

The Opioid Epidemic and Hepatitis C: a Public Health Crisis

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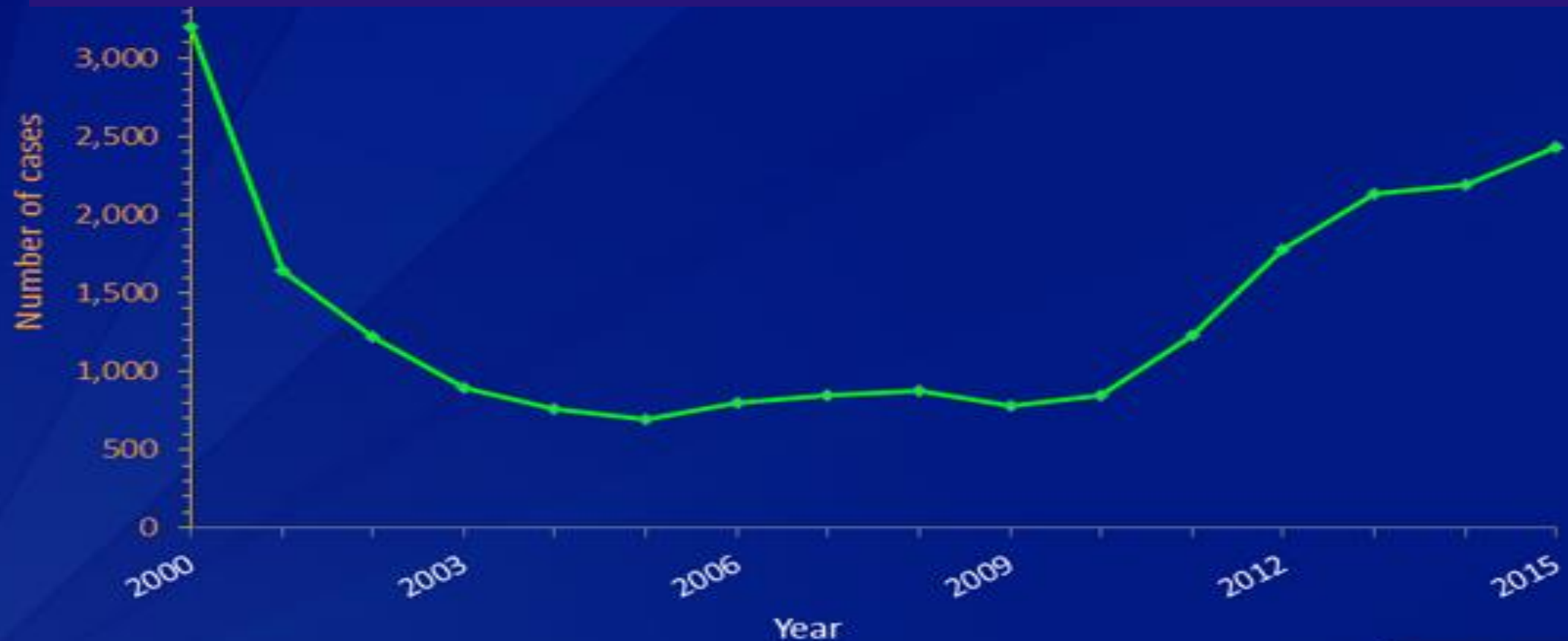
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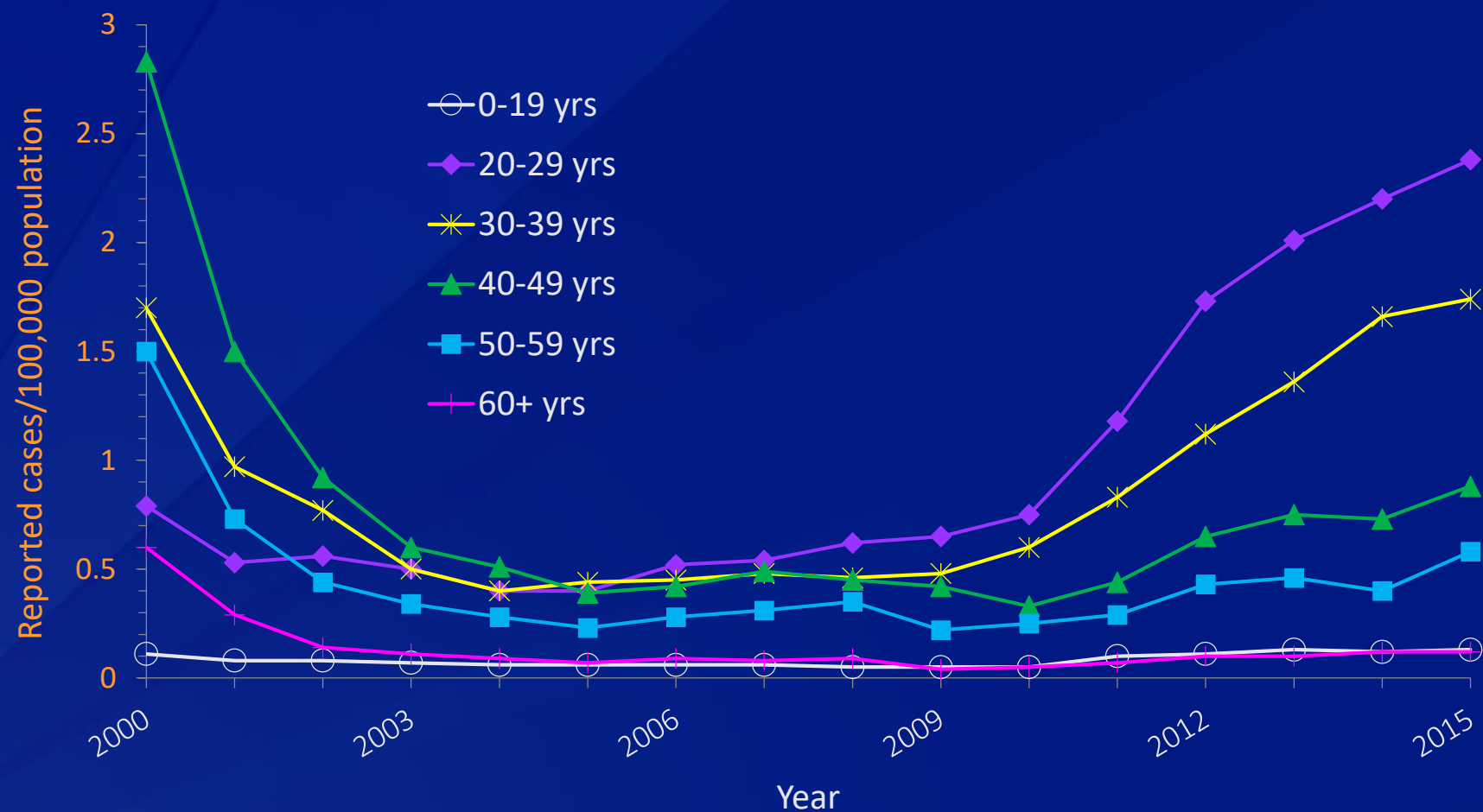
Reported number of Acute Hepatitis Cases United States, 2000-2015



Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)



Figure 4.2. Incidence of acute hepatitis C, by age group — United States, 2000–2015

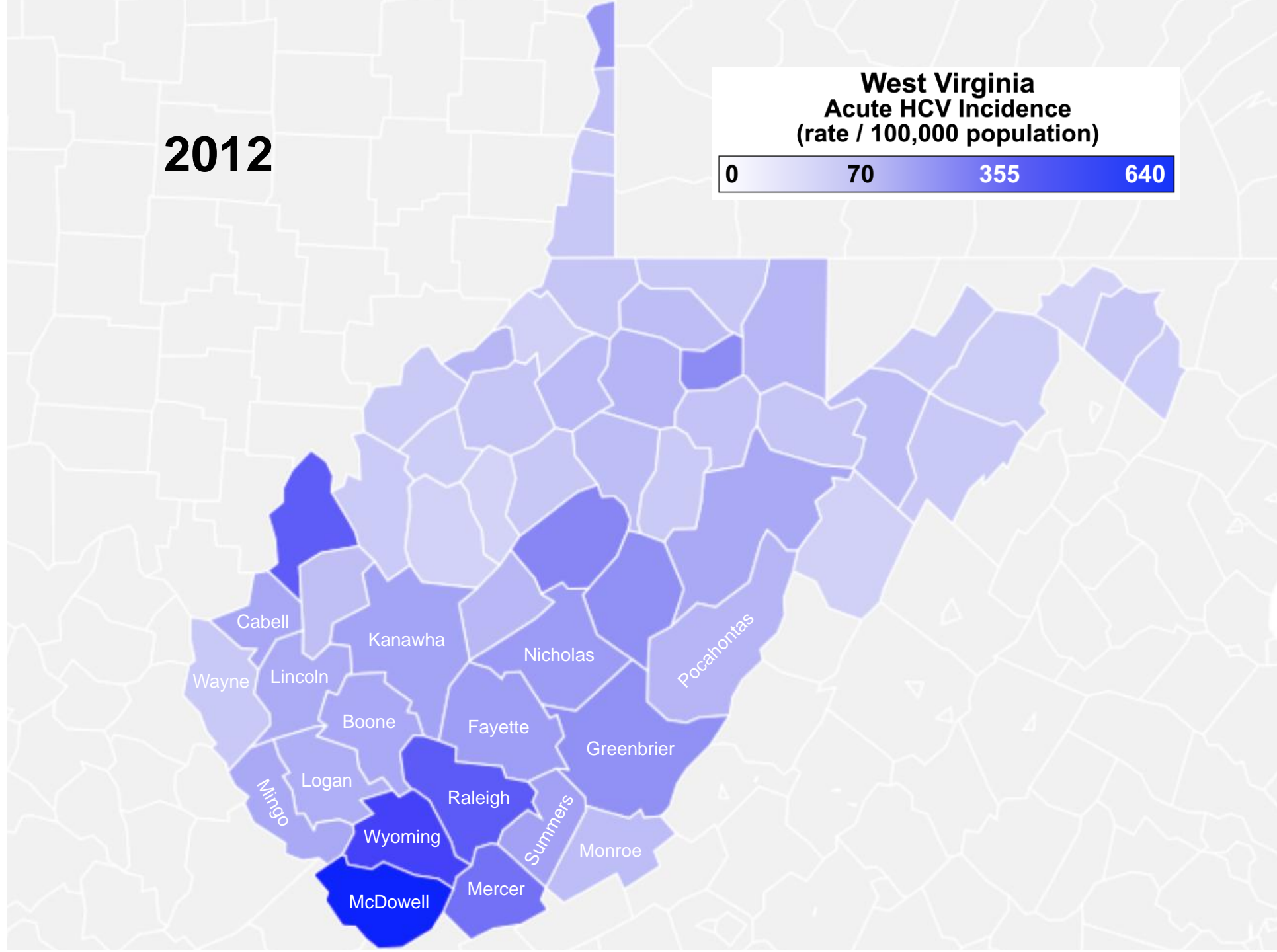


Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)



2012

West Virginia
Acute HCV Incidence
(rate / 100,000 population)



2013

West Virginia
Acute HCV Incidence
(rate / 100,000 population)

0 70 355 640

Cabell
 Kanawha
 Nicholas
 Pocahontas
 Wayne
 Lincoln
 Boone
 Fayette
 Greenbrier
 Mingo
 Logan
 Wyoming
 Raleigh
 Summers
 Monroe
 McDowell
 Mercer

West Virginia
Acute HCV Incidence
(rate / 100,000 population)

Incidence Rate (per 100,000)
0
70
355
640

0	70	355	640
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0	70	355	640
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0	70	355	640
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0	70	355	640
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A map of Indiana counties with Wayne, Cabell, and Lincoln counties highlighted in blue. Wayne is on the left, Cabell is at the top, and Lincoln is on the right.

Kanawha

Lincoln

Boone

Fayette

Nicholas

Greenbrier

Logan

Raleigh

Wyoming

Summers

McDowell

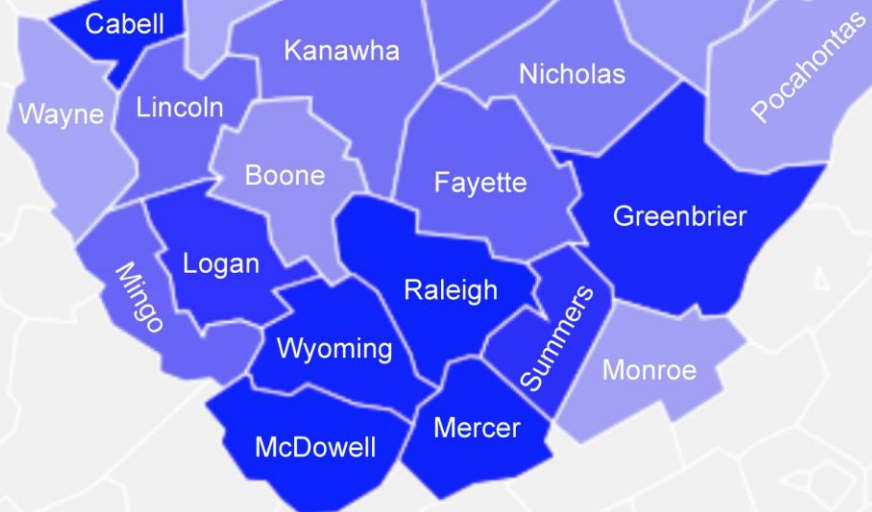
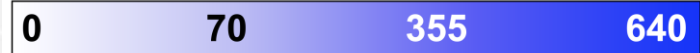
Mercer



McDowell

2014

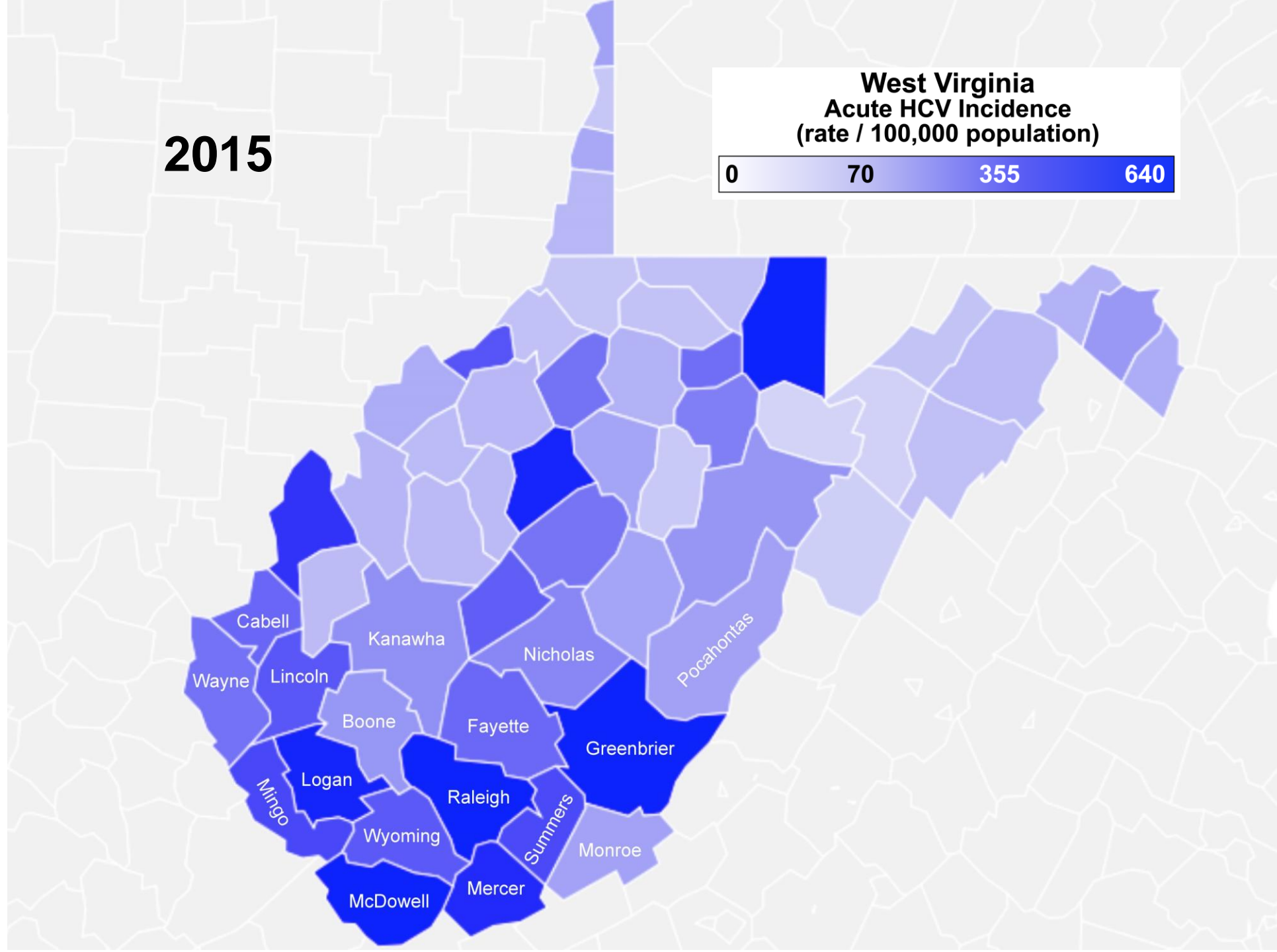
West Virginia
Acute HCV Incidence
(rate / 100,000 population)



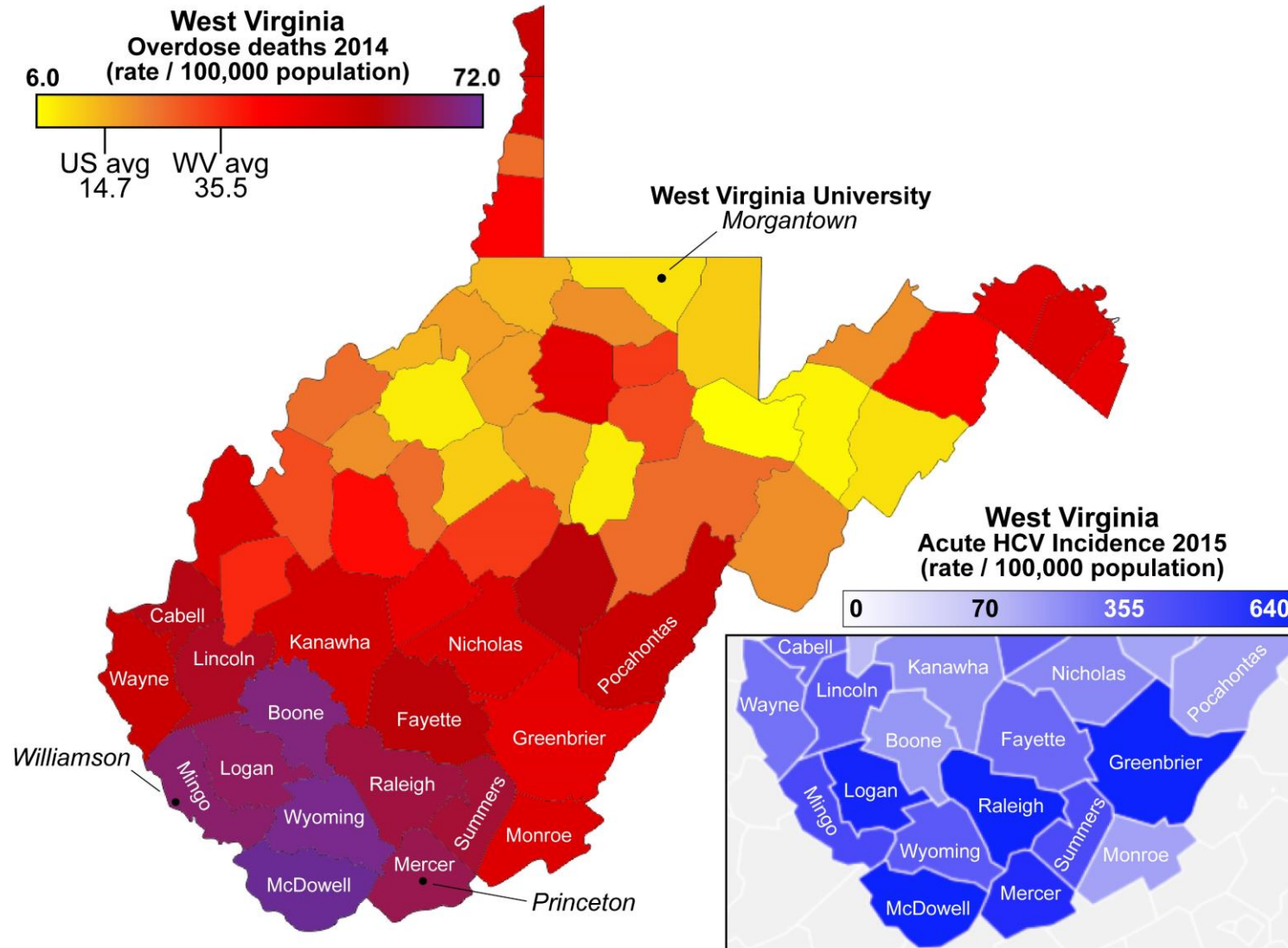
2015

West Virginia
Acute HCV Incidence
(rate / 100,000 population)

0 70 355 640

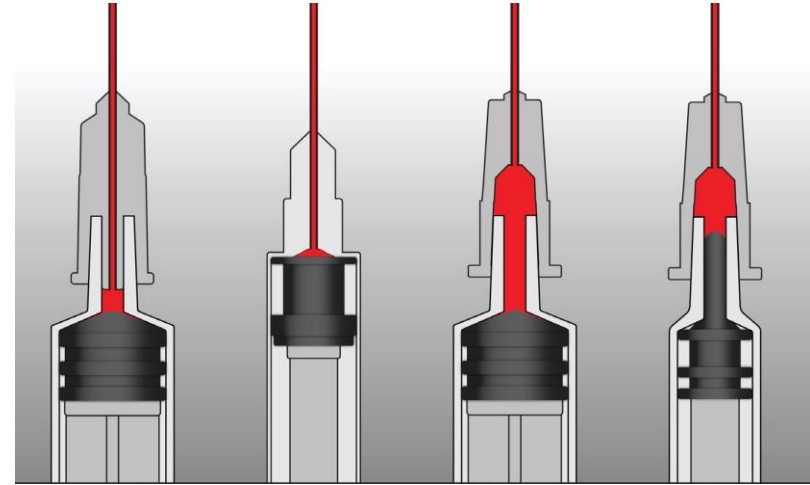


Overdose Mortality (2014) vis-a-vis HCV (2015) Rates, Southern West Virginia, 2014-15



Persistence of Hepatitis C Viral Infectivity

- up to **63 days** in syringe barrel and dead space
- up to **21 days** in water from a plastic container
- up to **14 days** on inanimate surfaces (cookers)
- up to **24 hours** in filter, and **48 hours** when foil-wrapped.
- HCV-contaminated solution needs to be heated for almost a **90 seconds** and reach temperatures of **144 degrees Fahrenheit** for infectivity to be at undetectable levels



Hepatitis C is on *every* piece of injecting equipment



alcohol swabs



tourniquet



filters



cookers



surfaces



rinse/mixing water



bloody fingers



syringes



fingers in cookers



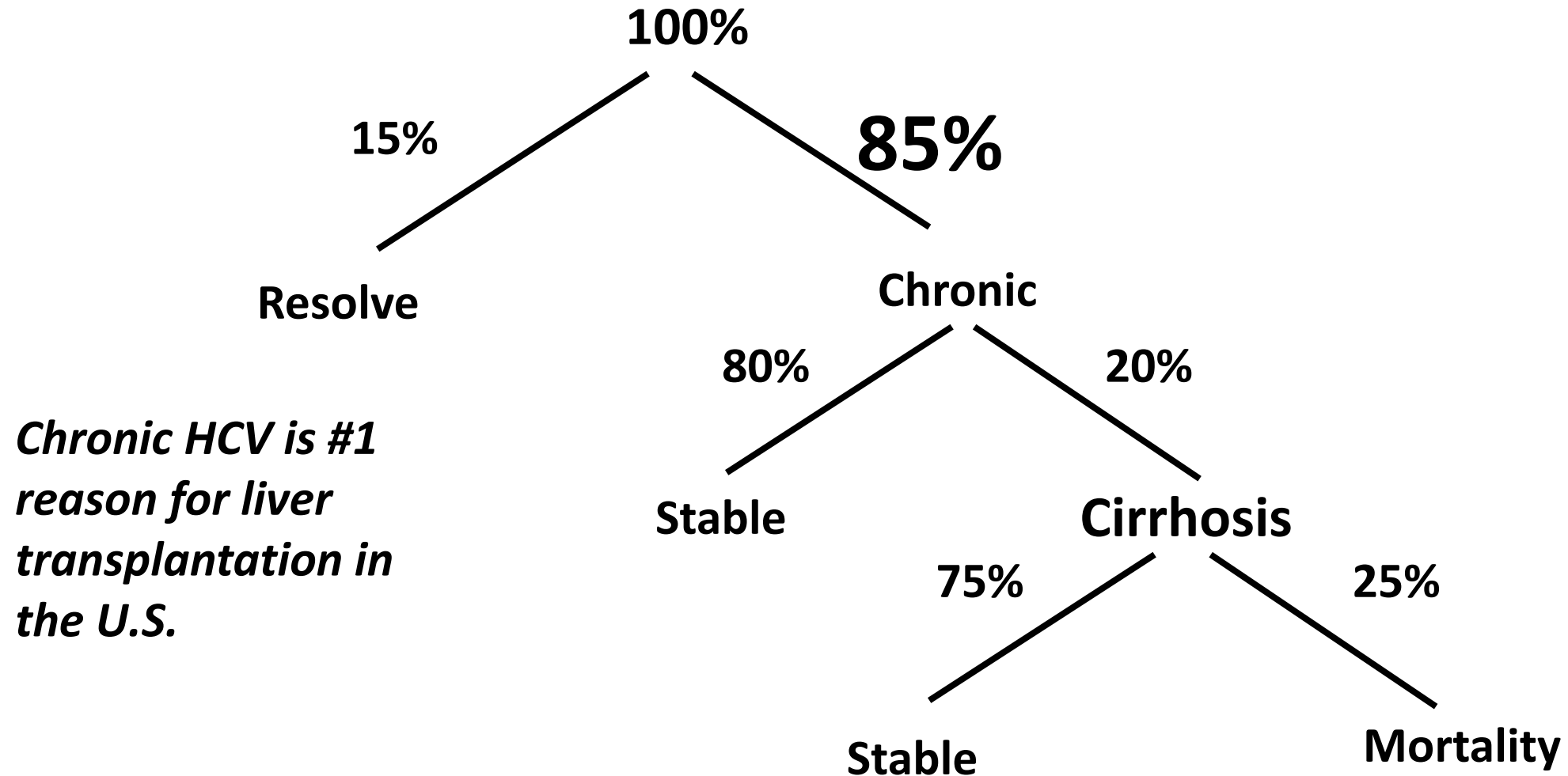
fishing for a vein

aintsil et al. Survival of Hepatitis C Virus in Syringes: Implication for Transmission among Injection Drug Users. *JID*, 2010

Doerrbecker et al. Inactivation and survival of hepatitis C virus on inanimate surfaces. *J ID*, 2011

Doerrbecker et al. Transmission of Hepatitis C Virus Among PWID: Viral Stability and Association With Drug Preparation Equipment, *JID*, 2012

Natural History of Hepatitis C



Current Barriers to Hepatitis C Treatment in West Virginia

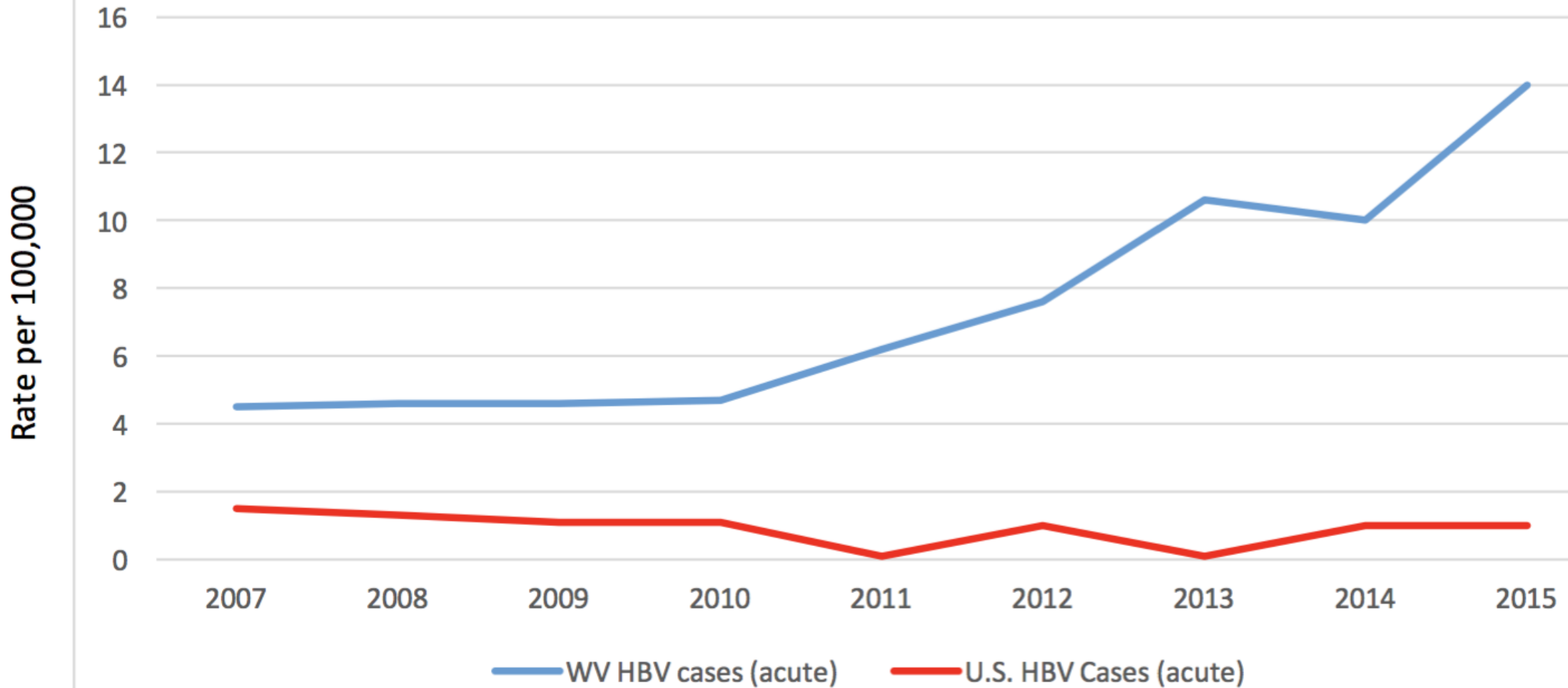
- prior authorization by insurer
- WV Medicaid requirements
 - fibrosis (scarring in liver) \geq F2
 - abstinent \geq 3 months
 - specialist consultation required
- rural population with difficult access to specialists in cities
- primary care providers who lack knowledge, experience to diagnose, evaluate and treat hep C

Current Barriers: An epidemic of epidemics

- Hepatitis C (the leading infectious killer in the US)
- Hepatitis B
- HIV (here already)
- Overdoses
- Heart infection (endocarditis)
- Sexually Transmitted Infections
- Neonatal abstinence syndrome (babies born in withdrawal from maternal drug use)
- Children abandoned, neglected, abused, flooding foster care
- Homelessness
- First responder compassion fatigue/burnou



Incidence of Acute HBV by Year of Report, WV and US 2007-2015



Recommendations

- address stigma
- expand substance abuse treatment
- enhance harm reduction services
 - accessible syringe services
 - ‘test-and-treat’ hepatitis C and HIV
 - pre-exposure prophylaxis for HIV
 - hepatitis B vaccination
- expand provider pool
 - hepatitis C ECHO (web-based training)
 - remove specialist requirement for prescribing
- remove requirement for liver damage (fibrosis)
- remove requirement for sobriety (requires accessible syringe services)

