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# **ECHO IDAHO: OPIOID ADDICTION AND TREATMENT**

## **TRAUMA, ACES, AND SUBSTANCE USE DISORDER**

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The speaker has no relevant financial relationship(s) to disclose.

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# LEARNING OBJECTIVES

- What is the burden?
- What is the relationship SUD has to ACES
- Interventions – resilience, trauma informed care, non-pharmacologic interventions for NAS

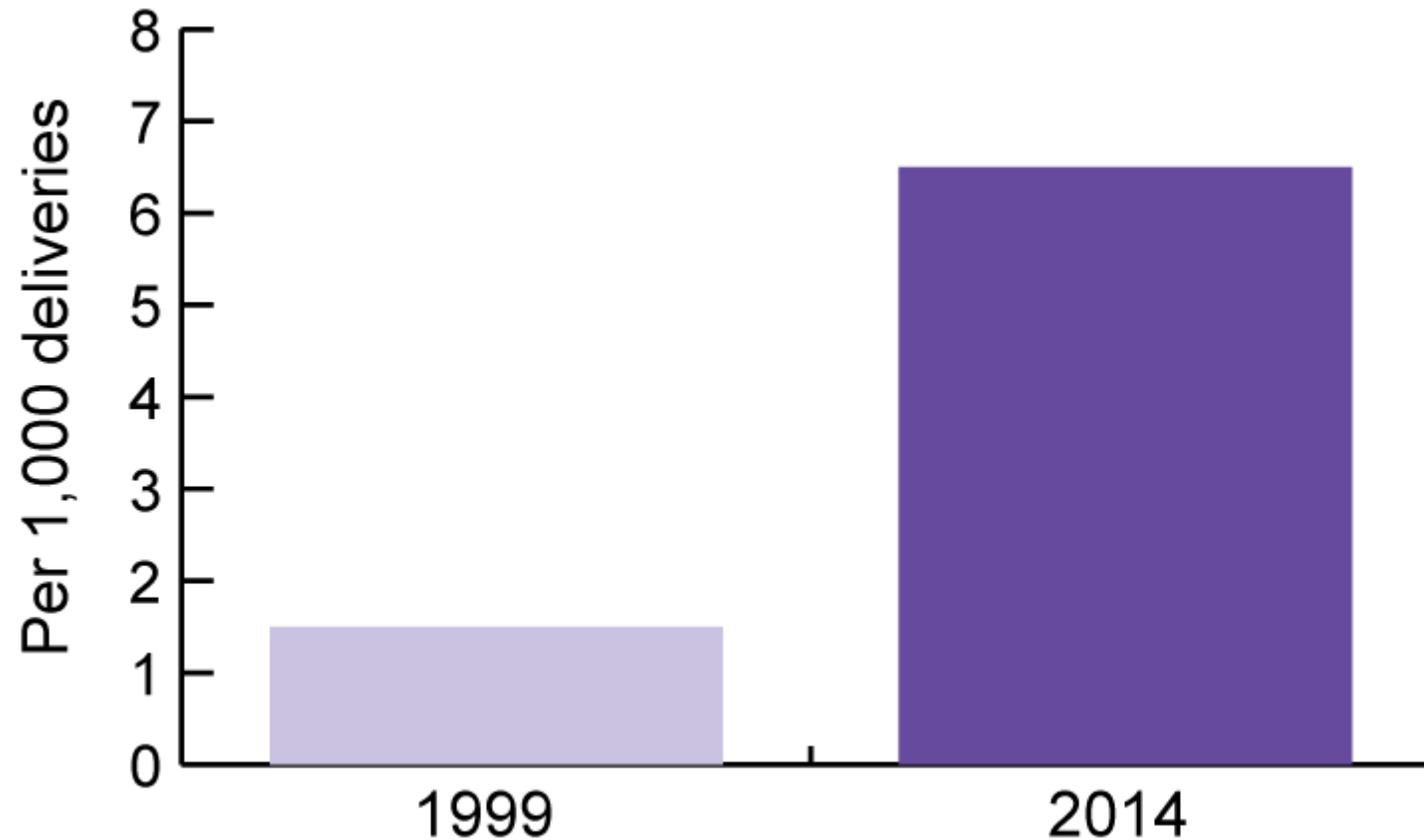
# SUD – A MAJOR EPIDEMIC

- In 2017 there were 70,237 US deaths to overdose and 2/3 of those were related to opioid use disorder. (1)
- Many data points suggest that Idaho has experienced a significant increase in heroin use over the past decade. (2)
- In 2016 260 drug induced deaths in Idaho with 67,265 in the US as a whole. (2) Limited data on NAS in Idaho.
- Neonatal Abstinence Syndrome- NAS incidence has increased steadily
- 1 in 3 women filled an opioid prescription during their pregnancy.

- 1. Pediatrics March 2019, 143 (3) e20183801; DOI: <https://doi.org/10.1542/peds.2018-3801>

- 2. Idaho Department of Health and Welfare, Division of Behavioral Health as a response to the Opioid Crisis Project - October 2018

## MATERNAL OUD AT DELIVERY HAS QUADRUPLED 1999-2014





## NEONATAL ABSTINENCE SYNDROME

- A syndrome recognized when babies withdraw from opioids (strictly) or other substances (more generally) mom uses during pregnancy.
- Sporadic use/abuse can cause many cycles of withdrawal even before the baby is born and interferes with placental health.



# NAS SYMPTOMS - CNS

- Inconsolability
- High pitched cry
- Excoriation of the skin
- Hyperactive reflexes- hyper-adduction of the moro
- Tremor
- Seizures



# NAS SYMPTOMS - GI

- Poor feeding or intolerance
- Excessive rooting or sucking
- Vomiting or loose stools



# NAS SYMPTOMS - AUTONOMIC

- Sweating
- Fever
- Nasal congestion
- Sneezing
- Tachypnea
- Mottling

# NAS CONTINUED

## PHYSICAL RISKS INCLUDE

- Feeding problems
- Stunted growth
- Preterm labor
- Fetal convulsions
- Fetal death

## INDIRECT RISKS INCLUDE

- Increased risk of maternal infection (e.g., HIV, HBV, HCV)
- Malnutrition and poor prenatal care
- Dangers from drug seeking (e.g., violence and incarceration)



# NAS TIMING

- Heroin usually within 24 hours
- Methadone 3-5 days
- Buprenorphine 3-5 days
- Prescription opioids 24-26 hours
- Cocaine, methamphetamine 24-36 hours

# NAS FACTS

- 7 babies per 1000 live births are diagnosed with nas
- One new diagnosis every 19 minutes
- 80 new diagnoses per day
- Cost to care for a newborn with NAS is 9 times the cost of a normal newborn
- Average length of stay for a newborn with NAS is 12 days

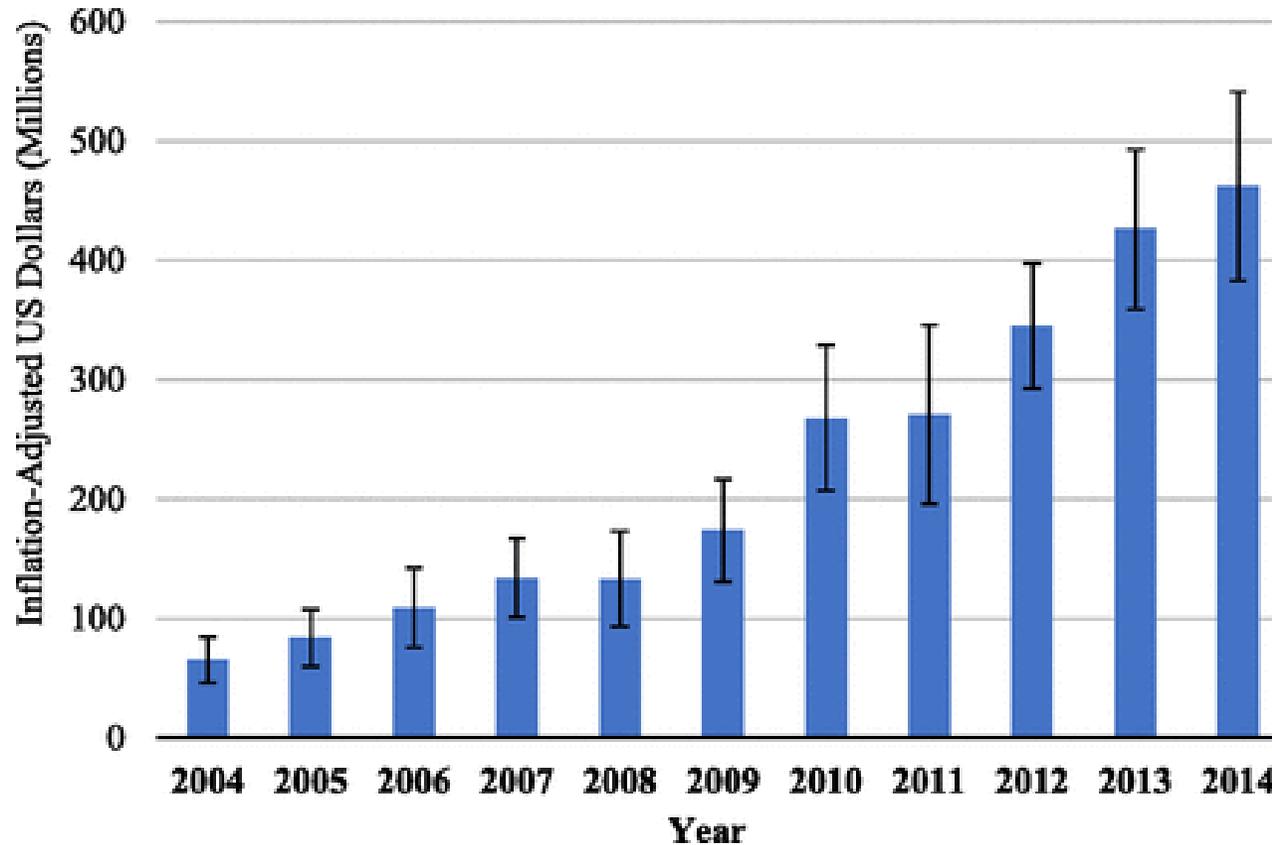
# NAS HEALTHCARE COST



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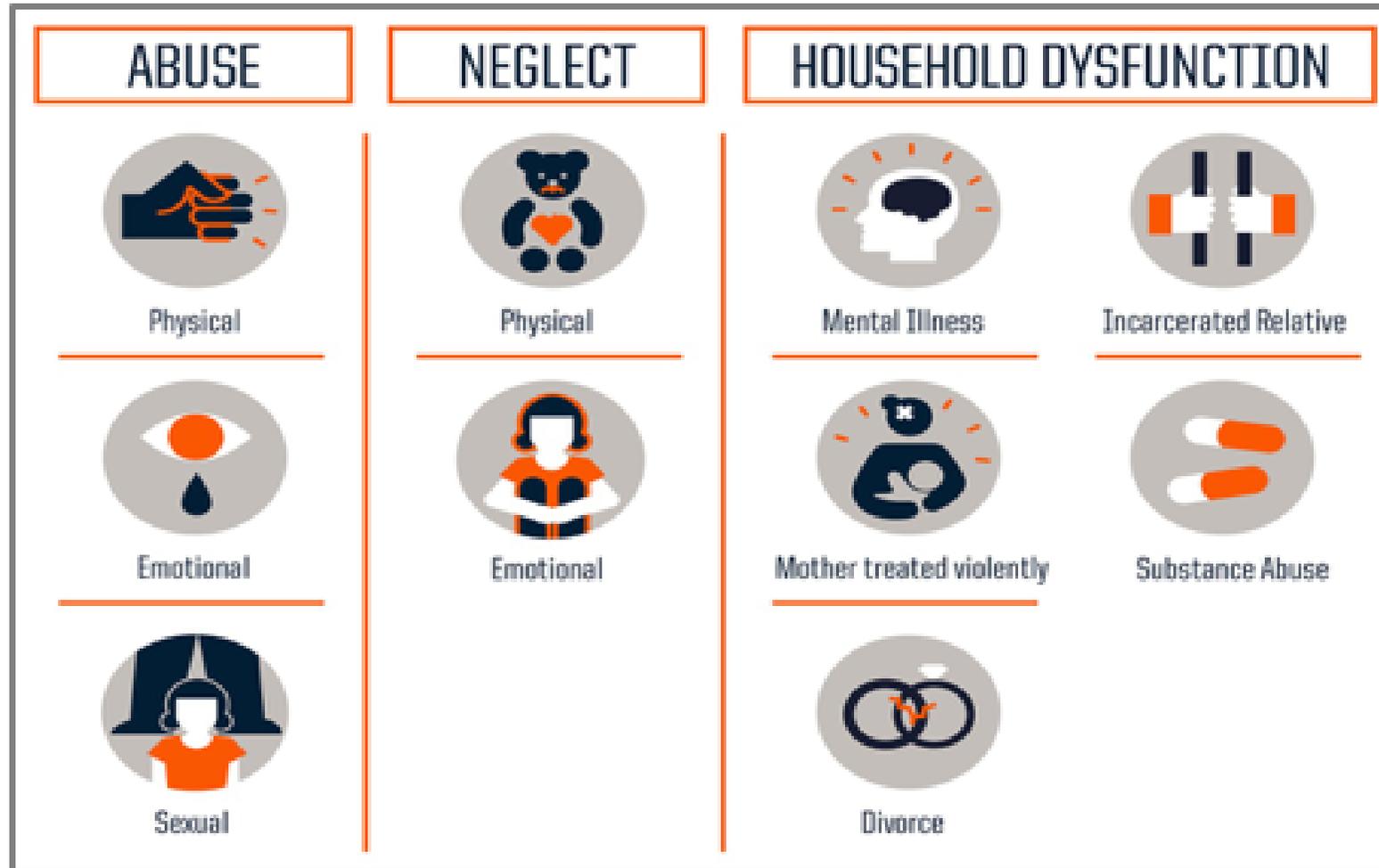
Total hospital costs for newborns born with Medicaid as their insurance



9,115,457  
birth  
discharge  
records from  
2004-2014

NAS is 7 times  
more likely in  
Medicaid  
patients than  
private  
insurance

# ACES – ADVERSE CHILDHOOD EXPERIENCES



# ACES AND SUD

A baby born to a mom in prison for substance abuse starts with an ACE score of at least 2

# ACES AND SUD

- Many of the adverse health outcomes related to ACES overlap with the adverse health outcomes related to SUD.
- A causal path to SUD is often anxiety and depression both of which increase with the number of ACES experienced. (1)
- Addressing ACES and building resilience can decrease the risk of SUD

(1) [Addict Behav. 2010 Jan; 35\(1\): 7-13.](#)



# WHAT CAN WE DO?

- Resilience is the development of positive buffering factors that help to combat ACES
- Non-pharmacologic treatment for NAS
- Pharmacologic treatment when needed

# RESILIENCE FACTORS

- Healthy relationships are the number one social determinant of health
- Models have shown improving relationships for kids/communities helps to change outcomes

# RESILIENCE BUILDING CONT'D

- Strengthen economic support to families
- Change social norms to support parents and positive parenting
- Provide quality care and education early in life
- Enhance parenting skills to promote healthy child development
- Intervene to lessen harms and prevent future risks



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# NAS STRATEGIES

- Cultural/Social
- Non-pharmacologic
- Pharmacologic



# CULTURAL STRATEGIES

- Reduce stigma of pregnancy substance use disorder
- Decriminalize behavior
- Reduce inappropriate prescribing of opioids
- Maximize Prescription Drug Monitoring Programs
- Increase access to medication assisted treatment programs



# NON-PHARMACOLOGIC STRATEGIES FOR NAS

- Finnegan scoring system- scores less than 8 can typically be managed non-pharmacologically
- Expand prevention measures
- Enhance bonding by rooming in and breast feeding in the newborn nursery
- Calm, quiet room, dim room, any measure to reduce stimulation to one source
- Sucrose is not an effective treatment

# PHARMACOLOGIC NAS TREATMENT

- AAP emphasizes severe symptoms of NAS- poor feeding, fever, seizures
- First line morphine or methadone
- Second line barbiturates or clonidine



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# QUESTIONS?



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# ONGOING RESOURCE LIST

RESOURCES FROM TODAY'S SESSION AND PAST SESSIONS CAN BE FOUND IN OUR ONGOING RESOURCE LIST.

<https://iecho.unm.edu/sites/uidaho/download.hns?i=51>