

Kentucky's Hepatitis A Outbreak in Illicit Drug-Using and Homeless Populations



Kentucky Public Health
Prevent. Promote. Protect.

Hepatitis A Virus (HAV)

- Viral infection that affects the liver
 - Acute – not a chronic infection like hepatitis B & C
- Transmission: person-to-person, fecal-oral
- Infectious period: 2 weeks before jaundice onset and one week after
- Incubation period: 15-50 days
- Vaccine-preventable
- Hepatitis A in KY: 20 cases/year (average)

Background

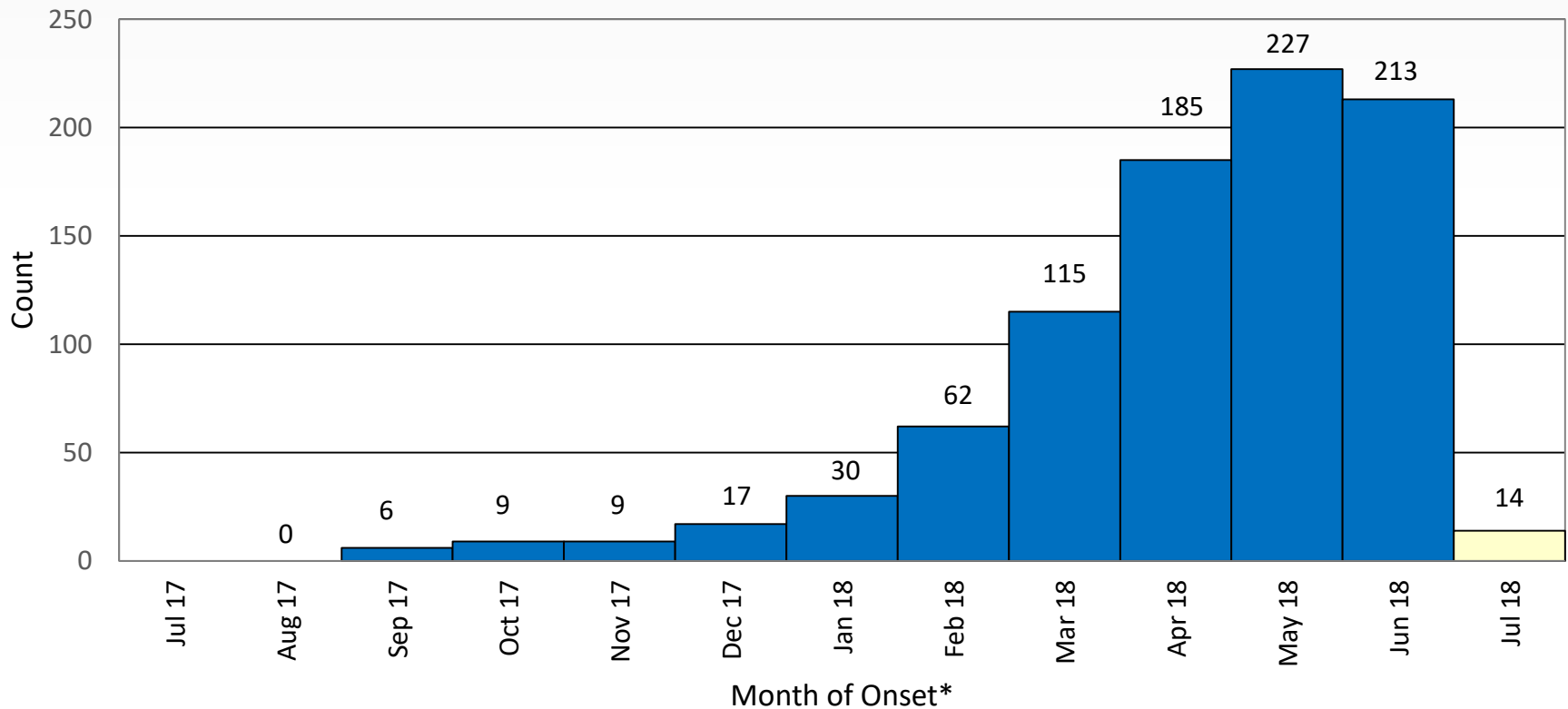
- Outbreaks in CA, MI, and UT prior to KY
- Outbreak declared in KY November 2017
 - 27 outbreak-associated cases
 - 2 cases with molecular evidence of outbreak strain occurring in CA and UT
- Risk factors similar to CA, UT, MI outbreaks
 - Illicit drug use
 - Homelessness
- No contaminated food sources identified
- Case defined as any hepatitis A case:
 - Not attributed to other known risk factors (e.g. international travel)
 - Since August 1st, 2017

Outbreak Statistics (through 7/7/2018)

- Total cases: **1,094**
 - 2017: 59
 - 2018: 1,035
- Hospitalizations: 628 (57%)
- Deaths: 8 (<1%)
- Sex: 63% Male
- Median age: 37 years, Range: 1-84
- HAV tested for genotype in 359 cases
 - 86% related to California Cluster A (matching UT also)
 - 14% different cluster types

Outbreak Curve

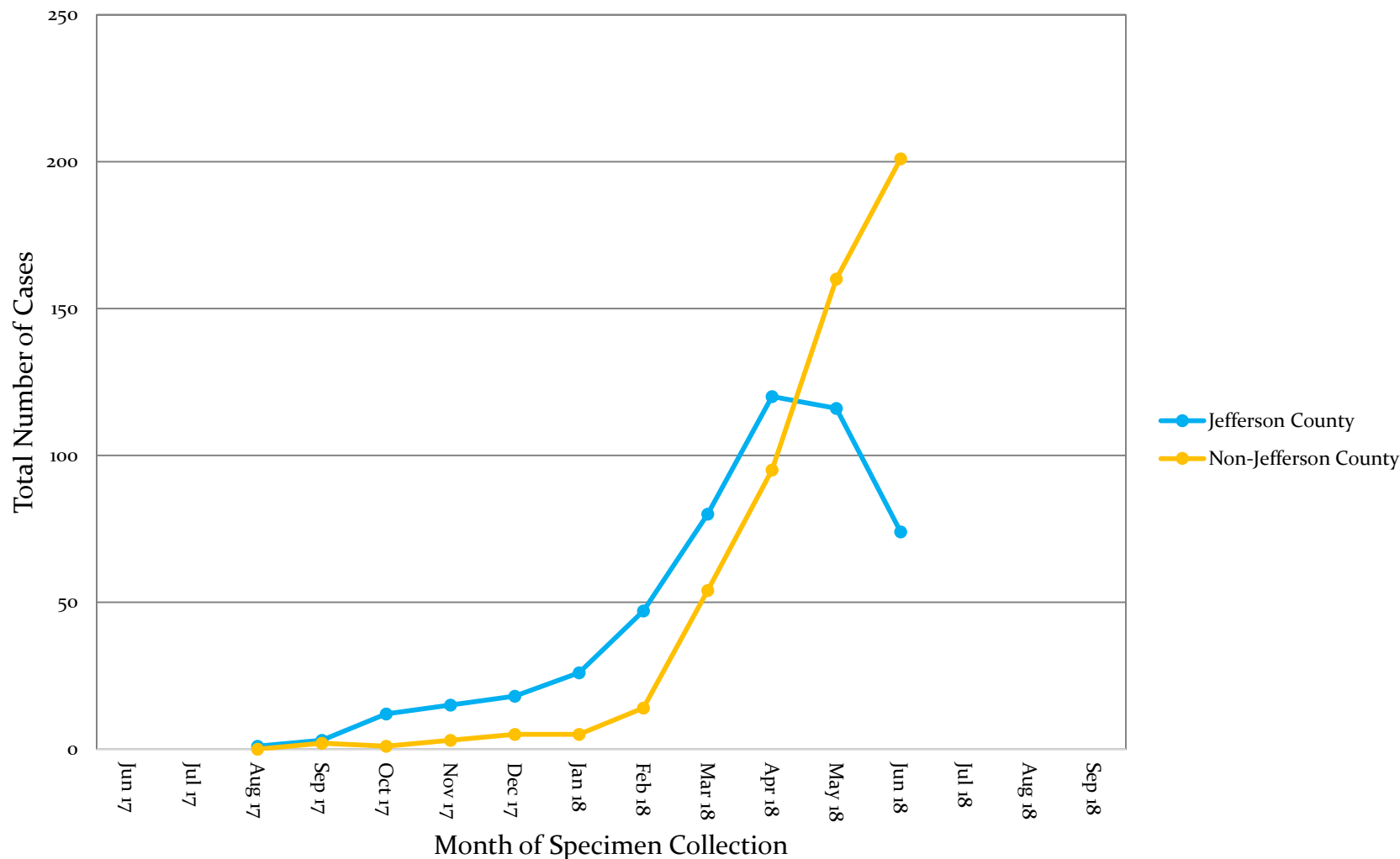
Outbreak-Associated Cases by Month of Onset
August 1, 2017-July 7, 2018



* Month of onset available for 81% of cases

Jefferson vs. Non-Jefferson Counties

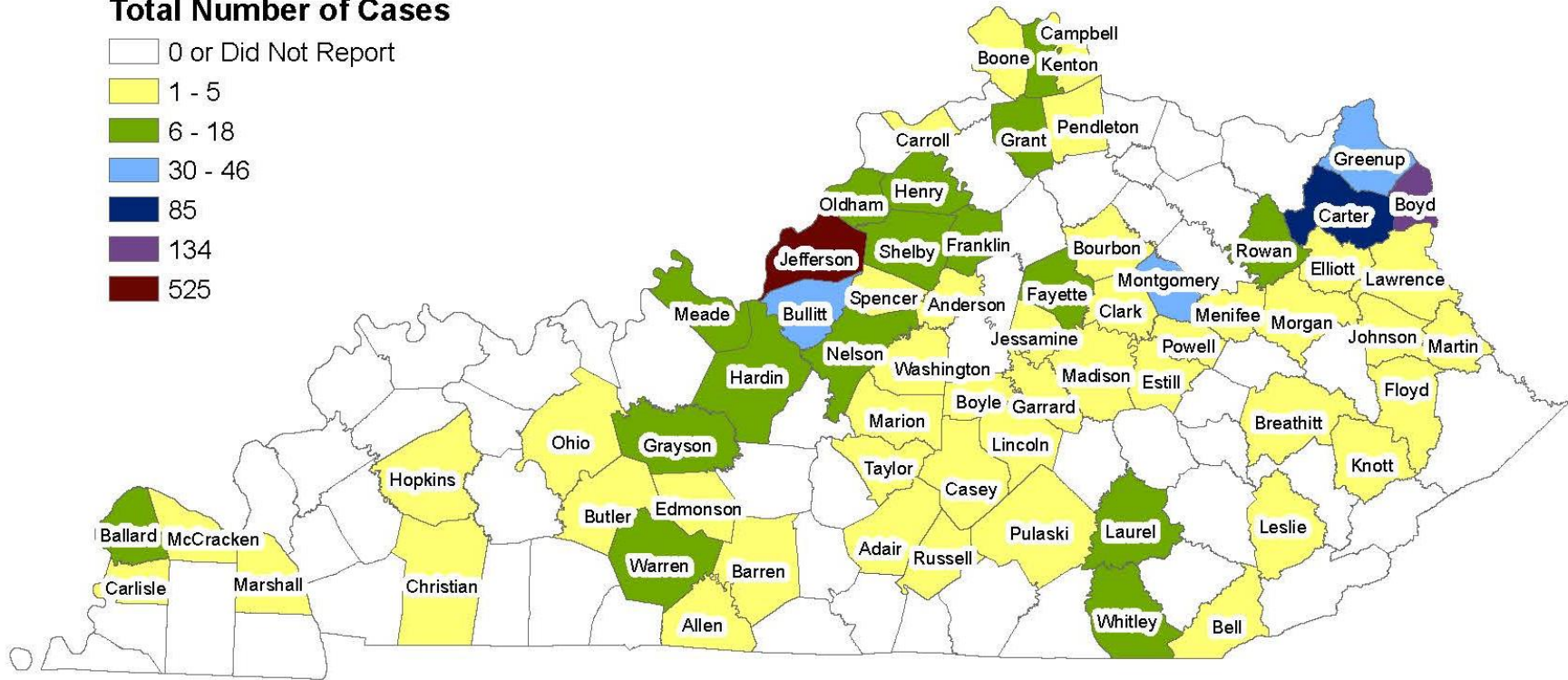
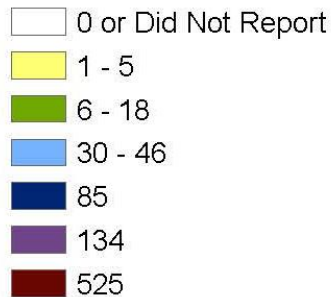
Outbreak-associated acute Hepatitis A cases, August 1, 2017 to June 30, 2018



Cases by County

KY17-089 Distribution of Outbreak-Associated Acute Hepatitis A Cases by County, August 1, 2017 - July 7, 2018

Total Number of Cases



n = 65 counties with outbreak-associated cases

Counties where cases have not previously been identified: Carroll, Morgan.

Primary HAV Risk Factors in KY

- 1,094 cases through July 7
- Homelessness only: 14 (2%)
- Drug use only: 501 (72%)
- Homelessness and drug use (both): 108 (16%)
 - Homelessness total: 122 (18%)
 - Drug use total: 609 (88%)
- Cases who report no risk factors: 133 (19%)
- Food handlers: 52 (7%)
- Corrections or substance abuse treatment centers: 223 (20%)

Response Activities

- Coordinating vaccination strategies statewide
- Multiple health advisories and resource materials distributed
- Development of educational materials
- Weekly Hepatitis A Outbreak Report
- State Health Operations Center (SHOC) activated
- Daily response meetings
- Weekly multi-state calls with CDC
- Support and recommendations for LHDs regarding difficult cases
- CDC Epi-Aid Response Team
- Enhanced coordination with Louisville Metro Public Health and Wellness
 - Allocation and acquisition of vaccines
 - Personnel assistance
 - Monetary resources

Funding Incurred to Date

- State-coordinated vaccination
 - > 28,000 doses administered
 - Over \$1 million spent for vaccine
- Additional funding allocated to 31 LHD's for vaccine
 - 10 counties with ≥ 5 cases - \$400,000
 - 11 high-incidence counties with access to at-risk populations - \$440,000
 - 10 counties with increased drug overdoses with access to at-risk populations - \$260,000
- Funding for Department of Corrections - \$20,000
- Total: **\$2,143,126**

Future Steps

- Innovative strategies to reach the at-risk populations
 - Ring vaccination strategy
 - Targeting temporary agencies
- Increased involvement with local correctional facilities and emergency rooms
- Strategies for overcoming funding and personnel shortages





Questions?



Acknowledgements

KDPH Outbreak Response Team

KY Local Health Departments and Staff

DPH Commissioner's Office

KY Division of Epidemiology and Health Planning Staff

KY Preparedness Branch Staff

KY Division of Public Health Protection and Safety

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