San Diego Hepatitis A Outbreak

- Between Nov. 24, 2016 and Aug. 8, 2017:
  - 312 cases; 215 (69%) hospitalizations; and 10 (3.2%) deaths
  - Most deaths associated with hepatitis C co-infection
- Of those with known status, 78% of cases in homeless and/or illicit drug users (injecting and non-injecting)
- Clusters have occurred among people who used the same service providers or resided in facilities with shared restrooms (SRO hotels, jails, residential drug treatment)
- Cases also have occurred among service providers to the homeless (shelter volunteers, sanitation workers, HCWs)
Epi-Curve of Hepatitis A in San Diego

Modeling suggests that the outbreak will continue for about 18 more months
Hepatitis A and the Homeless, LA County, July-Aug 2017

- Two LA County (LAC) cases with exposure in San Diego
  - Board and care facility
  - State hospital
    - Cluster includes 3 secondary cases

- Previous LAC experience
  - No cases among homeless in LAC in past 2 years
  - Outbreak among homeless in 2005-6; 48 cases

- Santa Cruz County outbreak: 52 cases since April 2017 in homeless and drug users
Hepatitis A Illness

• Acute infection; ~70% of older children & adults symptomatic
• Symptoms/signs
  – Fever, fatigue, anorexia, abdominal pain, nausea/vomiting
  – Later, dark urine, clay colored stools, jaundice
• Clinical course

Infection → Incubation → Illness

- ~4 weeks (range 15-50 days)
- Virus in feces
- Virus in blood
- Weeks to months
Diagnosis & Reporting

• Suspect cases based on clinical presentation & epidemiology

• Obtain hepatitis panel
  – IgM test for hepatitis A
  – Hepatitis B (core Ab and surface Ag) & hepatitis C (Ab)

• Report to Public Health
  – Report confirmed and suspect cases
  – Don’t rely on laboratories to report!
    • CMR reports included additional data
Prevention

- **Post-exposure prophylaxis (PEP)** for contacts of cases
  - Provide PEP within 2 weeks of exposure
  - Vaccination recommended in all persons >1 year old
  - For persons at risk of severe infection add immune globulin
    - Note: increased dose for IM IG to 0.1 mL/kg

- **Pre-exposure**
  - Vaccinate persons who are homeless or use drugs
    - First dose highly immunogenic (98% for single Ag vaccine)
    - Free vaccine available from Public Health (see website for time/location of clinics); also covered by Medi-Cal and ADAP
  - Consider vaccination for HCWs and persons who have ongoing close contact with the homeless and drug users
    - Especially those who prepare and serve food
Prevention: Sanitation & Behavior Change

• Emphasize handwashing with soap and water
  – Depending on alcohol concentration & exposure times, hand sanitizer may be less effective

• Environmental cleaning
  – Disinfect bathrooms and surfaces with bleach (1:10 dilution), formulation of quaternary ammonium and HCl (toilet bowl cleaner), or 2% glutaraldehyde

• Reduce risky behaviors
  – Don’t share food, drink, eating utensils, smokes, towels, or toothbrushes with other peoples
  – Don’t have sex with someone who has hepatitis A