 division of maternal and child health).

Economic insecurity is a factor in ACE's and many of our communities have high poverty rates, low educational attainment, and other factors contributing to economic insecurity.

Numerous additional household factors can be seen in our communities such as Kentucky's high rate of parental incarceration, with 15 percent of Kentucky children experiencing parental incarceration, which is almost double the national rate. Kentucky ranks second highest in the nation for this metric (kbrief). 62.7-69.7% of incarcerated females in the Purchase Area have children. "Children with incarcerated mothers are more likely than those with incarcerated fathers to go live with grandparents or other kin or be placed in foster care. Female inmates are more likely than male inmates to have substance abuse or dependency issues,10 yet female inmates have less access to substance abuse treatment than their male counterparts."

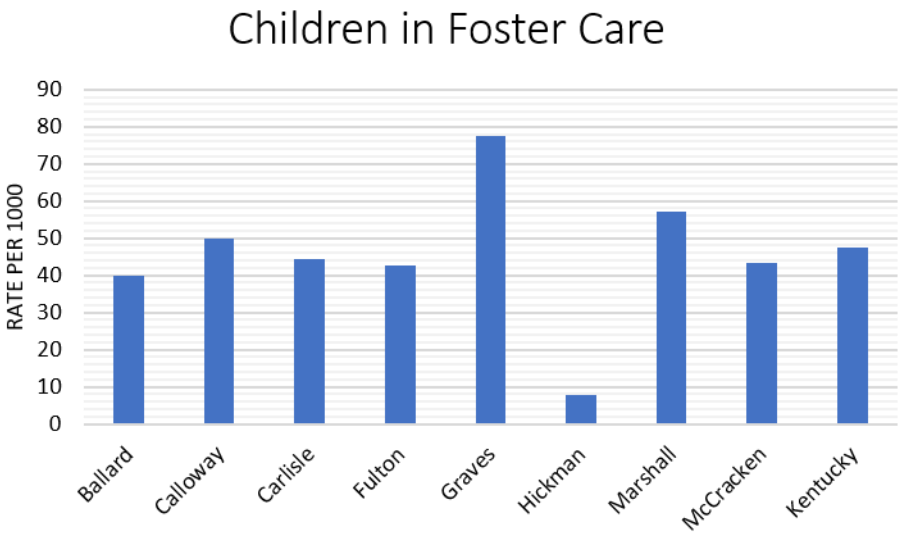
Another household metric is that Kentucky ranks number one in the nation for grandchildren living with grandparents. Many of our counties also have high rates of children in foster care and single parent house holds. A parent with a mental health illness is also an ACE, in 2018 the Purchase Area about 22.1% of the adult population had ever been diagnosed with depression, take into account the lack of mental health access when considering this rate. Additionally a parent with a substance use disorder is also an ACE, please refer to the burden of SUD/OUD in our community.

Children:



34% of children in Kentucky live in single parent house holds.

Between 2011 and April of 2019 the children in foster care rose 46%, this increase is theorized to be due to the opioid epidemic (Kentucky Chamber).



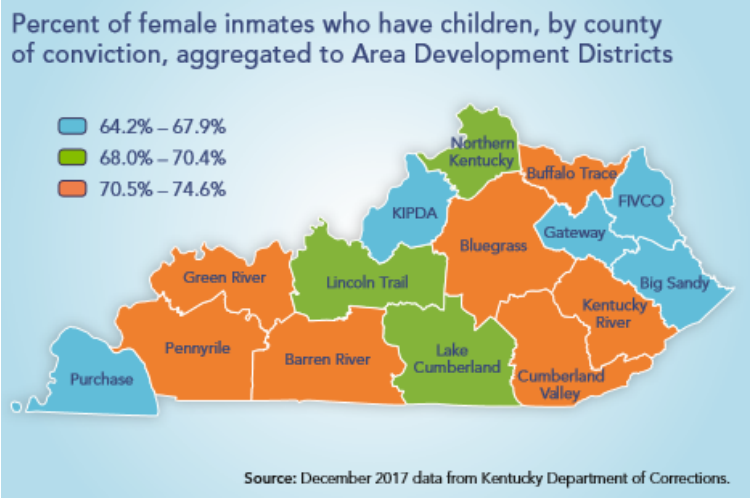
	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	Kentucky
Youth incarcerated in the juvenile justice system (per 1000)	33.3	14.5	16.3	22.1	41.2	22.9	29.8	59.9	26.6
Children in Poverty	24%	21%	22%	43%	25%	28%	17%	21%	22%
Teen Pregnancy per 100k 2015-2017	38.4	16.6	35.9	23.3	40.4	23.1	31.1	35.9	29.7

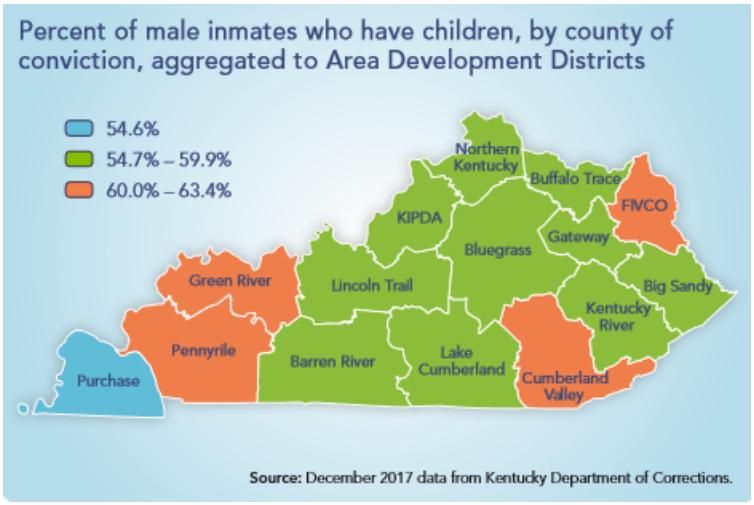
2016-2018 in Kentucky, per 1000 (KIDS COUNT) 3 year aggregate. American Community Survey, County Health Rankings

Incarceration and arrests:

Parental substance use disorder and incarceration are two of the top 10 ACEs not including parental separation that can stem from incarceration. Pre-trail incarceration is often largely effects those in poverty or in low-income brackets that can not afford bond or bail. When reviewing the rates across the counties you can see that this disproportionality affects are poorest counties.

	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	KY
Pretrial Incarceration rate per 100K	855	600	4422	4498	460	4446	915	830	665
Drug arrests (all) per 100k	2761.5	1742.1	990.5	5910.9	3833.4	2677	2542.9	2973.2	2301.4





McCracken County Drug Court					
Date Range	**# Entered**	**Drug of Choice**	**# Male**	**# Female**	**Average Age**
7/1/16 – 6/30/17	33	Meth/ THC	14	19	18-30
7/1/17 – 6/30/18	50	Meth/ THC	23	27	18-30
7/1/18 – 6/30/19	28	Meth/ THC	11	17	31-40

This information is from the 2018 KIP aggregated to the Purchase Area from the counties Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall, and McCracken. It was been analyzed by REACH. This data is important to view how prevention efforts among youth are currently working and as another layer to view the burden of the opioid epidemic on our region.

Past 12 month use among 6, 8, 10, 12 grades combined (%)						
	Any opioid use 1+ occasions	Rx opioid use 1+ occasions	Heroin 1+ occasion	Use of both Opioids and Tranquilizers	Use of both Opioids and Alcohol	Opioids and Stimulants
Purchase Area	6.33	6.11	0.43	2.06	4.7	2.16
Kentucky	4.97	4.74	0.48	1.39	3.42	1.37

Demographics of Youth Who		
	Purchase Area	Kentucky
Grade 6	10.18	14.08
Grade 8	26.71	28.83
Grade 10	33.41	31.74
Grade 12	29.7	25.34
female	55.33	53.67
NH White	74.57	71.9
NH Black	5.28	5.71
Hispanic	7.13	9.25
NH other	13.02	13.14
1 or more family military member	49.33	48.78
Reduced Lunch	67.65	63.06

Adolescent Prescription Drug Misuse is associated with adult substance use disorder, lower educational outcomes, and poor psychosocial outcomes. Prescription drug misuse initiation in adolescences is linked to greater risk of Substance Use Disorder and lower educational attainment in adulthood.

Additionally, multiple sources of diversion for opioids is associated with an increased risk of opioid use disorder and substance use disorder than those that used one source. 46.37% of Youth Who Use Opioids (YWUO) in the Purchase Area use multiple sources of diversion.

Many are using multiple substances and approximately 50% of YWUO have friends who also use opioids.

Comorbidities among youth who use opioids (YWUO) on the 2016-2018 KIP survey

Comorbidities	**PAHC**	**Kentucky**
	Count (%)	Count (%)
Type of opioid use		
Prescription opioid	97.48	96.41
Heroin	6.91	9.93
Both	4.19	5.92
OPU*		
Any opioid + sedative/tranquilizer	33.62	28.72
Any opioid + alcohol	77.02	71.62
Any opioid + psychostimulant	34.91	28.29
Psychiatric**		
SPD	42.44	44.39
Unsafe at school	25.69	26.8
Self-harm	49.63	49.82
Suicide ideation	41.09	43
Suicide plan	36	37.23
Suicide attempt	28.52	30.24
ACEs/Victimization***		
Sexual assault	21.31	21.53
IPV (Physical)	14.94	17.16
IPV (Emotional)	27.69	30.27
Hurt or injured self	29.76	26.66
Physically threatened/attacked	22.17	23.79
Bullied	42.36	40.22
Cyberbullied	37.3	34.75
Social and Environmental****		
Multiple sources of diversion	46.37	45.04
Easy access to cocaine	31.59	28.75
Peer use of prescription drugs	50.62	46.12
Peer use of psychostimulants	25.25	25.26

*Opioid and polydrug use

**SPD=serious psychological distress calculated as a score > 12 on the K6 scale. Unsafe includes students reporting feeling unsafe or very unsafe at school.

***ACE=adverse childhood experience. IPV=intimate partner violence. Hurt of injured self refers to the problems caused by drinking and/or drug use in the past 12 months

****Multiple sources of diversion includes 2 or more sources of prescription drug diversion reported. Peer use refers to 1 or more close friends who have used a specific drug in the past 12 months. Psychostimulants in-

Prevention Capacity:

In our area we have 7 Agency for Substance Abuse Prevention and Policy (ASAP) coalitions. Every county has one, with Hickman and Fulton counties having a combined one. The goal of all of these coalitions is to prevention future substance use, prevent youth substance use, support access to treatment and recover, and to support local law enforcement. Previously these coalitions often supplied Narcan for our first responders but change in legislation has made it available from other sources. Some of the coalitions have supplied medication lock boxes, and disposal kits.

Some of the successes of the ASAP's are youth groups, comprehensive smoke-free ordinances, events, and funding in school curriculums and events. They ASAP's also promote community events and education including the DEA Take Back days. Some of our law enforcement agencies have pill drop boxes as well.

Besides this, our are has a very active regional prevention center located at our community behavioral health center, Four Rivers Behavioral Health. The regional prevention center supplies and teach curricula at the schools and hosts and supports a variety of different community events, education, and campaigns. Including their own campaign the Dinner Table Project which focuses on parent and child engagement and communication.

The Health Departments in our area routinely head or are member organizations of both the ASAP's and the Health Coalitions and are a resource for a variety of educational materials and services.

The schools also independently teach prevention focused curricula in their schools and sit on the ASAP boards. Each school also has a family resource center which has staff to support basic and social needs. They often refer to outside social service agencies.

Our area hospitals are also engaged in community events, education, and coalitions with their priorities also focusing on substance use prevention.

Another focus of our area is Kentucky Strengthening Families and Parent Cafés that also focus effective parenting through facilitated peer groups.

We have a variety of additional county coalitions and round table groups that seek to share and collaborate on many different community projects. These coalitions also serve as a place for many kinds of agencies and organizations to come together on the same efforts many of which are prevention based.

Our regional Purchase Area Health Connections has also created an online fully searchable database of various resources from social services to recreational activities.

Prevention Capacity:

A corner stone of prevention is evidence based practices, programs, and frameworks such as the strategic prevention framework (left).

Many of the people who use substances in our area are poly drug users. It is a concept of prevention that prevention of early initiation of any substance is prevention of future substance use.

In our area while opioid use prevention is important and we routinely promote or provide prescription disposal kits, have drop boxes, promote take backs, and frequent community events to provide prevention materials about opioid use disorder, with limited resources wide sweeping evidence based preventive efforts that focus on risk factors that effect initiation of any substance use disorder must be considered with the same enthusiasm.

Partners for Prevention

Local

- Regional Prevention Center
- Health Departments
- Pre-K to Highschool school Districts
- Local Colleges
- Law Enforcement
- Libraries
- Naloxone Community Events
- Hospitals
- First Repsonders
- Pharmacists
- Primary Care Providers
- Mental Health Providers
- Behavoiral Health Providers
- Dentists
- Faith Based Agencies
- Civic Organizations
- Local Coalitions
- Area Health Education Center
- Drug Courts
- Workforce Board
- Local Chamber Offices

State

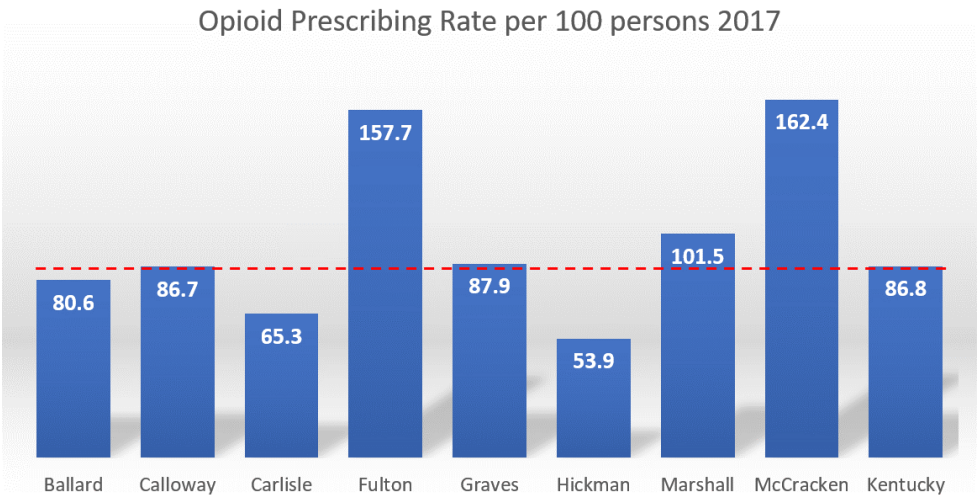
- Kentucky Department of Public Health
- Universities
- Nalaxone providers i.e. Kentucky Pharmacists Association
- KASPER
- Department of Education
- Kentucky Office of Drug Control

Federal

- DEA Drug Take Back
- SAMHSA
- CDC
- NHSC workforce Loan Reayment Programs
- Provider's Clinical Support System for Mediation-Assisted Treatment
- HRSA opioid grants

Prescribing Patterns

The opioid prescribing rate shows the extent of over prescribing in our area. In 2017 Kentucky had the 7th highest state prescribing rate in the nation. The nations prescribing rate is 58.7 per 100 persons. All but one county have rates higher than the nation and three counties have rates 2-3x higher.



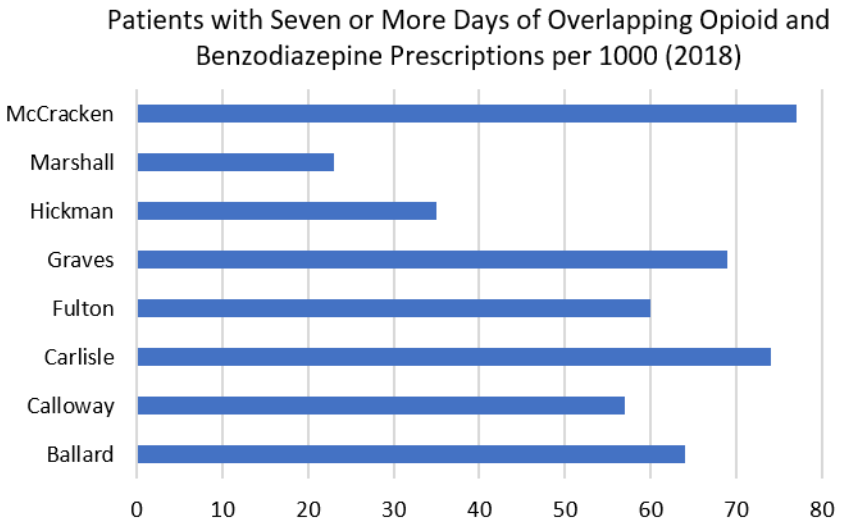
A prescription is an initial or refill prescription dispensed at a retail pharmacy in the sample and paid for by commercial insurance, Medicaid, Medicare, or cash or its equivalent. This database does not include mail order pharmacy data. CDC 2017.

Doses per 1000 residents, 0 placed for counties with no data 2001-2016.

	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken
Tramadol	8887.3	8908	11789.3	11425.3	10835.2	9011.9	5269.3	7306.5
Oxycodone	19538.2	12905.9	26159.2	19620	18968.9	12600.8	13302.2	18194.6
Opana	14.9	327.7	0	0	201.7	0	221.3	151.8
Hydrocodone	51480.9	39225.3	53820.2	58998.2	53114.6	35636.9	26484.8	40673.7
All controlled substances	146718.2	133273.3	176198.4	156009.2	170858.5	108641	91139	133745.6

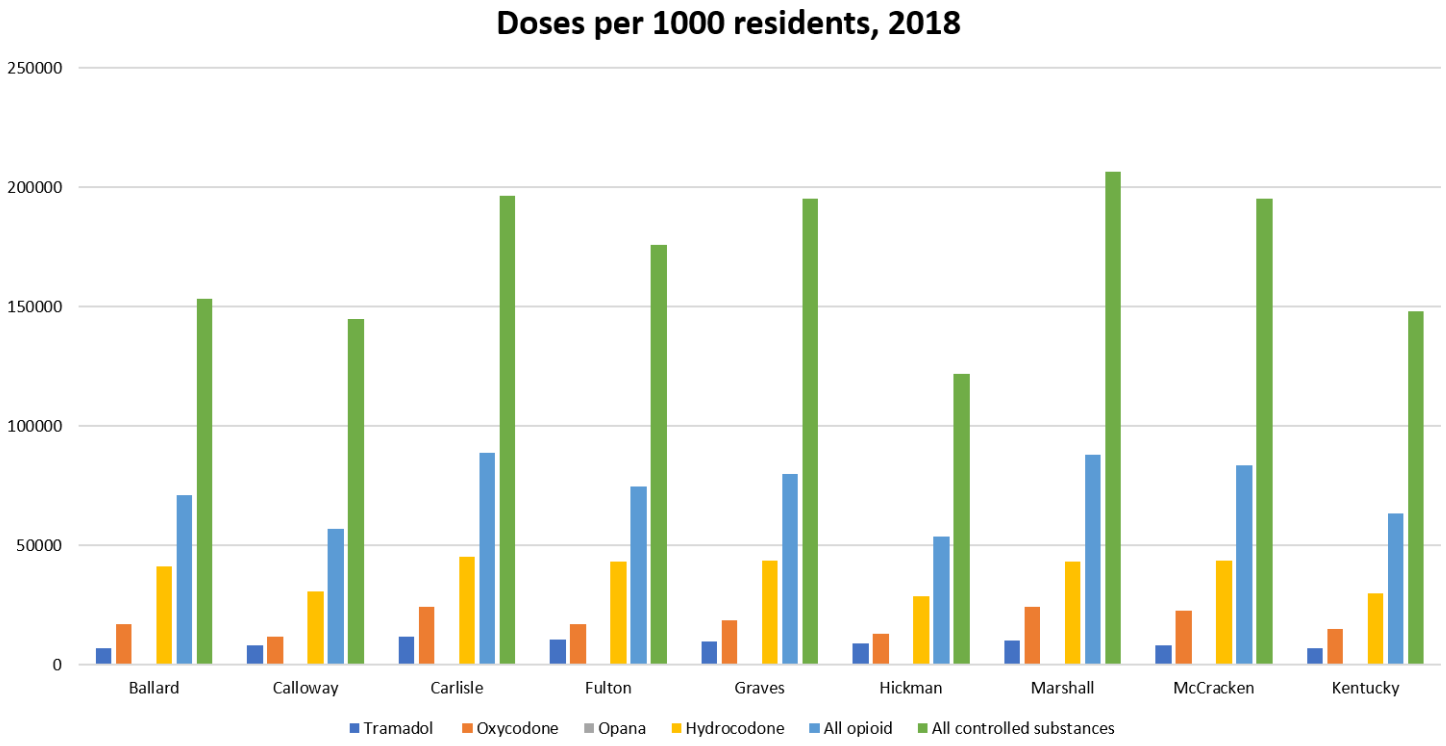
KASPER 2018, 2001-2016 REACH, KY DATA Warehouse

Prescribing Patterns cont.



Benzodiazepines and opioids both cause central nervous system depression and can decrease respiratory drive. Benzodiazepines is a central nervous system depressant used to sedate, induce sleep, prevent seizures and relieve anxiety (CDC, Guy & McDonald)

Opioids and benzodiazepines are the two most common drug classes involved in: Drug overdose deaths involving prescription drugs and emergency department visits due to nonmedical use (Guy & McDonald).



Retrieved from KASPER quarterly reports, Opana doses are 76 or below in all of our counties, with many counties having 0.

Community Attitudes:

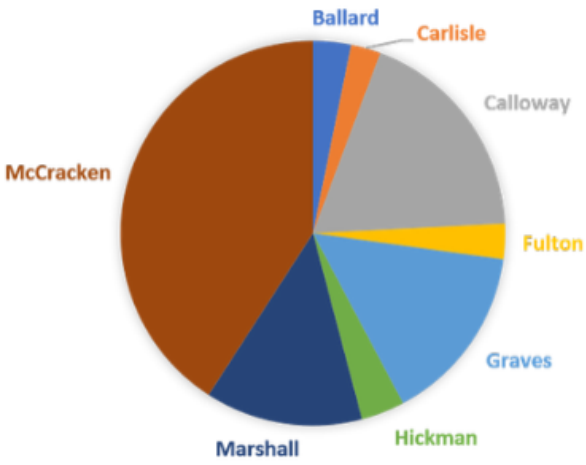
The community attitudes survey was conducted online and dispersed by email and social media. 494 people completed the survey with 438 specifying their county of residence in the Purchase Area. The survey was available for a 2 week period. It was 34 questions long.

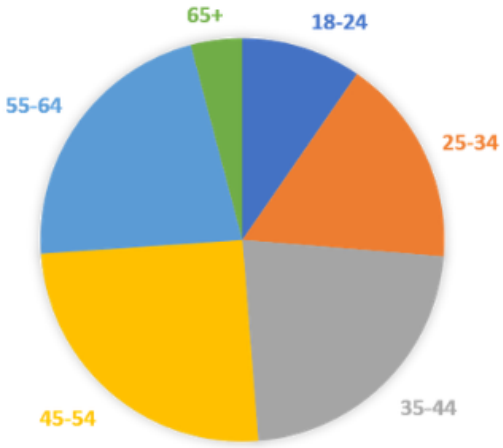
The purpose of the survey was to determine what our community members thought about SUD/ OUD including questions, about stigma, jobs, treatment, recovery, and Narcan among others.

Respondents were 85% female, 98% non-Hispanic, 93.7% White, and 5.88% Black., and 1.83% Asian or Native American/Alaskan Native.

COUNTY OF RESIDENCE

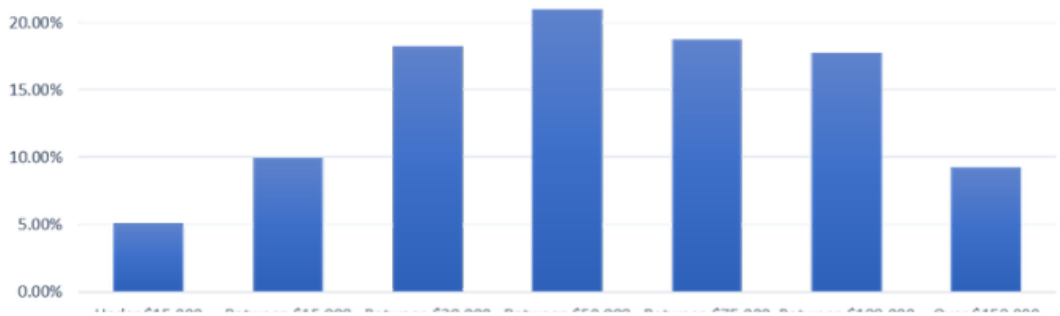
Excludes respondents that selected other.





AGE RANGE

INCOME RANGE



Community attitudes:

97-98% **Disagreed or strongly disagreed** that substance use disorders **only affect certain races**, **individuals with low incomes**, or **adults**.

89%

Agreed or strongly agreed that **anyone** could become **addicted to pain medications.**

88%

Agreed or strongly agreed that **substance use disorder** is a **real illness**

65%

Agreed or strongly agreed that an individual with a substance use disorder in **recovery** should have the same **right to a job as anyone else.**

78%

Disagreed or strongly disagreed that **an individual with a substance use disorder has a moral failing or personal weakness.**

65%

Disagreed or strongly disagreed that it is **more important** to **spend money** on treating conditions like **diabetes and heart disease instead** of substance use disorders.

NARCAN

Narcan, the brand name of the drug naloxone, is a opioid reversal drug that can be administered with a nasal spray.

67%

67% of respondents **agreed or strongly agreed** that they would **willingly administer Narcan** to a **stranger** in an overdose situation.

51%

Only 51% of respondents **agreed or strongly agreed** that there should **not be a limit** to how many times an individual can receive Narcan

47%

Only 47% of respondents **agreed or strongly agreed** that Narcan should be administered to every individual **experiencing an overdose, every time**.

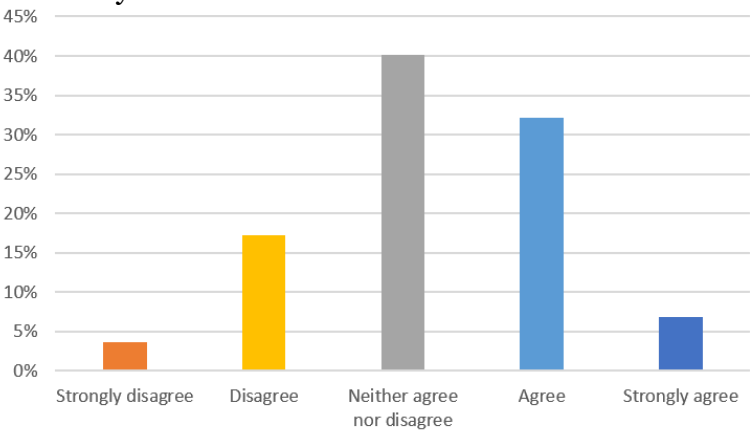
47%

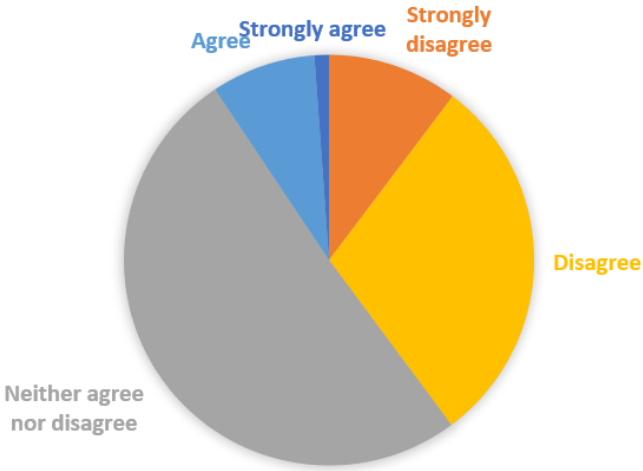
Only 47% of respondents **disagreed or strongly disagreed** that **increasing access** and utilization of Narcan **provided individuals with opioid use disorder an excuse to continue to use.**

Community attitudes:

Treatment views:

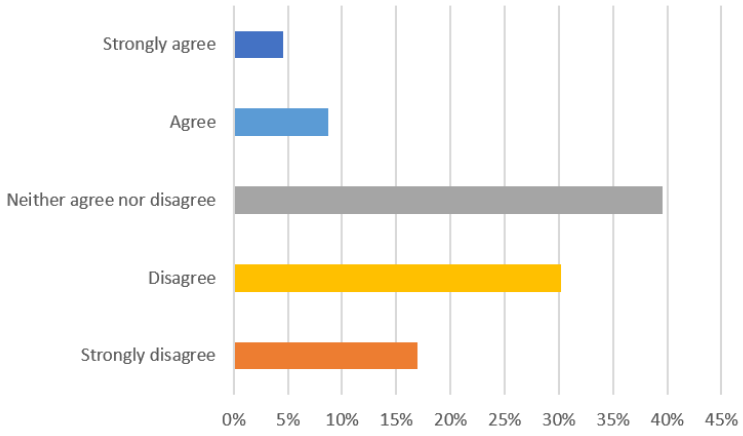
Substance use disorder treatment is very effective.



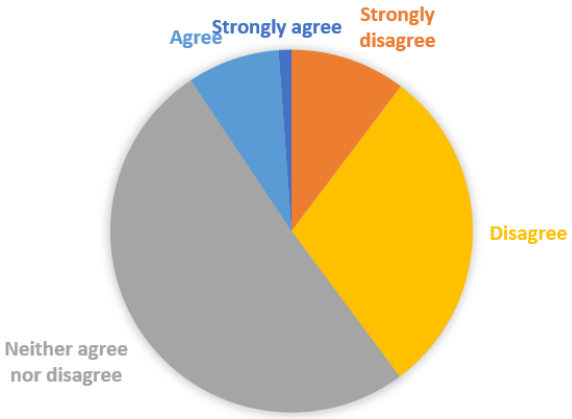


Medication-assisted treatment (i.e. Methadone, Suboxone, Vivitrol) is a viable form of treatment for substance use disorder.

Abstinence based therapy is the only successful form of treatment for substance use disorders



Recovery:



Individuals who receive rehabilitation or treatment will use or overdose again.

The two focus groups were held for the counties of Ballard, Carlisle, Fulton, Hickman, and McCracken, with the counties split into two groups Carlisle, Fulton, and Hickman and then McCracken and Ballard. They were targeted at decision makers in the community with a total of 14 participants between the two groups.

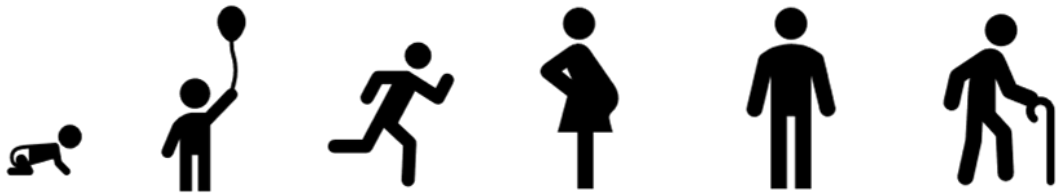
When asked: Tell me what you are seeing in your community related to substance use (drugs).

Participants consistently identify meth as the drug that is most used in their counties.

- "Meth is the drug of choice."
- "We are not seeing an increase in heroin here, its meth and pills." "People that you would never expect to hear about, are using meth."
- "Meth is more wide spread, it is bad."
- "With the increased crack down on pills, it has increased to more meth use."
- "10 years ago meth labs in county but Mexican meth is so cheap and available, less manufacturing of meth in the county because of this."

Concerning age:

Discussions from participants concluded that substance use disorder (both prescription and illegal), can be found in all ages from as young as middle school through people in their 80's. Although drug of choice most likely varies across the age spectrum.



On initiation:

- "They" are not bad people, they get introduced to it, get hooked and can not get off of it.
- "Bipolar people become addicted to prevent the pain"
- 'They learn in childhood that this is the way to cope, need to learn to cope"
- "Society has taught us to cope with meds for relief (release), learn in childhood"
- "Biggest problem is lots of poverty, lack of education (Not only college but trades too) resorts to drugs because it masks mental problem, fall into drug use"

Addiction as a disease:

- "If it is opioids or pills – it can happen to anyone, but using a needle drug (illicit) it was a choice at one time. Now it is a choice whether it (drug use) continues and becomes an addiction. They choose to pick up that needle."
- "People are not going to believe or agree that addiction is a disease like cancer."
- "A disease of relapse (alcohol and drugs) is difficult for families and communities to deal with, there would need to be a unique education program giving the same message about addiction beginning with social media and beyond."
- "There is a big difference in a prescribed drug and illegal drug addiction. They can seek help for addiction, we have a methadone clinic they can go to for treatment,[…], and they choose to continue using illegal drugs. They choose not to get help because they want to be with their friends."

Barrier Survey:

The respondents to this survey stated their current barriers to co-location or integration of primary health care and behavioral health. Currently there is only one organization that is fully integrated in our area (identified through environmental scan, not survey) and two currently co-located (identified through survey N=4). There are numerous benefits to integrated behavioral health care in a primary care.

“

- 80% of people with a behavioral health disorder will visit a primary care provider at least once a year
- 50% of all behavioral health disorders are treated in primary care[3]
- 48% of appointments for all psychotropic agents are with a non-psychiatric primary care provider
- 67% of people with a behavioral health disorder do not get behavioral health treatment[5]
- 30-50% of patient referrals from primary care to an outpatient behavioral health clinic do not make the first appointment
- Two-thirds of primary care physicians report not being able to access outpatient behavioral health for their patients. Shortages of mental health care providers, health plan barriers, and lack of coverage or inadequate coverage were all cited by primary care providers as critical barriers to mental healthcare access (Primary Care Collaborative)

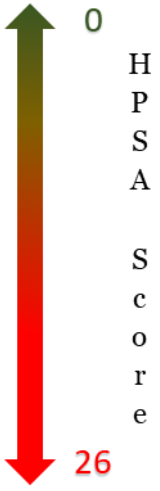
”

Barriers to Co-location	**Barriers to integration**	**Successful outcomes from co-location**	**Successful outcomes from integration**	**Additional barriers in cooperation when not integrated/co-**
• Not enough bandwidth for need • do not have space in either of our current locations to accommodate behavioral health and we do not wish to locate • timely appointments, availability	• Not enough providers for our area • lack of places to refer • space	Warm Handoffs Community Partners		We really don't have many mental health choices in this area that are accepting new patients or that take our patient's insurance

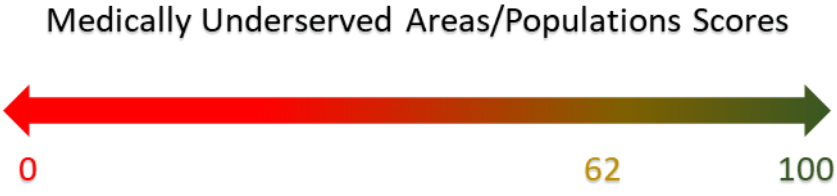
Access to Care:

There are many gaps in services available and in access to care. Every county is in full or in part a Health Provider Shortage Area for primary care, the majority are for dental health and every county is for mental health. Every county but one county is in full or in part a Medically Underserved Area. In the barrier survey providers cited a lack of providers as a barrier both in co-location or integration as well as for referrals.

Health Provider Shortage Area					
	Primary Care		Dental Health		Mental Health
		Score		Score	
Ballard	Low-income	17	Low-income	17	Yes
Calloway	Low-income	14			Yes
Carlisle	Yes	10	Yes	11	Yes
Fulton	Yes	13	Yes	15	Yes
Graves	Yes	9	Low-income	17	Yes
Hickman	Yes	17	Yes	15	Yes
Marshall	Yes	8			Yes
McCracken	Paducah Service Area	12			Yes
All of Western Kentucky is a Mental Health HPSA with a score of 12, retrieved from HRSA data warehouse					



The Health Professional Shortage Area (HPSA) Score developed by the National Health Service Corps (NHSC) determines priorities for assignment of clinicians. The scores range from 0 to 26 where the higher the score, the greater the priority (HRSA).



The Index of Medical Underservice (IMU) score: the lowest score (highest need) is 0; the highest score (lowest need) is 100. In order to qualify for designation, the IMU score must be less than or equal to 62.0, except for a Governor designation, which does not receive an IMU score. The score applies to the MUA or MUP as a whole, and not to individual portions of it (HRSA).

Medically Underserved Area		
		Score
Ballard	Yes	53.3
Calloway		
Carlisle	Yes	61.8
Fulton	Yes	57
Graves	Yes	61.1
Hickman	Yes	56.1
Marshall	Yes	61.2
McCracken	Census Tracts 301-306	49.2

Access to Care:

The majority of our physicians and facilities are located in our most populous county, McCracken County. When you exclude McCracken County to look at the distribution of physicians geographically, there are three hospitals and 132 physicians. The small population size of our region serves as a barrier to recruit new physicians to the area which impacts access to care. Cost is also a challenge. According to KentuckyHealthFacts.org, approximately 12% of all Kentuckians forego health care due to cost.

Extremely high rates of poverty in pockets of the service area, combined with the distances residents must travel to access the few health care providers that are available to them, mean that lower-income residents of the service area face disproportionate barriers to accessing adequate health care.

	Total Physicians Available	**Number of Hospitals within County**
Ballard	1	0
Calloway	67	1
Carlisle	1	0
Fulton	1	0
Graves	40	1
Hickman	5	0
Marshall	18	1
McCracken	240	2

Treatment Capacity:

The region has limited treatment options available. Those available are in our largest counties requiring long commutes. The lack of adequate public transportation and the inability for many residents to afford transportation is a barrier in accessing treatment. There are only a total of 24 buprenorphine waivered providers in our area. Many people do not have adequate medical insurance to pay for treatment. We have limited detox and residential treatment availability.

A new program headed by McCracken County Sheriff's office with joint cooperation of the other county sheriffs, Badges of Hope, seeks to help alleviate some of the transportation barriers by offering a ride to a treatment provider. Findhelpnowky.org is also a great resource for Kentucky residents in locating open treatment slots that is updated in real time.

The current Substance Use Disorder and Mental Health workforce is undersized. 3 of our counties do not have a mental health provider within their borders and all of the remaining counties but one have a ratio over 1000:1.

Mental Health Provider Ratio	
Ballard	8040:1
Calloway	1440:1
Carlisle	unavailable
Fulton	unavailable
Graves	1330:1
Hickman	unavailable
Marshall	4480:1
McCracken	640:1

Buprenorphine waiver list	
24 total providers	
16	McCracken
3	Graves
4	Ballard
1	Calloway

Substance Use Disorder Providers								
	Program Type			**MAT**				
County Location	Residential- 28 days	Residential- long term	Outpatient	Methadone	Buprenorphine with or without naloxone	Naltrexone	Detox (inpatient)	accepts clients on MAT but does not prescribe
McCracken		2	8	3	6	4		2
Graves	2	1	3	1	1	1	2	2
Calloway			3		1	1		
Marshall			1					1

Treatment:

Below is treatment data from Community Behavioral Health Centers, this data contributes to the picture of treatment in our area but is not all inclusive and excludes other entities, also the way that one provider may classify can be different than the way that another does. So all data should be interpreted with caution. Over the two years, 843 unique persons having a diagnoses of OUD were seen by the CMHCs and that 465 of the 843 specified that their primary drug type was of the type 05 (heroin) or 07 (prescription opioids).

This treatment data also gives a snap shot of the sociodemographics of those that have sought treatment at a community behavioral health center as well as their clinical characteristics.

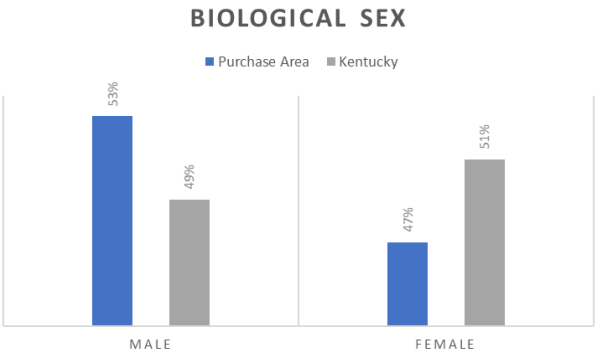
Type of Admission	**PAHC**	**Kentucky**
	Count	Count
Total number of SUD admissions	any OUD regardless of drug type 843	any OUD regardless of drug type 26,765
Opioids*		
Any OUD admission (drug type =5 or 7)	465	17,536
Any heroin admission	77	9,146
Opioids with other drugs		
Any OUD admission + alcohol	<10	738
Any OUD admission + sed/tranq	33	1,628
Any OUD admission + psychostimulant	106	3,956
Any OUD admission + 2 more drugs	465	17,105

*Any primary, secondary, or tertiary OUD admission. Any = drug type classes 05 (heroin) and 07 (opiates and synthetics). Prescription=drug type class 07 (opiates and synthetics). Heroin=drug type class 05 (heroin)

**Any primary, secondary, or tertiary OUD admission involving alcohol (class=02), sedatives/ tranquilizers include benzodiazepines, tranquilizers, barbiturates, and sedative/hypnotics (classes=13, 14, 15, 16), and psychostimulants include cocaine/crack and methamphetamine (classes=03, 10)

Treatment Sociodemographics:

Sociodemographics of unduplicated PAHC clients with any OUD admission in 2017-2019. Any primary, secondary, or tertiary OUD admission involving heroin (class=05) and prescription opioids (class=07).



In the Purchase Area more males sought treatment at the CBHC than females did which is the opposite of the state rates. In the Purchase Area females have less access to treatment. There is only one residential program that takes women, and even less options for pregnant women. A barrier in accessing treatment for women is also the risk of losing custody of their children.

Age	Count Purchase Area	Count Kentucky
18-24	38	1245
25-34	201	7837
35-44	132	5807
45-54	65	2203
55-64	33	762
65+	<10	106

In both the state and in the Purchase area the largest age group of those in treatment at a CBHC is 25-34. In 2017 this age group accounted for 26% of the total fatal overdoses in Kentucky.

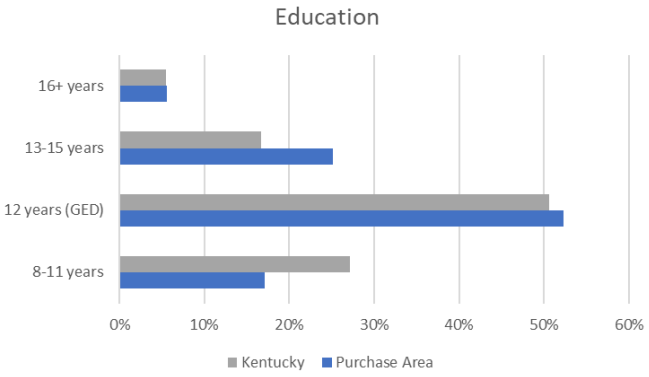
Race**	Count Purchase Area	Count Kentucky
White (non-Hispanic)	446	16145
non-White (non-Hispanic)	<10	117
NH Black	<10	888
Hispanic	<10	46
Other	0	0

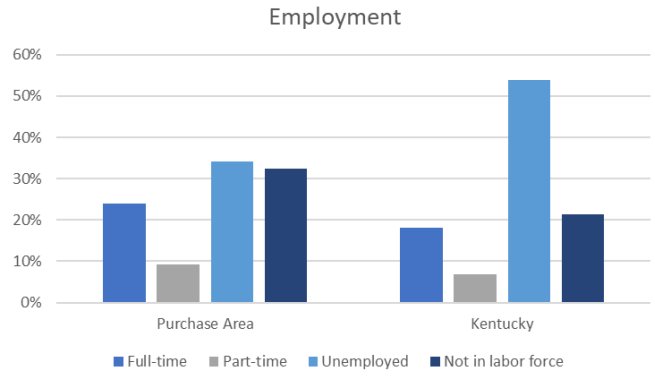
The non-white population, particularly the black population is under represented in treatment.

Other races include Alaska Native, American Indian, Asian or Pacific Islander, other single race, two or more races, Asian, and Native Hawaiian or Other Pacific Islander

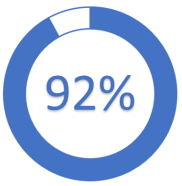
Treatment Sociodemographics:

Sociodemographics of unduplicated PAHC clients with any OUD admission in 2017-2019. Any primary, secondary, or tertiary OUD admission involving heroin (class=05) and prescription opioids (class=07).

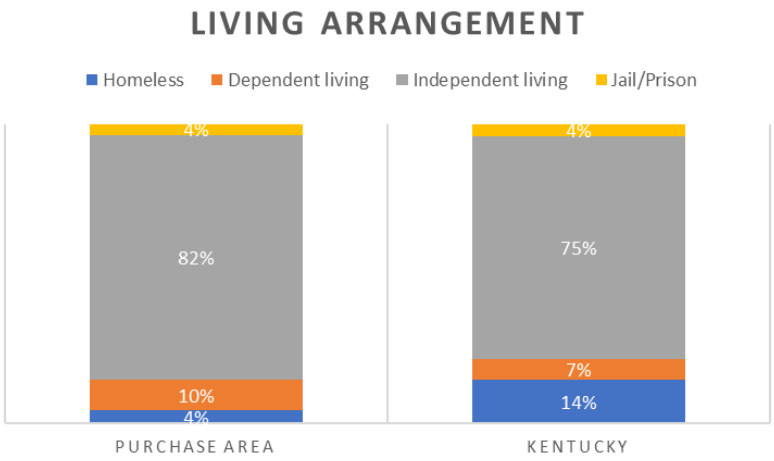




Many of the individuals in treatment have at least a high school degree or its equivalent. In the Purchase Area, more of those in treatment are currently holding fulltime jobs, but more are also not in the labor force at all when compared to Kentucky. One of the focuses of this grant is to target those not in the labor force that have a OUD or SUD and develop a mechanism to get them on in pathway for higher education and careers.



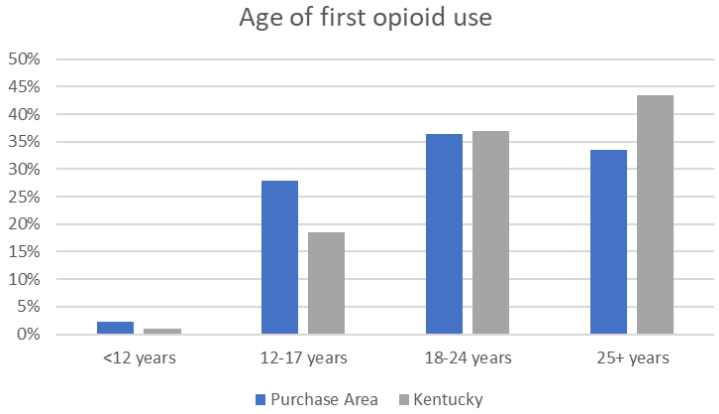
Of clients in the Purchase Area had not been arrested in the previous 30 days.



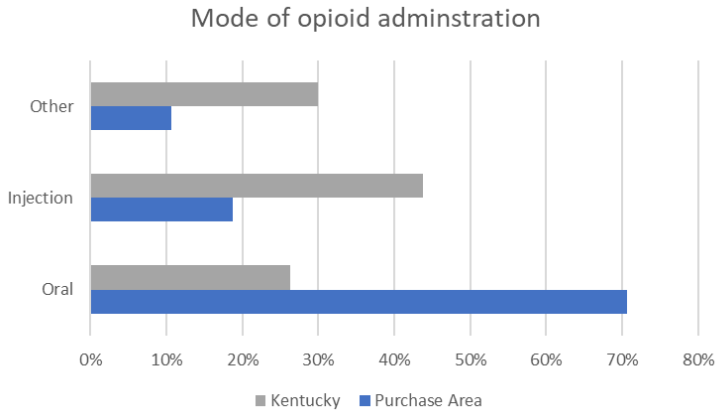
The majority of the clients in both the state and in the Purchase Area treatment lived independently.

Treatment Clinical Characteristics

Clinical characteristics of unduplicated PAHC clients with any OUD admission in 2017-2019. Any primary, secondary, or tertiary OUD admission involving heroin (class=05) and prescription opioids (class=07).

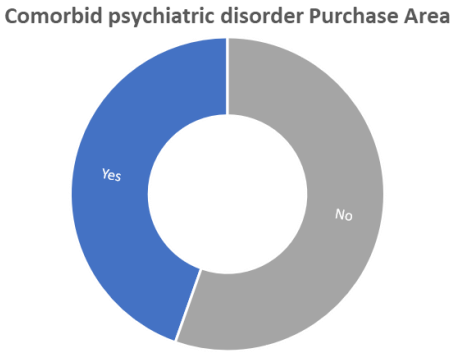


Age of first use in the Purchase Area when compared to Kentucky shows the startling fact that those who received treatment from a community behavioral health center in our area generally started their opioid use younger.



Mode of opioid administration in our population is also markedly different than Kentucky as a whole. The Purchase Area prefers oral use to injection. Oral use is often stated as a harm reduction strategy for infectious disease such as HIV and Hep-C.

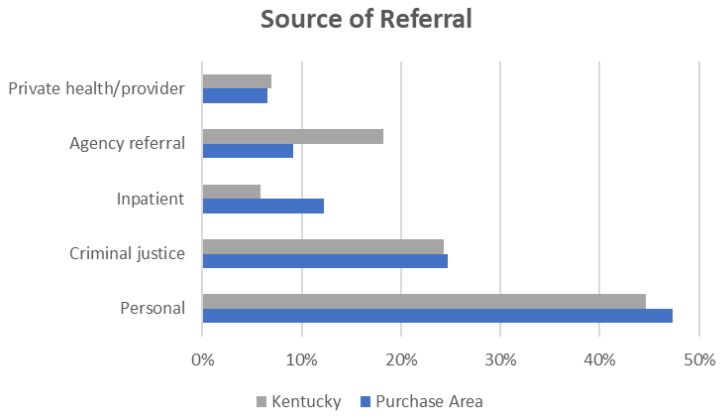
Other includes smoking, inhalation, and other.



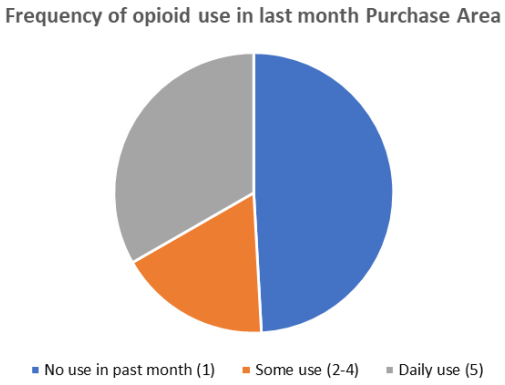
Common risk factors exist between mental illness and substance use disorder and some mental illness diagnosis have been identified as a risk factor for substance use disorder. Such as mood disorders like depression. In the 2018 KYBRFFS 21.1% of respondents stated that they had ever been diagnosed with depression.

Clinical Characteristics

Clinical characteristics of unduplicated PAHC clients with any OUD admission in 2017-2019. Any primary, secondary, or tertiary OUD admission involving heroin (class=05) and prescription opioids (class=07).



Overwhelmingly personal referral is the source of referral in the Purchase Area and in Kentucky with Criminal Justice referral coming in as a close second.



Frequency of use in the last month could be caused by a variety of factors including the criminal justice system, residential treatment, etc and should be interpreted with caution.

Treatment (prescribing):

The Purchase Area has limited treatment and recovery data for our area aggregated or by county. Doses of medication used in MAT services are used here as an additional stand in to survey the environment for treatment capacity and utilization.

Doses per 1000 residents, (Medication Assisted Treatment medications)									
	Ballard	**Calloway**	**Carlisle**	**Fulton**	**Graves**	**Hickman**	**Marshall**	**McCracken**	**Kentucky**
Buprenorphine/ naloxone (Suboxone)	1367.8	724.1	1217.5	1036.3	1385.6	638.4	1034.1	1505.6	
Buprenorphine/ naloxone (Suboxone) 2018	1793.3	1292.6	2160.3	1820.9	2216.7	1181.6	3285.0	2739.3	3971.4
Difference	**+427.5**	**+568.6**	**+942.8**	**+784.6**	**+831.1**	**+543.2**	**+2250.9**	**+1233.7**	unavailable
Methadone	1124.3	1104.5	1794	577.8	1257.8	350.1	754.3	1084.8	unavailable
Methadone 2018	Rate and counts unavailable								

Focus Group of those in treatment:

Focus group of 7 males currently in long term residential treatment. 3 of the 7 started down their disease pathway as youths from a doctors prescription. All were poly-substance users. Overwhelmingly responses indicted a need for more and diverse treatment options, as well as additional recovery supports. Below are thoughts expressed during the focus group.

Trends: "Everybody likes meth"

Needle use: "more people are using needle" "some people that look at that would never think would use a needle." "Everyone is injecting more, try it and people realize it is the best" "[with] age and disease progression people have upgraded to injection use."

Heroin: "a lot bigger in the last five years" "You can spend $200 on 20 lowertabs… that wont even effect you or 40 on 1/10 of heroin and be almost OD'ing." "didn't start on heroin until they changed the medicine and you couldn't break down the medicine… to snort it…"

Fentanyl: "love it" –pills and patches

Opioid: "Do not see opioids as getting bigger, because ….. stricter KASPER, doctors don't give it out as much" "and meth its so cheap and available people are giving it away." "Meth helps with opioid withdrawals."

Suboxone: Lots of illicit Suboxone use. Suboxone is helping curb the epidemic. Suboxone withdrawals are very hard. "As soon as the suboxone ran out I was right back looking for pills" Suboxone is "a beast to come off of."

Diversion: "Script– sell that for money" "Only problem I ever had was not having enough money" Many people went to Detroit and Florida. Focus group members would have schedules for pill pick ups/prescription fills for family and friends. The end of the month would be hard to locate prescription drugs. Theft from medicine cabinets.

Overdose:

Unaware of good Samaritan Law. No one has ever been in the position to see an overdose up-close. Participant overdoses include a mixture including methadone, and another individual from fentanyl.

Focus Group of those in treatment:

Reaching people who use drugs: Just is not going to work until their ready. “Have taken drugs knowing that I was going to be drug tested and go to jail.”

Catalysts for seeking treatment: Hitting rock bottom, jail, losing loved ones

Barriers to seeking treatment: Appropriate treatment not available when your ready. Not enough inpatient detox. Scared of withdrawals. Not being ready. Stigma. Losing your children.

Barriers to staying in treatment: One participant went to a short term residential that had a detox program, had a few day gap before they could start in a long term residential program, relapsed during that gap. Additional barriers money, transportation.

Mental Health: Clinical side of substance use is not looked at enough both prior and after substance use disorder begins/is treated. Participants felt that opioids helped with their mental health and depression.

Prevention: Participants felt that early education and catching people at a very young age to educate them before they ever start is the only real prevention method.

Recovery: Need peer based services. People that do not have shared experience often have a disconnect. Peer based activities in addition to support groups, people to go out with and do things together.

Barriers to Recovery: Need transitional and supportive services to get back on feet, need help with jobs. If unable to meet basic needs going to go back to what you know to make some money. Situational behaviors during hobbies and activities are going to be a barriers i.e. the urge to have beer while fishing, or at a bon fire.

Partners that can be leveraged to increase treatment capacity:

Local

- Mental/behavioral Health Professionals
- Community Service Organizations
- Health Deparments
- Hospitals
- Primary Care Providers
- Pharmacists
- Regional Prevention Center
- Local Chamber Offices
- Schools & Colleges
- Faith Organizations
- Peer Support Groups
- Civic Groups
- Local and regional Coalitions
- Law Enforcement
- First Responders
- Workforce Board
- Local Area Transit
- Businesses
- Drug Courts
- Area Health Education Center
- Court System- local prosecutors and public defenders

State

- Office of Drug Policy
- Kentucky Department of Public Health
- Kentucky Department of Human Services
- KASPER

Federal

- DEA Drug Take Back
- SAMHSA
- CDC
- NHSC workforce Loan Reayment Programs
- Provider's Clinical Support System for Mediation-Assisted Treatment
- HRSA opioid grants

Prevalence of SUD/OUD

The below numbers provide a deeper understand of the burden of substance use disorder in our counties and area. The prevalence rate per county is not available. To estimate of how many persons in each county have SUD, we can apply the state rate to the county population.

Many counties in our area do not have population data available for the age ranges that are specified for prevalence data. This is another example of how data is lacking in our area. We have an estimated population of **at least 11892 individuals** with a substance use disorder. This number was calculated by using the 12 or older number for the counties available and the 18 and older for the additional counties.

Estimate of persons with a substance use disorder			
	12 or Older Estimate	12-17 Estimate	18 or Older Estimate
Ballard	0	0	473
Calloway	2438	97	2361
Carlisle	0	0	284
Fulton	0	0	370
Graves	2222	107	2104
Hickman	0	0	277
Marshall	0	0	1850
McCracken	3965	171	3798
Retrieved from Census Fact Finder. Zero placed for no information			

Prevalence of Substance Use Disorder					
	12 or Older Estimate	12-17 Estimate	18-25 Estimate	26 or Older Estimate	18 or Older Estimate
Kentucky	7.12%	3.62%	13.72%	6.46%	7.47%

Driving under the influence of drugs:

Collisions from driving under the influence of drugs rose over all in the Purchase Area from 2016 to 2017. Two of our counties, Marshall and McCracken, are top 40 counties in Kentucky for impaired driving collisions 2015-2017, ranked 31 and 11 respectively. Drug type is not specified in below collisions.

The following chart shows the number of drivers suspected of being under the influence of drugs involved in collisions, along with the number of persons killed or injured in those collisions. In previous years this was adjusted to reflect follow-up studies of drivers under the influence of drugs from FARS. The tables show drivers under the influence of drugs as initially reported along with a FARS column to compare the adjusted numbers. Retrieved from Kentucky Traffic Facts 2016 & 2017 reports.

DRIVERS UNDER INFLUENCE OF DRUGS BY COUNTY, 2017							
	Collisions			Persons		FARS	
	all	fatal	injury	killed	injured	fatal	killed
Ballard	5	0	2	0	2	1	1
Calloway	19	0	9	0	11	2	2
Carlisle	1	0	0	0	0	1	1
Fulton	1	0	0	0	0	0	0
Graves	18	0	6	0	12	4	4
Hickman	1	0	1	0	1	1	1
Marshall	22	1	7	1	13	3	3
McCracken	29	0	13	0	21	4	4
Purchase Area	96	1	38	1	60	16	16

DRIVERS UNDER INFLUENCE OF DRUGS BY COUNTY, 2016							
	Collisions			Persons		FARS	
	all	fatal	injury	killed	injured	fatal	killed
Ballard	2	0	2	0	3	3	3
Calloway	13	0	3	0	3	3	3
Carlisle	1	0	1	0	1	1	1
Fulton	4	0	1	0	1	0	0
Graves	16	1	5	2	7	2	2
Hickman	1	0	1	0	1	0	0
Marshall	10	0	7	0	8	1	1
McCracken	28	1	11	2	19	6	7
Purchase Area	75	2	31	4	43	16	17

Infectious Disease:

Certain infectious diseases are linked to substance use disorder or risky behaviors that are often associated with SUD or OUD. In our area oral use is the preferred mode of administration which is a protective factor for many infectious disease.

	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	Kentucky
HEP A Incidence per 100k	149.3	2.6	20.6	0 or did not report	2.7	22.1	9.6	22.9	111.0

KY17-089 Distribution Of Outbreak-Associated Acute Hepatitis A Cases, by County, August 1, 2017 – September 28, 2019*^ # Kentucky Department of Public Health

Acute Hep C per 100k	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken	Kentucky
2015	0	0	0	0	0	0	0	6.5	2.7
2016	0	5.2	0	0	2.7	0	3.2	1.5	
2017	12.3	2.6	0	0	8.1	0	3.2	3.1	
2018	0	0	0	0	0	0	3.2	1.5	
2014-2016 HCV among pregnant women per 1000 live births	0	.8	0	4.2	.7	0	.3	1.0	

Kentucky Department of Public Health

	Purchase Area			Kentucky		
	2015	2016	2017	2015	2016	2017
Adults who have ever been tested for HIV	33.80%	28.50%	26.60%	35.90%	32.70%	34.80%
Prevalence per 100k	92.91	94.81	97.79			

Kentucky Department of Public Health, incidence not available for Purchase Area; prevalence substituted. KYBRFSS.

Fatal Overdoses

When compared to the Kentucky Overdose Rates we do not exceed the state rate of 37.2 per 100k in 2017 but some counties do exceed nation rate of 21.7 per 100k. We also have high counts of patients with 7 day over laps of opioids and benzodiazepine as known risk factor for overdoses. Interestingly, in some counties fatal overdoses not attributed to opioids were higher than those that were. In following pages overdoses in the emergency department and over dose calls to emergency medical services are shown including doses of Narcan administered.

Total count of fatal overdoses		
	Overdose Deaths	Opioid Involved
Ballard	11	8
Calloway	19	13
Carlisle	<5	0
Fulton	<5	<5
Graves	23	<5
Hickman	<5	<5
Marshall	39	25
McCracken	63	*

Count of Kentucky Drug Overdose Deaths by Age Group in Kentucky (2018)	
Age Group	Overdoses
0-4	0
5-14	0
15-24	79
25-34	314
35-44	335
45-54	285
55-64	194
65-74	31
75-84	7
85+	<5

Count of Fatal over doses 2013-2017										
	2013		2014		2015		2016		2017	
	Overdose Deaths	Opioid Involved	Overdose Deaths	Opioid Involved	Overdose Deaths	Opioid Involved	Overdose Deaths	Opioid Involved	Overdose Deaths	Opioid Involved
Ballard	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Calloway	<5	<5	<5	<5	5	5	5	<5	<5	<5
Carlisle	<5	0	0	0	0	0	0	0	0	0
Fulton	0	0	0	0	0	0	<5	<5	<5	<5
Graves	6	<5	<5	<5	5	0	5	<5	<5	<5
Hickman	0	0	0	0	<5	<5	<5	0	0	0
Marshall	11	9	12	5	<5	<5	10	6	<5	<5
McCracken	16	9	19	11	8	6	12	5	8	<5

1. Substances are not mutually exclusive; for example, one overdose death can be both a heroin overdose and a methamphetamine overdose.

2. Opioid involvement determined by the presence of at least one of the following ICD-10 codes in the supplemental cause codes on Drug Overdose Death Kentucky Death Certificates: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6.

3. A total labeled as * indicates a count that is suppressed to prevent calculation of a <5 count.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. July 2019. Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services. Data are provisional and subject to change. This work was supported by funding from Centers for Disease Control and Prevention grant numbers 5 NU17CE002732-04 and 6 NU17CE924880-03-05.

Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among Ballard residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	14	15	27	26	17
	Antidepressants	*	0	*	*	*
	Benzodiazepines	*	*	8	7	*
	Cocaine	0	*	0	0	0
	Heroin	*	0	0	0	*
	Opioids other than heroin	*	*	*	*	*
	Other specified and unspecified drugs	5	9	16	17	9
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	*	*	*	*	*
Nondependent abuse of drugs (excluding overdoses)	Any substance	29	40	42	58	45
	Amphetamine abuse	*	7	14	22	12
	Cannabis abuse	15	27	22	27	25
	Cocaine abuse	*	*	9	5	*
	Hallucinogen abuse	0	*	0	0	0
	Opioid abuse	0	*	*	*	*
	Sedative, hypnotic or anxiolytic abuse	*	0	*	*	*
Drug dependence (excluding overdoses)	Any substance	6	9	12	11	8
	Amphetamine and other psychostimulant dependence	*	*	*	*	5
	Cannabis dependence	*	*	*	*	*
	Cocaine dependence	*	0	0	*	0
	Hallucinogen dependence	0	0	0	0	0
	Opioid-type dependence	0	*	*	*	*
	Sedative, hypnotic or anxiolytic dependence	0	*	0	0	*
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	0	0	0	*	0
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis C	*	5	*	*	*
	Drug overdose, abuse or dependence with HIV	0	*	0	0	0
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	*	*	0	5	*
	Hepatitis A	0	0	*	0	*
	Hepatitis C	8	11	11	7	5
	HIV	*	*	0	0	0
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	0	*	*	0	0

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health, April 2019. Data source: Kentucky Outpatient Services Database and Kentucky Inpatient Hospitalization Claims Files, Frankfort, KY; Cabinet for Health and Family Services, Office of Health Data and Analytics. Data are provisional and subject to change. Counts represent encounters of care and could be greater than the number of individual patients treated. Starting October 1, 2015, coding switched from ICD-9-CM to ICD-10-CM, and there is not a one-to-one correspondence between ICD-9-CM and ICD-10-CM codes. The coding system transition should be considered when interpreting the data. This report was supported by Cooperative Agreement Number 6 NU17CE002732-03-04, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among Calloway residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	146	174	132	95	81
	Antidepressants	11	10	20	9	11
	Benzodiazepines	15	14	17	18	17
	Cocaine	0	0	*	0	0
	Heroin	*	0	5	*	*
	Opioids other than heroin	8	12	14	13	10
	Other specified and unspecified drugs	114	138	80	55	46
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	*	0	*	0	*
Nondependent abuse of drugs (excluding overdoses)	Any substance	123	178	224	150	208
	Amphetamine abuse	7	26	83	51	82
	Cannabis abuse	60	67	99	74	94
	Cocaine abuse	15	6	19	13	15
	Hallucinogen abuse	*	0	*	*	*
	Opioid abuse	10	11	16	14	23
	Sedative, hypnotic or anxiolytic abuse	9	13	8	6	10
Drug dependence (excluding overdoses)	Any substance	28	34	78	51	57
	Amphetamine and other psychostimulant dependence	*	6	15	*	13
	Cannabis dependence	*	*	10	*	10
	Cocaine dependence	0	*	*	*	*
	Hallucinogen dependence	0	*	0	0	0
	Opioid-type dependence	13	10	18	35	28
	Sedative, hypnotic or anxiolytic dependence	*	*	*	5	7
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	0	*	*	0	*
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis C	7	*	*	6	10
	Drug overdose, abuse or dependence with HIV	0	0	*	*	0
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	*	5	*	*	5
	Hepatitis A	*	*	0	0	0
	Hepatitis C	32	29	26	22	20
	HIV	6	*	12	5	*
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	*	*	0	*	0

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health, April 2019. Data source: Kentucky Outpatient Services Database and Kentucky Inpatient Hospitalization Claims Files, Frankfort, KY; Cabinet for Health and Family Services, Office of Health Data and Analytics. Data are provisional and subject to change. Counts represent encounters of care and could be greater than the number of individual patients treated. Starting October 1, 2015, coding switched from ICD-9-CM to ICD-10-CM, and there is not a one-to-one correspondence between ICD-9-CM and ICD-10-CM codes. The coding system transition should be considered when interpreting the data. This report was supported by Cooperative Agreement Number 6 NU17CE002732-03-04, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among Carlisle residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	13	21	14	26	15
	Antidepressants	*	*	*	*	*
	Benzodiazepines	0	5	*	*	*
	Cocaine	0	0	0	0	0
	Heroin	0	0	0	0	0
	Opioids other than heroin	*	*	5	6	5
	Other specified and unspecified drugs	9	9	5	16	8
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	0	0	*	0	*
Nondependent abuse of drugs (excluding overdoses)	Any substance	30	43	38	54	43
	Amphetamine abuse	*	13	16	18	14
	Cannabis abuse	15	25	20	31	22
	Cocaine abuse	*	0	*	*	0
	Hallucinogen abuse	0	0	0	0	0
	Opioid abuse	*	*	*	10	*
	Sedative, hypnotic or anxiolytic abuse	*	*	0	6	*
Drug dependence (excluding overdoses)	Any substance	*	13	10	14	10
	Amphetamine and other psychostimulant dependence	0	*	*	*	*
	Cannabis dependence	0	*	*	0	*
	Cocaine dependence	*	*	*	0	0
	Hallucinogen dependence	0	0	0	0	0
	Opioid-type dependence	0	6	6	8	*
	Sedative, hypnotic or anxiolytic dependence	0	0	*	*	0
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis C	*	*	*	*	*
	Drug overdose, abuse or dependence with HIV	0	*	0	*	*
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	0	0	0	*	0
	Hepatitis A	0	0	0	0	0
	Hepatitis C	16	15	10	7	8
	HIV	*	*	5	6	*
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	*	0	0	0	*

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

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Drug-related inpatient hospitalizations and emergency department visits among Fulton residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	21	7	*	11	7
	Antidepressants	0	*	0	*	*
	Benzodiazepines	5	0	0	*	0
	Cocaine	0	0	0	0	0
	Heroin	0	0	0	0	0
	Opioids other than heroin	*	0	*	*	*
	Other specified and unspecified drugs	13	6	*	5	*
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	*	0	0	*	0
Nondependent abuse of drugs (excluding overdoses)	Any substance	42	19	32	32	35
	Amphetamine abuse	*	*	7	6	7
	Cannabis abuse	19	14	19	7	24
	Cocaine abuse	5	*	5	6	7
	Hallucinogen abuse	0	0	0	0	0
	Opioid abuse	*	*	*	*	*
	Sedative, hypnotic or anxiolytic abuse	0	0	*	*	0
Drug dependence (excluding overdoses)	Any substance	14	14	18	*	12
	Amphetamine and other psychostimulant dependence	*	*	*	0	*
	Cannabis dependence	*	*	0	0	0
	Cocaine dependence	*	*	0	0	*
	Hallucinogen dependence	0	0	0	0	0
	Opioid-type dependence	8	9	12	*	8
	Sedative, hypnotic or anxiolytic dependence	0	*	*	0	0
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis C	*	6	*	0	*
	Drug overdose, abuse or dependence with HIV	0	0	0	0	0
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	0	0	0	*	*
	Hepatitis A	0	0	0	0	0
	Hepatitis C	42	19	8	6	12
	HIV	*	0	*	0	*
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	*	*	0	0	0

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

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Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among Graves residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	128	126	115	132	104
	Antidepressants	19	7	13	12	7
	Benzodiazepines	25	17	15	23	16
	Cocaine	*	*	6	*	*
	Heroin	0	0	*	*	*
	Opioids other than heroin	16	13	22	15	24
	Other specified and unspecified drugs	76	94	69	87	61
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	6	5	6	7	*
Nondependent abuse of drugs (excluding overdoses)	Any substance	223	251	301	339	377
	Amphetamine abuse	30	44	81	100	130
	Cannabis abuse	108	118	157	182	179
	Cocaine abuse	32	22	49	38	34
	Hallucinogen abuse	0	*	0	0	0
	Opioid abuse	23	24	46	59	40
	Sedative, hypnotic or anxiolytic abuse	13	20	19	35	18
Drug dependence (excluding overdoses)	Any substance	83	90	80	66	83
	Amphetamine and other psychostimulant dependence	*	6	14	8	15
	Cannabis dependence	8	5	9	6	9
	Cocaine dependence	11	*	*	*	*
	Hallucinogen dependence	0	0	0	0	0
	Opioid-type dependence	32	45	48	40	52
	Sedative, hypnotic or anxiolytic dependence	7	8	*	6	7
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis A	*	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis C	6	15	19	11	12
	Drug overdose, abuse or dependence with HIV	*	*	6	5	*
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	*	*	*	*	0
	Hepatitis A	*	*	*	0	*
	Hepatitis C	57	59	70	56	82
	HIV	41	32	35	40	53
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	*	*	0	*	*

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

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Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among Hickman residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	8	10	5	7	7
	Antidepressants	0	*	*	0	*
	Benzodiazepines	*	5	*	*	*
	Cocaine	0	0	0	0	0
	Heroin	0	0	0	0	0
	Opioids other than heroin	*	*	*	5	*
	Other specified and unspecified drugs	5	*	*	*	*
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	0	*	*	0	0
Nondependent abuse of drugs (excluding overdoses)	Any substance	11	14	13	19	29
	Amphetamine abuse	*	0	*	*	6
	Cannabis abuse	6	8	*	9	11
	Cocaine abuse	*	*	*	*	5
	Hallucinogen abuse	0	0	0	0	0
	Opioid abuse	0	*	0	5	*
	Sedative, hypnotic or anxiolytic abuse	0	0	0	*	*
Drug dependence (excluding overdoses)	Any substance	0	*	*	6	8
	Amphetamine and other psychostimulant dependence	0	0	0	*	*
	Cannabis dependence	0	0	*	*	0
	Cocaine dependence	0	0	0	*	0
	Hallucinogen dependence	0	0	0	0	0
	Opioid-type dependence	0	*	*	*	7
	Sedative, hypnotic or anxiolytic dependence	0	0	0	0	0
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	0
	Drug overdose, abuse or dependence with Hepatitis C	*	*	0	0	*
	Drug overdose, abuse or dependence with HIV	0	0	0	0	0
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	*	0	0	0	0
	Hepatitis A	0	0	0	0	0
	Hepatitis C	*	*	5	6	*
	HIV	0	0	0	*	*

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

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Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among Marshall residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	93	119	125	89	125
	Antidepressants	10	11	14	7	20
	Benzodiazepines	27	26	22	19	16
	Cocaine	0	0	*	0	*
	Heroin	*	0	0	0	*
	Opioids other than heroin	13	12	18	11	19
	Other specified and unspecified drugs	50	75	76	55	72
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	0	0	0	0
	Opioids other than heroin with benzodiazepines	5	*	6	*	*
Nondependent abuse of drugs (excluding overdoses)	Any substance	109	154	142	202	206
	Amphetamine abuse	13	24	50	62	73
	Cannabis abuse	57	76	57	83	77
	Cocaine abuse	*	*	5	*	8
	Hallucinogen abuse	*	0	0	*	*
	Opioid abuse	12	13	14	15	11
	Sedative, hypnotic or anxiolytic abuse	6	10	5	8	10
Drug dependence (excluding overdoses)	Any substance	46	29	50	59	51
	Amphetamine and other psychostimulant dependence	*	*	6	5	12
	Cannabis dependence	5	*	5	*	5
	Cocaine dependence	0	0	0	*	0
	Hallucinogen dependence	0	*	0	0	0
	Opioid-type dependence	22	16	21	32	24
	Sedative, hypnotic or anxiolytic dependence	*	*	*	17	10
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	*	*	0	0	0
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	*
	Drug overdose, abuse or dependence with Hepatitis C	10	7	7	5	11
	Drug overdose, abuse or dependence with HIV	0	*	*	0	0
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	5	*	7	5	5
	Hepatitis A	0	*	*	0	*
	Hepatitis C	58	44	33	36	50
	HIV	17	11	15	11	*
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	*	*	0	*	*

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

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Drug related hospitalizations and ED visits:

Drug-related inpatient hospitalizations and emergency department visits among McCracken residents: 2014-2018

Category	Indicator	Year 2014	2015	2016	2017	2018
Acute drug poisoning (overdose)	Any substance	185	262	295	277	255
	Antidepressants	16	28	31	29	29
	Benzodiazepines	36	52	55	47	36
	Cocaine	*	*	6	*	*
	Heroin	*	*	*	*	*
	Opioids other than heroin	26	39	45	33	33
	Other specified and unspecified drugs	116	155	172	175	161
Acute drug poisoning (overdose) combinations	Heroin in combination with other opioids	0	*	0	0	0
	Opioids other than heroin with benzodiazepines	8	8	10	6	5
Nondependent abuse of drugs (excluding overdoses)	Any substance	562	681	695	862	941
	Amphetamine abuse	28	103	139	210	308
	Cannabis abuse	307	366	324	411	414
	Cocaine abuse	49	58	69	95	110
	Hallucinogen abuse	0	*	5	*	*
	Opioid abuse	14	48	40	55	55
	Sedative, hypnotic or anxiolytic abuse	17	32	24	43	24
Drug dependence (excluding overdoses)	Any substance	124	101	133	168	181
	Amphetamine and other psychostimulant dependence	7	12	13	21	39
	Cannabis dependence	14	6	12	9	22
	Cocaine dependence	7	*	8	5	9
	Hallucinogen dependence	0	*	*	0	0
	Opioid-type dependence	43	44	74	90	88
	Sedative, hypnotic or anxiolytic dependence	11	7	21	26	19
Comorbid infectious disease and drug overdose, abuse or dependence	Drug overdose, abuse or dependence with Endocarditis	*	*	*	*	5
	Drug overdose, abuse or dependence with Hepatitis A	0	0	0	0	*
	Drug overdose, abuse or dependence with Hepatitis C	45	49	41	46	60
	Drug overdose, abuse or dependence with HIV	12	9	16	14	14
Infectious disease (with or without comorbid drug overdose, abuse or dependence)	Endocarditis	14	*	9	10	13
	Hepatitis A	6	*	*	*	13
	Hepatitis C	238	221	155	187	199
	HIV	151	116	126	101	98
Neonatal Abstinence Syndrome	Neonatal Abstinence Syndrome	*	5	6	5	*

An asterisk (*) indicates that a count of at least one but fewer than five was suppressed.

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Counts of Opioid Overdoses (Including Heroin) in Emergency Medical Services Encounters 2016*-2018			
County	**2016***	**2017**	**2018**
Ballard	**	10	6
Calloway	18	14	9
Carlisle	**	6	**
Fulton	0	**	6
Graves	5	24	29
Hickman	**	0	**
Marshall	18	31	40
McCracken	29	46	50

* Data only available for second half of calendar year 2016.

**Number was suppressed to conform to state data management policy.

EMS heroin and opioid overdose definitions are based on scans of text fields (for indication of opioid/heroin overdose) and medication fields (for Naloxone/Narcan administration with indicated positive response). Events are based on county of incident.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health, July 2019. Data source: Kentucky Board of Emergency Medical Services: KY State Ambulance Reporting System. Data are provisional and subject to change. Counts represent encounters of care and could be greater than the number of individual patients treated. This report was supported by Cooperative Agreement Number 6 NU17CE924880-03-05, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Rate of Opioid Overdoses (Including Heroin) in Emergency Medical Services Encounters 2016*-2018			
County	**2016***	**2017**	**2018**
Ballard	#	105.0+	81.5+
Calloway	124.9+	46.5+	33.4+
Carlisle	#	98.7+	#
Fulton	0	#	62.3+
Graves	21.4+	53.2	63.5
Hickman	#	0	#
Marshall	109+	96.1	120.3
McCracken	61.9	52.6	53.5

* Data only available for second half of calendar year 2016.

Rates based on counts <5 were suppressed.

+ Rates based on counts less than 20 are unreliable, and should be interpreted with caution.

EMS heroin and opioid overdose definitions are based on scans of text fields (for indication of opioid/heroin overdose) and medication fields (for Naloxone/Narcan administration with indicated positive response). Events are based on county of incident. Rates are expressed per 10,000 EMS encounters.

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Syringe Exchange:

The Graves County Health Department opened their syringe exchange in April of 2019. It is currently open on Wednesdays during business hours. The provide needles, a sharps container, tie, cooker, and Narcan. They also provide education and have a peer

Drug of choice:

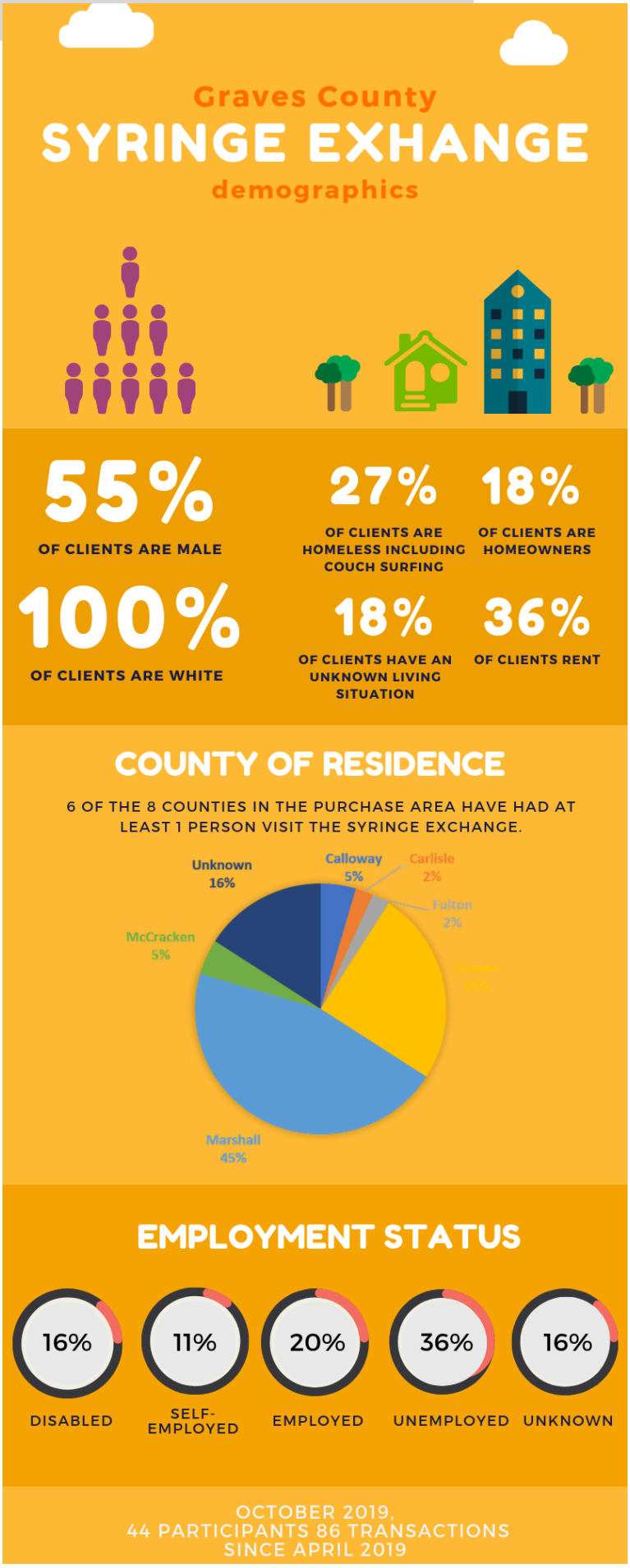
70% of clients drug of choice was meth

14% of clients drug of choice was opiates

16% of clients drug of choice was heroin

Frequency:

1-3 times weekly	11%
1-2 times daily	27%
3-5 times daily	43%
6-8 times daily	2%
8 times daily	14%
unknown amount	2%



Pharmacies and Narcan:

https://odcp.ky.gov/Stop-Overdoses/Pages/Locations.aspx?search=42071

In the Purchase Area, there are currently 11 pharmacies that dispense Narcan, 5 are located in McCracken, 2 in Graves, 2 in Calloway, 1 in Marshall, and 1 in Hickman. Every pharmacy excluding the one in Hickman is a CVS or Walgreens. Only the pharmacy in Hickman is privately owned.

Recovery Services

In our area recovery services are often lacking. We have no supportive housing, no recovery spaces, no technical assistance, and very few of other recovery services available. As noted previously we have limited MAT providers as well which can be an important part of recovery.

Recovery Services and the county they are located in								
	Ballard	Calloway	Carlisle	Fulton	Graves	Hickman	Marshall	McCracken
Recovery Supportive Housing						x		x
Alcoholics Anonymous	x	x	x	x	x	x	x	x
Narcotics Anonymous					x		x	
Celebrate Recovery		x			x	x	x	x
Peer Support Specialists								x
Other Recovery Support Group		x			x			x
Recovery Spaces								
Recovery Coaches								x
Employment Assistance								x
Technical Assistance								

Recovery Capacity:

Partners to be leverage for recovery are the same as those identified for treatment and are listed again below.

Local

- Mental/behavioral Health Professionals
- Community Service Organizations
- Health Deparments
- Hospitals
- Primary Care Providers
- Pharmacists
- Regional Prevention Center
- Local Chamber Offices
- Schools & Colleges
- Faith Organizations
- Peer Support Groups
- Civic Groups
- Local and regional Coalitions
- Law Enforcement
- First Responders
- Workforce Board
- Local Area Transit
- Businesses
- Drug Courts
- Area Health Education Center
- Court System- local prosecutors and public defenders

State

- Office of Drug Policy
- Kentucky Department of Public Health
- Kentucky Department of Human Services
- KASPER

Federal

- DEA Drug Take Back
- SAMHSA
- CDC
- NHSC workforce Loan Reayment Programs
- Provider's Clinical Support System for Mediation-Assisted Treatment
- HRSA opioid grants

Perceived Gaps:

Summary of Perceived Gaps:

- Lack of treatment options
    - Treatment options may not always take all insurances
    - Different requirements for different insurances when seeking mental health care and/or substance use disorder treatment
    - Treatment Facility Shortages
    - Transportation barriers in receiving treatment
        - Unaffordable/untimely public transportation
        - Medicaid transportation must be booked 48 hours in advance and will not pick a person up if they own a car even if the car does not run and does not have current tags
- Access to care
    - Overall lack of physicians in the area and those that are available are all in centralized areas that require long commutes
    - Few people to refer to
- Lack of recovery resources
    - There are few if any recovery resources of any kind in the majority of our counties including transitional houses, recovery spaces, recovery coaches and peer support specialists, peer lead recovery groups, among others.
- Socioeconomic Gaps:
    - Lack of employment options
    - High poverty rates
    - Low Educational Attainment
    - Transportation Barriers
    - Child Care
    - High levels of incarcerations
- Prevention
    - Prevention in the schools often does not start young enough
    - Lack of buy in for evidence based prevention
- Overall lack of resources available in the area
- Community buy-in and attitude surrounding addiction as a disease
    - Overdose Prevention i.e. Narcan

Next Steps:

Strategic Planning:

The Opioid Taskforce will use this assessment to have a data driven approach to our strategic plan that will focus on Prevention of use and overdose, increased identification of the population of focus, and Treatment and Recovery gaps and barriers.

The strategic planning method we will implement will be the OUD Cascade of Care model which was originally developed for the HIV/AIDS epidemic. This model uses four interrelated domains: prevention, identification, treatment, and recovery.

Prioritization Methodology:

The strategic planning process includes multiple planning sessions, a large group meeting and then individual workgroups on each area of focus i.e. Prevention, Identification, Treatment, and Recovery. These meetings are used to prioritize needs for each domain and each workgroup develops logic chains determining the problem of focus, the causal factor, and the root cause.

Priority will be given based on how do we know this is actually a problem, why is it a problem, why is it a problem here, and can we feasibly do something about it. Objectives will be based on data and factors related to available data and acquisition.

Strategies, and activities will then be prioritized by:

- If it evidence based?
- Is it applicable to our area?
- whether or not it is evidence-based?
- Is there support for this strategy?
- Is there capacity to implement this strategy?
- Can it be sustained?