

# Infectious Diseases and Substance Use in Kentucky

Kentucky Budget Review Subcommittee on Human Resources  
November 19, 2019

**Angela Dearing, MD**  
Commissioner

**Connie Gayle White, MD**  
Deputy Commissioner

**Doug Thoroughman, PhD**  
State Epidemiologist



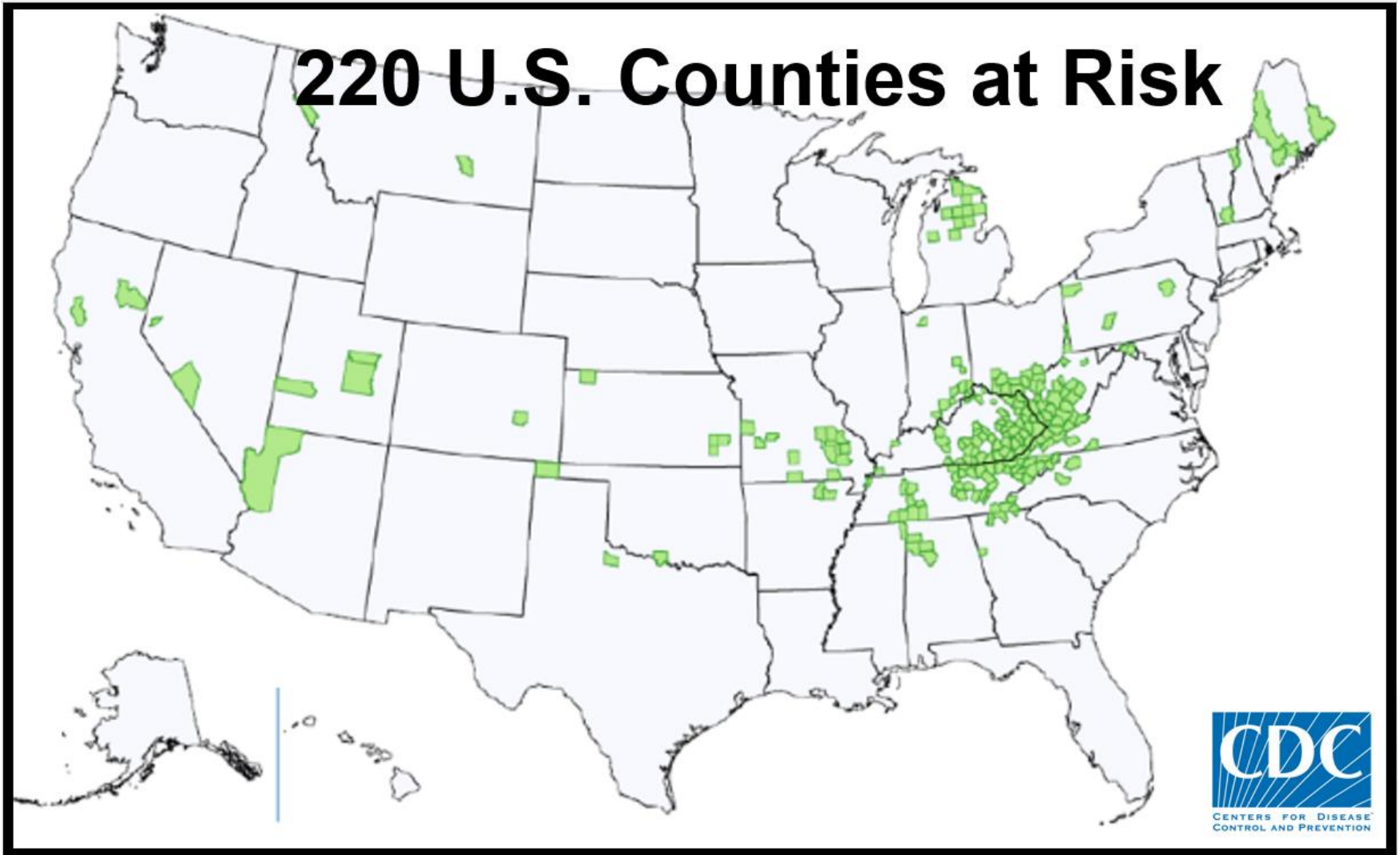
**Kentucky Public Health**  
Prevent. Promote. Protect.

# HIV and Injection Drug Use (IDU): Spreading to Kentucky

- 2014: Outbreak of HIV linked to IDU in Austin, Indiana
  - Scott County, Indiana- population 23,657
- Historically, averaged 5 new cases of HIV/ year
- In 2015, 236 cases of HIV were confirmed in Scott County
- Thirty miles from the KY border
- In response, CDC compiled a list of 220 counties across the nation where people who inject drugs (PWID) are especially vulnerable or at high risk to cause an outbreak of HIV and hepatitis C (HCV)
- Of the total 220 vulnerable counties in the US, **54 (24.5%) of these counties are in Kentucky.**
- KY Viral Hepatitis Program began an in-house assessment of vulnerability for Kentucky counties

# CDC Vulnerability Assessment

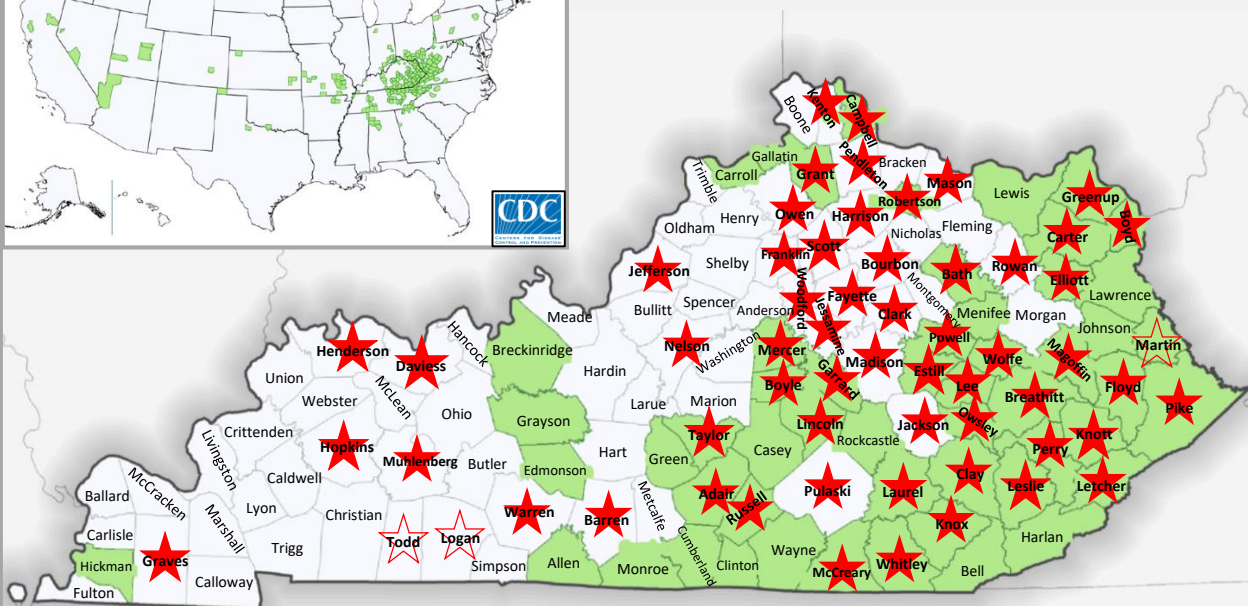
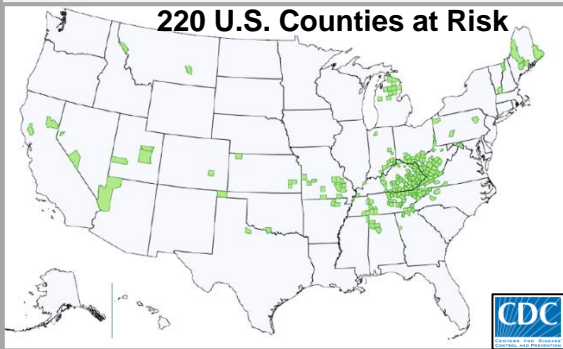
## 220 U.S. Counties at Risk





Kentucky Public Health  
Prevent. Promote. Protect.

# 54 Kentucky Counties with Increased Vulnerability to an Outbreak 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

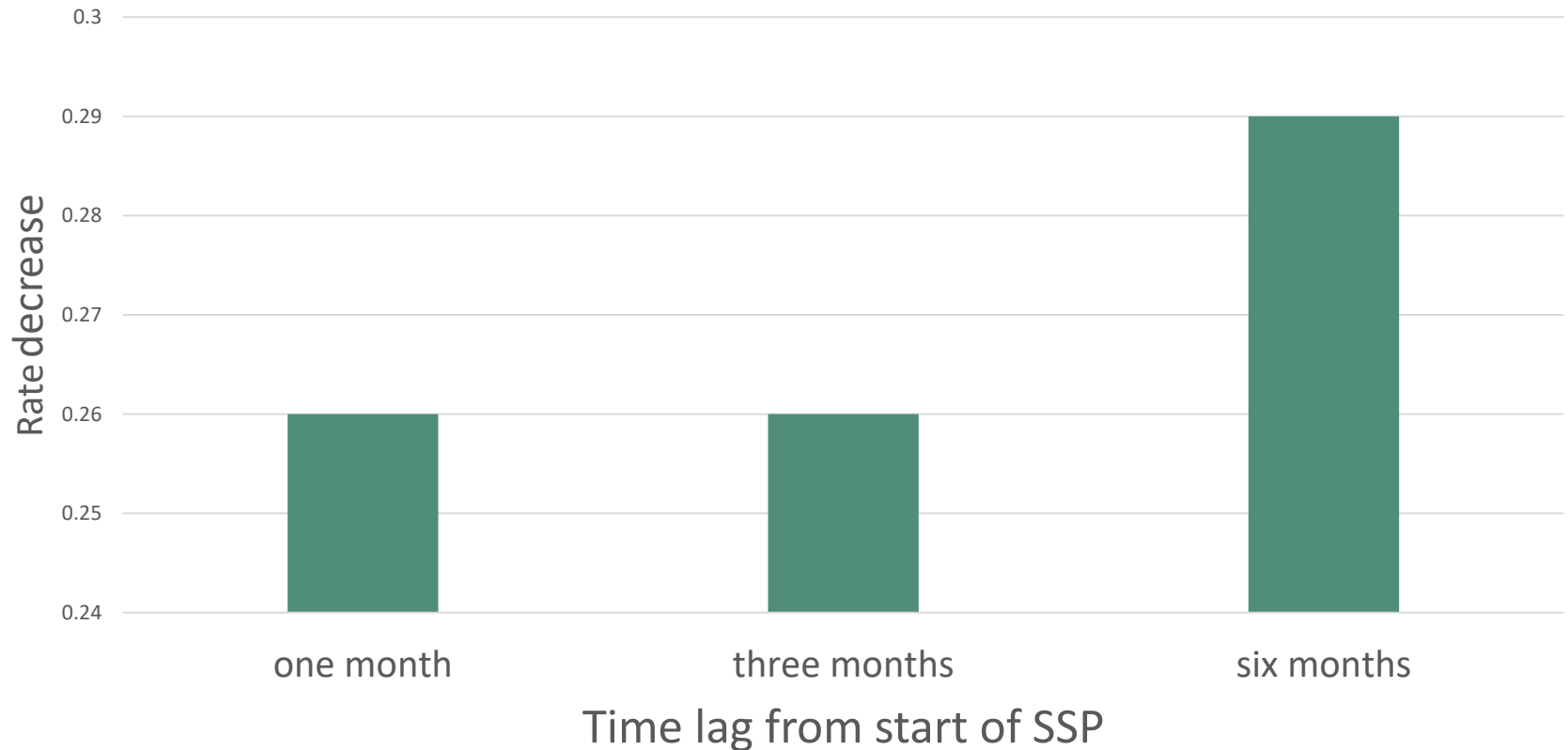
- 54 Vulnerable Counties
- 69 Operating SSPs (58 Counties) as of 11/08/2019
- 3 Counties are Approved but Not Yet Operational

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.**

# Reduction in Infectious Disease Incidence Rates for Medicaid Beneficiaries with Opioid Use Disorder Diagnosis in Counties with an SSP

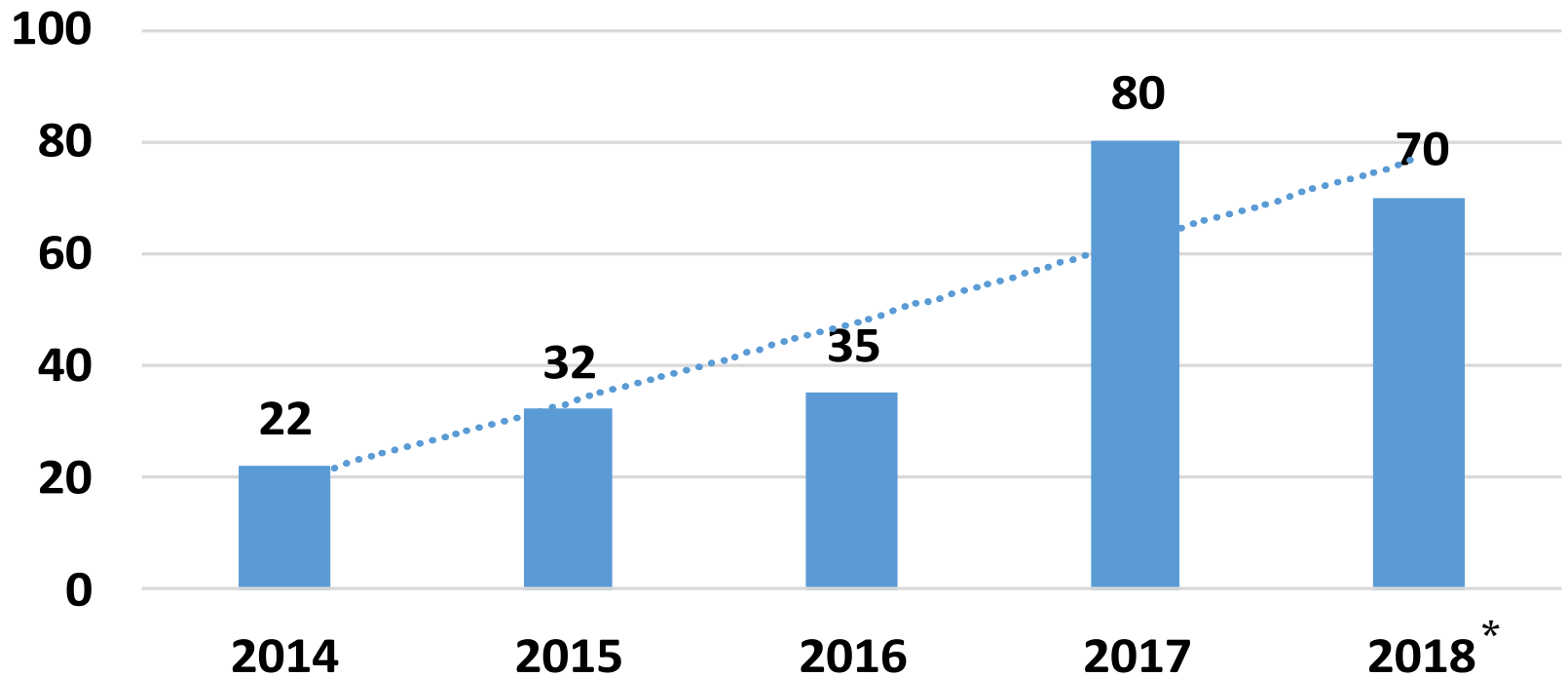


# HIV and IDU in Kentucky

Year of Diagnosis	Total Cases	IDU	MSM/IDU	IDU and MSM/IDU
2014	351	10	12	22 (6.3%)
2015	342	15	17	32 (9.3%)
2016	339	18	17	35 (10.3%)
2017	361	47	33	80 (22.2%)
2018 *	364	53	17	70 (19.2%)

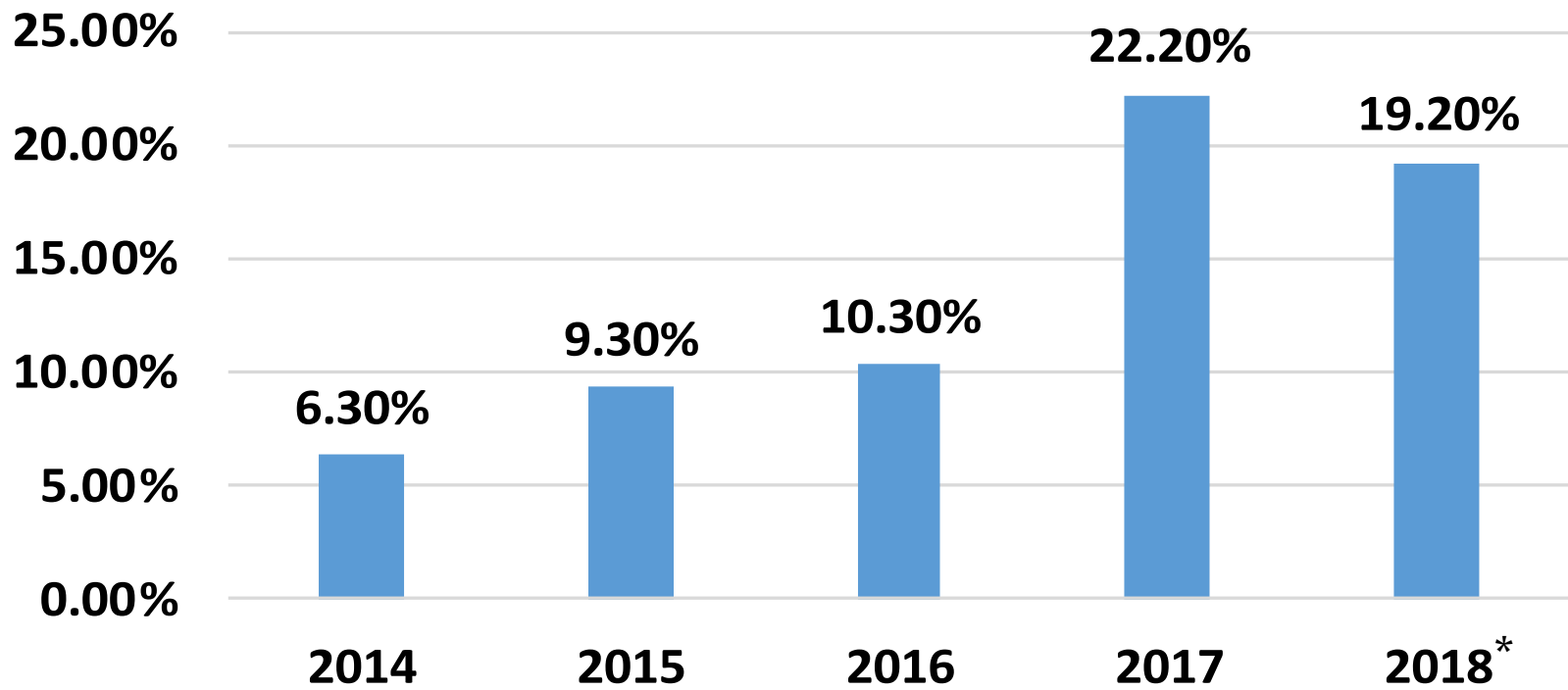
\*Preliminary

## HIV Cases Diagnosed with IDU or MSM/IDU as a Category of Transmission for Kentucky



\*Preliminary

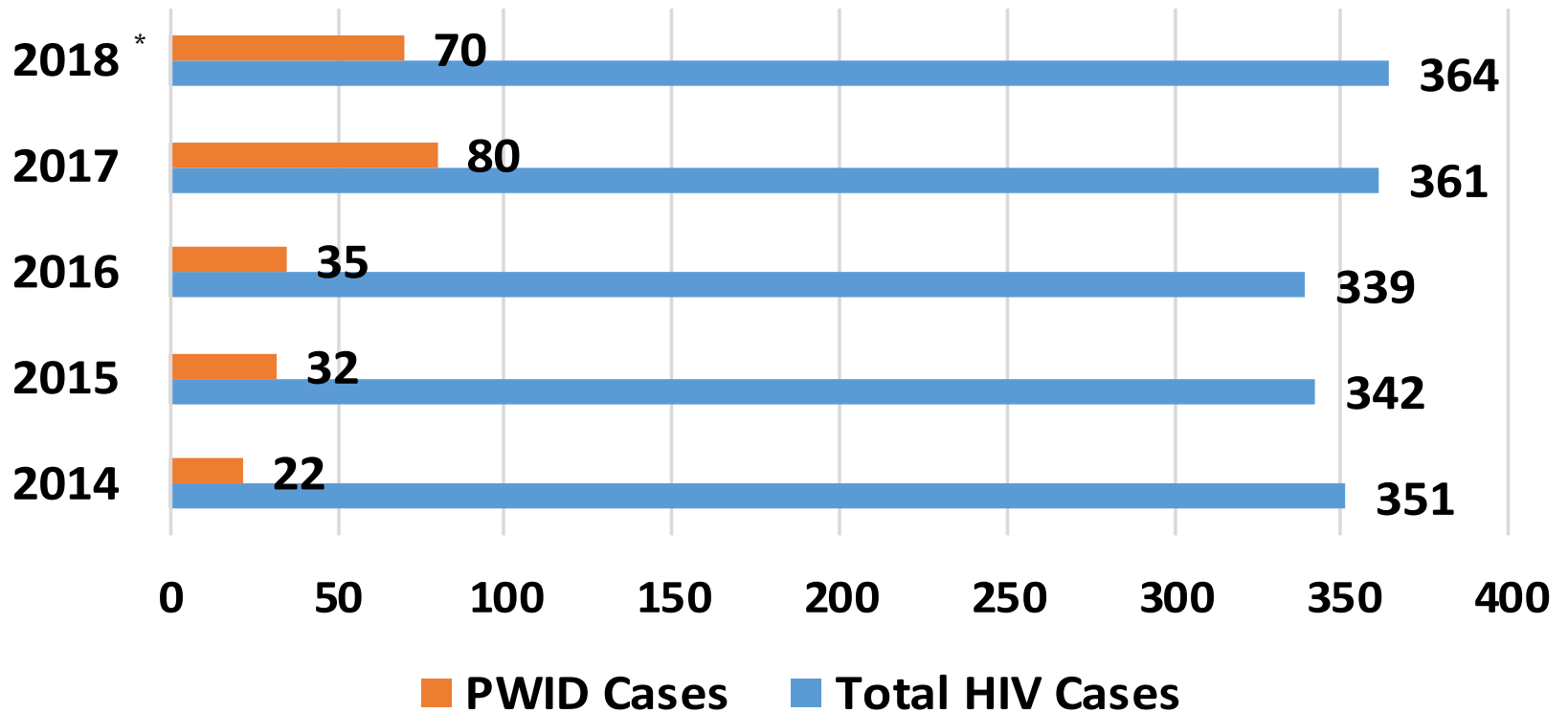
### HIV Cases with IDU as risk factor, as a percentage of Total HIV Cases for Kentucky



\*Preliminary

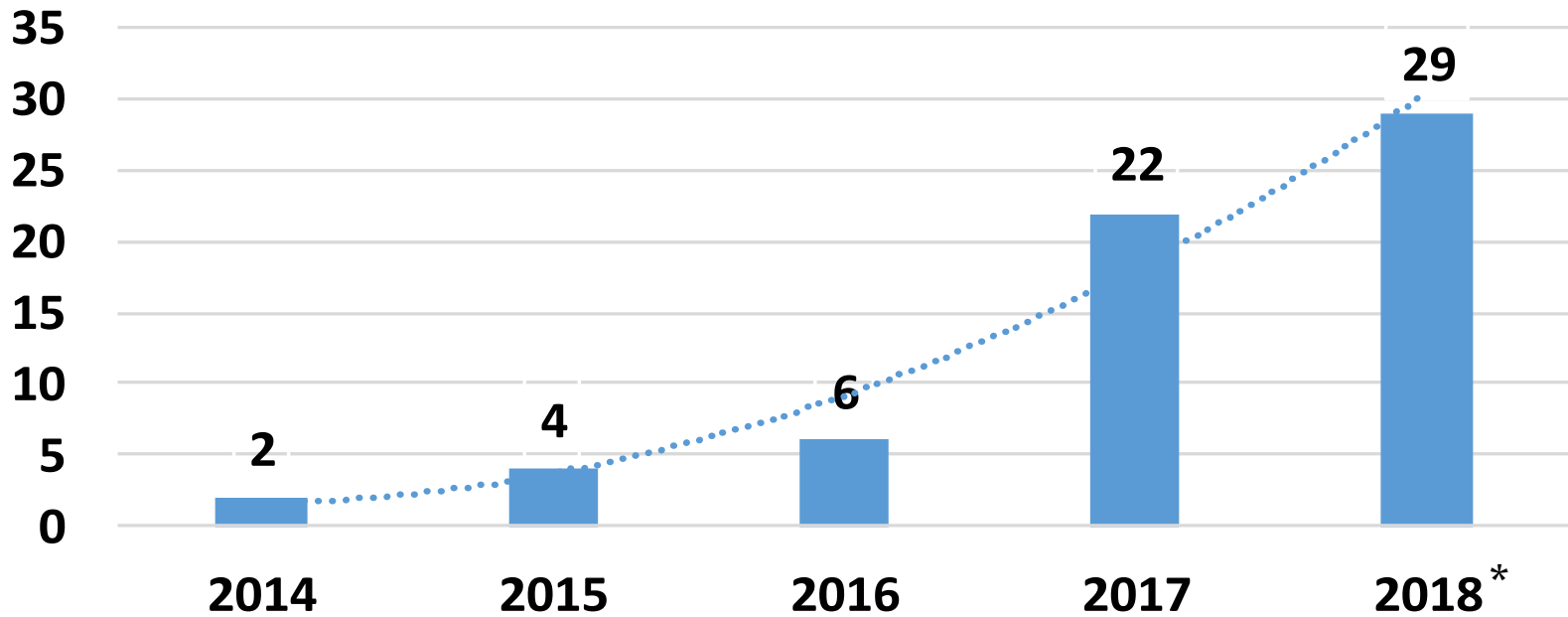


## PWID and Total HIV Cases for Kentucky



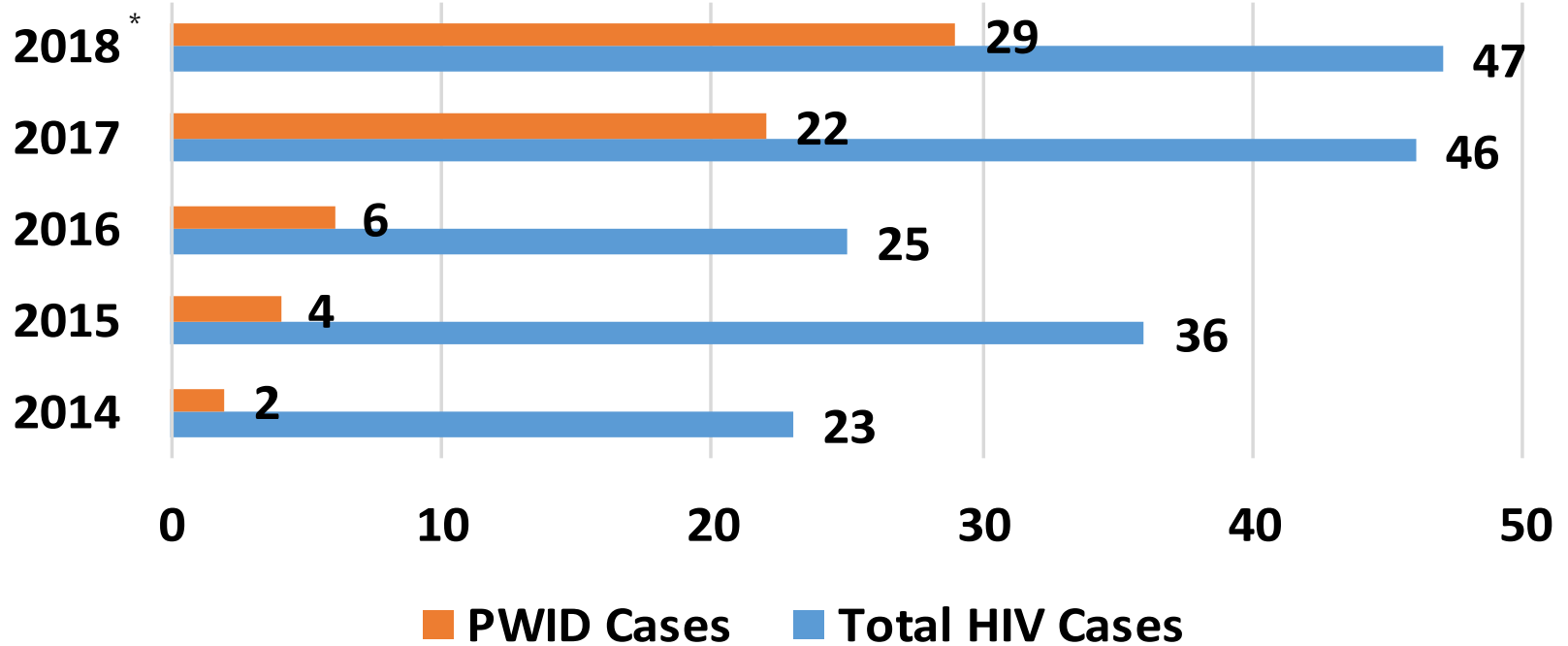
\*Preliminary

## HIV Cases Diagnosed with IDU or MSM/IDU as a Category of Transmission for Northern Kentucky Area Development District



\*Preliminary

## PWID and Total HIV Cases for Northern Kentucky Area Development District



\*Preliminary

# Hepatitis C (HCV) and Injection Drug Use (IDU)

- Per injection, HCV is at least 10 times more infectious than HIV.
- Contaminated needles/syringes not the only vehicle for transmission.
  - HCV infective on inanimate surfaces for weeks.
- An estimated 2.6% of Kentucky citizens currently inject drugs or have a history of injection drug use.
- The estimated prevalence of HCV among people who inject drugs (PWID) is 67%.
  - Only half of PWID know their HCV status.
- Of patients with HCV, 20% develop cirrhosis and 20% of those patients develop liver cancer.
- Challenge: High prevalence, high infectivity.

# Hepatitis C and Injection Drug Use in Kentucky

## PWID and Prevalence Estimates Applied to the Commonwealth

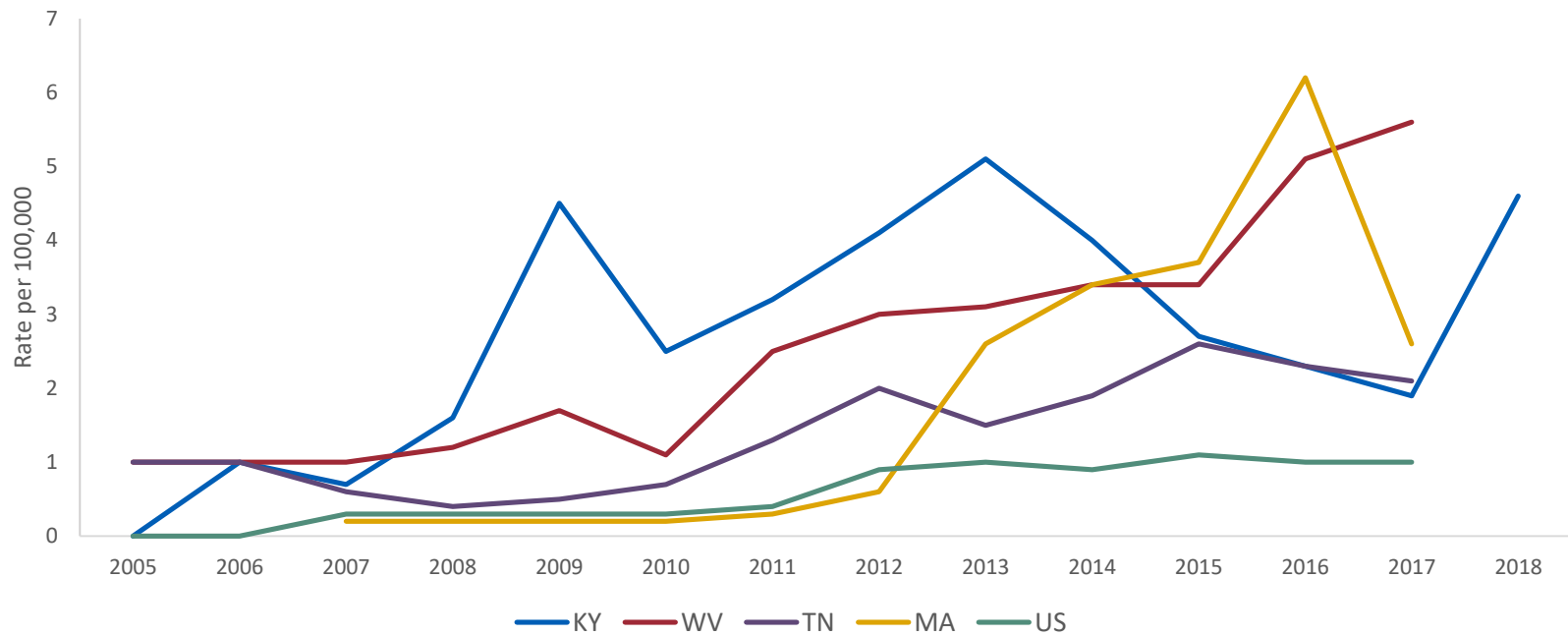
4,468,000 Kentuckians

Estimated 116,200 PWID in Kentucky

Estimated 77,850 PWID with HCV in Kentucky

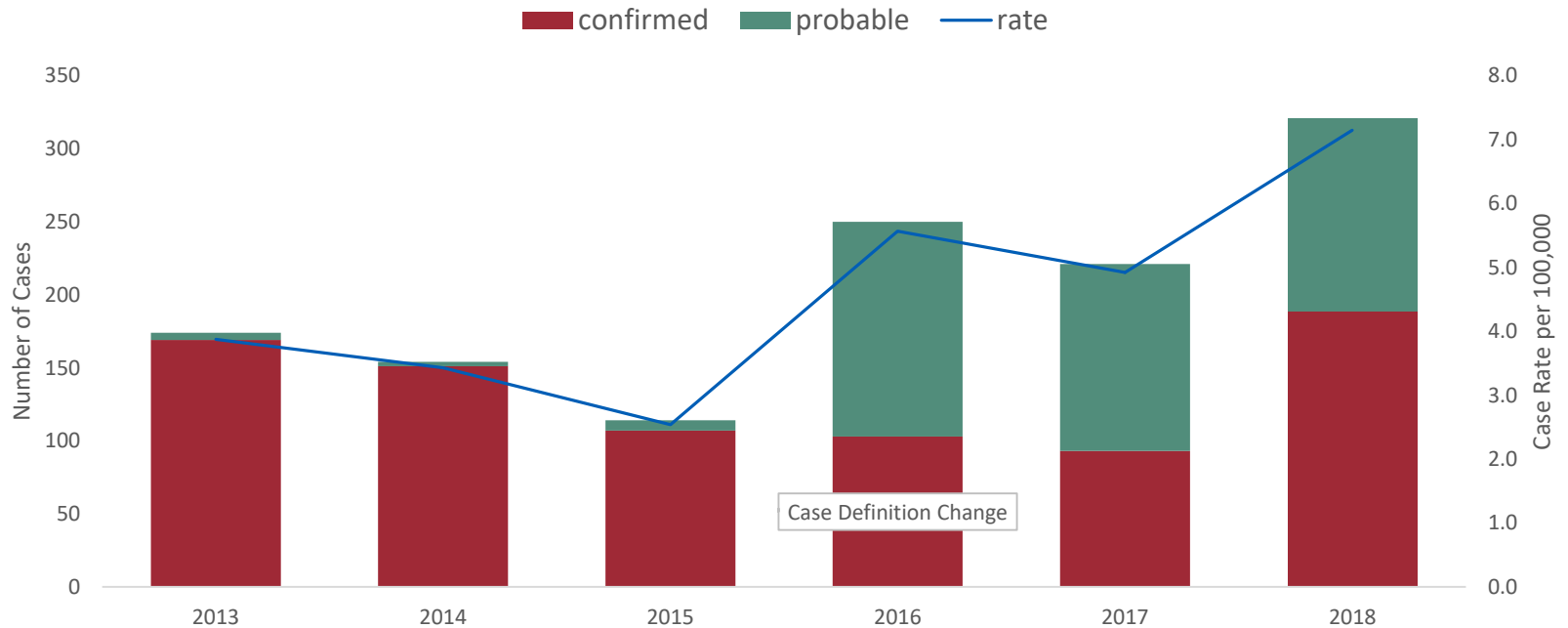
Estimated 38,925 PWID with HCV who are unaware of their status

# Reported Confirmed Acute Hepatitis C: Kentucky, US and High-Rate States, 2005 - 2018



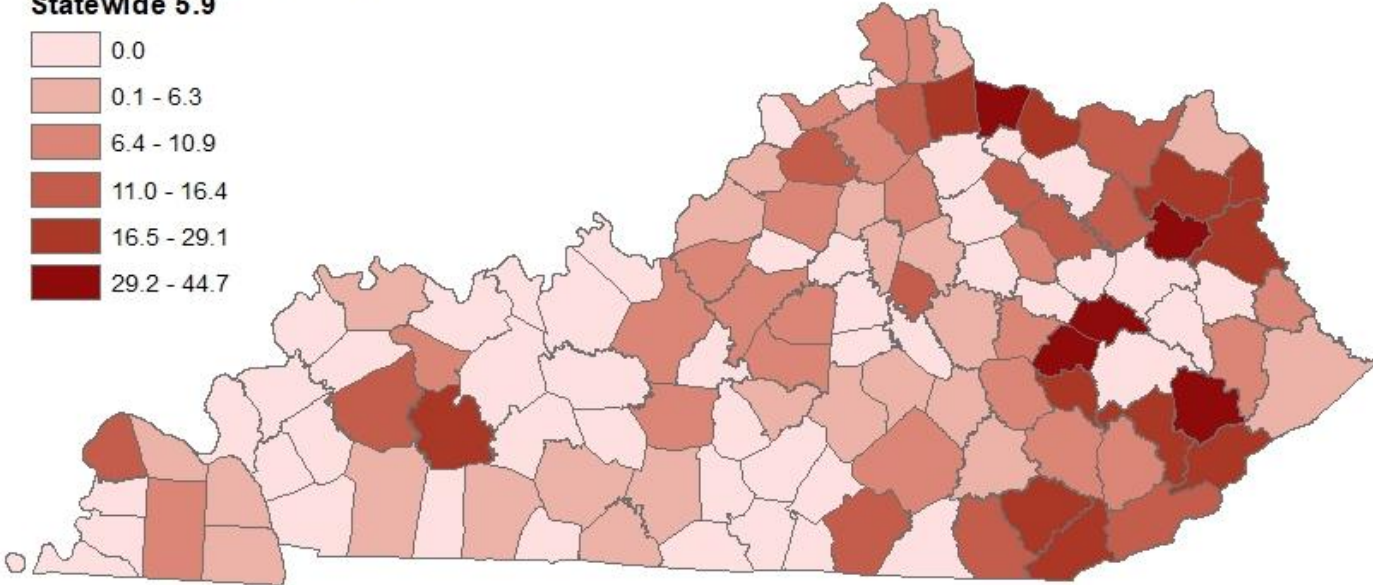
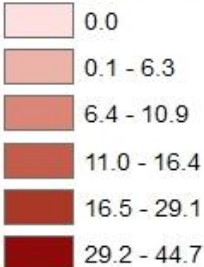
Surveillance for Viral Hepatitis – United States, 2016. Centers for Disease Control and Prevention.  
 NEDSS  
 West Virginia, Tennessee and Massachusetts Viral Hepatitis Programs

# Case Counts and Rates of Confirmed and Probable Acute HCV Infection, Kentucky 2013 - 2018



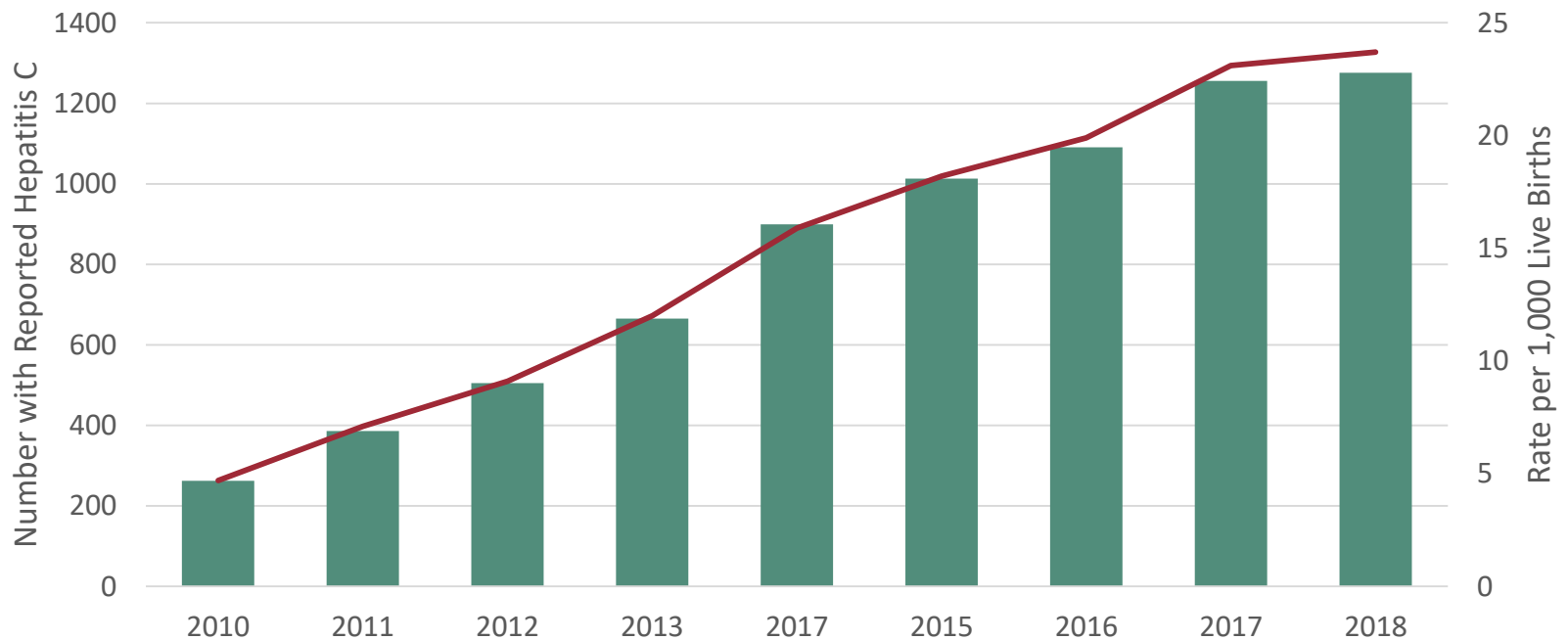
# Case Rates of Confirmed and Probable Acute HCV Infection by County, Kentucky, 2017

Acute HCV Rate per 100,000  
Statewide 5.9





# Reported Hepatitis C Status of Mothers among Kentucky Resident Births, 2010 - 2018



Hepatitis C Infection reported on Birth Certificate - Kentucky's Office of Vital Statistics

# 2017-2019 Hepatitis A Outbreak

- Nationwide outbreak begins in San Diego California, Detroit Michigan, and Salt Lake City Utah
- Kentucky cases begin August 2017
- Kentucky experiences the largest statewide outbreak of Hepatitis A ever seen in the United States
  - Close to 5,000 cases in two years
  - 2<sup>nd</sup> highest incidence in the U.S. (2<sup>nd</sup> only to West Virginia)
- Associated with illicit drug use (injection or non-injection)
- First state that had an urban and a rural component

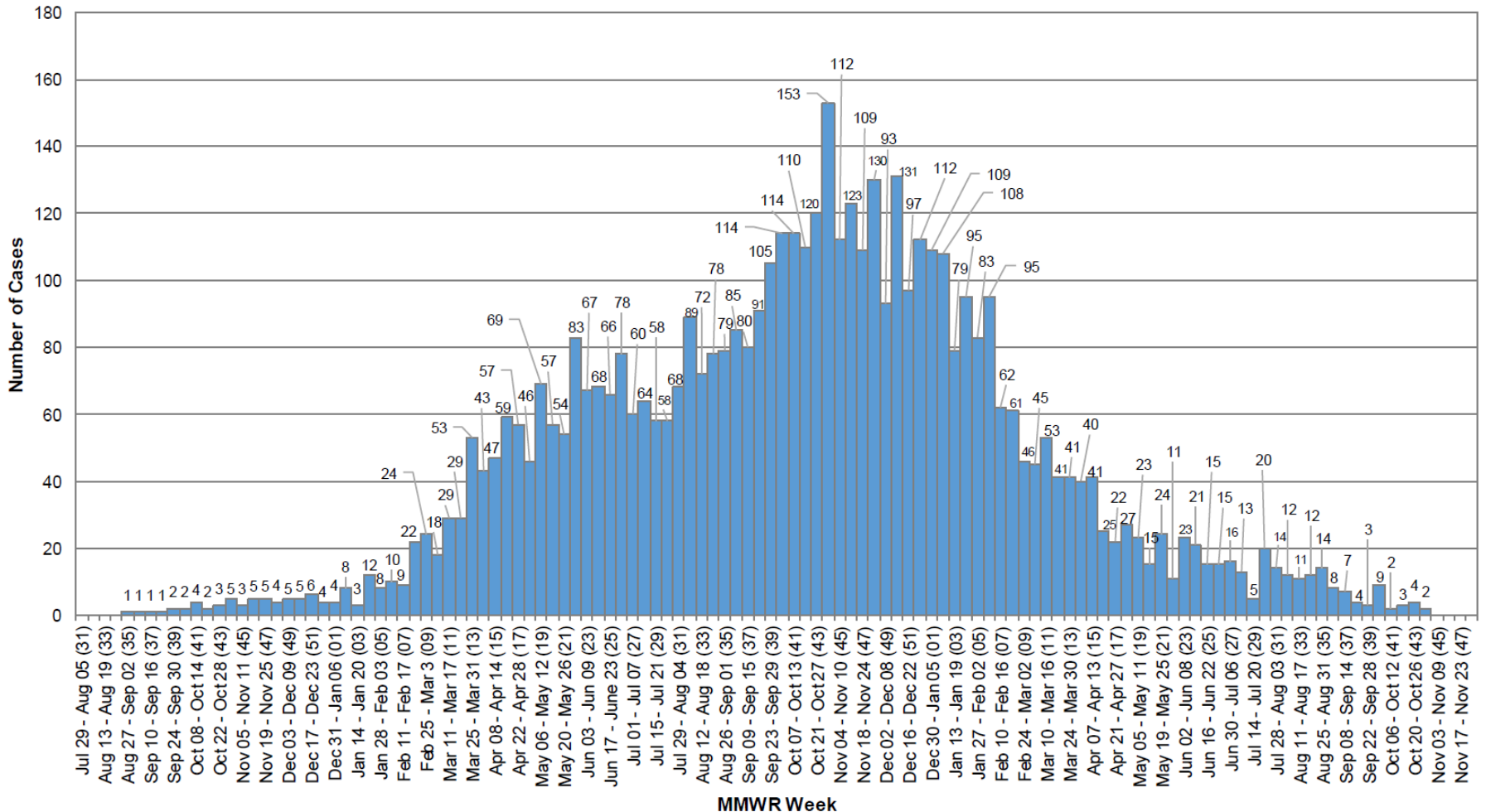
# KY HAV Outbreak Risk Factors

<b>KY17-089 Risk Factors of Outbreak-Associated Acute Hepatitis A Cases, August 1, 2017 – November 2, 2019<sup>#^</sup></b>	
<b>Risk Factor</b>	<b>Number of Cases Reporting Risk Factor (n=3987)*</b>
Homelessness + No/Unk Illicit Drug Use	57 (1.4%)
Illicit Drug Use + No/Unk Homelessness	2865 (72%)
Homelessness + Illicit drug use	305 (7.6%)
No Outbreak-Related Risk Factors	760 (19%)

\*Risk factor data is unavailable for about 20% of cases

# Kentucky's Hepatitis A Outbreak Curve

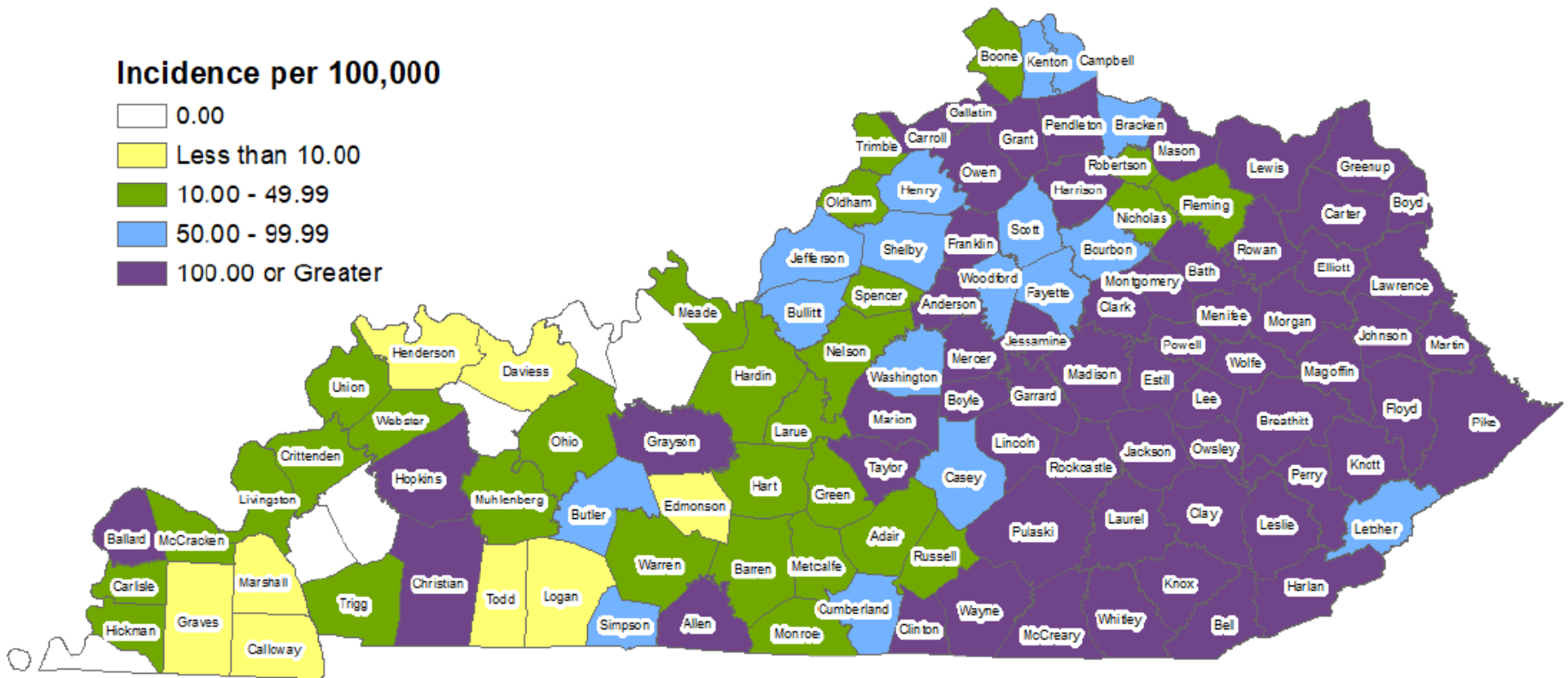
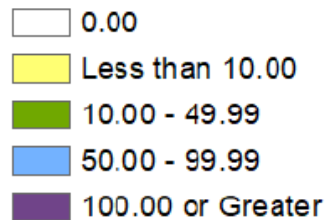
KY17-089 Epi-Curve of Outbreak-Associated Cases by MMWR Week, August 1, 2017 - November 2, 2019



# 2017-19 Hepatitis A Outbreak Incidence

KY17-089 Incidence of Outbreak-Associated Acute Hepatitis A Cases by County, August 1, 2017 - November 2, 2019

## Incidence per 100,000



The KY incidence rate is 111.5 per 100,000.  
Note: Rates calculated from numerators less than 20 may not be reliably used to determine trends.

# Public Health Activities to Address Infectious Diseases Associated with Substance Use

- CDC “Ending the HIV Epidemic” – only one of seven states chosen
- Hazard HIV Coalition
- HIV community conversations
- Webinar to increase testing for HIV in syringe service programs, emergency departments, MAT providers
- Gilead Focus
- PrEP availability in Christian County Health Department
- ECHO and KHAMP trainings
- HUB meeting
- DPH harm reduction mobile unit
- Others

# Harm Reduction Model

At all points where we can touch people who inject drugs:

- Refer for substance use disorder treatment
- Test for HIV, HCV, STDs
- Refer for clinical care for infectious disease issues
- Naloxone distribution
- Connect to healthcare coverage
- Hepatitis A and B vaccination
- Others

**QUESTIONS?**