

University of Kentucky Research Growth: Focus on Substance Use Research

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Vice President for Research

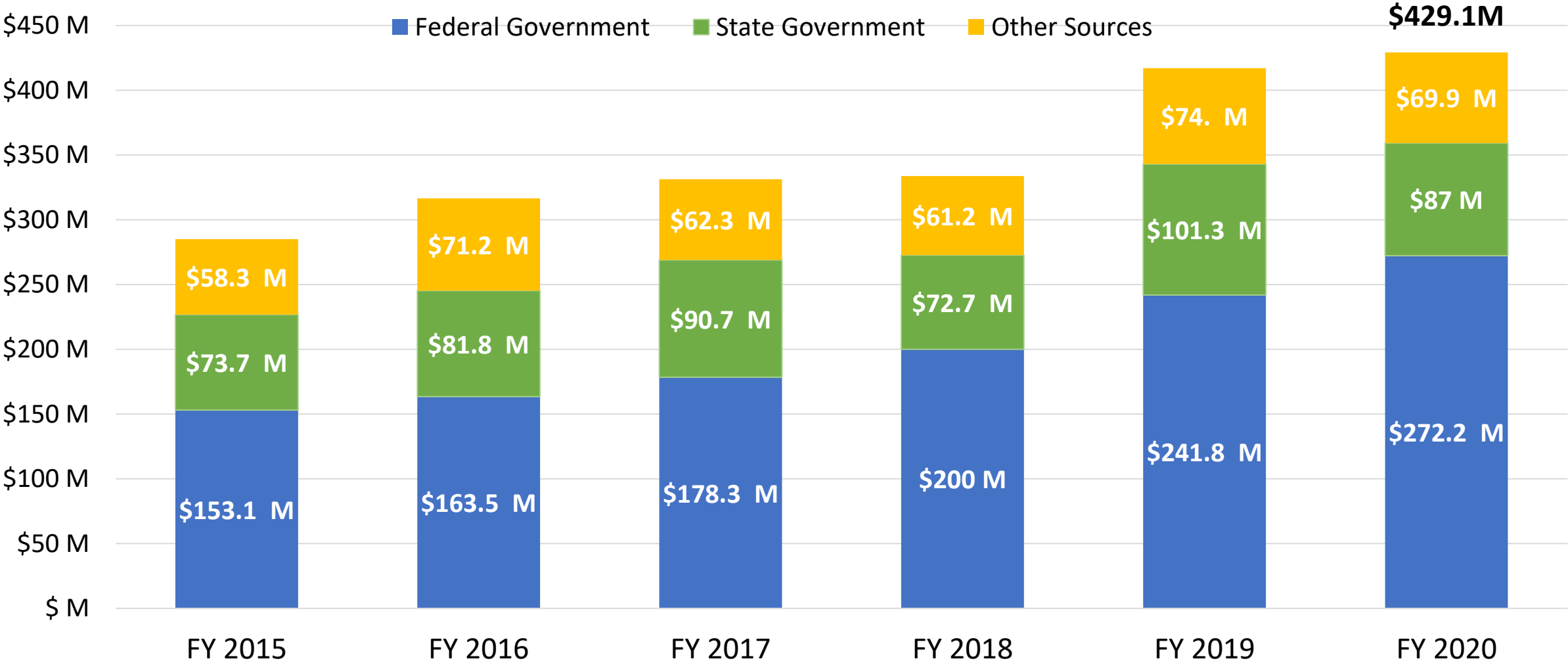
8/11/20

Outline

- Record-breaking growth in research at UK
- Declaration of Substance Use Research as an institutional Research Priority Area and the resultant impact on UK research

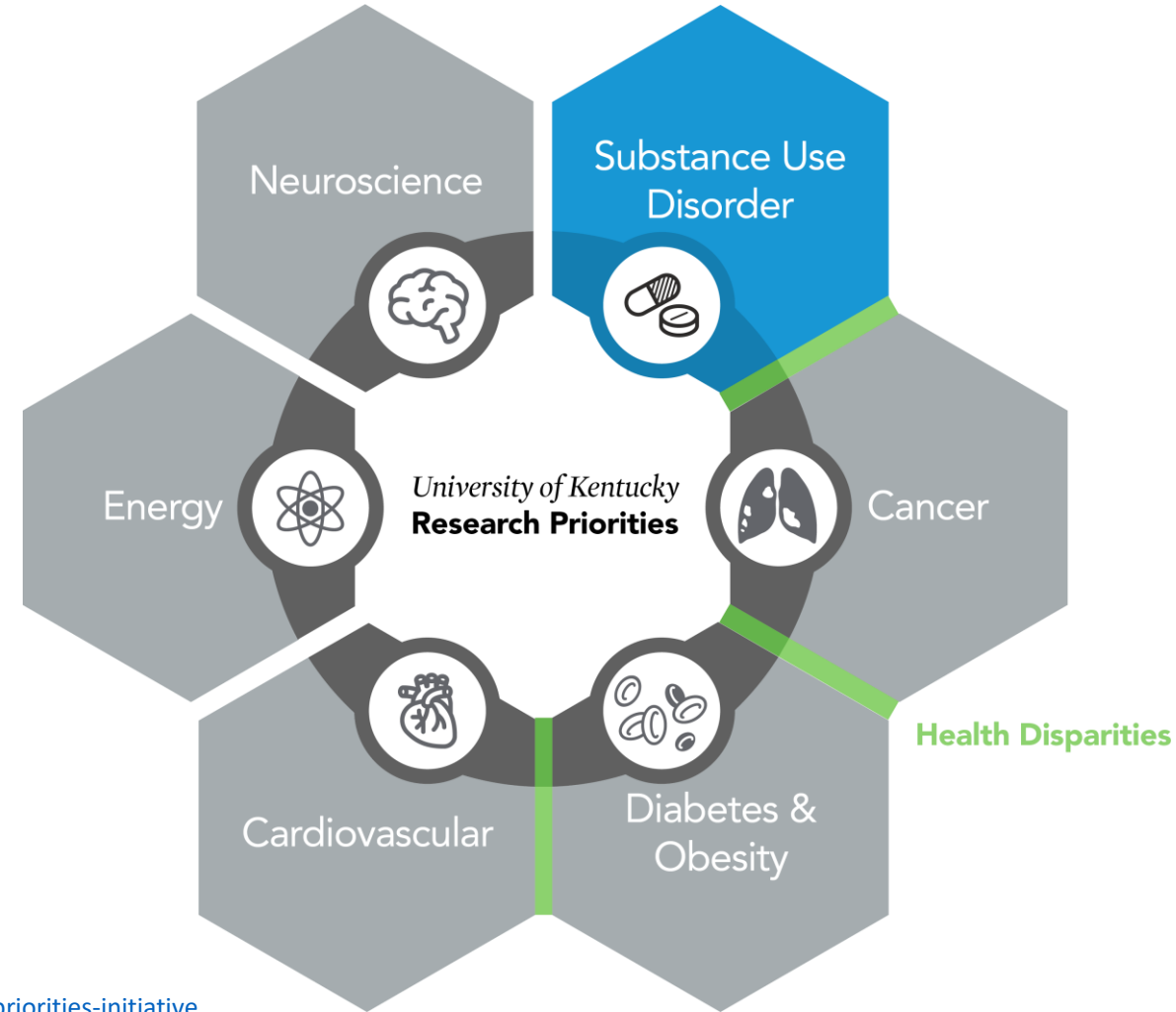
FY15 – FY20
CAGR = 9%

Grants and Contracts to UK Investigators are Growing Rapidly



In 2018, we declared Substance Use Disorder Research as a Research Priority Area at UK

- One of six **Research Priority Areas*** focused on innovation & discovery in areas of need throughout the Commonwealth
- Existing institutional strength and experts with a long history of funded research in this area
- The UK President declared research on racial injustice and health equity as the 7th institutional research priority (8/5/20)



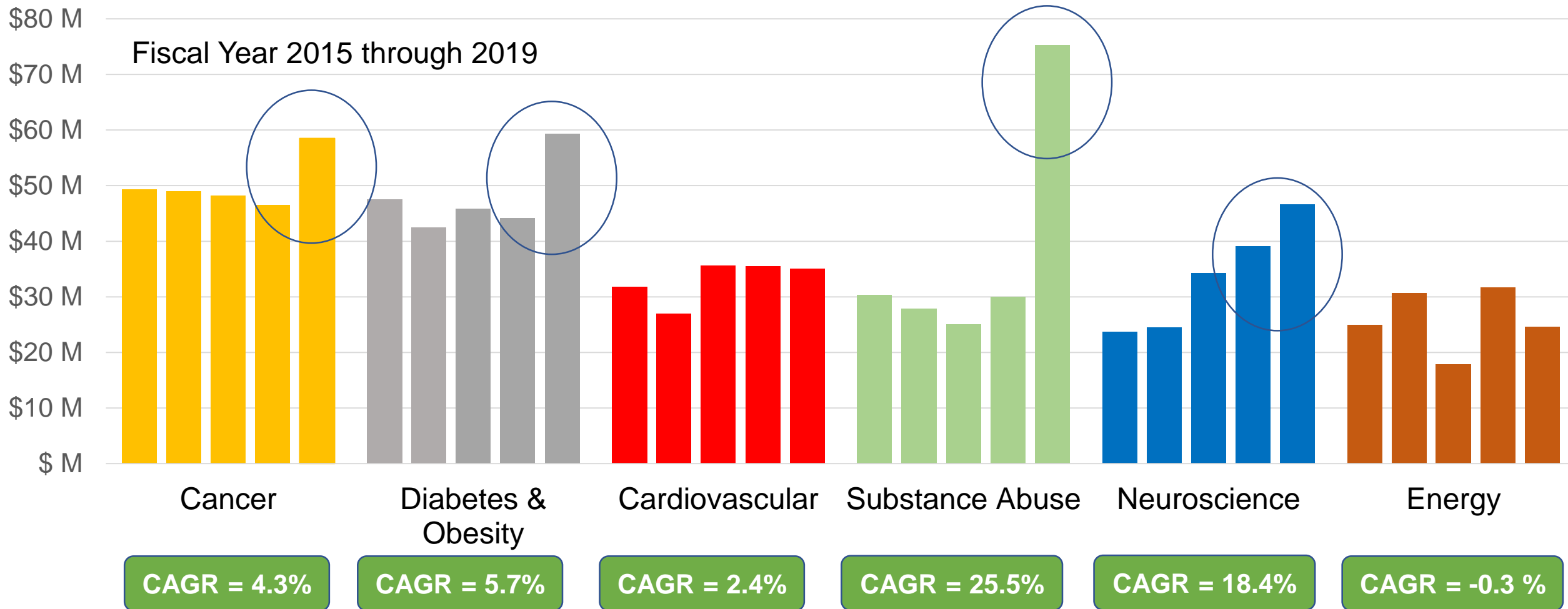
*Find more information on the UK Research Priority Initiative here: <https://www.research.uky.edu/research-priorities-initiative>

What does it mean to be a Research Priority at UK?

- Established leadership, governance, membership definitions
- Grass roots definition of research objectives and associated metrics to track success
- Long-term sustainability of the research and clear definition of its impact (e.g., 40% reduction in deaths from opioid overdose)
- Coordinated growth across disciplines, colleges and academic boundaries
- Speak with a uniform voice on a problem or source of economic development that aligns with Kentucky's most pressing needs and challenges

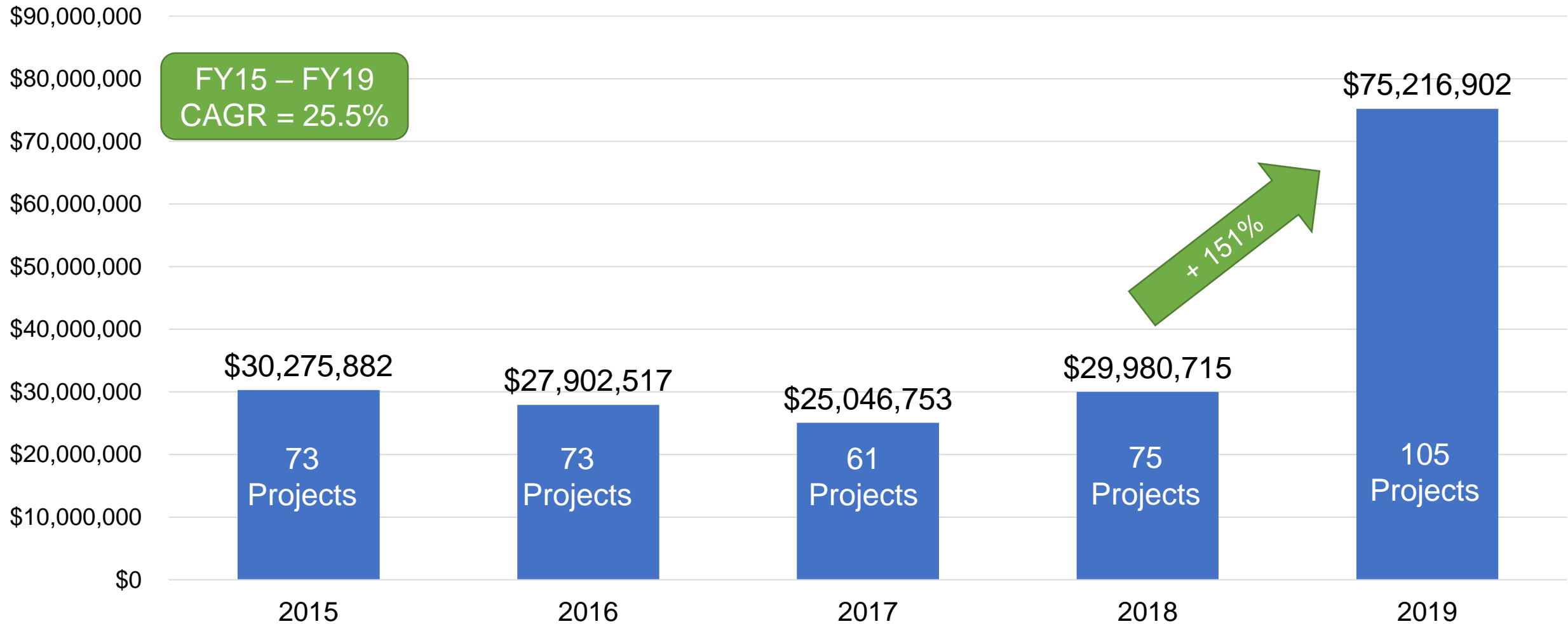
What is the impact of declaring Research Priority Areas for UK?

Since 2018, there has been extensive growth in grants and contracts within Research Priority Areas



Note: Awarded projects for each thematic area are not mutually exclusive. Projects may be represented in one or more areas. Additionally, projects are based on keyword searches and may not include all related projects and may contain some projects that aren't specific to that area of research. Source: UK OSPA Database

Substance Use Research has Experienced the Largest Growth in Grants and Contracts



Source: UK OSPA Database, keyword searches (9/10/2019).

Participation from Substance Use Researchers Across the Full Spectrum of UK's Departments and Colleges

- Agriculture, Food, and the Environment
- Arts and Sciences
- Business and Economics
- Communication and Information
- Education
- Engineering
- Medicine
- Nursing
- Pharmacy
- Public Health
- Social Work

Departments Include *(but not limited to)*

Behavioral Sciences
Center on Drug and Alcohol Research
Chemical and Materials Engineering
Chemistry
Communications
Economics
Epidemiology
Family and Community Medicine
Health Behavior
Neuroscience
Nursing
Pharmaceutical Tech
and many more

University of Kentucky: Substance Use Research & Treatment Activities

Substance Use Recovery Task Force
Meeting 2: August 11, 2020

Sharon L. Walsh, Ph.D.
Center on Drug and Alcohol Research
Substance Use Research Priority Area



SUBSTANCE USE
PRIORITY RESEARCH AREA

Outline

- HEALing (Helping to End Addiction Long-term) Communities Study*
- Other Key Studies funded by the National Institutes of Health
- Kentucky Opioid Response (KORE) funded partnerships with UK*
- Building SUD Workforce Capacity in the Appalachia Region*



NIH • Helping to End Addiction Long-term

THE HEALING COMMUNITIES STUDY

In September 2018, NIH released a funding opportunity to “test the immediate impact of implementing an integrated set of evidence-based interventions across healthcare, behavioral health, justice, and other community-based settings to prevent and treat opioid misuse and Opioid Use Disorders (OUD) within highly affected communities”

\$87 million was awarded to the University of Kentucky (one of four states to receive the award). Massachusetts, New York, and Ohio were also awarded (April 2019)

Our project is being conducted in partnership with numerous federal, state, community, public health, criminal justice, behavioral health, and health care partners.

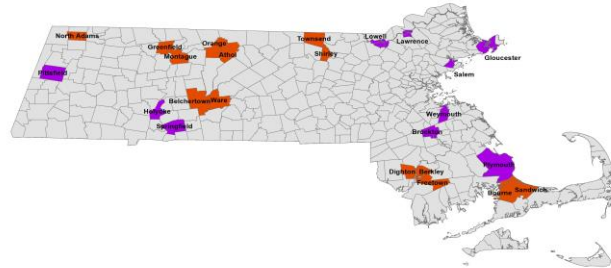
NIH
HEAL
INITIATIVE

HEALing Communities Study
Kentucky



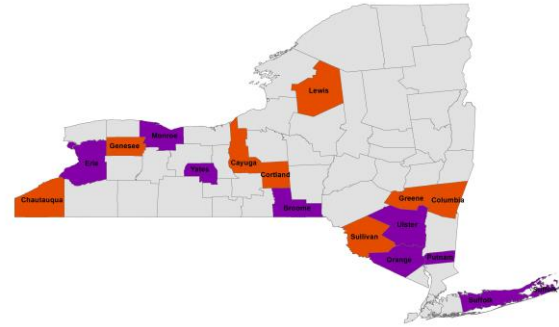
HCS Sites

Massachusetts



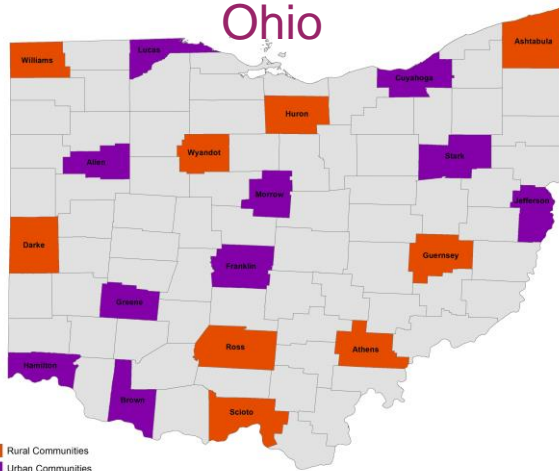
Rural Communities
Urban Communities

New York



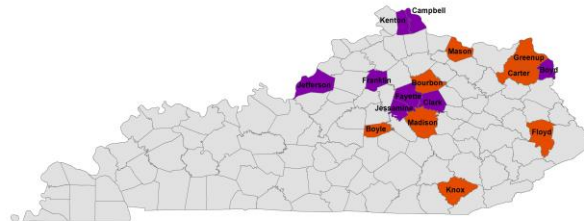
Urban Communities
Rural Communities

Ohio



Rural Communities
Urban Communities

Kentucky



Rural Communities
Urban Communities

HEALing Communities State Partnership

- Grant was submitted during Governor Bevin's administration and had a seamless transition under Governor Beshear's administration
- Key Government Official Required for Application
 - Secretary Adam Meier (2018-2019)
 - Secretary Eric Friedlander (2020-present)
- Other key partners: Van Ingram, Dr. Katie Marks, Dr. Allen Brenzel, Dr. Connie White, Dr. William Ralston, KY State Police, KY Dept. of Corrections, Kentucky Injury Prevention Center, KASPER, ASAP Boards, KY Board of Pharmacy, KY Pharmacy Association, KY Board of Emergency Medical Services and others

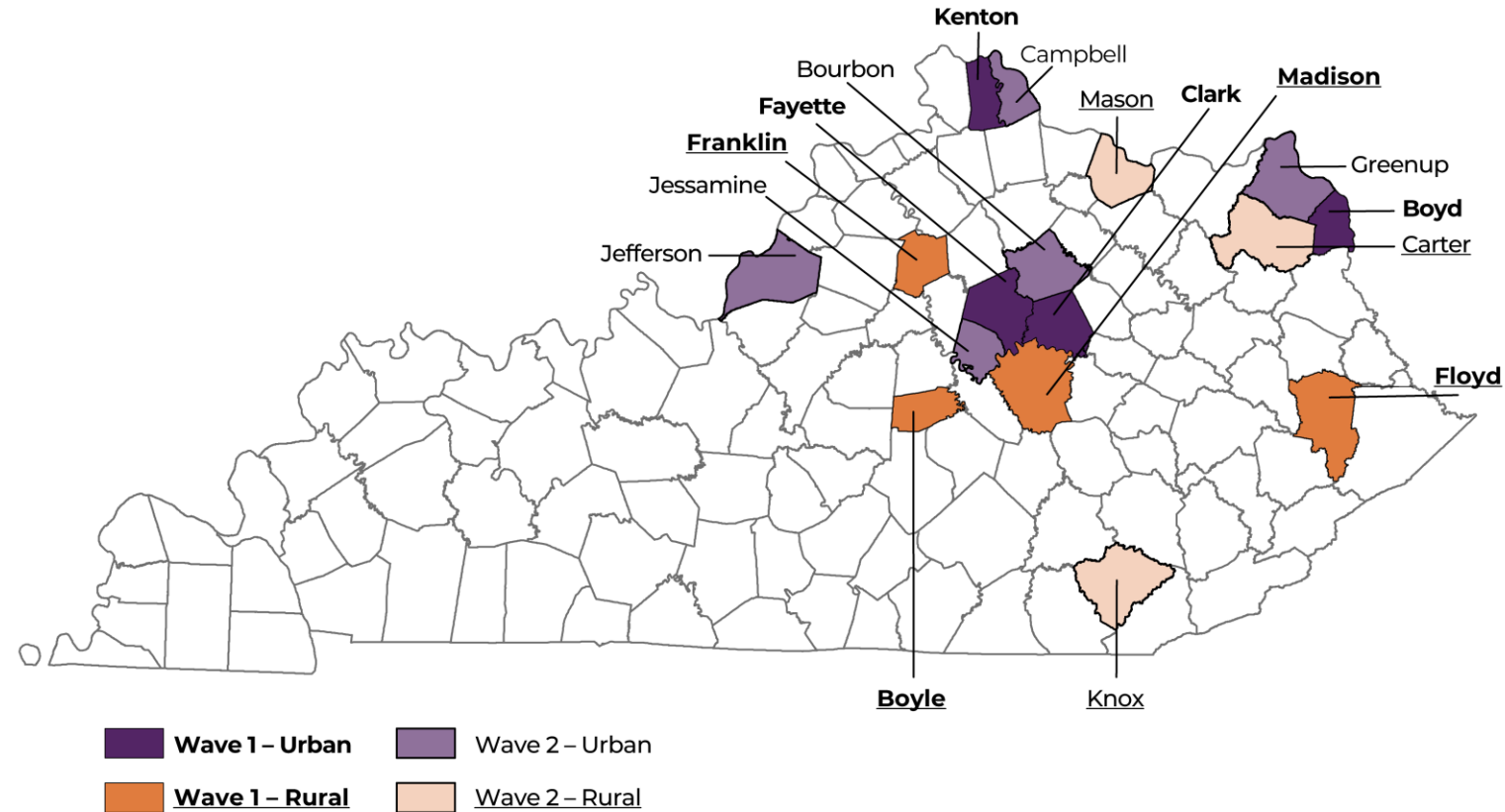
KY HCS Communities

16 communities:

- **44%** of Kentucky HCS counties are rural.
- The Kentucky HCS counties had a total **764** opioid-related overdose deaths in 2017.
- The Kentucky HCS had an average rate of **45.7** opioid-related overdose deaths per 100,000.

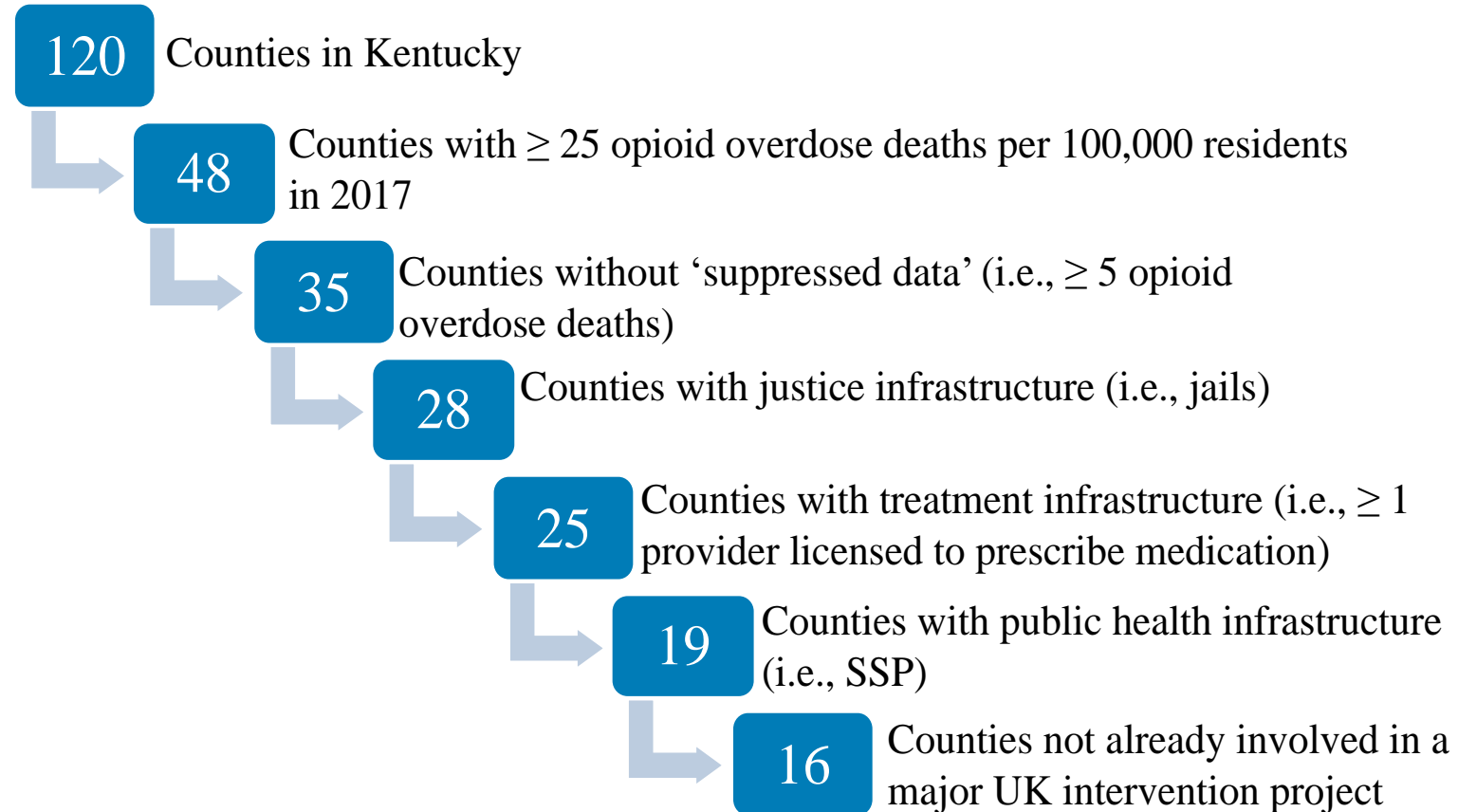
Compared to

**14.9 per
100,000
for the U.S.**



The served area encompasses over 1.8 million people (approximately 41% of the state's population).

KY Community Selection Process



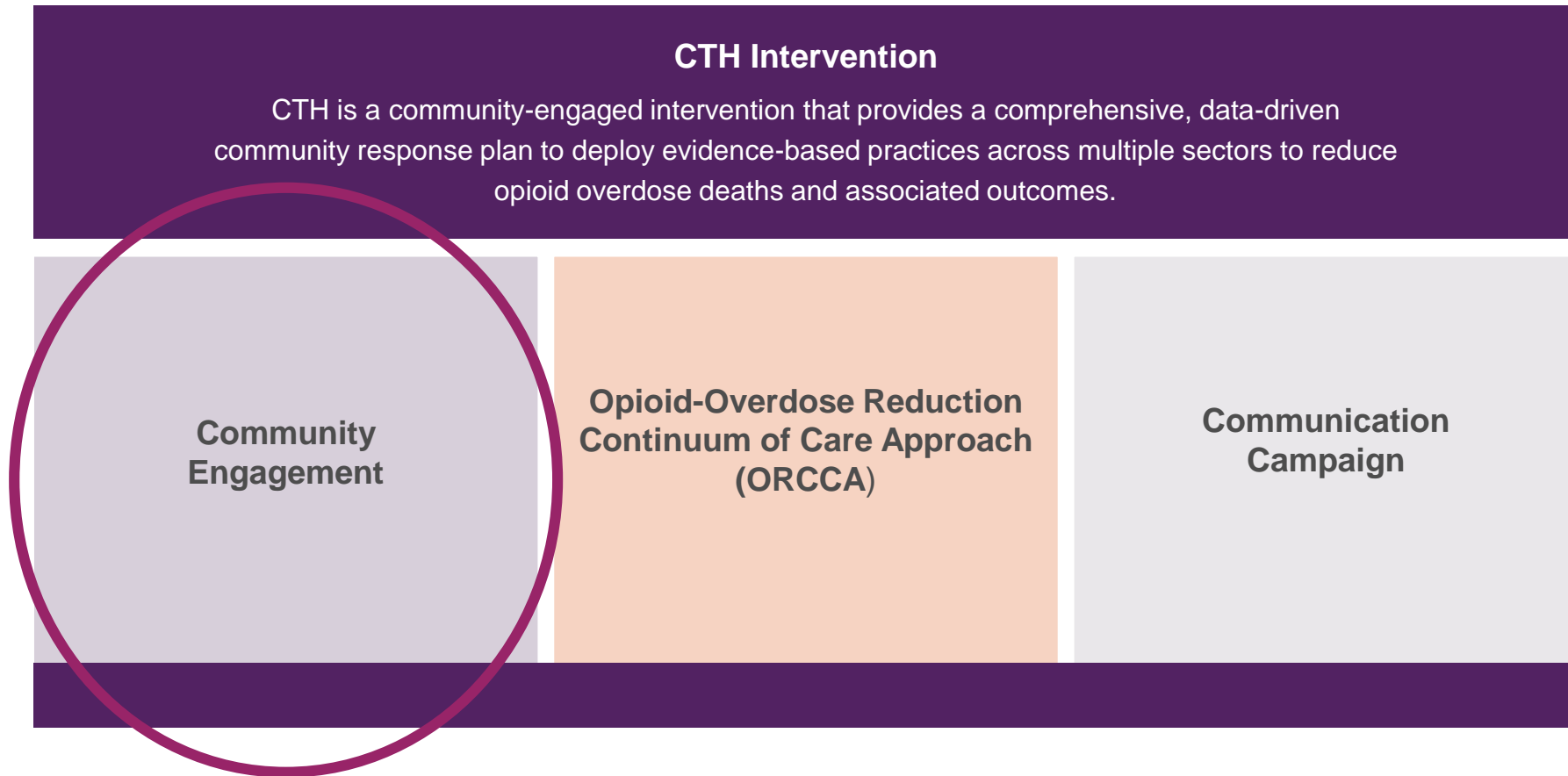
Study Design

Multi-site parallel arm cluster randomized wait-list controlled trial evaluating the impact of the Communities That HEAL (CTH) intervention compared to usual care in wait-list communities.

Wave 1 communities start first (Jan, 2020) and Wave 2 start second.

Wave 1 communities implement the intervention for 24 months, during which time Wave 2 communities will provide usual care. At month 25, Wave 2 communities begin to implement the CTH intervention

CTH Intervention Components

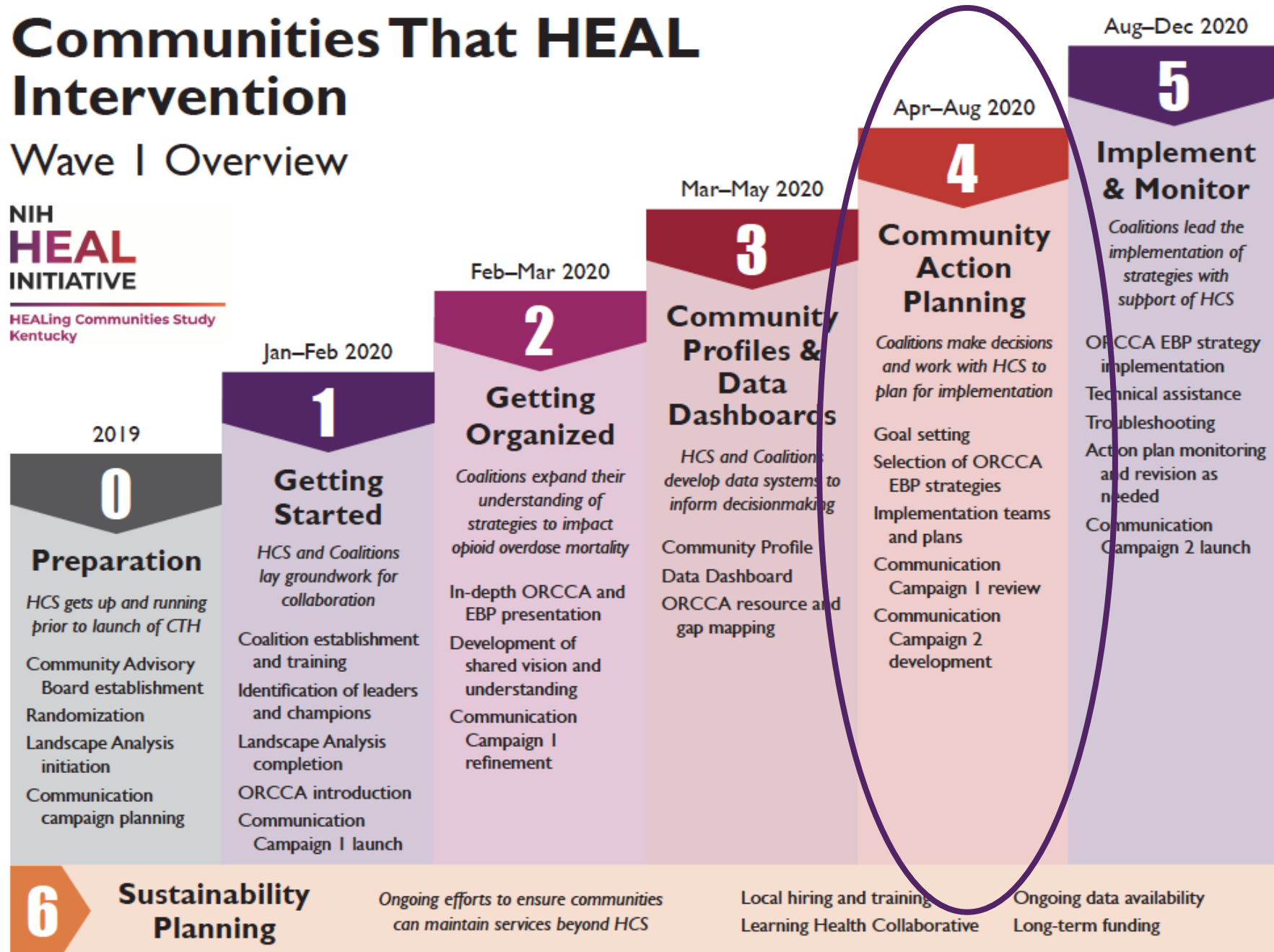


Communities That HEAL Intervention

Wave I Overview

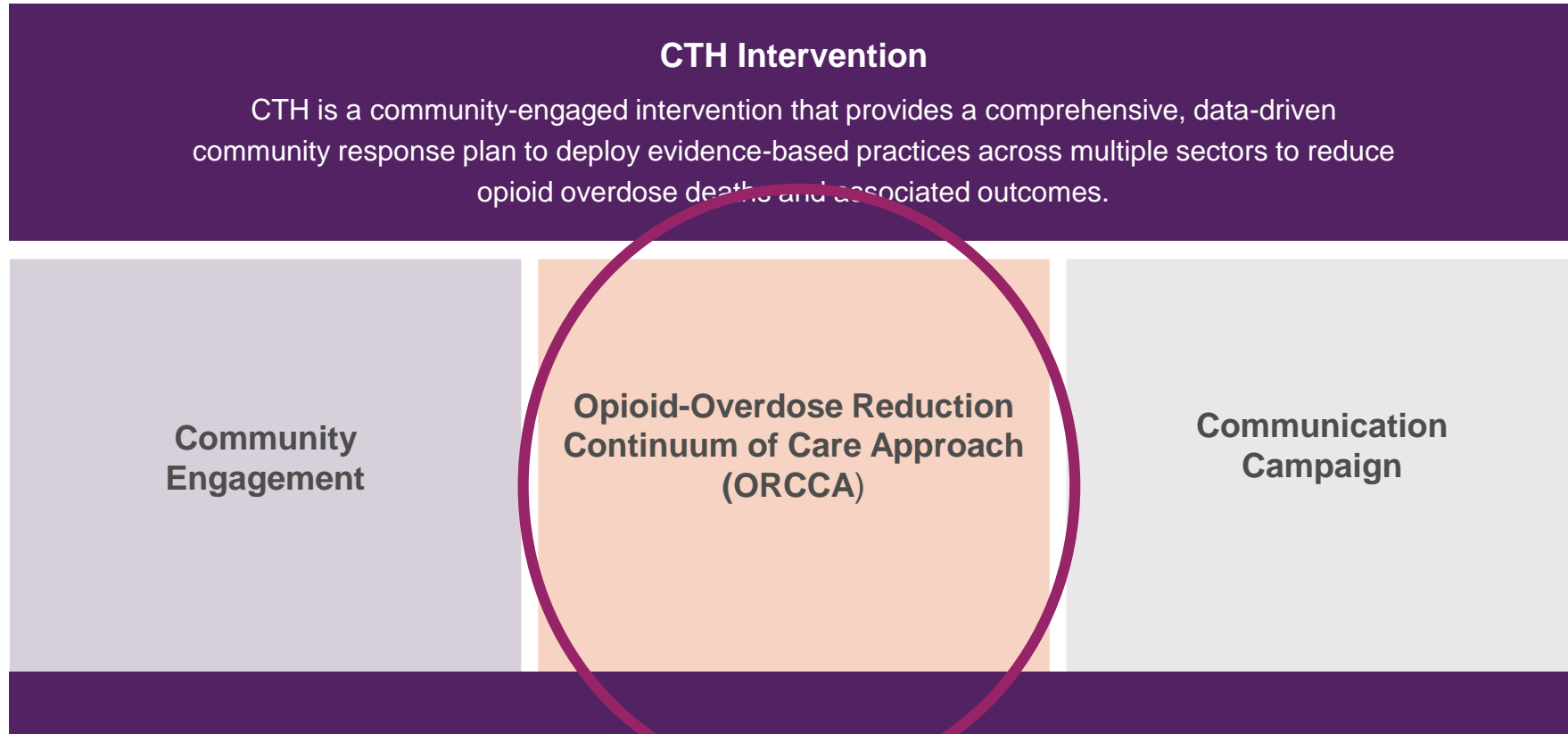
NIH
HEAL
INITIATIVE

HEALing Communities Study
Kentucky



NOTE: Dates represent estimated start of each phase. HCS = HEALing Communities Study. ORCCA = Opioid-Overdose Reduction Continuum of Care Approach. EBP = Evidence-based Practice.

CTH Intervention Components



ORCCA Evidence-Based Practices

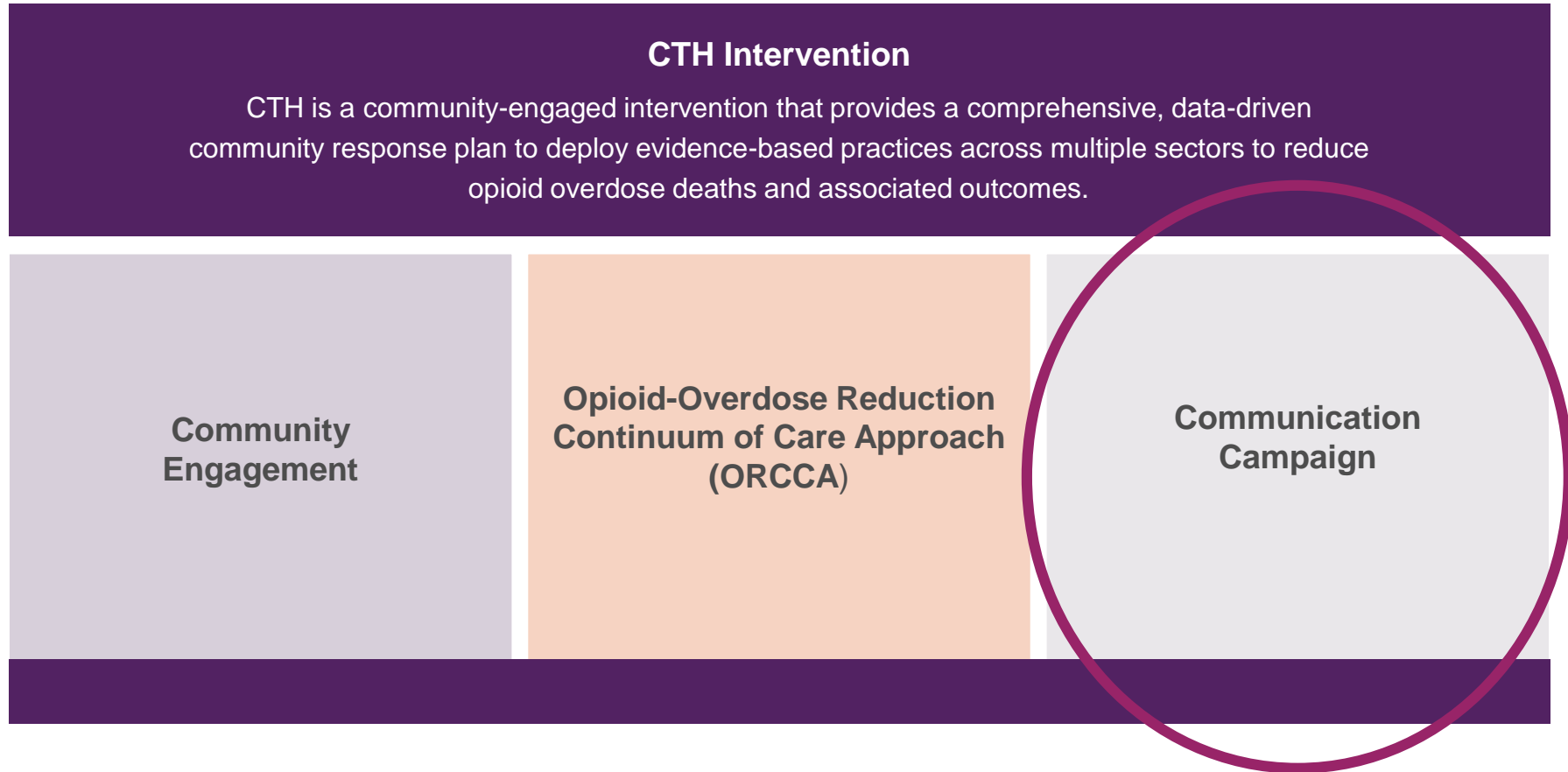
Communities will select strategies within the following:

1) Opioid overdose prevention education and naloxone distribution (OEND) in high-risk populations

2) Effective delivery of medication for opioid use disorder (MOUD) maintenance treatment, including agonist/ partial agonist medication, and including outreach and delivery to high-risk populations

3) Safer opioid prescribing and dispensing

CTH Intervention Components



Campaign Objectives



Increase
demand for
MOUD and
naloxone



Increase
MOUD
prescribing



Increase
access to, and
availability of,
naloxone



Reduce
high-risk
prescribing



Stigma targets:

- OUD is a disease
- People with OUD deserve the best medical care possible
- Anyone could develop an OUD

Naloxone Overdose Prevention



"I'm a FIRST RESPONDER"

"I'm a FIRST RESPONDER"

"I am TOO"



Carry naloxone (Narcan®). Save a life.

Recognize the signs of an opioid overdose. Learn where to get Narcan® and how to use it.

NIH HEAL INITIATIVE
HEALing Communities Study
Kentucky

HealTogetherKY.org/Franklin

Reducing Stigma for Medications



NIH HEAL INITIATIVE
HEALing Communities Study
Kentucky

“ I am a granddaughter, daughter, and mother to three beautiful girls. I am a volunteer and recovery support specialist. I take buprenorphine to support my recovery. ”

LYDIA

Learn how medication can be part of the solution

HealTogetherKY.org/Floyd

HEALing Communities Study: Progress During COVID-19

- HEAL team has continued working with our eight Wave 1 Community Coalitions with over 200 in-person or Zoom community meetings since January 2020
- Due to the planned release of inmates from local jails due to COVID-19, UK proposed acceleration of the protocol to provide overdose education and naloxone distribution initially targeting the jails
- Subsequently moved on to partnering with additional agencies, including syringe service programs, treatment and recovery programs and Quick Response Teams to distribute naloxone and training

Established Fast Track Venues and Agencies

Jails

- Clark Co Detention Center/ART
- Lexington Community Corrections
- Franklin Co Regional Jail
- Kenton Co Detention Center
- Boyd Co Detention Center

SSPs

- Clark Co Health Dept/ART
- NKY Health Dept SSP (KORE)
- Madison Co Health Dept
- Franklin Co SSP

QRT

- Clark Co QRT/ART
- Kenton Co ASAP
- Floyd Co QRT w/ Mountain Comp Care

Treatment Facilities

- Shepherd's House
- New Vista
- Mountain Comprehensive Care
- Hope in the Mountains
- Infinity Center
- NKY Med Clinic
- Center for Behavioral Health
- Ethan Health
- White House Clinic
- New Leaf Recovery & Wellness

University of Kentucky Funded Projects Related to Substance Use Disorders

Fiscal Year 2020

- Total Projects Related to Substance Use Disorders ~ 133
- Number of Unique Principal Investigators ~ 69

- Project topics range widely from drug design and development of novel treatments for substance use disorders and pain, preclinical models, human laboratory, clinical trials, training and education, population health
- Briefly review a few critical projects funded by the National institute on Drug Abuse



SUBSTANCE USE
PRIORITY RESEARCH AREA

Areas Vulnerable for HIV/HCV (n=220)

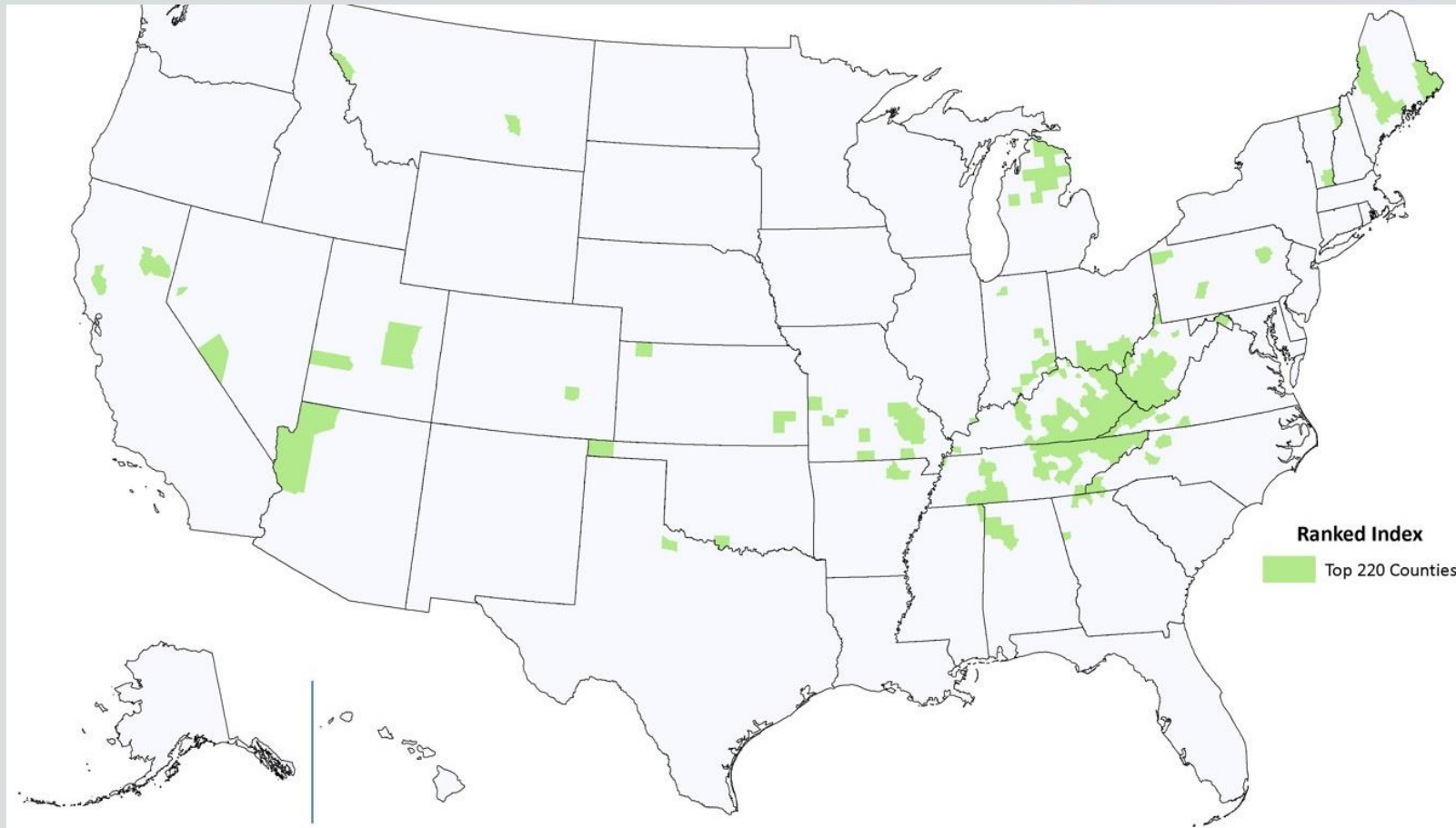
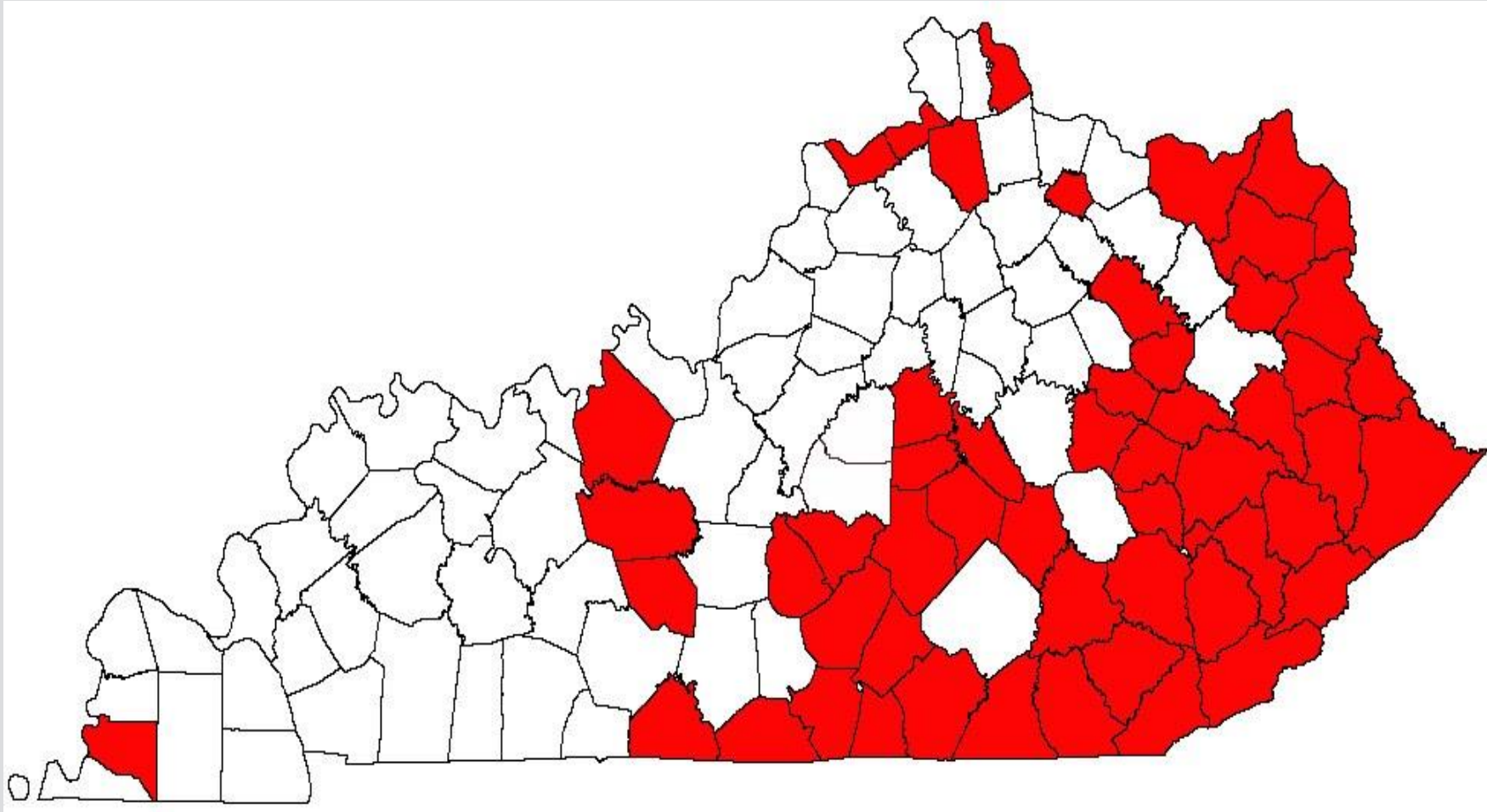


Figure 2. Counties for which estimated vulnerability scores or their upper 90% confidence interval exceeded the 95th percentile.

Van Handel et al. (2016) *Journal of Acquired Immune Deficiency Syndrome*, 73: 323-331.

Areas Vulnerable for HIV/HCV (54 of 220 in Kentucky)

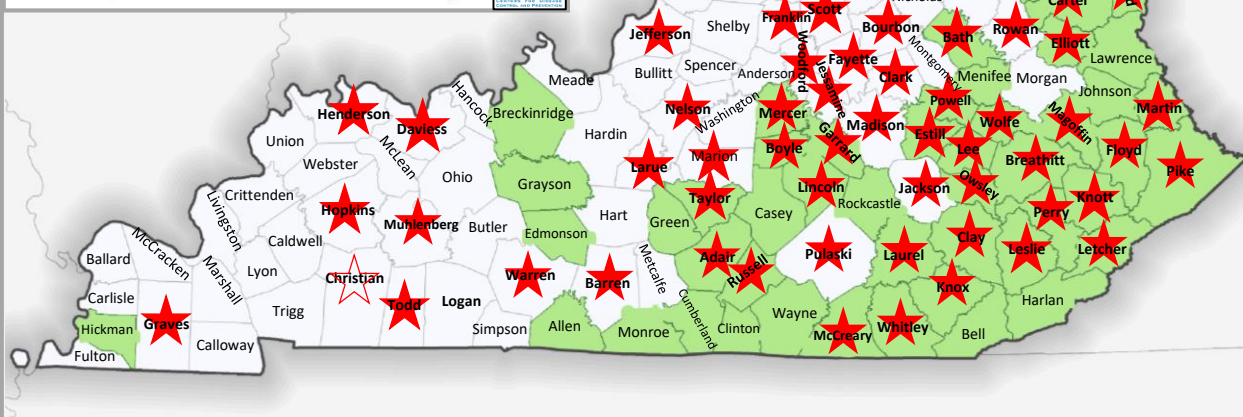
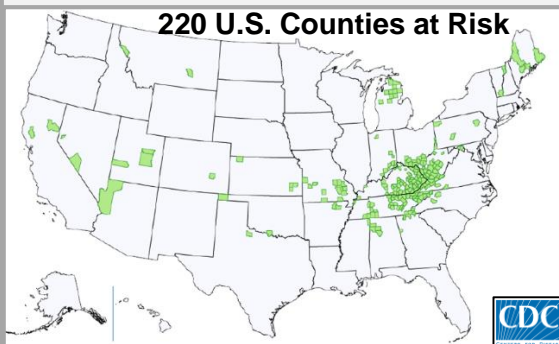


Van Handel et al. (2016) Journal of Acquired Immune Deficiency Syndrome, 73: 323-331.



Kentucky Public Health
Prevent. Promote. Protect.

54 Kentucky Counties with Increased Vulnerability to Rapid Dissemination of HIV/HCV Infections Among People who Inject Drugs and Preventive Syringe Services Programs (SSPs)



National Ranking by County*

1	Wolfe	34	Martin	108	Gallatin
3	Breathitt	35	Boyle	125	Bath
4	Perry	39	Lawrence	126	Grayson
5	Clay	40	Rockcastle	129	Greenup
6	Bell	45	Harlan	132	Green
8	Leslie	48	McCreary	153	Casey
9	Knox	50	Letcher	154	Carter
10	Floyd	53	Johnson	163	Monroe
11	Clinton	54	Russell	167	Garrard
12	Owsley	56	Elliott	175	Robertson
14	Whitley	65	Laurel	178	Lewis
15	Powell	67	Carroll	179	Edmonson
17	Knott	75	Taylor	180	Allen
21	Pike	77	Grant	187	Boyd
23	Magoffin	93	Adair	191	Hickman
25	Estill	97	Lincoln	202	Breckinridge
30	Lee	99	Wayne	212	Campbell
31	Menifee	101	Cumberland	214	Mercer

* Vulnerable Counties in **RED** have Operating SSPs



54 Vulnerable Counties



73 Operating SSPs
(62 Counties) as of 7/27/2020



2 Counties are Approved but
Not Yet Operational

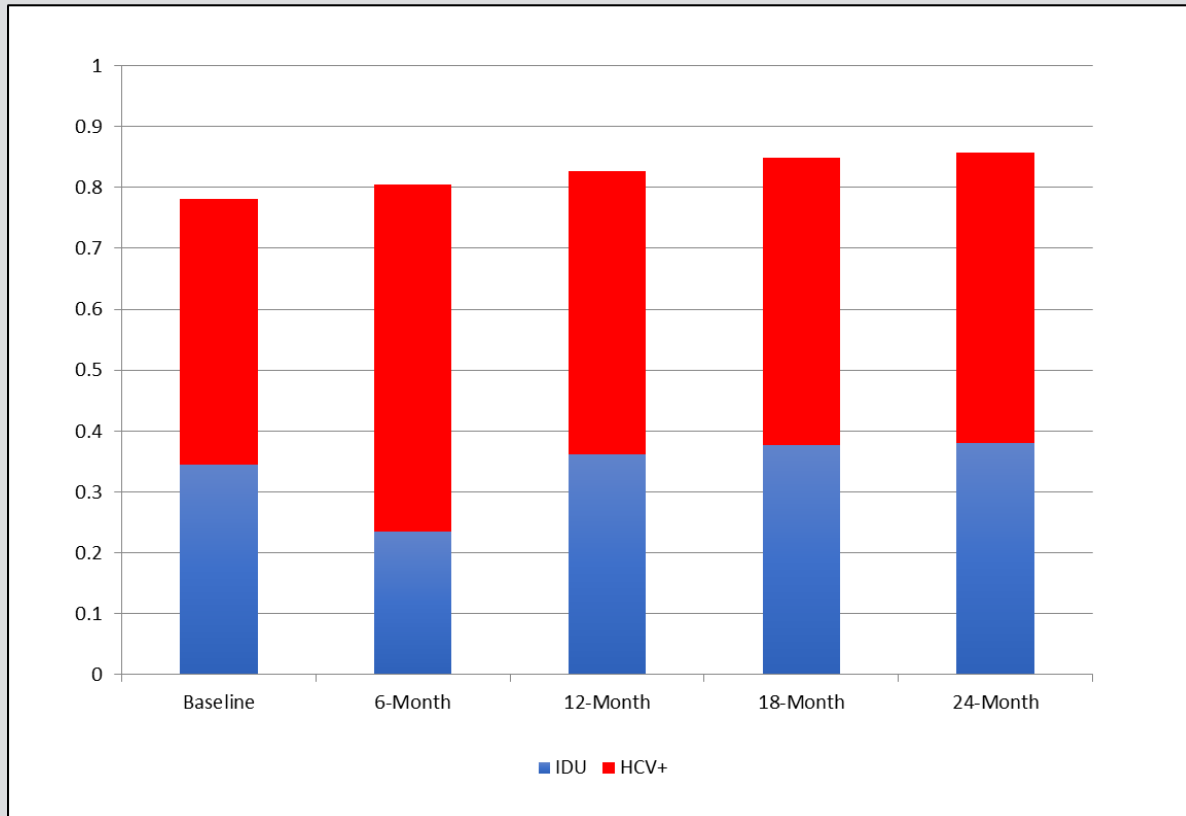
Specific concerns regarding Kentucky Counties:

1. Dense drug user networks similar to Scott County, Indiana
2. Lack of syringe services programs

NOTE: CDC stresses that this is a REGION-WIDE problem, not just a county-specific problem.

Social Networks among Appalachian People (SNAP)

Proportion of Participants Injecting Drugs



Supported by the National Institute on Drug Abuse



Dr. Jennifer Havens

SNAP is following over 500 individuals who use drugs over 10+ years

Characterize drug use characteristics, risk for disease transmission and prevalence

Dense social network

Hepatitis C
42.9% prevalence (2008-10)
65.8% prevalence in 2018



SUBSTANCE USE
PRIORITY RESEARCH AREA

Prevention as Treatment for Hepatitis C



- Unique initiative to develop a model to improve HCV treatment access and delivery in rural areas with few providers and limited access to evidence-based care/harm reduction
- Engage **ALL** HCV RNA+ Perry County residents in treatment with direct-acting antivirals (DAAs) **AND** compare to a control county (TAU)
Affordable drug, evidence-based substance use disorder treatment, training mid-level providers on delivery of HCV treatments, case management to remove barriers to care
- CDC and NIDA supported the launch of the Perry Country SSP

Supported by the National Cancer Institute, the National Institute on Drug Abuse, Gilead Pharmaceuticals (Epclusa® donation)



SUBSTANCE USE
PRIORITY RESEARCH AREA

Prevention as Treatment for Hepatitis C



- To date, 151 individuals have been enrolled and 97.3% of those started medication to treat their Hepatitis C
- Only about half of those are individuals are actively using drugs
- 83% of those starting medications have completed their regimen
- 97% of individuals who completed their medication regimen have achieved sustained viral response (i.e., no virus detected at 12 weeks)



SUBSTANCE USE
PRIORITY RESEARCH AREA

What is JCOIN?

Cooperative agreement funded by NIH/NIDA under the HEAL initiative

Overall goal – to increase the capacity of the justice system to respond to the opioid epidemic

Vision – to increase access to evidence-based treatments for individuals in the criminal justice system – both during incarceration and in the community

Plan – to build a network of researchers, justice administrators, and practitioners

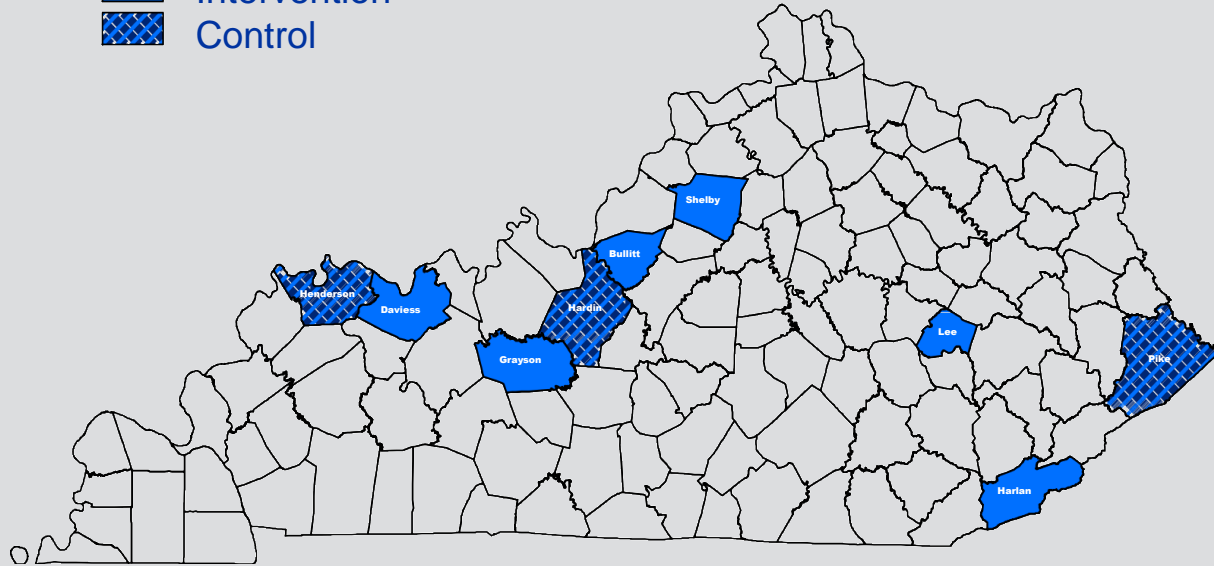


Kentucky is 1 of 11
sites across the U.S.

Supported by NIDA (\$8 million)

Kentucky JCOIN Hub

Intervention
Control



Will enroll 900 individuals across nine KY jail sites

Supported by the National Institute on Drug Abuse



Dr. Michele Staton

Primary Goal: to increase initiation and maintenance of medications to treat opioid use disorder to reduce opioid relapse and overdose among high-risk justice-involved women in the transition from jail to the community.

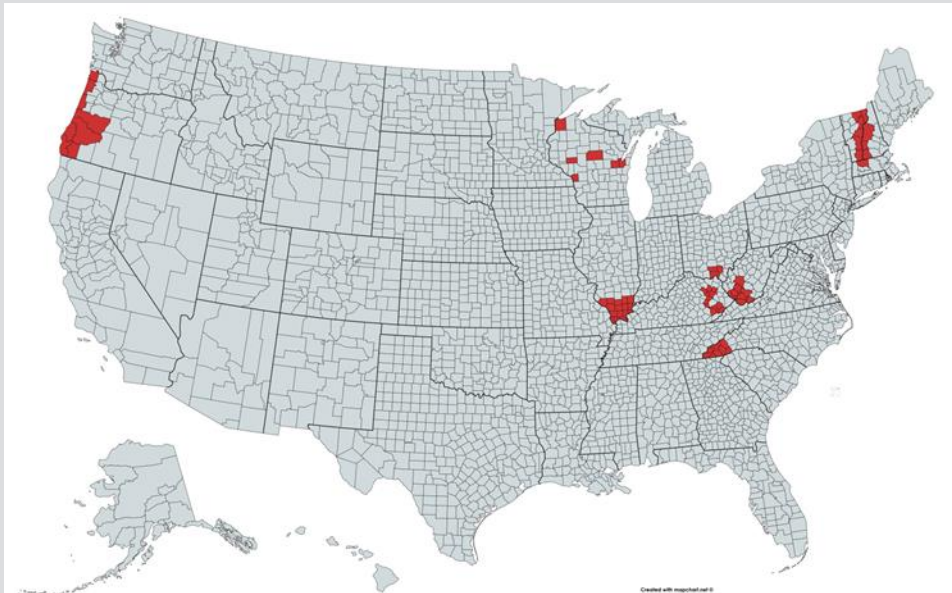
Secondary Goal: Change systems of care

Employs telehealth and peer navigation services to increase initiation and retention in treatment

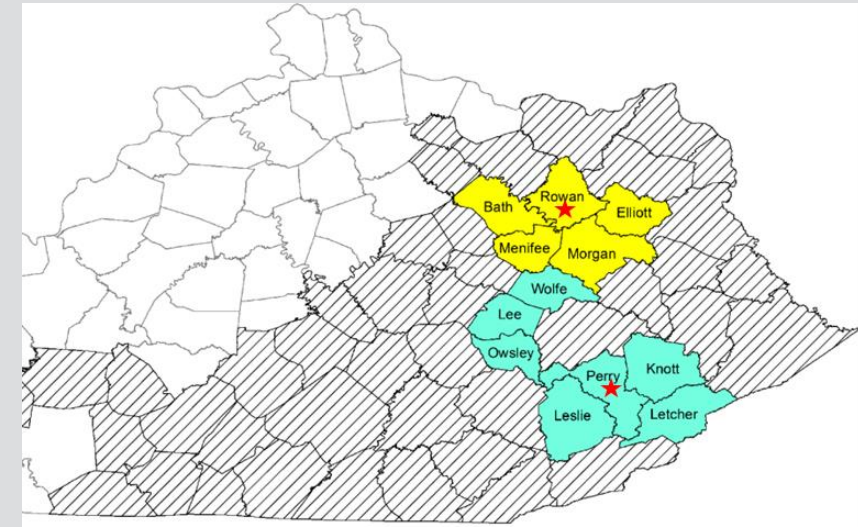
National Rural Opioid Initiative

CARE2HOPE (Kentucky Communities and Researchers Engaging to Halt the Opioid Epidemic)

Kentucky is 1 of 8 sites funded
in the US



Dr. April Young



- ★ CARE2HOPE Field Offices
- Gateway Health District
- Kentucky River Health District
- Appalachia

\$5.4 million funded by NIDA, the CDC, SAMHSA, and the Appalachian
Regional Commission

CARE2HOPE

Partner with residents of the 12 counties in the Gateway Health District and Kentucky River Health District to build evidence-based, community-rooted public health responses to the epidemics of opioid misuse, overdoses, HCV, and HIV.

Re-entry health navigation intervention to enroll 1,200 people who are leaving rural jails over the next three years to reduce substance use, overdose risk, and risk behavior and to improve linkage to care.

Study seeks input to help battle opioid epidemic

By Brad Stacy, The Morehead News Dec 18, 2017



Care2Hope holds first Perry County coalition meeting

By Katie Kusan

Staff Writer

For the past few months, Care2Hope, a coalition of local health care providers and public health officials, has been working to build a coalition of community members and participants across the county to help address the opioid epidemic.

Care2Hope is part of a grant awarded to the county by the University of Kentucky to help build a coalition of community members and participants across the county to help address the opioid epidemic.



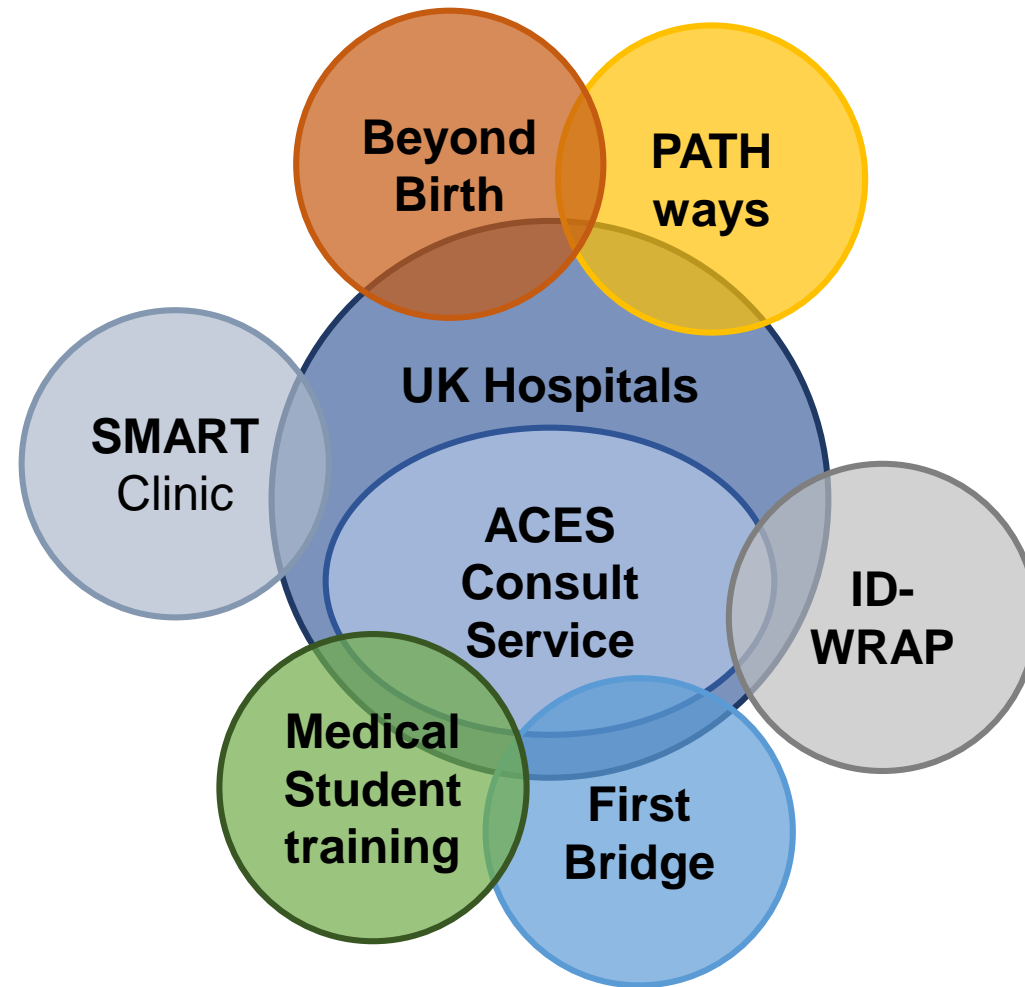
State Kentucky Opioid Response Effort (KORE)

- Federal funding from Substance Abuse and Mental Health Services Administration (SAMHSA)
- STR/SOR (State Opioid Response): Funding period: May 2017 – Sept. 2020 (pending Sept. 2022)
- KORE currently provides support for 61 different entities across the state; University of Kentucky is one of them
- KORE Purpose: Address the opioid crisis by increasing access to medications for opioid use disorder, reducing unmet treatment need, and reducing opioid overdose



SUBSTANCE USE
PRIORITY RESEARCH AREA

KORE Projects: University of Kentucky



The First Bridge Clinic (opened January 2018)

Funding from State of Kentucky and UK HealthCare with the objective:

provide “on-demand” treatment access for those suffering with opioid use disorder
AND

provide easy linkage to outpatient care from the UK Emergency Department and UK Hospitals

Between 1/2018 – present

- > 1111 patients seen
- > 450 began medication

KORE has expanded the Bridge Clinic model to St. Elizabeth’s, University of Louisville, ARH, Baptist (Lexington & Corbin), and Norton



Dr. Michelle Lofwall
Clinic Director

UK HealthCare

FIRST BRIDGE CLINIC

845 Angliana Avenue, 2nd Floor
Lexington
Phone: 859-323-9321
Fax: 859-257-5232

We offer a full range of treatment options for opioid addiction. These include:

- FDA-approved medications, such as buprenorphine (Suboxone®, Zubsolv®, Sublocade®, and Probuphine®) and naltrexone (Vivitrol®).
- Counseling
- Peer recovery and support services
- Opioid overdose prevention

To learn more, call us at **859-323-9321**.

Flexible hours Monday-Friday

Please have your insurance card ready when you call.
If you do not have insurance, we may have lower-cost options.

MB-0398

Addiction Consult and Education Services (ACES)

Roles	Key Activities
Nurse navigator	Overdose education Naloxone distribution MOUD education Safe injection education Coordinate follow-up care
Licensed therapist	Individual and group therapy
Peer Support Specialist	Role model, support Linkage, retention Lead peer support groups
Providers	Full SUD assessment Medication management



Dr. Laura Fanucchi

Launched October, 2018

Funding from UK
HealthCare and the State of
Kentucky

Since October 2018
1,314 consults
702 initiated on
medication treatment in
hospital

After discharge, 373
referrals from ACES to
Bridge with 190 keeping first
appointment

PATHways

(Perinatal Assistance and Treatment Home)

Expanding OUD treatment access to perinatal women through:

- telemedicine in 12 rural and urban counties
- perinatal case management
- multi-specialty team care
- technical assistance to Appalachian providers



Since August 2018,
306 mothers
enrolled in
PATHways

251 (82%) initiated
MOUD

Beyond Birth

Providing OUD treatment to postpartum women and improving safety of children through:

- outreach to mothers with infants in the NICU
- comprehensive, wraparound services
- coordination with DCBS
- developmental pediatrics
- vocational assistance

Expanded services
began July 2020





Medical Education

Increasing pharmacists' capacity to administer Vivitrol®

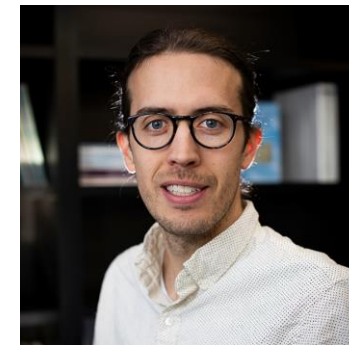
- Partnering with pharmacies to develop the community-pharmacy care delivery model
- Training pharmacists in Vivitrol® administration
- Facilitating collaborations between pharmacists and treatment providers



**847 Vivitrol
injections
administered
since September
2018**

Training students in evidence-based practices

- Delivering buprenorphine waiver training (136 trained)
- Developing an Objective Structured Clinical Exam for a patient presenting with evidence of OUD
- Piloting an Interprofessional Education rotation for medical and pharmacy students



UK Specialty Clinics

Expanding capacity of UK Psychiatry's Supportive Medication Assisted Recovery Program (SMART) to provide:

- Emergent assessments and
- Counseling and psychiatric care
- Group therapy
- Peer support



Expansion launched in
January 2019

**212 individuals enrolled in
SMART Clinic, including
MOUD**

Providing treatment for infectious disease associated with injection drug use integrated with:

- Treatment for OUD
- Counseling
- Peer Support
- Case management
- Recovery services (e.g., transportation)

Project launched in
August 2019

69 patients treated

52 (75%) started MOUD



Building SUD Workforce Capacity in the Appalachia Region



Dr. Kalea Benner

- Funded by Health Research Services Administration
- Principal Investigator: Dr. Kalea Benner, College of UK Social Work
- Launched September 1, 2019
- Three-year proposal \$1.35 million
- Mandated that 60% of the funds go directly to support trainees



SUBSTANCE USE
PRIORITY RESEARCH AREA

Building SUD Workforce Capacity in the Appalachia Region

- Objective: to increase access to (and numbers of) social workers and counseling psychology practitioners trained in substance misuse screening, intervention and treatment services in Appalachia
- Plan: train 54 Master of Social Work and 12 doctoral-level Counseling Psychology students
 - Practicums in substance use prevention, intervention and treatment programs
 - Substance use specific training (e.g., SBIRT)
 - Telehealth training



Building SUD Workforce Capacity in the Appalachia Region

- Work to date: 16 students were supported this past year
- Several of those who graduated are employed and working across KY (Boyd, Clark, Fayette, Floyd, Montgomery, Powell, and Scott)
- Practicum sites included the communities of Ashland, Berea, Clay City, Georgetown, Hazard, Lexington, Mount Sterling, Prestonsburg, Richmond and Winchester



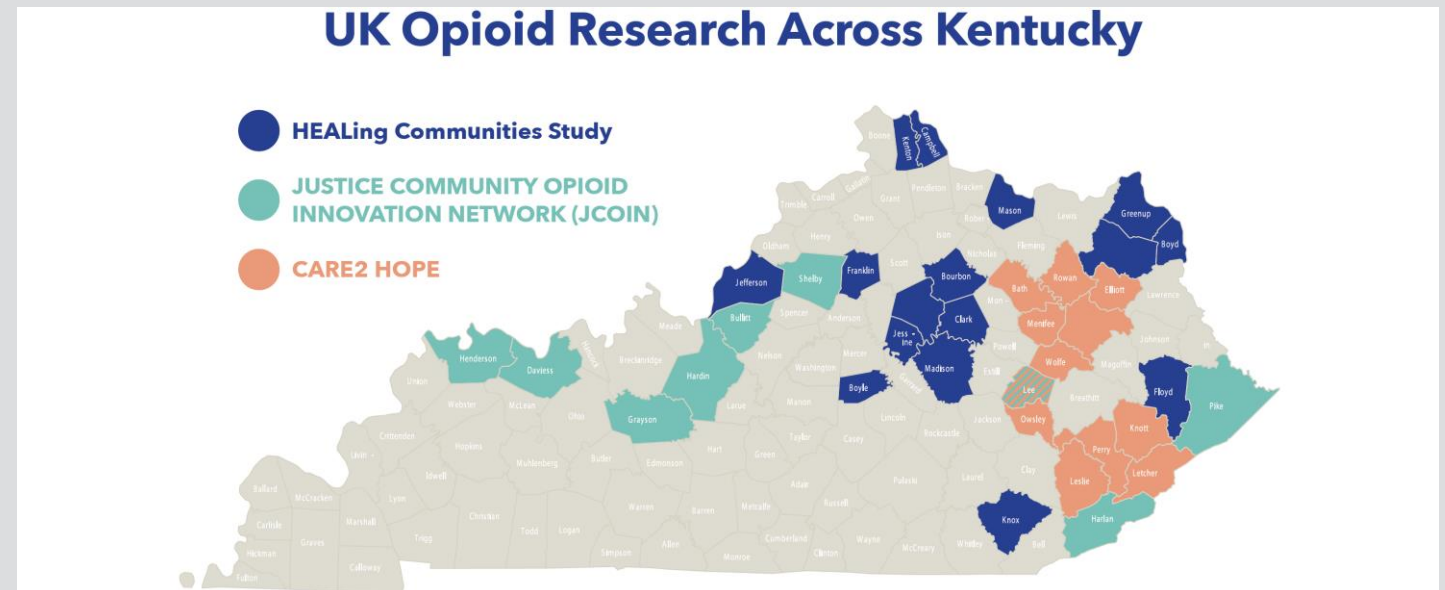
Summary

We are competing at the highest level for research dollars from NIH, SAMHSA and other agencies and conducting research across the translational continuum

We are expanding our reach across the state to conduct critical health services research in our Kentucky communities

Rapid expansion of inpatient and clinical services to address increasing patient needs at UKHealthCare and assisting others to develop care models

Most of these initiatives arose from critical partnerships between the State, UK and UKHealthcare



Questions?