

# Hepatitis B Surveillance Overview - 2015

Ashley Simmons  
Weekly Professional Development  
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- Overview of the Hepatitis B Virus
- Methods
- Results
- Discussion
- State Initiatives
- Limitations

# Introduction - Hepatitis B

## Hepatitis B virus (HBV)

- Acute HBV
- Chronic HBV

## Hepatitis B in the US

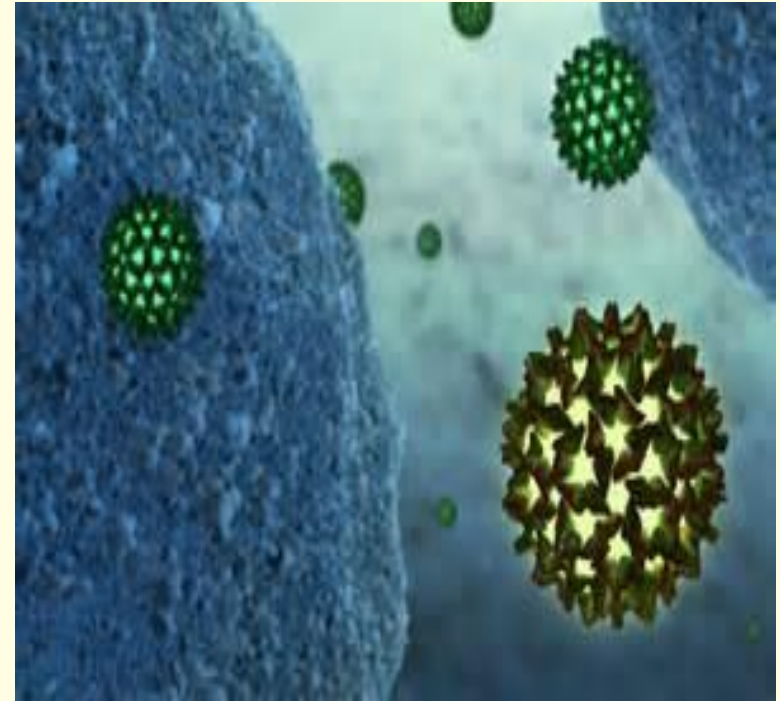
- 46k new infections each year
- 1.4 million with chronic HBV

## Hepatitis B Worldwide

- 350 million infected
- >500k die each year of HBV complications

## Hepatitis B's significance in West Virginia

- Highest rate of HBV per population in the U.S.

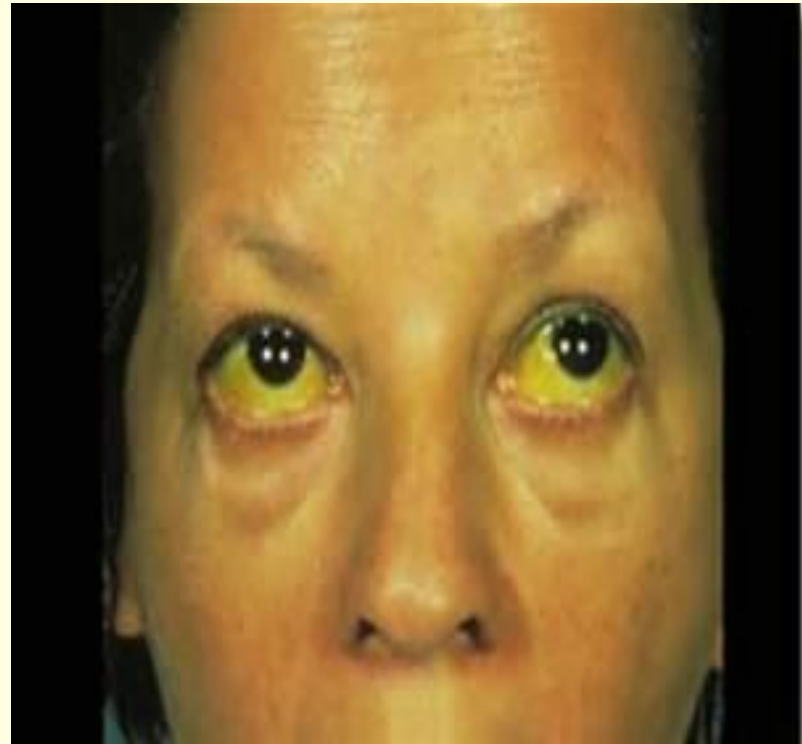


# Introduction - Risk Factors

- Unprotected sex
- Sharing needles (IDU)
- MSM
- Live with a chronic HBV carrier
- Perinatal transmission
- Working with human blood
- Traveling to regions with high HBV rates



- **Jaundice**
- **Malaise**
- **Anorexia**
- **RUQ pain**
- **Nausea**
- **Vomiting**
- **Diarrhea**
- **Dark urine**
- **Clay colored stool**



## Acute Confirmed

- HBsAg positive
- IgM anti-HBc-positive if done
- Discrete onset of symptoms

And either

- A) Jaundice OR
- B) Elevated ALT (>100 IU/L)

## Chronic Confirmed

- IgM anti-HBc negative AND a positive result on one of the following tests: HBsAg, HBV DNA, HBeAg OR
- HBsAg, HBV DNA or HBeAg positive two times at least 6 months apart (any combination of these tests 6 months apart is acceptable)

## **WV Code 16-3-1; 64 CSR 7**

- Within 1 day

## **Hepatitis B Registry**

- December 2011

## **WVEDSS → CDC**

- Data extracted March 30, 2016
- Filtered by MMWR Week 1- 53
- Cleaned and checked for accuracy

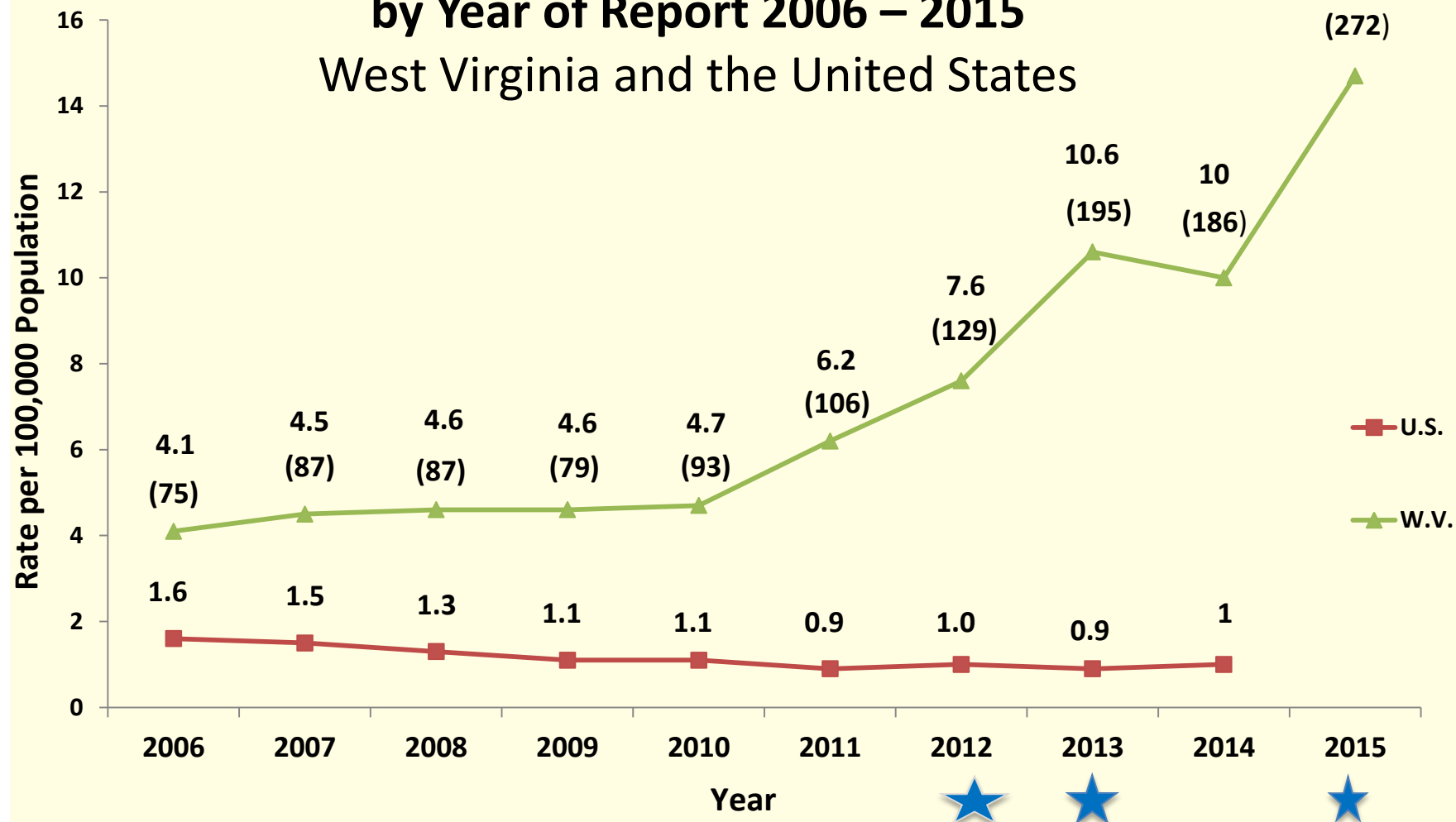
## **Data Included Within Report**

- Acute Confirmed
- Chronic Probable
- Chronic Confirmed



# Results

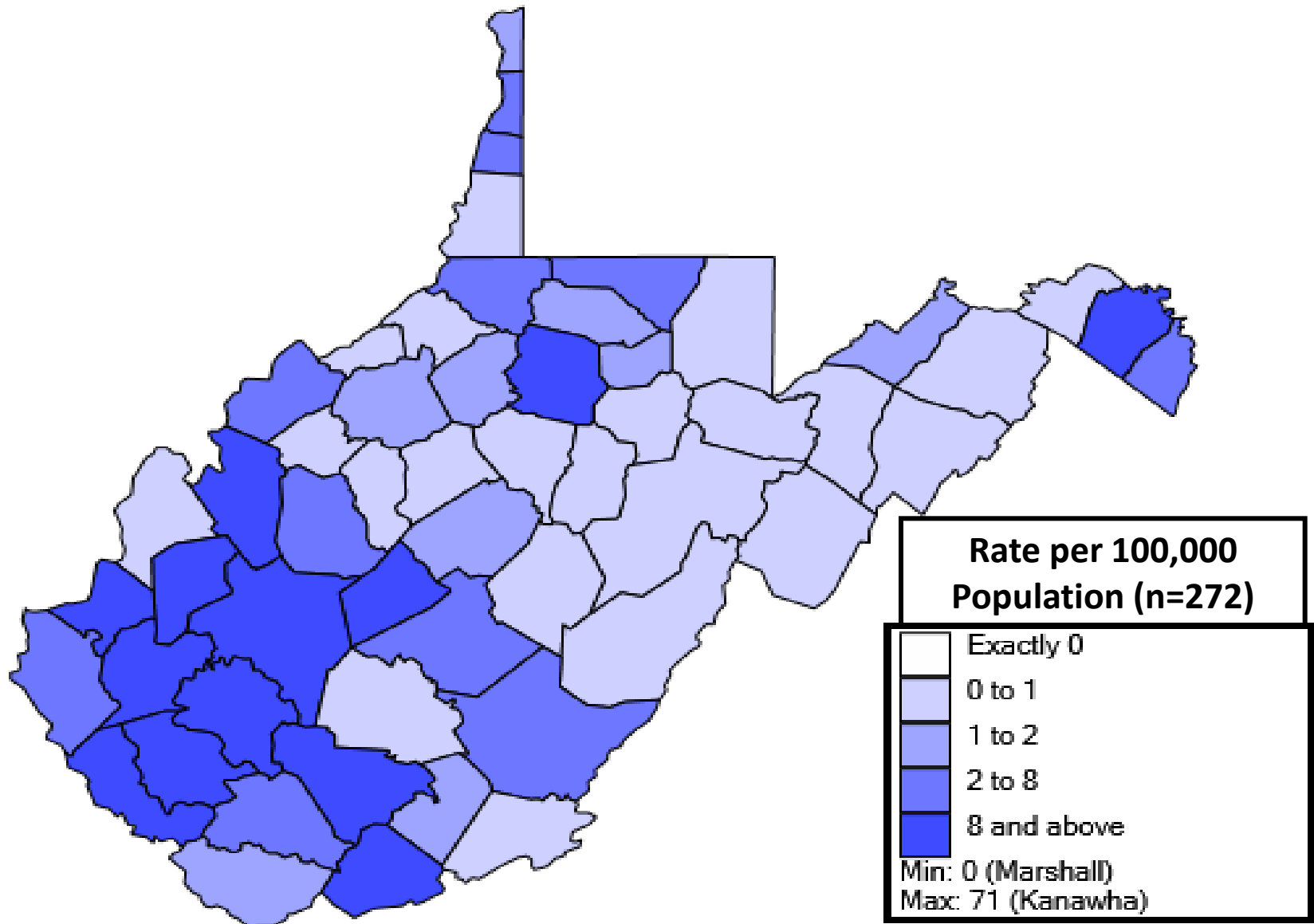
## Acute Hepatitis B – West Virginia by Year of Report 2006 – 2015 West Virginia and the United States



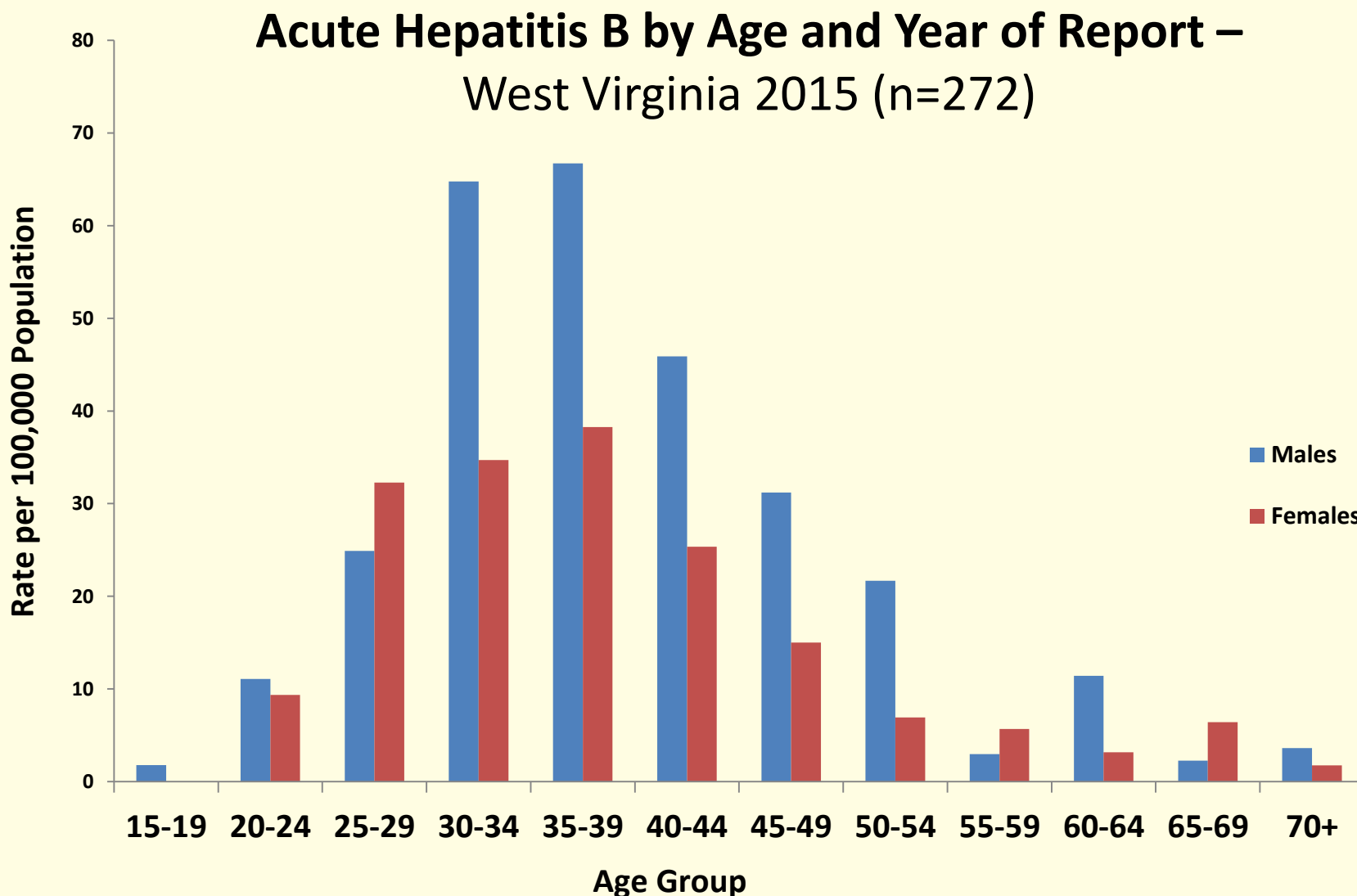
\*2015 Acute Hepatitis B Data for West Virginia data is provisional as of 3/31/2016

West Virginia has ranked #1 in the incidence of Acute Hepatitis B in the US from 2007 to 2014

# Results - Rate of Acute Hepatitis B by County of Residence and Year of Report 2015, WV



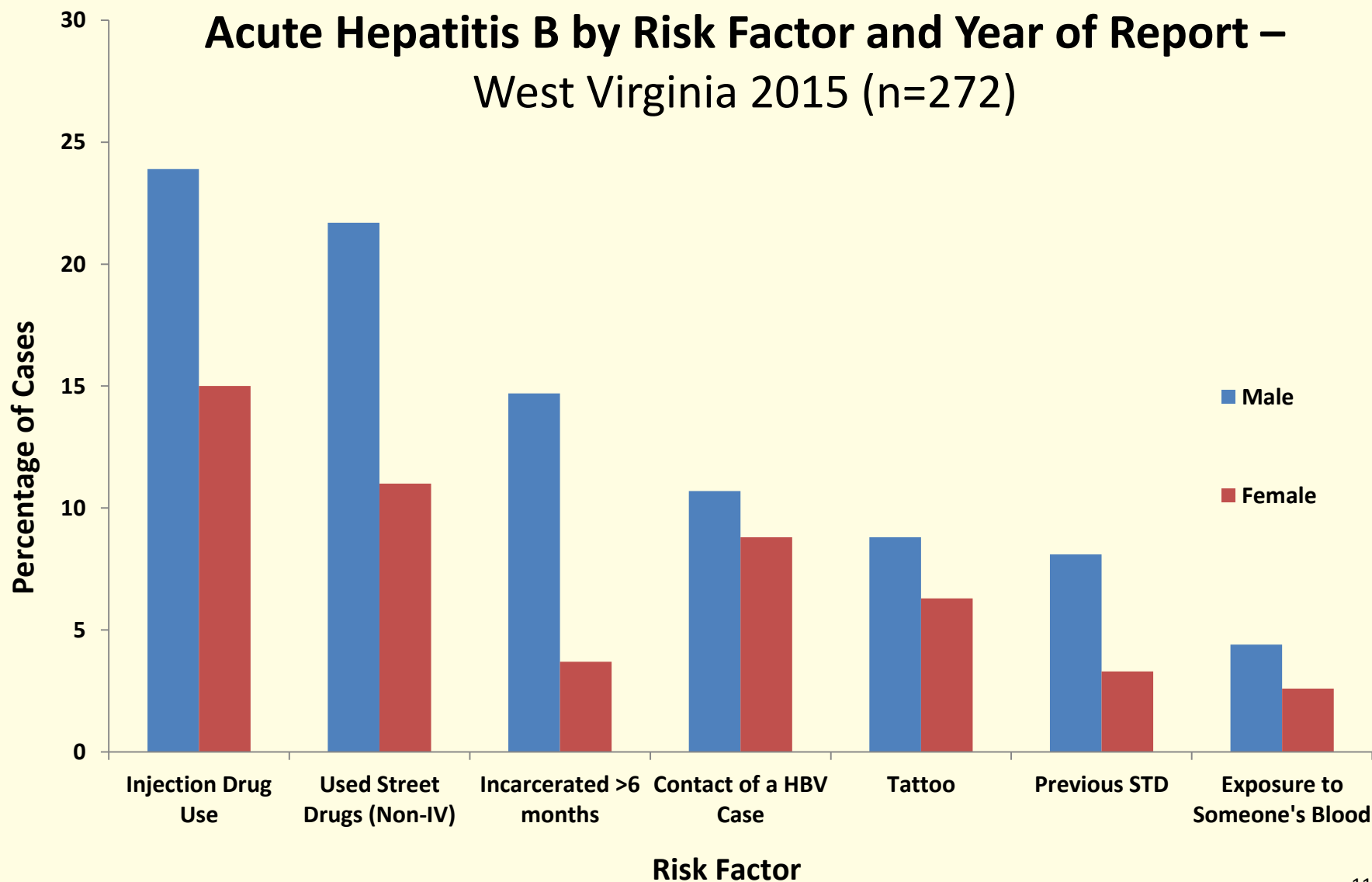
# Results



\*2015 Acute hepatitis B rate data is provisional as of 3/31/2016

# Results

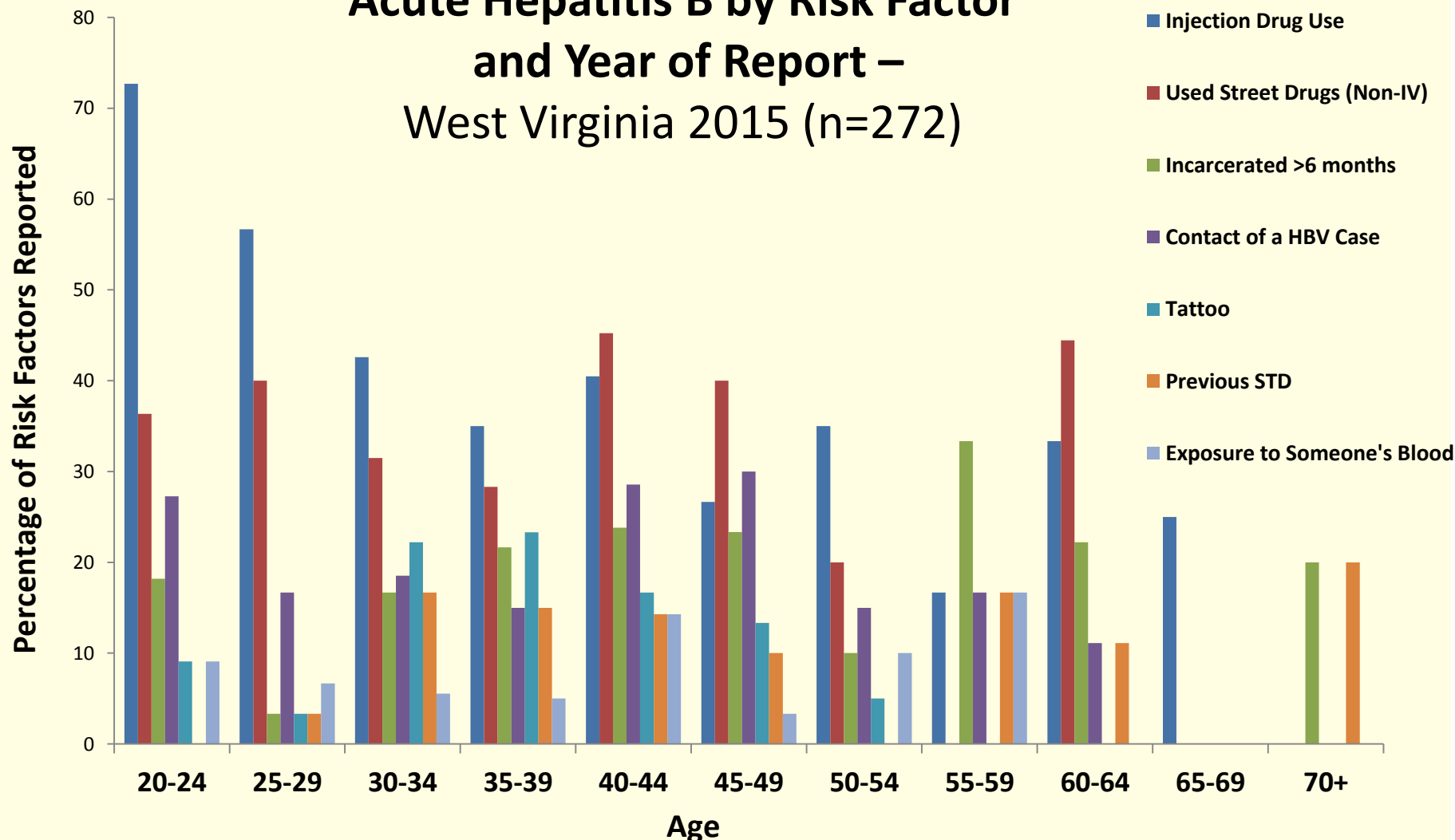
## Acute Hepatitis B by Risk Factor and Year of Report – West Virginia 2015 (n=272)



\*2015 Acute hepatitis B data is provisional as of 3/31/2016

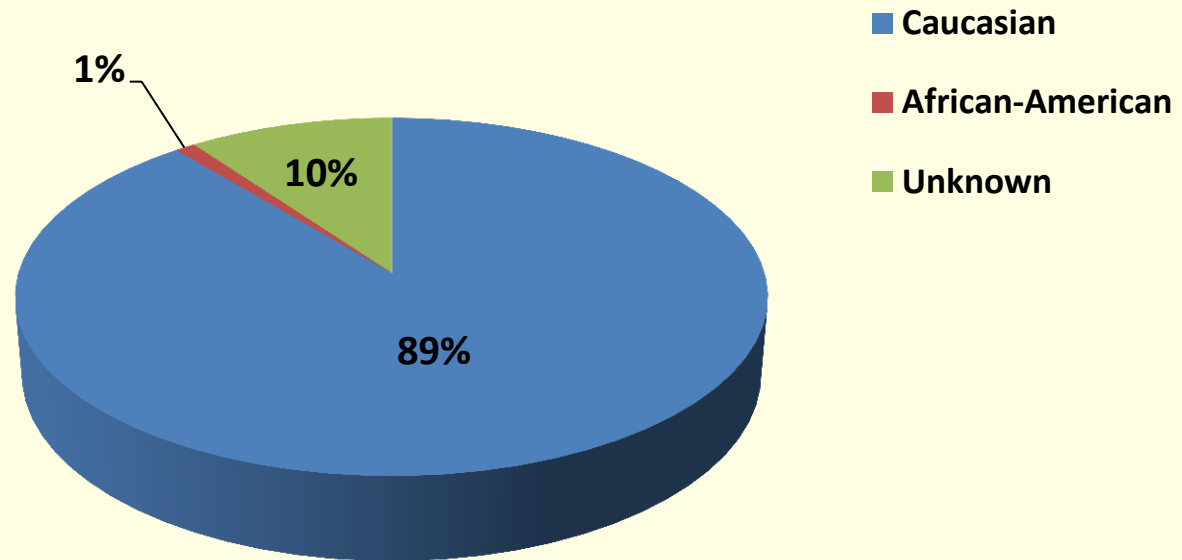
# Results

## Acute Hepatitis B by Risk Factor and Year of Report – West Virginia 2015 (n=272)

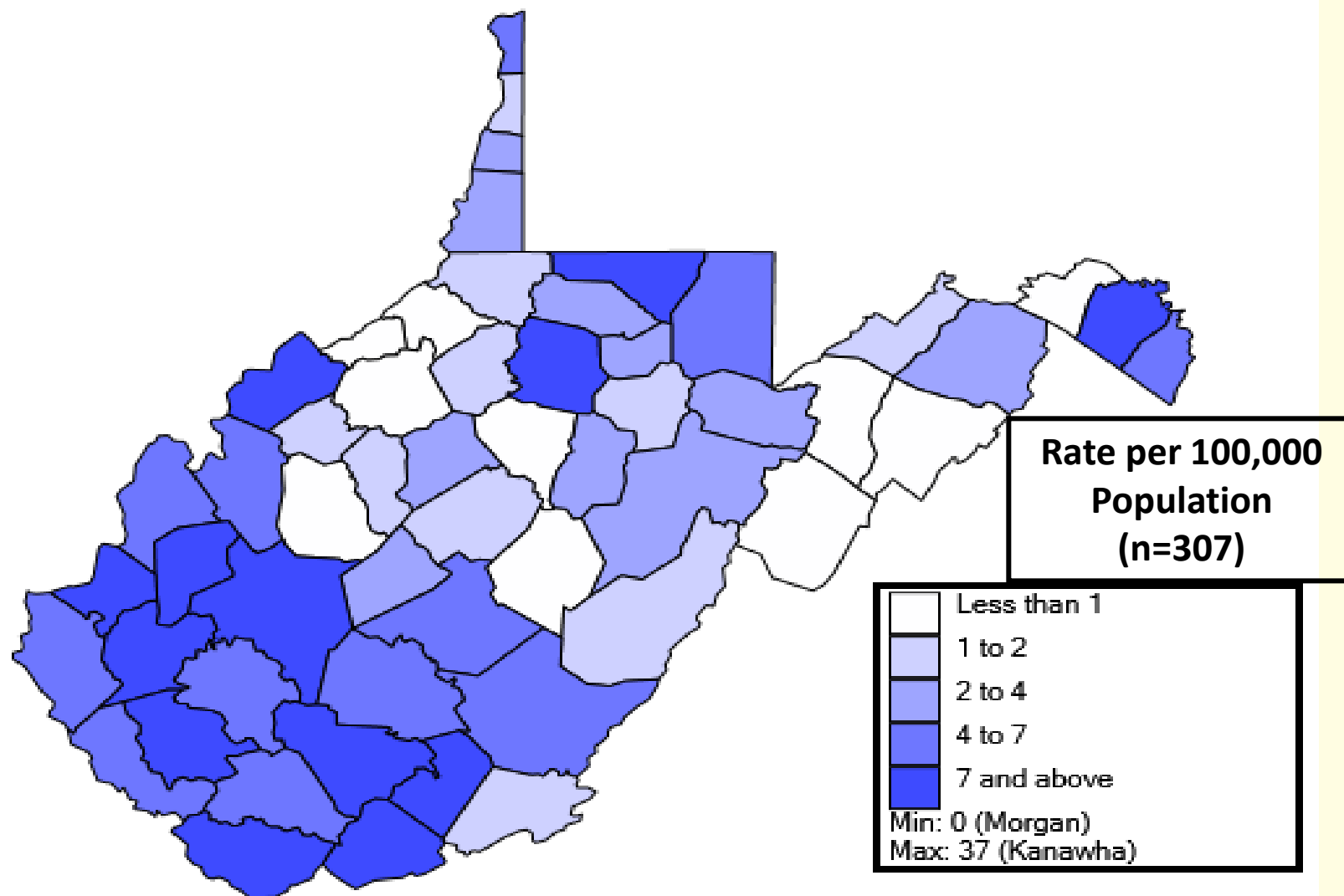


\*2015 Acute hepatitis B data is provisional as of 3/31/2016

## Acute Hepatitis B by Race and Year of Report – West Virginia 2015 (n=272)



# Results - Rate of Chronic Hepatitis B by County of Residence and Year of Report 2015, WV



# Discussion - The Drug Epidemic in West Virginia

## Increased drug abuse

- Prescription pain killers
- Heroin

## Lack of available rehabilitation facilities

## Highest numbers of overdose deaths in the U.S.

- 34 deaths/100k people
- *Twice* the national average

## Hepatitis B rates rising with increased drug abuse



President of the United States, Barack Obama speaks about opioid addiction in West Virginia



- *Tighter restrictions on accessing prescription opioids led to increased abuse of illegal and more readily available intravenous drugs such as heroin, which pose a great risk for transmission of HBV. – (Harris et al., 2013)*

*“The proportion of heroin admissions increased compared to the proportion of prescription opioid admissions.” (Zibell et al., 2015)*

## **Viral Hepatitis Prevention Coordinator**

- Education
- Prevention
- Linkage to care

## **Hepatitis B Pilot Project**

- 17 counties
- High risk populations

## **Syringe Access**

- Discourage the reuse of needles with IDU
- Cabell, Kanawha, and Ohio LHDs

# Limitations

- Passive reporting of data
- Correctional facilities
- Counties with smaller populations
- Vigilance varies by county
- Failure to Report

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**Ashley Simmons, MS**

**Hepatitis B Epidemiologist**

**WVDHHR/BPH/OEPS/DIDE**

**350 Capitol Street, Room 125**

**Charleston, WV 25301**

**Phone: 304-558-5358 ext 1**

**Direct: 304-356-4086**

**Fax: 304-558-8736**

**Answering Service: 304-925-9946**

**[ashley.n.simmons@wv.gov](mailto:ashley.n.simmons@wv.gov)**