HCV Transmission, Detection, and Response:

Outbreak in Scott County, Indiana

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Indiana State Department of Health

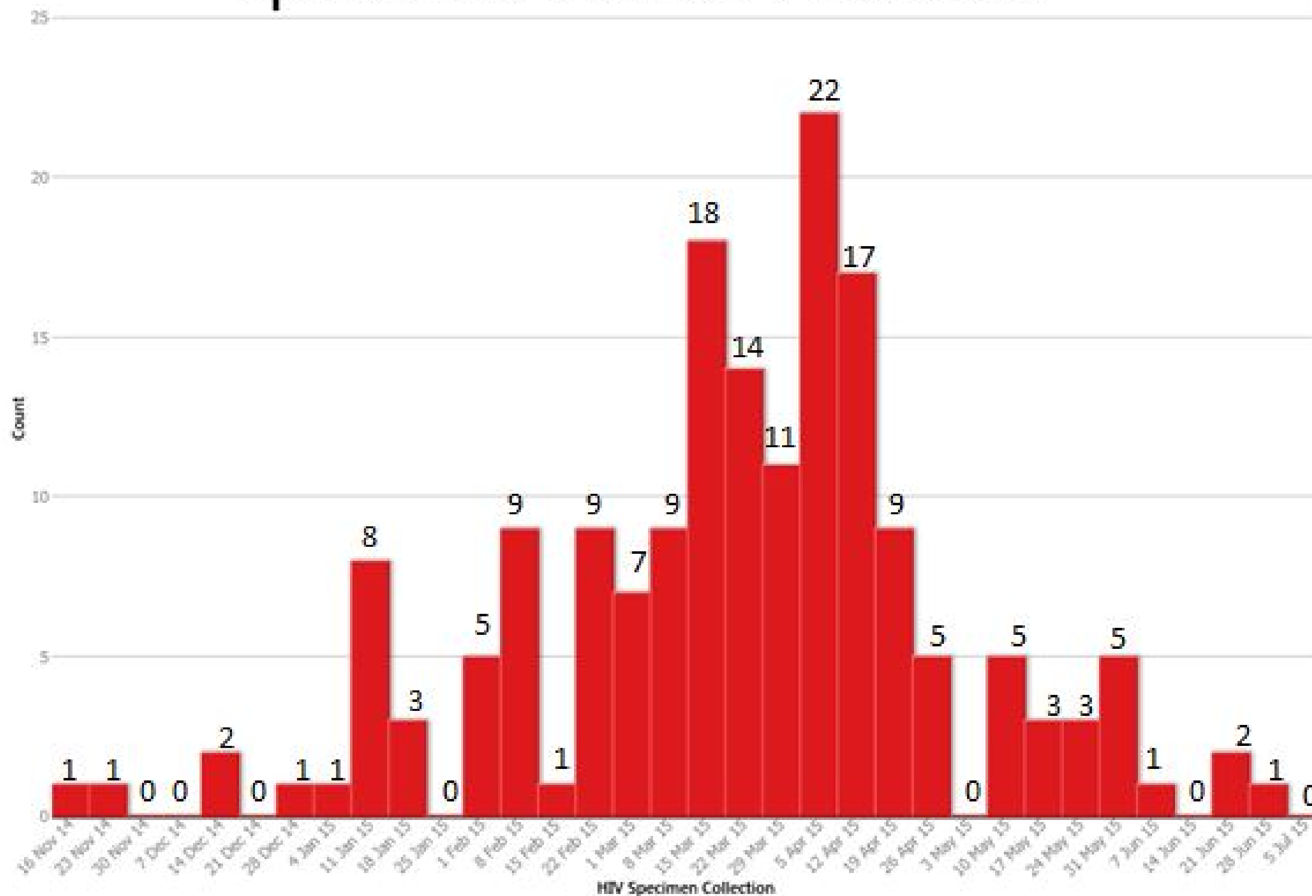
Outbreak Notification

- Late 2014: 3 new HIV diagnoses identified in Austin
- DIS learned 2 had shared needles--contact tracing
- Identified 8 more new infections in jurisdiction with <5 new HIV infections annually
- All cases report injection of the opioid analgesic oxymorphone (Opana® ER and generic ER)
- ISDH HIV/STD Division creates contact maps, determines cluster description and cause
- **Rural injection of oral opiate = largest HIV outbreak in Indiana**

HIV Epidemiology: 7/17

- Total cases: 174
- 426 of 494 (86%) of named contacts located and offered testing
- Contacts remaining to trace: 1
- Positivity rate among tested contacts: 39%
- Average number of unique contacts per case: 8 (range: 0-80)
- **HCV co-infection: 160/174 (92%)**

HIV Outbreak Diagnoses by Week



Case Demographics

- Median age 32 years, range 19-56
- Male 55%
- 100% non-Hispanic white
- Of 112 interviewed:
  - 108 (96%) injected drugs
  - Oxymorphone (Opana® ER and generic ER), methamphetamine and heroin
  - 10 (7.4%) commercial sex workers, all female
- High poverty (19.0%) and unemployment (8.9%)
- Low educational attainment (21.3% no high school)
- High proportion without health insurance

- Early Release, MMWR Morb Mortal Wkly Report 2015, April 24, 2015; U.S. Census http://quickfacts.census.gov/qfd/states/18/18143.html

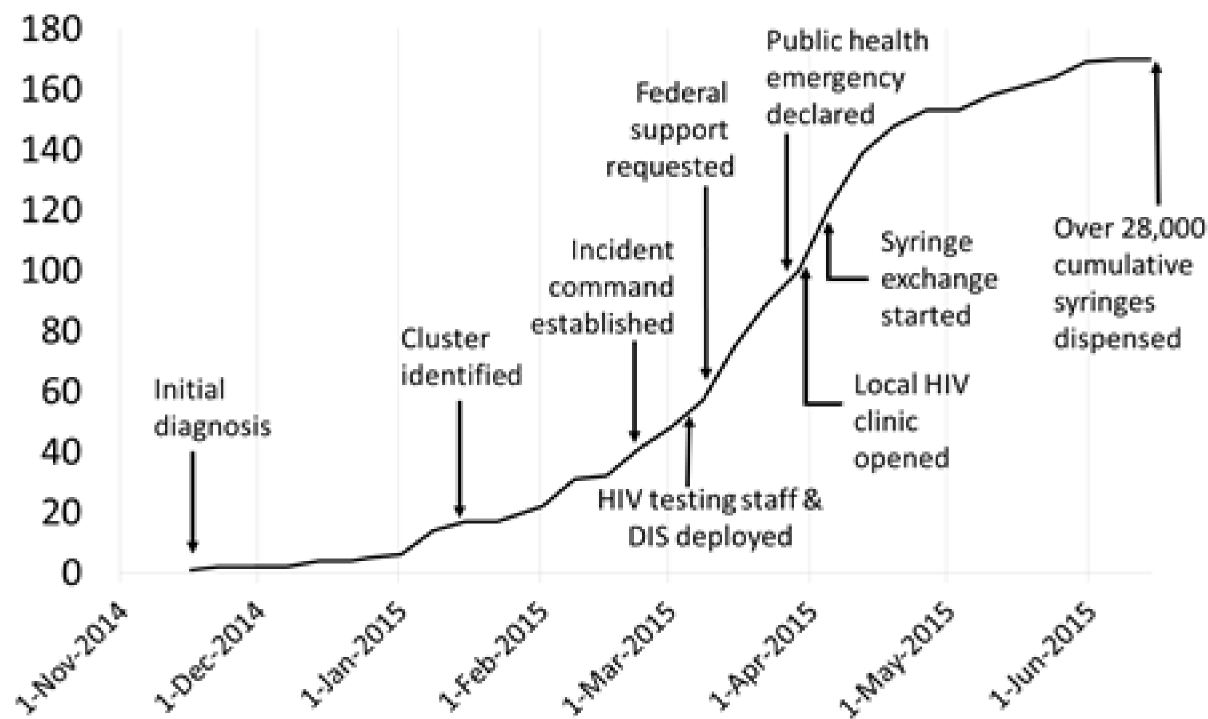
HCV Phylogenetics

- Three unique clusters identified
  - Cluster 1 is subtype 1a and contains 45 individuals
  - Clusters 2 and 3 are subtype 3a and contain 9 and 7 individuals respectively.
- Multiple independent introductions of HCV into community, both recent and historical
- Heterogenicity of HCV strains suggests earlier introduction of HCV compared with HIV
- Outbreak potential with introduction of HIV-1 into a community where HCV prevalence is *high* among persons who inject prescription opioids

Outbreak Control Interventions

- Very few insured: established “one-stop shop”
- No HIV/HCV care: state provided resources (IU), HRSA
- Little HIV awareness: multiple educational efforts including billboards, infographics, webinars, TV/radio, newspaper, Jeannie White Ginder community event at Austin HS
- Syringe exchange illegal: executive orders followed by new law
- Limited addiction services (methadone moratorium): raise awareness of MAT, train and accredit providers to prescribe Suboxone®, local mental health provider designated as a FQHC, SAMHSA collaboration
- Most focus on HIV infection: HCV effort gaining momentum as extent of HIV epidemic better defined and addressed

Timeline of Interventions



Moving Forward

- Expand HIV/HCV testing efforts and capacity to detect early signals
  - Routine HIV testing at “sensitive” venues (e.g., jails, addiction services, ERs)
  - Active outreach testing to at-risk population (e.g., PWID)
- Develop systems to keep uninfected uninfected
  - Systematic retesting and education of high-risk persons
  - Repeat offer and provision of SSP and HIV PrEP
- Decrease opioid over-prescribing and increase addiction treatment services, including MAT
- Long-term solutions to improve public health infrastructure and socioeconomic disparities

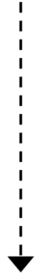
Moving Forward

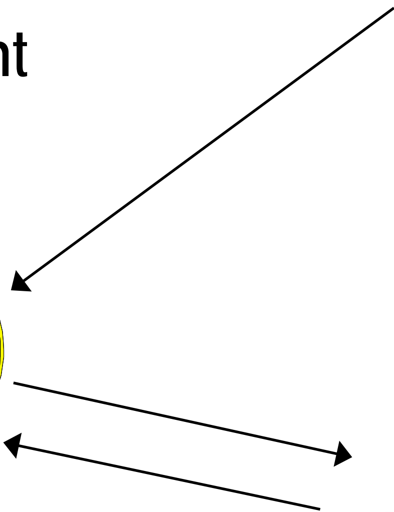
- HIV/Hepatitis C co-infection care
- Hepatitis C eradication model
- Needle exchange evaluation
- Sustainability planning – partnerships and transition from incident command
- Telling the story

HCV Reporting

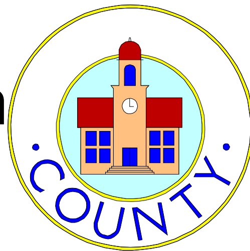
Patient

Health Care Provider or Lab





Local Health Department



INEDSS

Indiana State Department of Health

County Data Profiles

- Created in May to assist local health departments in recognizing HIV and HCV outbreaks
- Posted on ISDH website
- Includes:
  - number and incidence of HIV, HCV, STDs, drug overdoses and deaths
  - county and state data comparison
  - information on key state and local resources/contacts

HCV: Madison County

- LHD reported cluster via surveillance on June 26
- 8 cases identified since March 2015 (as of July 8)
  - Age range: 17-22 years
  - Small rural community (pop. 8,614)
  - IDU: Suboxone, meth, heroin
- Using district DIS to investigate
  - Training LHD staff on DIS techniques
  - Trained DIS on HCV investigations
  - Future DIS training for ISDH epidemiologists
- SEP scheduled to launch August 5

“Ideal” HCV Surveillance

- Dedicated HCV epidemiologists
- Substance abuse epidemiologist
- DIS network for HIV **and** HCV
- Prompt reporting
- Key elements
  – Surveillance data review (technology)
  – DIS information (shoe-leather)

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Scope of Response