

# Bluegrass Care Clinic: Coordinated team-based approach to opioid treatment with HIV primary care

Wednesday, January 12, 2022

Alice C. Thornton, MD, FIDSA

PI, KY AETC

Chief, Infectious Diseases, UK Healthcare

# Learning Objectives

- Describe possible models of care for addressing the Opioid Epidemic in people with and at risk for HIV.
- Identify possible barriers to addressing Opioid Use Disorder in people with and at risk for HIV.

# Financial Disclosures

- None

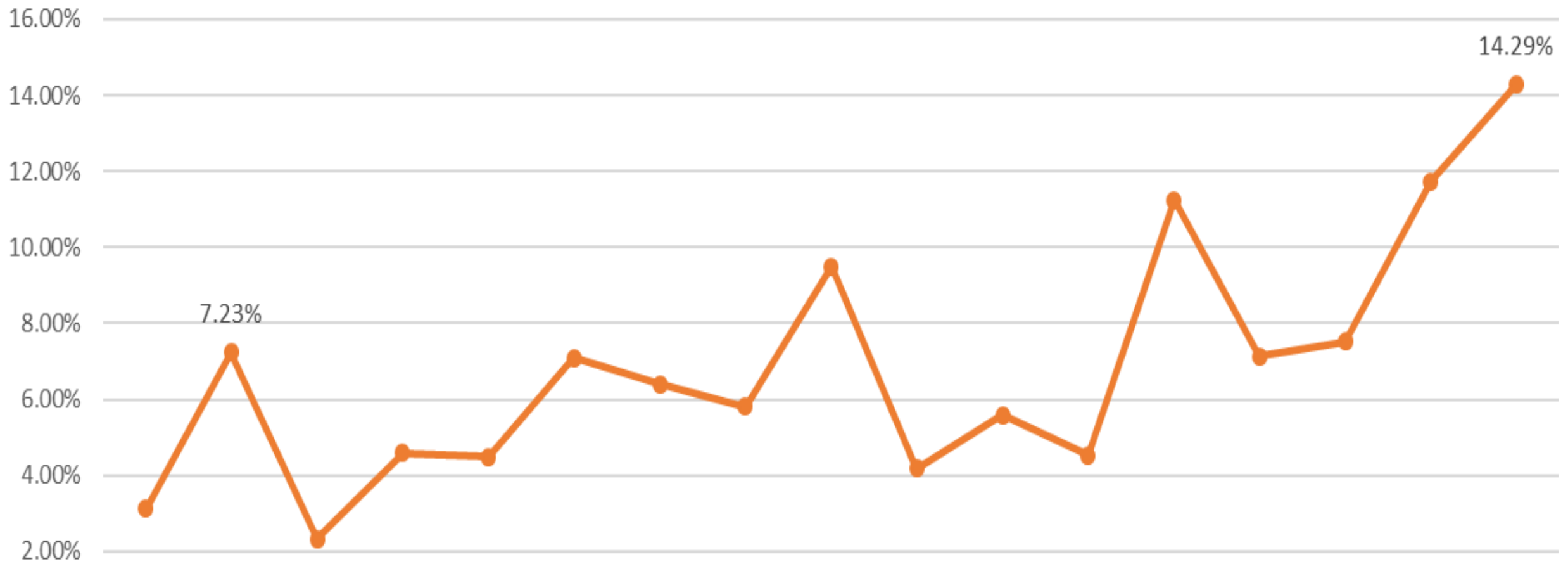
The mission of the Bluegrass Care Clinic is to provide a continuum of high-quality, state-of-the-art, multi-disciplinary HIV primary care in a compassionate, culturally sensitive manner.



# Full Range of Services

- HIV Care
- Primary Care
- Medical Case Management
- Non-Medical Case Management
- Housing Support
- Emergency Financial Services
- Adherence & Linkage to Care
- Dietician Services
- Pharmacist Services
- HIV Testing & Prevention
- Counseling
- Psychiatry
- Addiction Medicine
- HIV Education/Peer Support

## BCC Newly Enrolled Patients with Risk Factor: IDU



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Percent	3.13%	7.23%	2.33%	4.58%	4.48%	7.10%	6.40%	5.81%	9.49%	4.17%	5.59%	4.52%	11.24%	7.14%	7.51%	11.73%	14.29%

# Integrating Buprenorphine Treatment for Opioid Use Disorder (2016-2019)

- Integrating Buprenorphine Treatment for Opioid Use Disorder in HIV Primary Care
- AIDS United/Boston University/HRSA SPNS
- Multisite evaluation study
- Patients receiving HIV primary care at BCC and diagnosed with opioid use disorder
- Physician and Counselor Dyad, APP joined later
- PI: Laura Fanucchi, MD

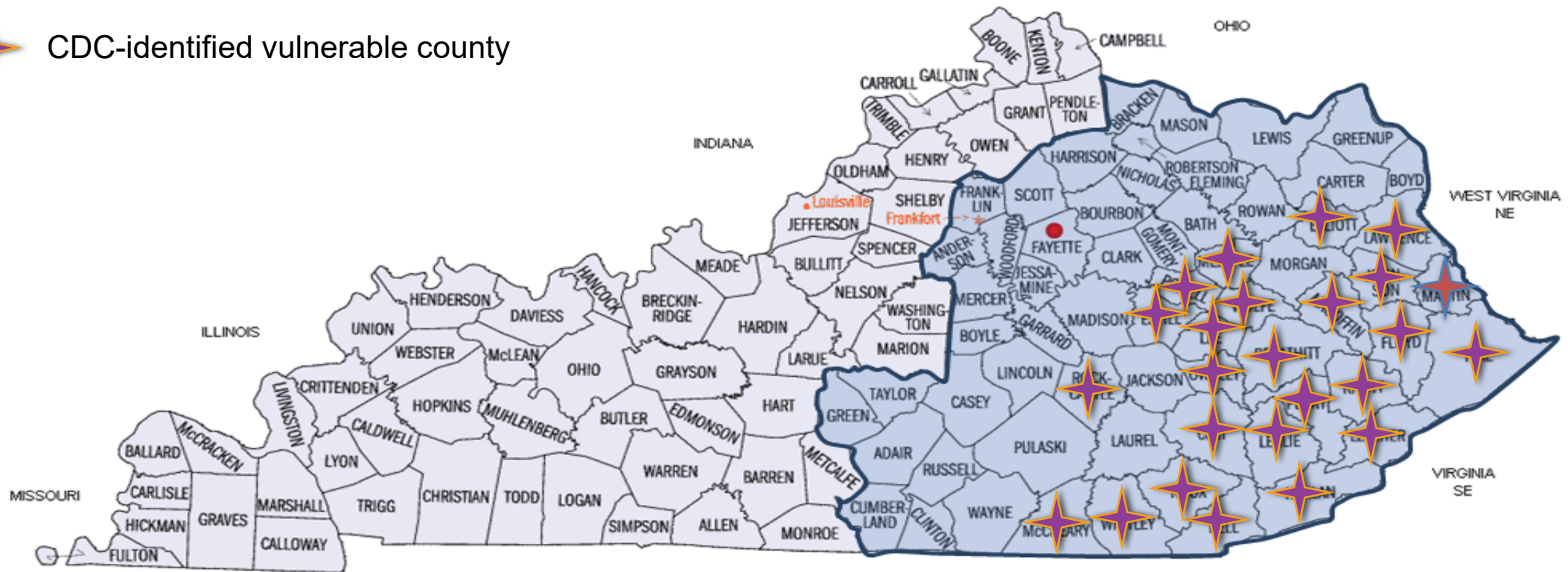
# University of Kentucky Bluegrass Care Clinic

Map of the Bluegrass Care Clinic's Service Area

● Physical Location of the Bluegrass Care Clinic

▭ Outline of the Bluegrass Care Clinic's 63 county service area

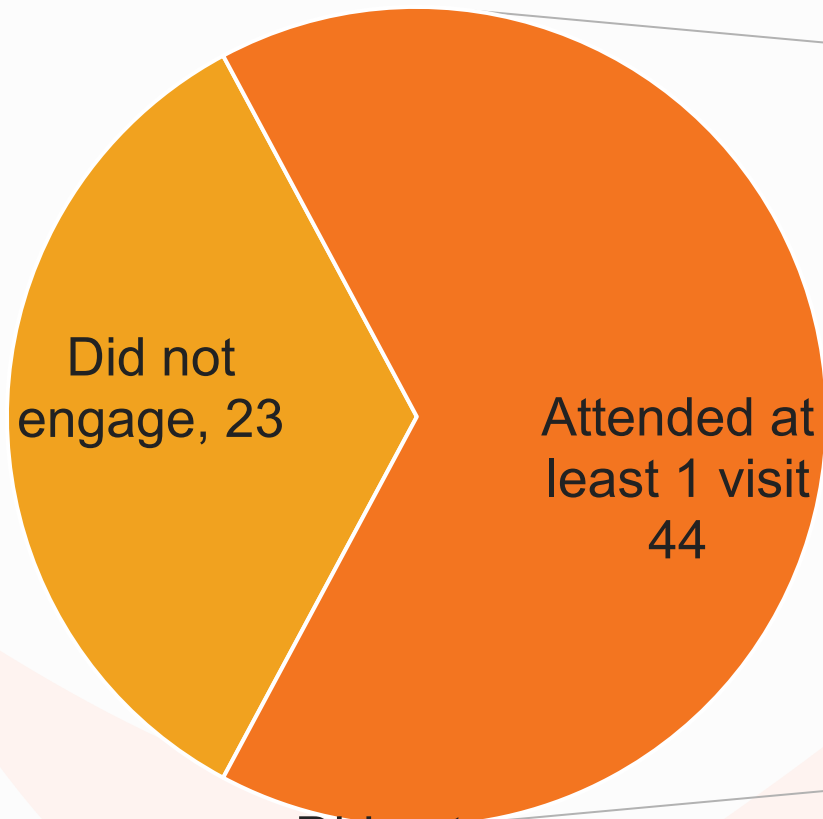
★ CDC-identified vulnerable county



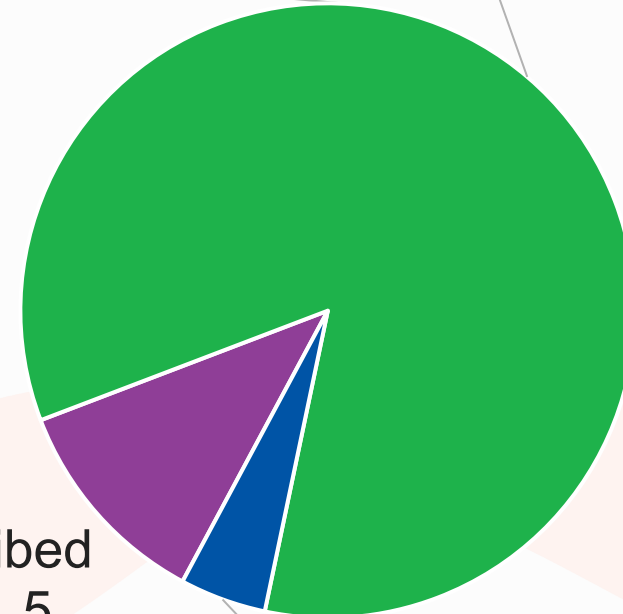


# Outreach & Enrollment

67 Patients Referred, 28 enrolled in AU



Received Buprenorphine, 37



Not Prescribed Medicine, 5

Received Vivitrol, 2

- Did not engage
- Received Buprenorphine
- Not Prescribed Medicine
- Received Vivitrol

# University of Kentucky Bluegrass Care Clinic: Lessons Learned

- Patients can have significant trauma, comorbid mental illness and additional substance use disorders.
- The BCC aimed to provide **low-barrier treatment**, recognizing that patients who are struggling need more help, not less.
- Providers need dedicated clinical time to provide OUD treatment because patients often need to be seen much more frequently than they would otherwise.
- Be patient. Keep a trauma-informed perspective when working with these clients. Celebrate victories with clients, no matter how small.

# Key Tips and Takeaways

- Find/Empower strong leaders
- Scale up services to meet the needs of clients in crisis
  - Patients with dual diagnosis of HIV and OUD have wide ranging needs
  - Legal challenges, inadequate housing, mental health disorders and polysubstance use
  - Will need intensive case management
  - Build capacity, screen, increase treatment resources, and number of mental health staff
- Get clients to the clinic
  - Address transportation issues
  - Address telephone or communication issues
- “Ask and you will find”
  - Create an environment where patients can disclose their substance use
  - Goal: Stabilize clients, improve their health and quality of life, and create a plan for sustained services

# Challenges

- Transportation – largely rural
  - Public, ride service, gas cards, Medicaid transportation, taxi, Uber
- Multiple substances
  - Methamphetamines, alcohol, cocaine or benzodiazepines, heroin, fentanyl

## Services

- Can have complicated medical needs, legal programs, psychosocial challenges, mental health
- Stigma
  - Community
  - Healthcare providers
  - Against MAT – “substituting one drug for another one”

# Sustainability Plan

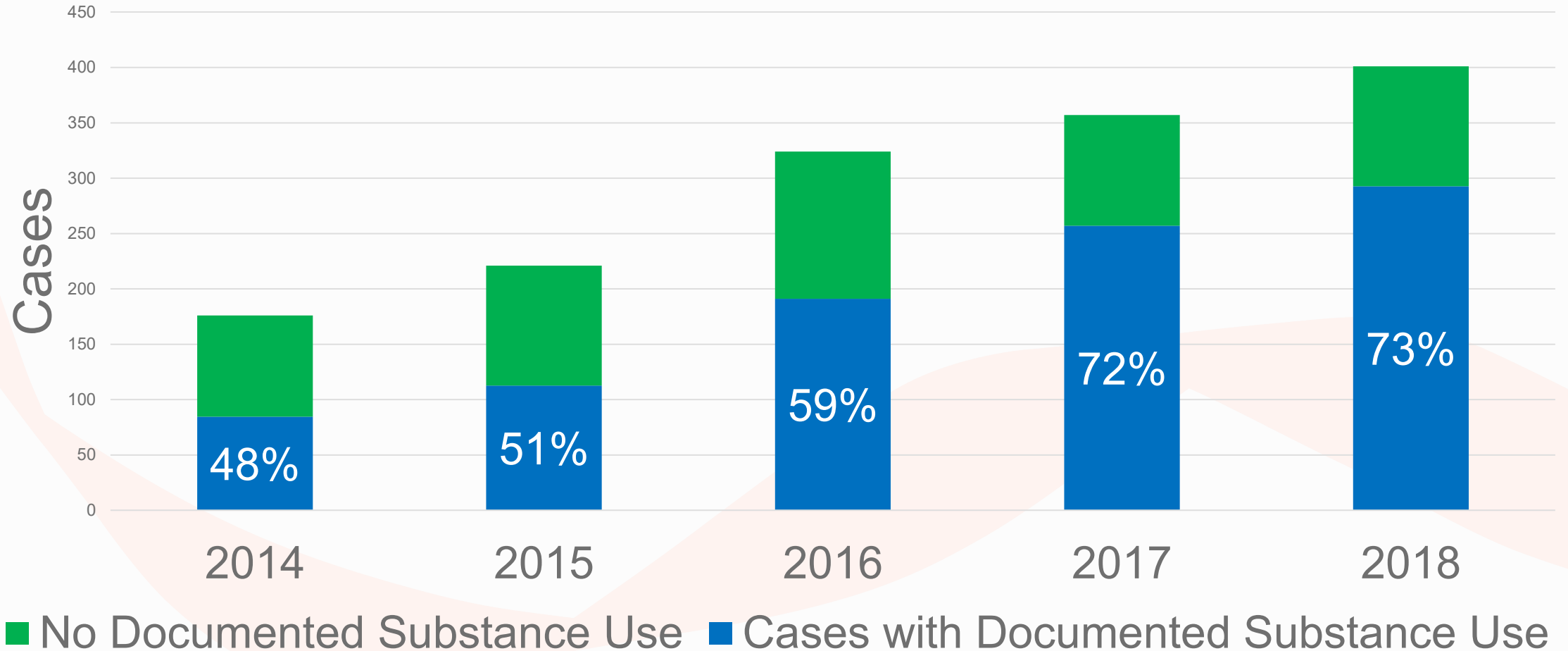
- Transition from co-located to integrated care model
  - Dr. Fanucchi and Tiffany Stivers, APRN, will see patients in their existing clinic times
  - Dr. Thornton participated in training
- Transition in coordination of care – new Funding
  - KORE (KY Opioid Response Effort) – funded case manager for coordination of buprenorphine (all BCC patients, incl. non-HIV)
  - KORE and RW-funded mental health providers for counseling
- Ryan White Part B for ancillary service needs
  - Transportation assistance, etc.



## UK HealthCare

945-bed tertiary-referral, academic medical center in Lexington, KY  
>40,000 annual discharges

# At UKHC, Endocarditis Cases Have Dramatically Increased



# Multi-Disciplinary Approach to Opioid Use Disorder Treatment within an Infectious Diseases Clinic







HealthCare

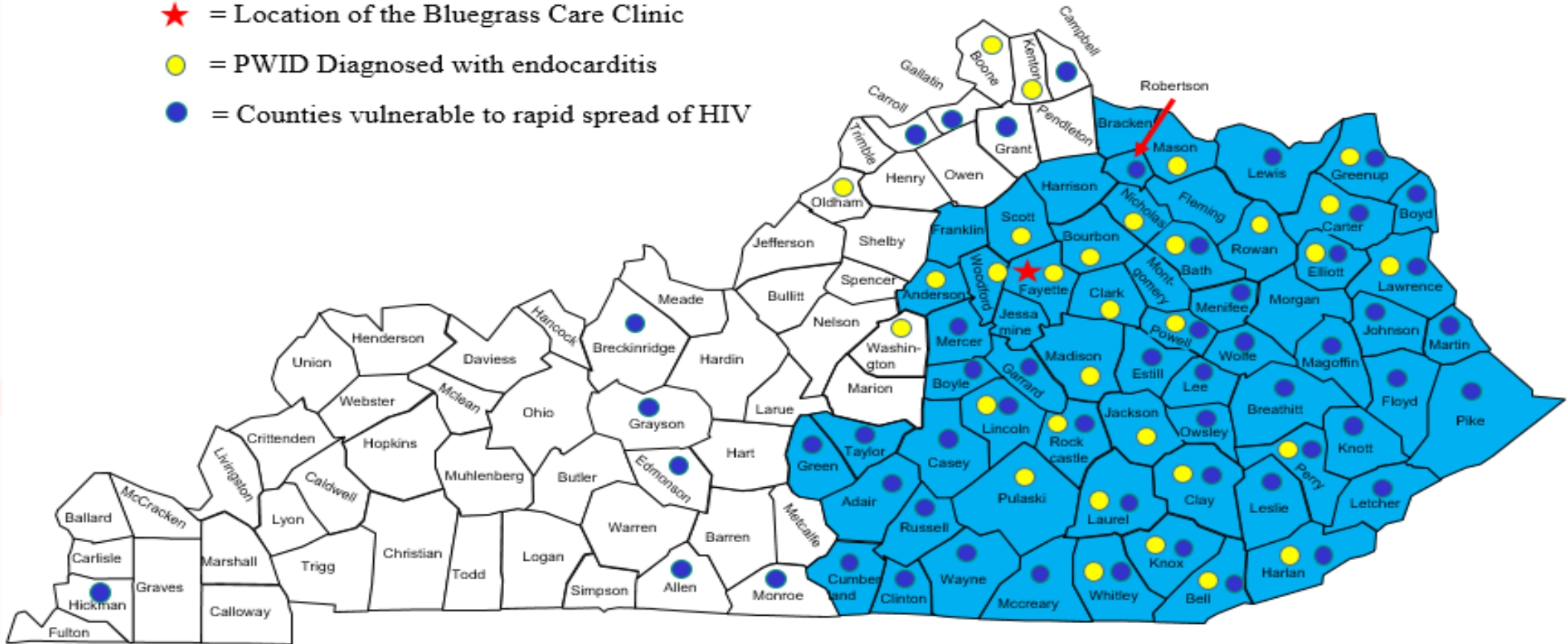
The Power of Advanced Medicine



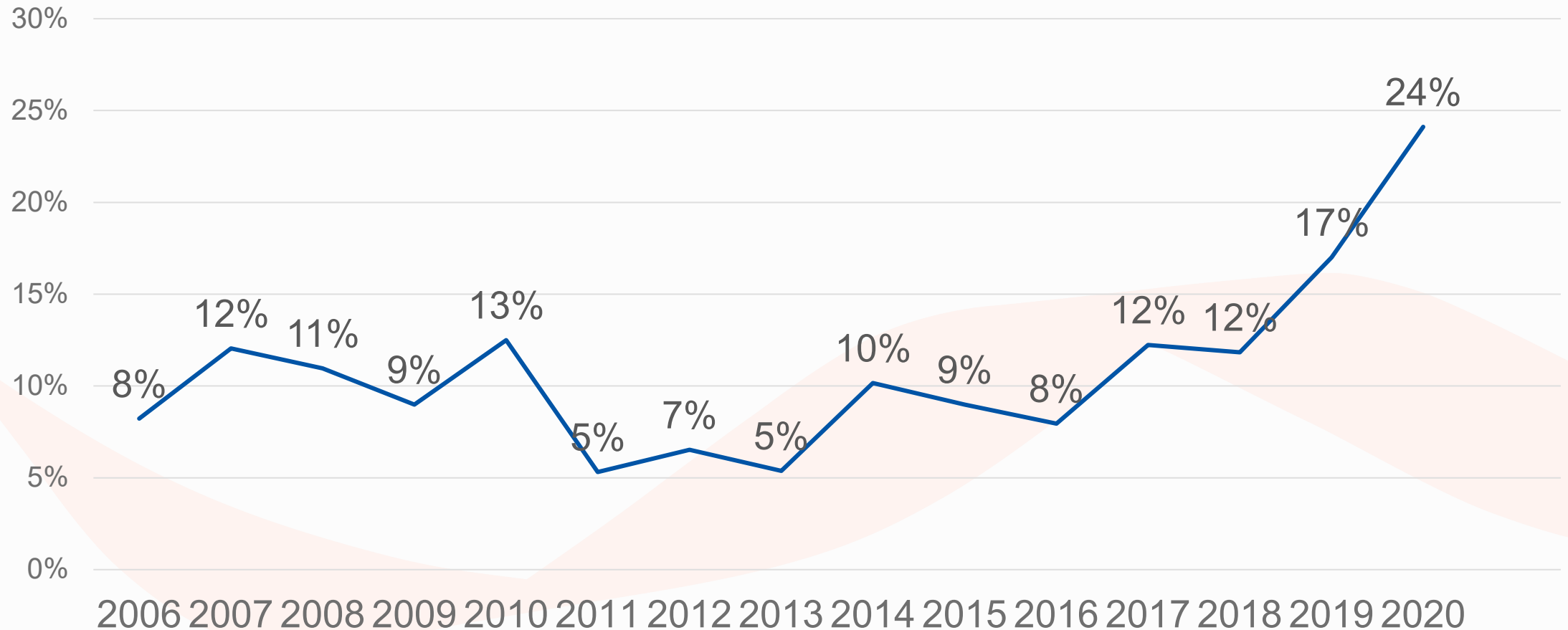


# University of Kentucky Bluegrass Care Clinic Service Area (2012)

-  = Bluegrass Care Clinic Service Area
-  = Location of the Bluegrass Care Clinic
-  = PWID Diagnosed with endocarditis
-  = Counties vulnerable to rapid spread of HIV



# BCC Percentage of New HIV Infections Associated with IDU



# WRAP PROJECT

# WRAP – Wrap Around Recovery for Addiction and Infectious Disease Program ( KORE-KY Opioid Response Effort) – 2018

- Project provides comprehensive outpatient wrap around services modeled after the Ryan White model for patients with co-occurring opioid use disorder and IV drug use associated infections
- Inpatient, outpatient and community partner referrals
- Provide or facilitate medications for opioid use disorder (MOUD)
- Patient progress and program efficacy measured through SAMSHA GPRA surveys 4 times over participation

# WRAP Services

Individual must have:

1. Substance use disorder (expanded inclusion criteria – 11/2021)
2. An infection related to IV drug use

Services offered:

- Case management
- Recovery support
- Harm reduction education
- Relapse and overdose prevention
- Linkage to care
- Counseling
- Groups
- MOUD patient coordination and maintenance
- Transportation

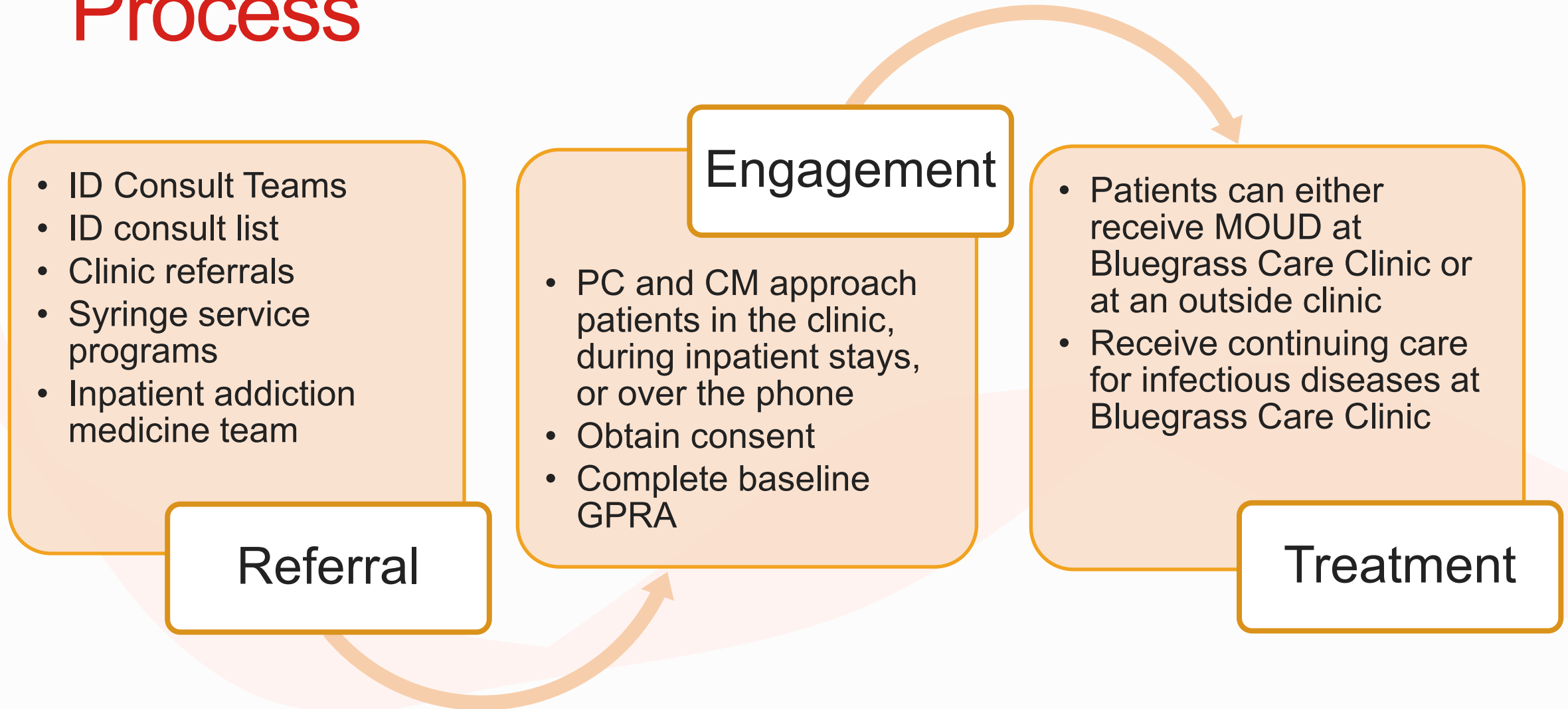
# Our Questions

- Can we apply the Ryan White Care Act treatment model to patients with substance use disorder?
- Will this treatment model improve patient outcomes?
- Is it feasible to implement this model within an infectious diseases clinic?

# Wrap Multi-Disciplinary Team

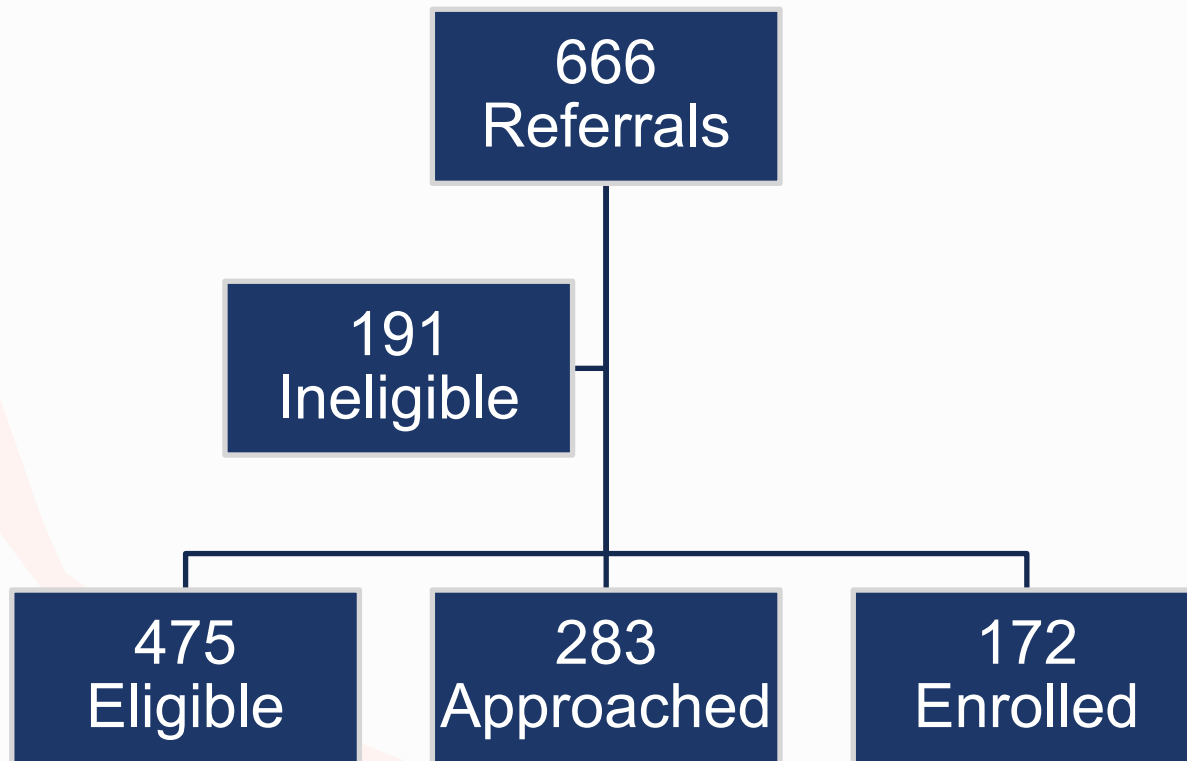
Principal Investigator	Aaron Grubbs, MD
Co-Investigators	Sarah Blevins, PharmD; Alice Thornton, MD
DATA Waivered Providers	Alice Thornton, MD; Tiffany Stivers, APRN; Aaron Grubbs, MD; Nicole Akey, PA
Clinical Pharmacist	Sarah Blevins, PharmD
Program Coordinator/SW	Grant Laugherty, CSW
Mental Health Therapist	Andrea Baker, LSCW
Case Management	Becky Rhodes, LPA
RW Grant/Data	Katie Sabitus/Ryan Weeks

# Referral and Treatment Process





# Who are we enrolling? (October 2019-October 2021)



## Demographics

- 47% Female; 53% Male
- 94% White
- 5.8% Deceased

## Ineligibility

- No opioid use disorder
  - Expanded criteria 10/2021
- Do not inject opioids
- Incarcerated/parole
- Pregnant (separate program for this)

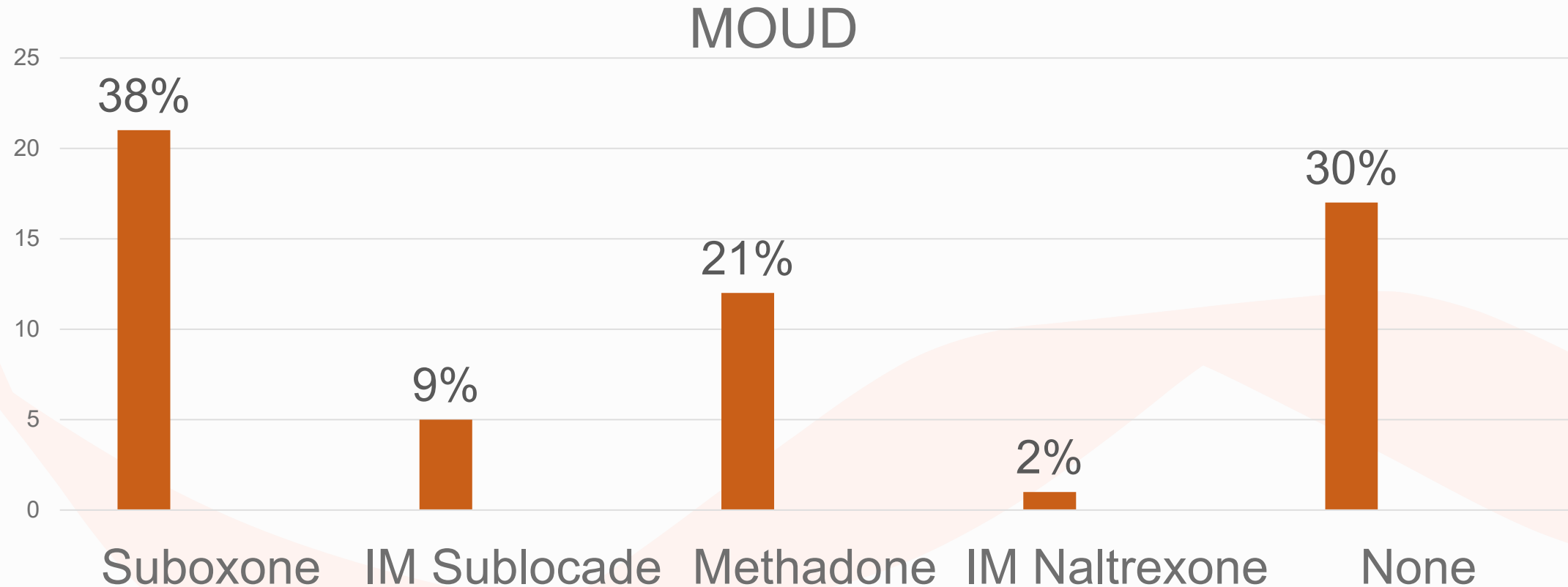
# Breakdown of WRAP

- 172 Ever Enrolled (2019-2021)
- 56 Actively Enrolled (contact within 6 months)
  - 18 dually enrolled in RW/WRAP (HIV+) and active
  - Total 23 HIV are on MOUD
  - 38 non-HIV actively followed
  - MOUD: buprenorphine (Suboxone<sup>®</sup>, Sublocade<sup>®</sup>), naltrexone (Vivitrol<sup>®</sup>), naloxone (Narcan<sup>®</sup>), methadone

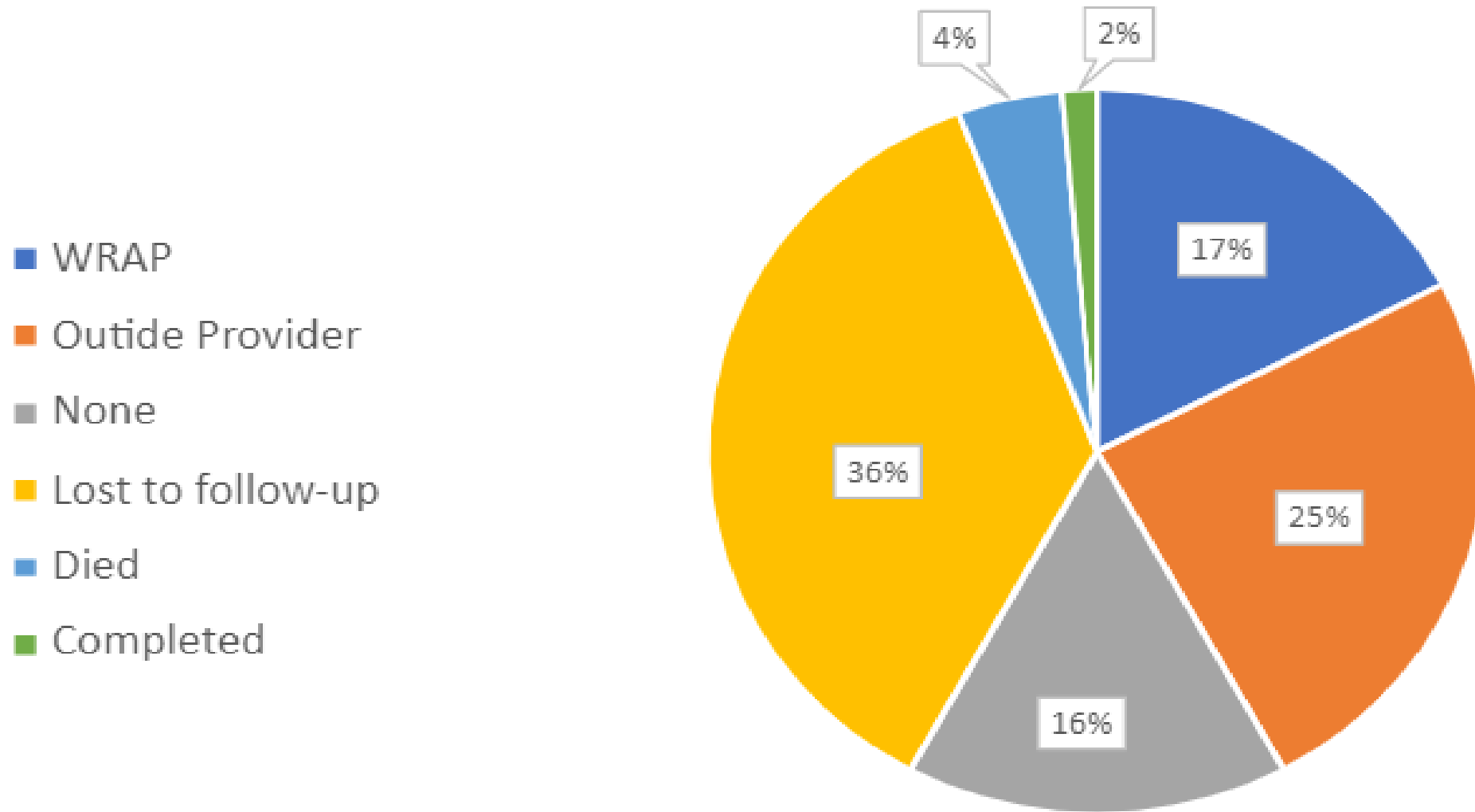
# Demographics

- Largely white – 88%
  - 14% unreported/unknown
- Less than 1% Hispanic
- Male/female distribution was nearly equal (53%, 47%)

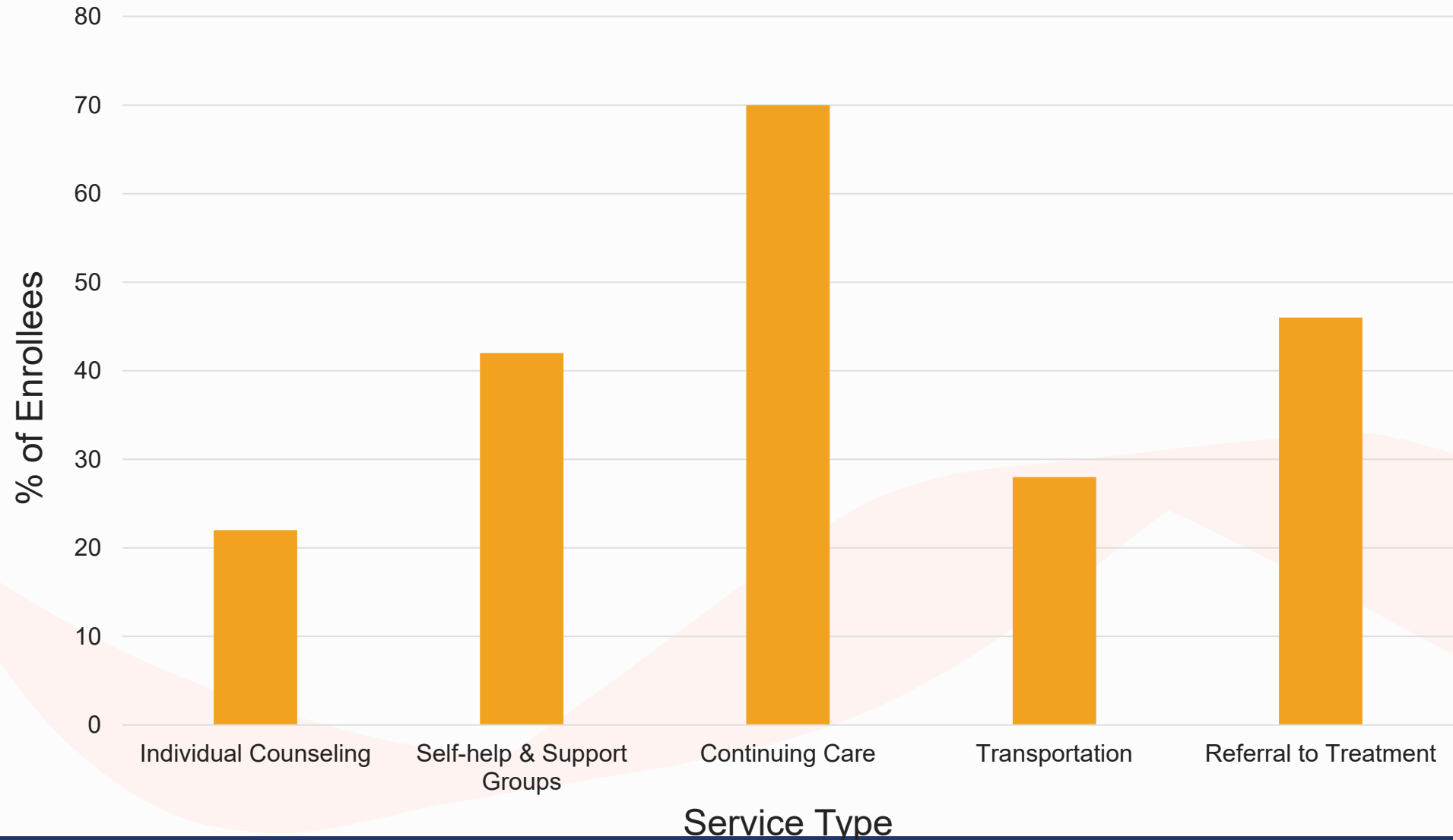
# HIV (18) + Non-HIV (38) 56 Active



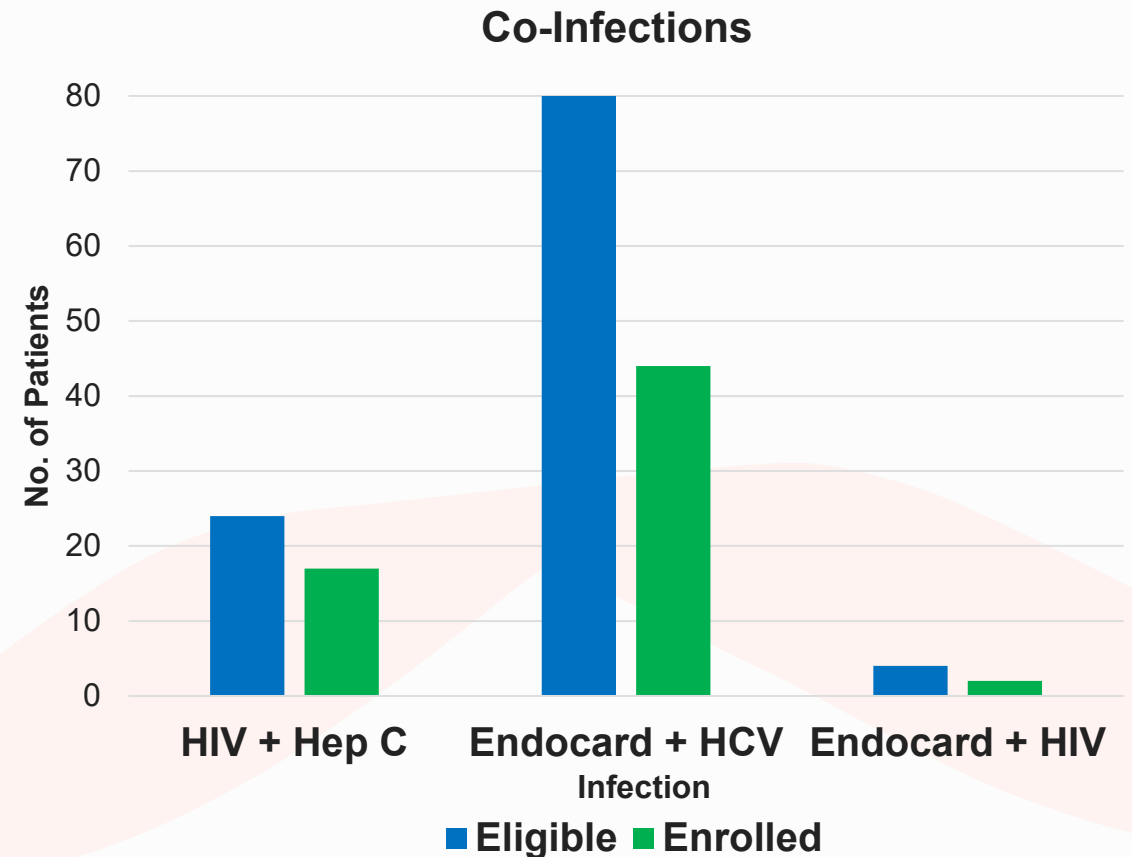
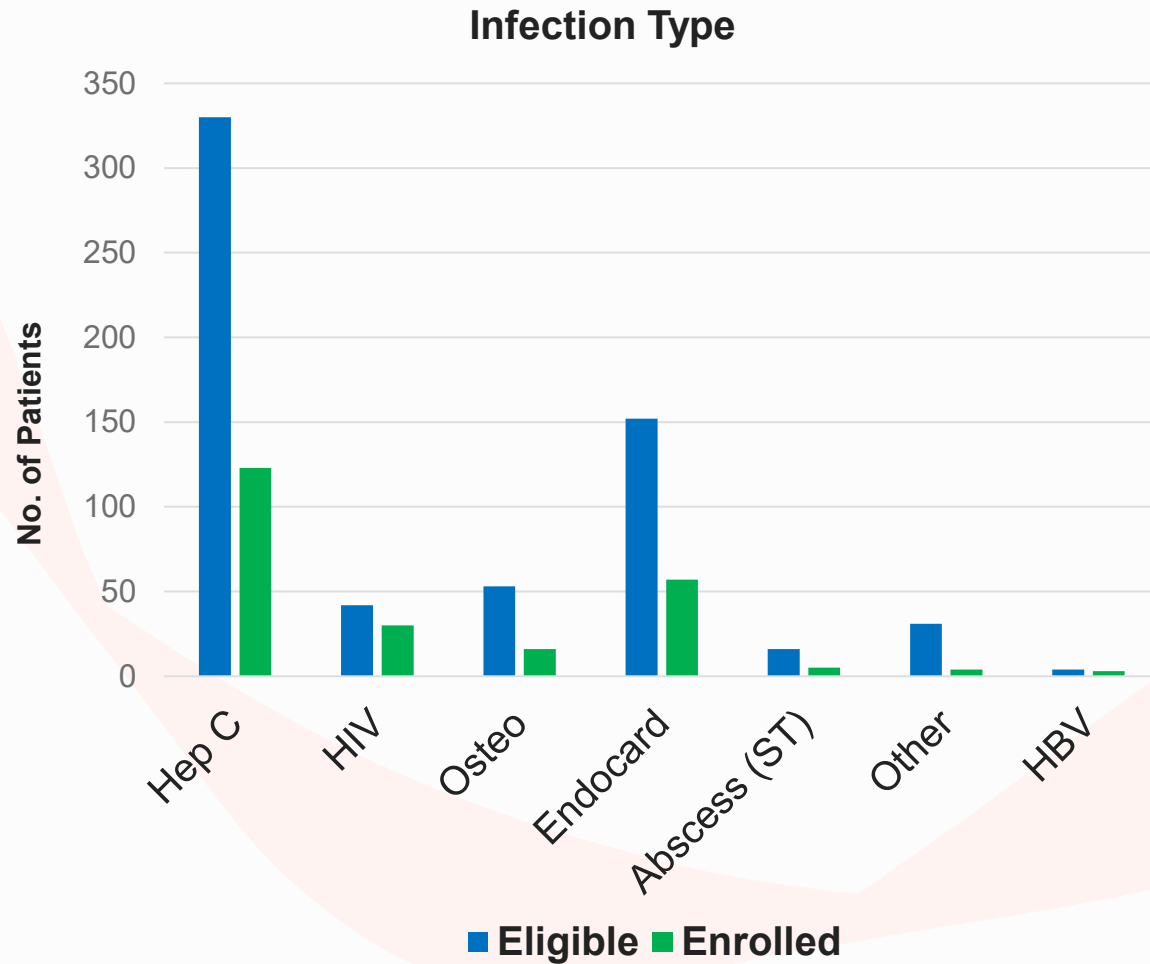
## Where are Patients Receiving their MOUD?



# Support Services Received

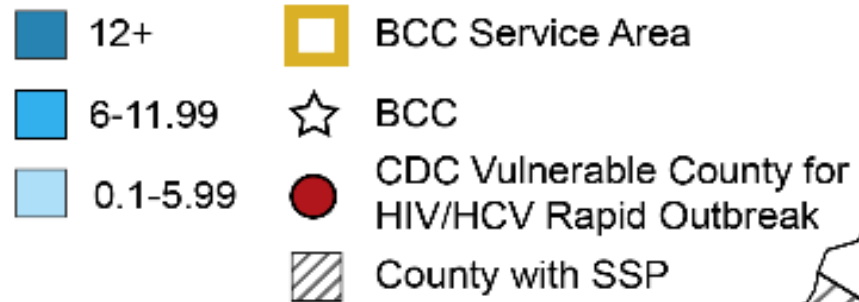


# IV Drug Use Associated Infections Among Enrollees



# Vulnerable counties reached in 2020

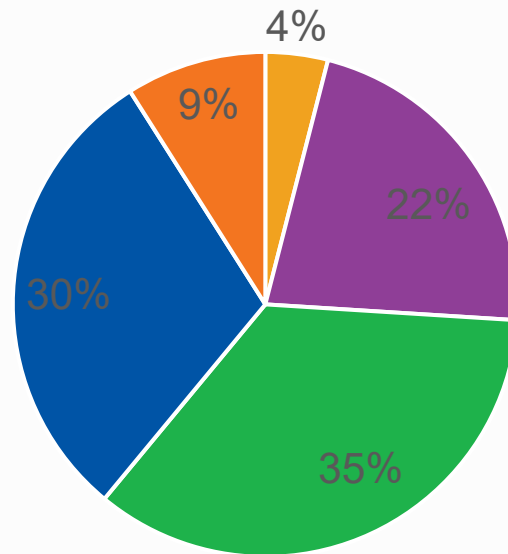
## WRAP Enrollees per 100k Residents



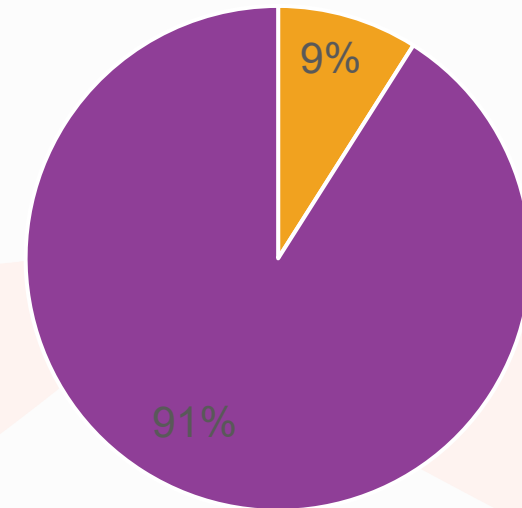


# HIV Infected (18 WRAP + 5 NON-WRAP)

AGE



RACE

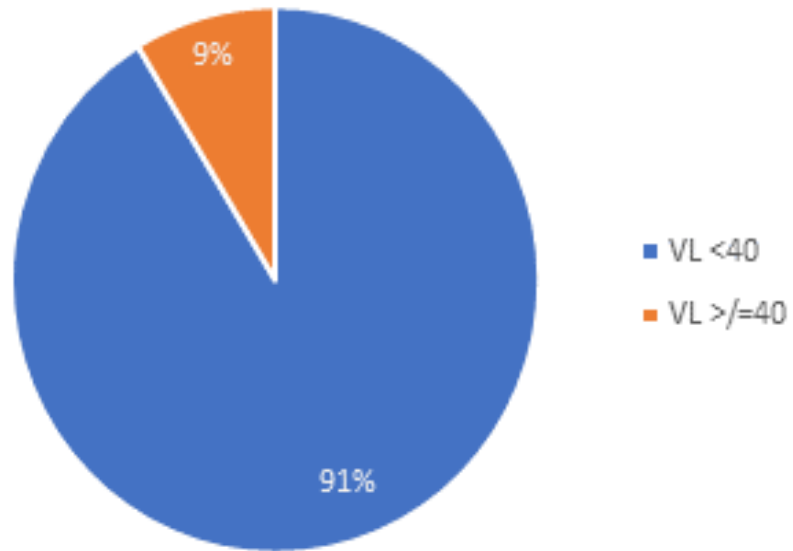


■ 18-24 ■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64

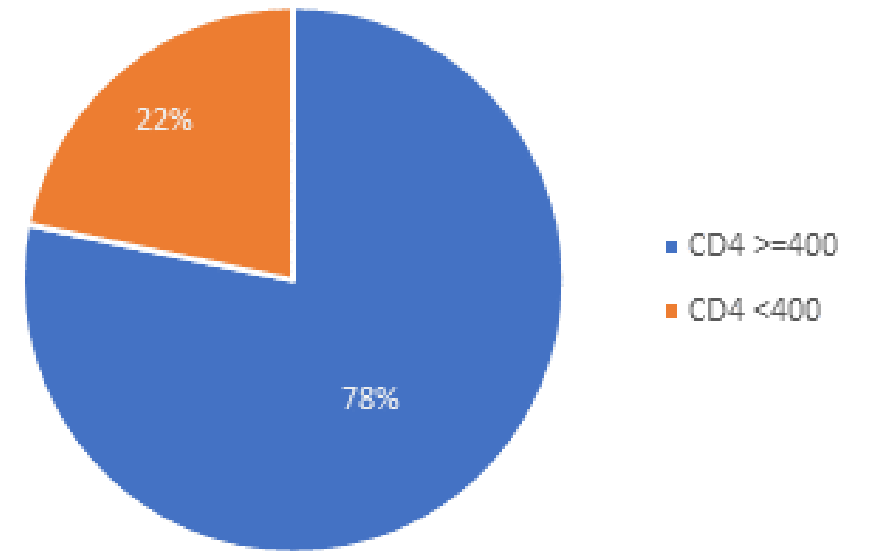
■ Black ■ White

# HIV Infected (18 WRAP + 5 NON-WRAP)

Viral Load



CD4 Cell Count



# Partnerships: Higher Levels of Care

## Inpatient

- ACES (Inpatient consult service)
- Stepworks
- Schwartz Center
- Recovery Works

## Methadone

- Narcotics Addiction Program

## Misc.

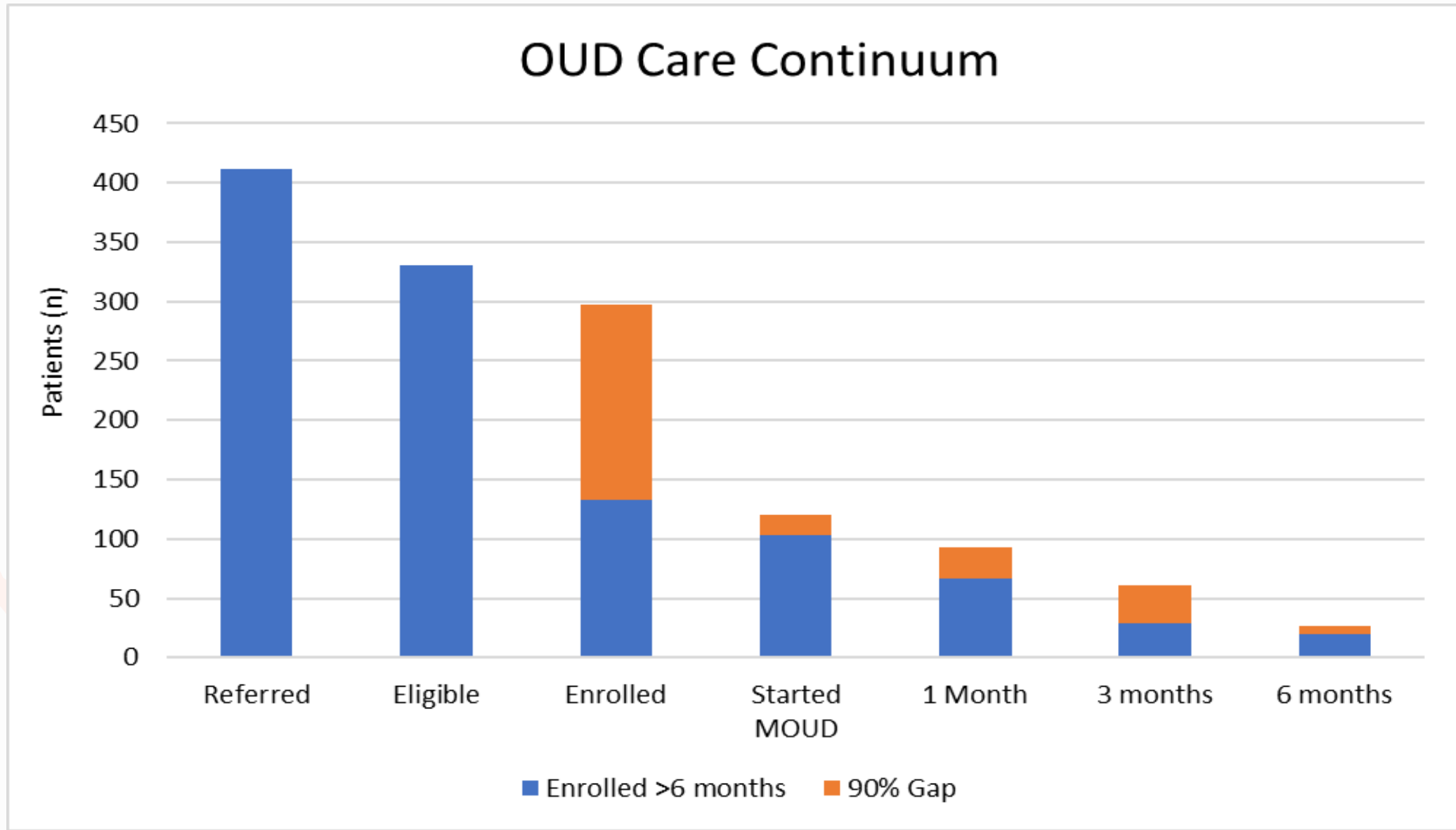
- UK Bridge Clinic
- 12-step groups
- Oxford House
- UK SMART
- UK PATHWAY

Patients are most vulnerable when they contemplate change and start medication for opioid use disorder. These time points should be priority for patient engagement.



Figure 1. UKID OUD Care Continuum; \*MOUD: Medication for opioid use disorder

# OUD Care Continuum



# Time of Vulnerability

- 133 patients >6 months
- 83 on MOUD
  - 67, 29 and 20 retained at 1, 3 and 6 months
  - Time of contemplation and start of medication seems to be a time of vulnerability

# Ongoing Challenges

- Time commitment of ID providers
- Provider reluctance to obtain DATA waiver and prescribe buprenorphine
- Polysubstance use, particularly methamphetamine
- Geography, reliable communication with patients, transportation
- Hire and Maintain trained, culturally-competent staff

# UK Addiction Consult and Education Service





# Addiction Consult and Education Service (ACES)

- Started October 2018 /PI: Laura Fanucchi, MD
- KORE- funding
- Primary focus: Inpatient management of opioid use disorder (MOUD)
- Provide comprehensive SUD consultation
- Overdose/Safe injection education and Naloxone distribution
- Coordination of ongoing MOUD treatment after discharge
- Education of medical students, residents, other trainees

# ACES Multidisciplinary Team



- Physician Medical Director
- Nurse Administrative Lead
- Physicians and Nurse Practitioners
- Nurse Navigator
- Clinical Social Worker
- Peer Support Specialist

Fanucchi, LC, Walsh, SL, Thornton AC, Nuzzo PA, Lofwall MR. Outpatient Parenteral Antimicrobial Therapy Plus Buprenorphine for Opioid Use Disorder and Severe Injection-Related Infections. Clin Infect Dis. 2019 Nov (128) 1057-60.

# Partner in Care: UK First Bridge Clinic

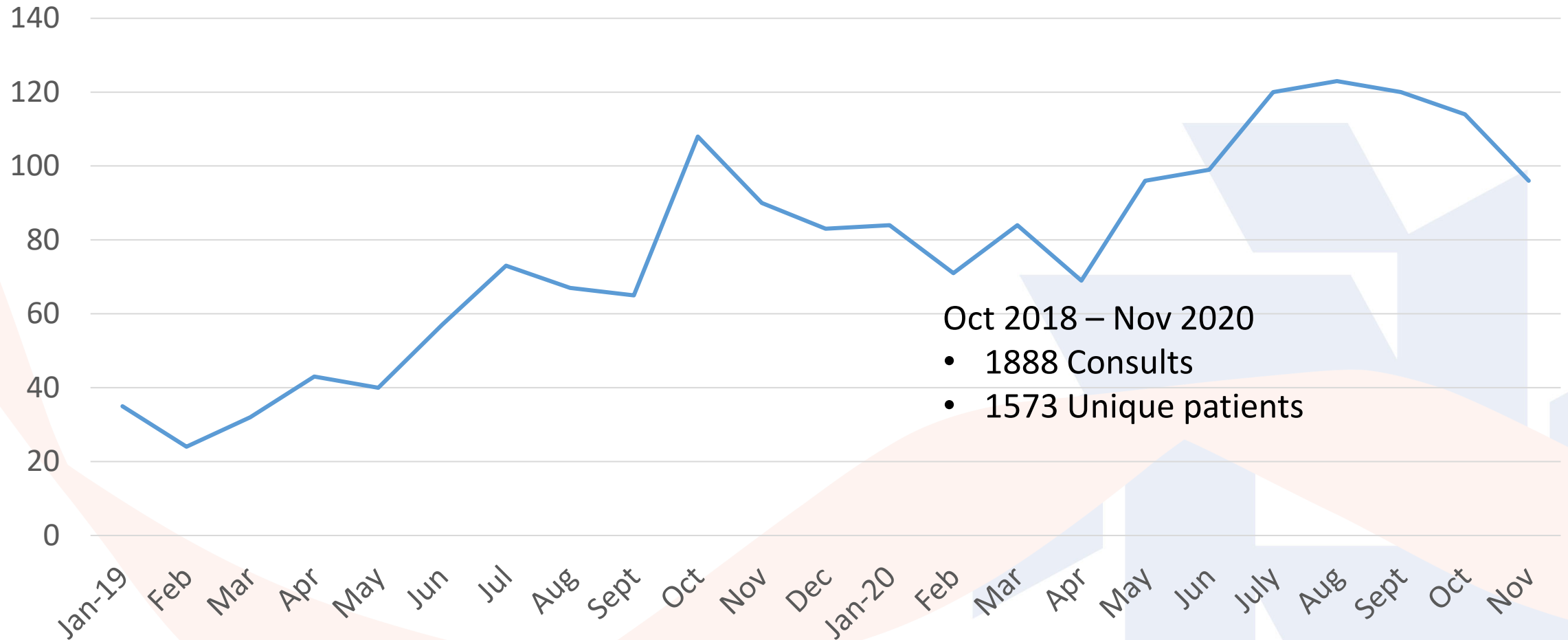


- Goal: Save lives by providing low-threshold, comprehensive treatment for OUD with MOUD
- First Bridge for OUD treatment from the ED or inpatient hospitals
- Stabilize the patient, provide ancillary services, and BRIDGE to continuing care in the community

# ACES Successes and Challenges



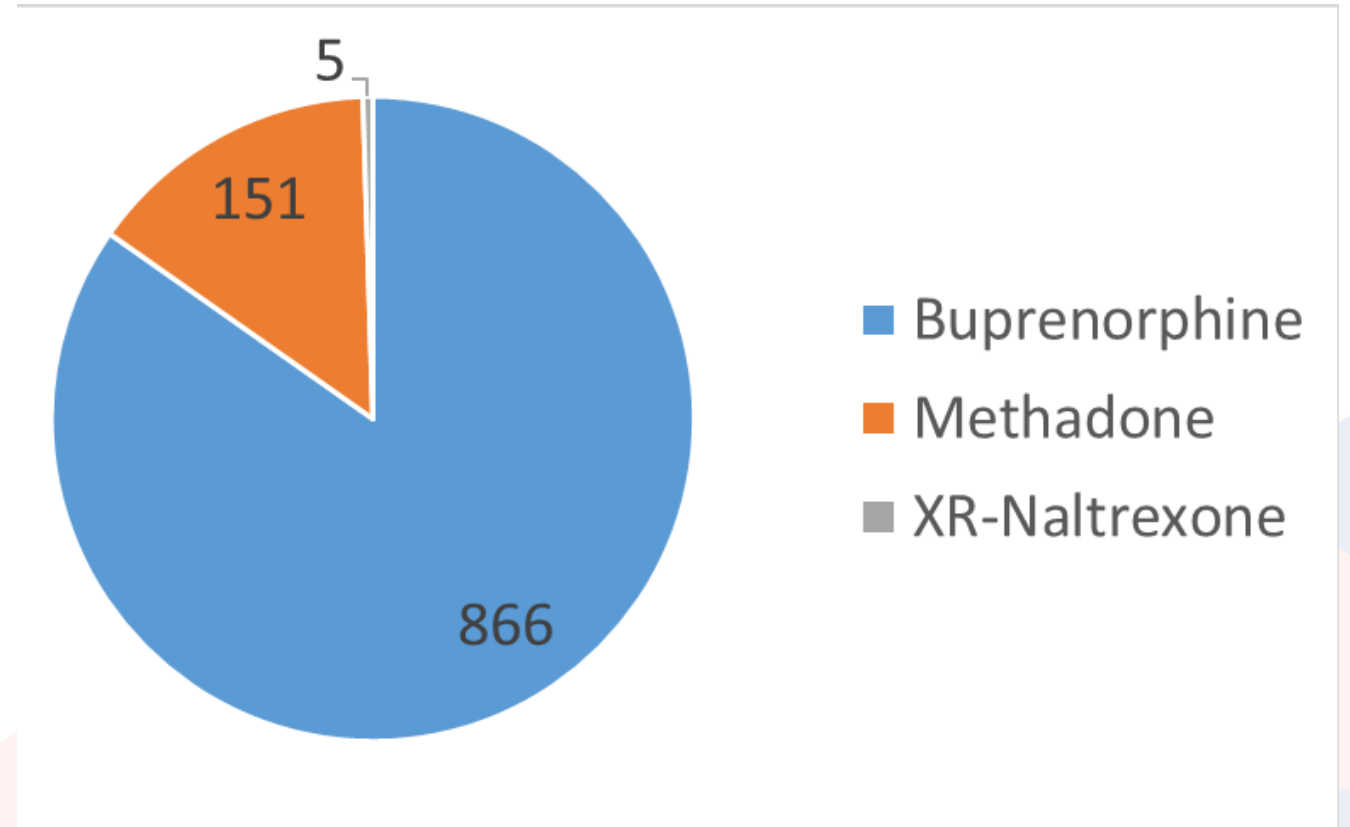
# ACES Monthly Consults



Fanucchi, LC, Walsh, SL, Thornton AC, Nuzzo PA, Lofwall MR. Outpatient Parenteral Antimicrobial Therapy Plus Buprenorphine for Opioid Use Disorder and Severe Injection-Related Infections. Clin Infect Dis. 2019 Nov (128) 1057-60.

# ACES Results

- ~70% of consults with OUD
- **MOUD provided for 1025 patients through November, 2020**



# Challenges

- Stigma from staff and providers
- Misunderstandings about MOUD
- In-hospital substance use and other behaviors
- Complicated care coordination
  - Transportation barriers
  - Lack of photo ID
  - Limited supportive housing allowing MOUD
  - Skilled nursing facilities and other settings
- Retention in follow up after discharge

# Successes

- Strength of multidisciplinary team
  - More voices advocating for evidence-based treatment of OUD; reduces stigma
- Pharmacy collaboration – new clinical protocols
  - XR-buprenorphine (Sublocade®)
  - Buprenorphine micro-dosing
  - XR-naltrexone (Vivitrol®)



# Pilot Study: Integrated Outpatient Treatment of OUD and Injection-Related Infections

- First prospective, randomized clinical trial of OPAT in persons with OUD and SIRI
- 20 participants, randomized 1:1 to
  - Usual care – complete IV antibiotics in hospital
  - Early discharge (D/C) with PICC line
- Both groups:
  - Receive buprenorphine (BUP) in the hospital
  - 12-week BUP with counseling after discharge
- Primary outcome: illicit opioid use in 12 weeks post-discharge

# Results

	Usual Care (n=10)	Early D/C (n=10)	<i>P</i>
Completed IV antibiotics, n (%)	10 (100)	10 (100)	--
LOS, mean days ( $\pm$ SD)	45.9 (7.8)	22.4 (7.5)	<0.001
Outpatient IV antibiotics, mean days ( $\pm$ SD)	1.8 (5.3)	20.1 (11.7)	<0.001

# MULTI-DISCIPLINARY ENDOCARDITIS TEAM (MDET)

# MDET (consult service) designed to improve the in-hospital and long-term care of patients with endocarditis and other cardiac infections

## **Infectious Diseases Champions**

Sami El-Dalati, MD  
James A. Grubbs, MD  
Alice C. Thornton, MD

## **Clinical ID Pharmacist**

Bobbi Jo Stoner, PharmD

## **Advance Practice Practitioners**

Sara Kirsch, PA-C  
Josh Tweddell, APRN  
Elizabeth Grantz, APRN

## **Nurse Navigator**

Deborah Gill, RN

## **Social Work**

Position posted August

## **Addiction Champions**

Laura Fanucchi, MD  
Daniel Weaver, MD

## **Cardiac Surgery Champions**

Michael Sekela, MD  
Hassan Reda, MD  
Tessa London, MD

## **Neurosurgery**

Justin Fraser, MD

## **Neurology**

Jennifer Lee, MD

## **Other engaged disciplines:**

Interventional Cardiology,  
Electrophysiology, Dentistry

# Goals

- Improve communication between the primary medical teams and subspecialties caring for endocarditis patients
- Improve the medical and surgical in-hospital mortality of endocarditis patients
- Increase access to surgical intervention
- Improve post-hospital follow up

# 2015 ESC Endocarditis Guideline

## Role of the 'Endocarditis Team'

1. The 'Endocarditis Team' should have meetings on a regular basis in order to discuss cases, take surgical decisions, and define the type of follow-up.
2. The 'Endocarditis Team' chooses the type, duration, and mode of follow up of antibiotic therapy, according to a standardized protocol, following the current guidelines.
3. The 'Endocarditis Team' should participate in national or international registries, publicly report the mortality and morbidity of their centre, and be involved in a quality improvement programme, as well as in a patient education programme.
4. The follow-up should be organized on an outpatient visit basis at a frequency depending on the patient's clinical status (ideally at 1, 3, 6, and 12 months after hospital discharge, since the majority of events occur during this period<sup>57</sup>).

# Initial Work

- Began, Sept 2021
- 13 weekly, multidisciplinary team meetings – 20+ on each Zoom meeting
- 40 patients have been presented and 40 patients followed
- 3 rotating ID faculty, 3 rotating APPs, thus far 3 trainees have rotated (1 medical student and 2 HIV fellows – PAs). One additional requested (medical student).

# Final Thoughts

- It's hard work – it takes time
- Each person you help, could be a life saved
- Collaborate – Coalition of the Willing
- Know your limitations
- Each team member is valuable
- Monetary funds are crucial
- Dedicated team members are critical
- You could be the last medical provider to interact with this person



# Thanks

L Fanucchi

S Blevins

K Sabitus

T Stivers

A Grubbs

S El-Dalati

R Weeks

G Laugherty

C Stover