# Division of Public Health

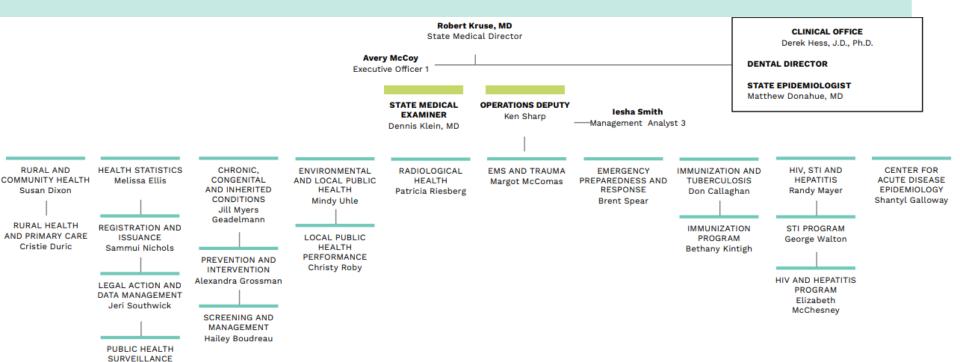
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#### **Public Health Division**





Manuela Wiedemeier

### Lassa Fever Response



Lassa fever is a viral hemorrhagic fever caused by an enveloped arenavirus, reservoir is rats, transmission through rat excreta or person-person via body fluids

- ► Named after Nigerian town where it was first reported in 1969
- ▶ Peak incidence in wet season JAN-MAY, cases also occur in dry season (now)
- ► Endemic in western Africa w/estimated 5,000 deaths per year
- ► Healthcare-associated outbreaks reported



# 8 (**now 9**) travel-associated cases ever identified in the United States, no evidence of secondary transmission

- ►Incubation period 2-21 days (median = 8-12)
- ►Infectious while symptomatic, most infectious is most severe, late in illness
- ▶8/10 infected have mild symptoms, never diagnosed
- ► Among hospitalized, CFR is 15-20%, overall CFR ~1%
- Survivors might have deafness for 3 months, virus detected in body fluids 3 months, semen 1 year



#### **Response Data**

- ► Identified and risk-stratified close contacts from multiple exposure settings: household, healthcare, EMS services.
- ▶~100% monitoring completion rates daily
- ► Multiple PUIs identified, assessments completed for each, EMS transport to assessment and treatment facilities and all confirmed negative thus far



#### Response Major Milestones

- ► Single mission: no ongoing transmission, unified across all partners, with daily operational forum
- ► Rapid turnarounds for local testing
- ► CDC Epi-Aid with support onsite
- ► Two HAN Alerts and one press release
- ► Onboarded Biofire Global Fever Special Pathogens panel at the Iowa State Hygienic Laboratory for local testing



# Cannabis Use in Adolescents and Pregnancy





# Cannabis and Teens: Key Insights and Health Impacts

- ▶In 2022, nationally, 30.7% of 12th graders reported cannabis use in the past year; 6.3% used daily in the past 30 days.
- ► According to an Iowa Youth Survey, 16% of Iowa teens reported ever using marijuana. (2021)
- ► Cannabis use during adolescence can have permanent effects on brain development, especially with regular or heavy use.



#### Negative Effects on Teen Brain and Life

- Cognitive Impairments:
  - Difficulty thinking, problem-solving, and maintaining attention.
  - Memory and learning challenges.
- Mental Health Risks:
  - Increased likelihood of depression, anxiety, and psychosis.
  - Stronger association with schizophrenia when use starts early.
- Social and Academic Challenges:
  - Higher dropout rates and less likelihood of achieving higher education.
- Driving Impairment:
  - Reduced reaction time, coordination, and concentration.
- Addiction Potential:
  - ~30% of users may develop cannabis use disorder, with greater risk for early and frequent users.



# Maternal Effects of Cannabis Use

- ▶ Physiological effects on placenta
  - Increase CO when smoked (5 times more than tobacco)
  - Vasoconstriction of placental vein
    - Increased resistance of uterine artery
    - Affects placental circulation, development and implantation
- ▶THC crosses placenta- causes vasoconstriction -
  - Subcellular stress (pre-clinical and clinical data)
- ► Maternal effects: meta-analysis\*
  - No evidence to support adverse maternal effects:
  - No increased risk of placental abruption, preeclampsia, maternal death, stillbirth
- \*Gunn JK. 2016. BMJ Open. 2016;6(4): e009986



## Early Neonatal Effects

- ► Lower birth weight small amount ~200 gms.
  - Secondary to effects on placental circulation
- ►Inconsistent data around:
  - Preterm births
  - NICU admissions
  - Early neonatal behaviors
    - Increased tremors, high-pitched cry, reactivity
    - No clear withdrawal syndrome
  - SGA
  - Anomalies
- ►Norwegian study 2021 decreased weight and birth length
- ▶\*Gunn JK. 2016. BMJ Open. 2016;6(4): e009986





## Thank you

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