



Neonatal Abstinence Syndrome: A Systems Perspective

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Learning Objectives

By the end of this session, participants will be able to

Distinguish neonatal withdrawal from addiction

Use accurate, non-stigmatizing language about NAS

Recognize surveillance gaps

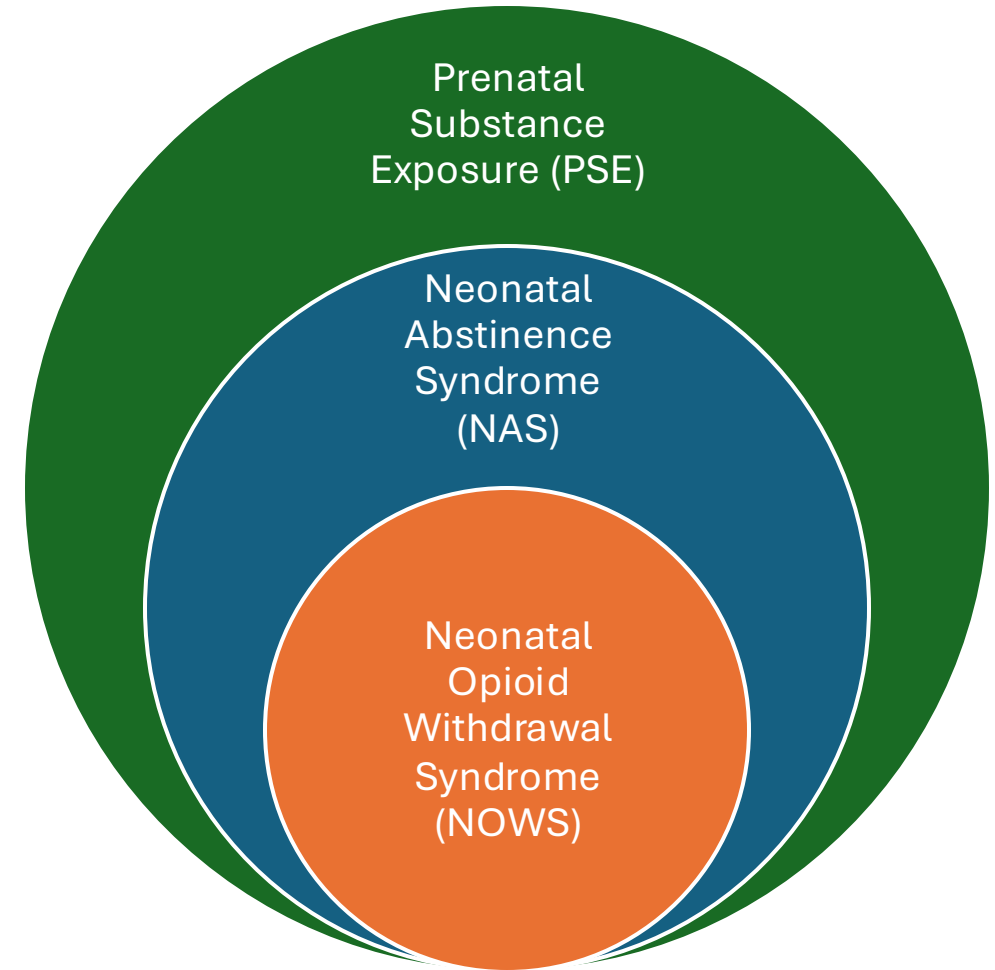
Describe shift towards family-centered care

Understand local impact of and interventions for NAS in foster system

View NAS from a systems perspective

NAS/NOWS as a systems outcome

- **NAS/NOWS is a sentinel indicator of opioid exposure, treatment assess, and system performance, not just a neonatal issue.**
- **Intersection of public health, obstetrics, pediatrics, behavioral health, and child welfare.**



What NOWS is (and is not) in a newborn

NOWS is

- A constellation of withdrawal symptoms in newborns following in utero exposure to opioids
- Physical dependence that can be treated and managed

NOWS is not

- Addiction
- A psychological dependence
- Diagnosed for every newborn with a positive opioid drug screen

Surge in babies addicted to drugs

Prescription abuse on rise across USA

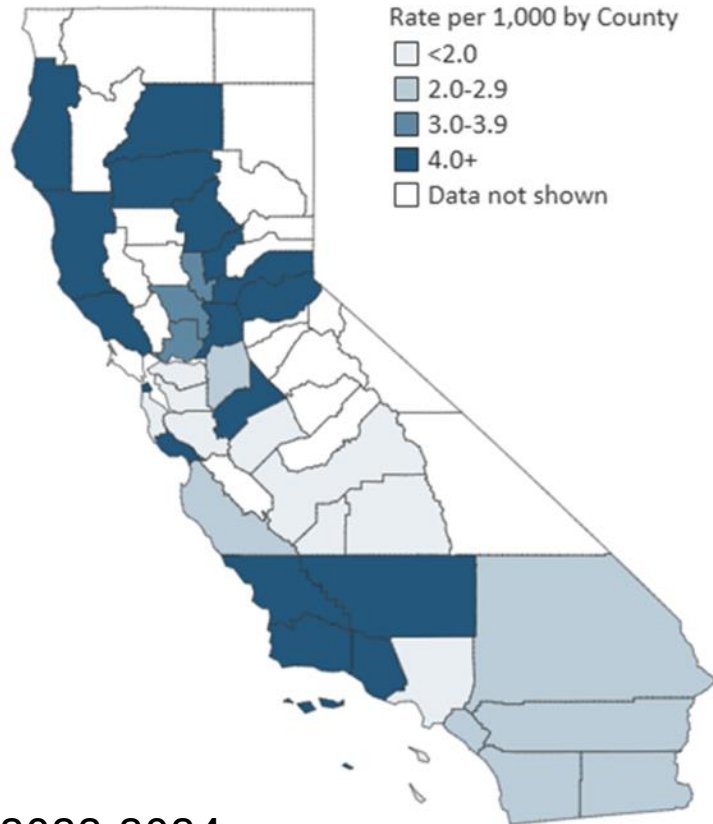
By Donna Leirward Leger
USA TODAY

Medical authorities are witnessing explosive growth in the number of newborn babies hooked on prescription painkillers, innocent victims of their mothers' addictions. The trend reflects how deeply rooted abuse of powerful narcotics such as OxyContin and Vicodin has become. Prescription-drug abuse is the nation's fastest-growing drug problem, classified as an epidemic by the Centers for Disease Control and Prevention.



"...stirring hysteria about 'addicted babies' spreads dangerous myths and creates a toxic atmosphere that does more harm than good."
– Dr. Keith Humphreys

Surveillance & Epidemiology



2022-2024

CA: 2.8 per 1,000 live births

Sac Co: 4.6 per 1,000 live births

- US Trends
 - Rapid NAS increase until mid-2010s then stabilization despite continued increase in prenatal opioid exposure.
 - Considerable regional variation
- Inconsistent diagnosis & reporting
 - Screening tool variation
- California context
 - NAS is not a reportable condition in CA
- Big picture
 - Surveillance gaps ≠ absence of a problem

As of 2020, about one baby is born with NAS every 24 minutes in the US

Standards of Care Evolution

Goal: shortest effective duration, family-centered care

- Neonatal period
 - Shift from Finnegan scoring tool to Eat, Sleep, Console (ESC) model
 - Emphasis on non-pharmacological treatment (e.g., rooming-in, “kangaroo care”)
- Early childhood (0-5)
 - Neurodevelopmental considerations (e.g., speech, sensory processing)
 - Emphasis on early intervention, stable caregiving environments, trauma-informed care

Critical transition:

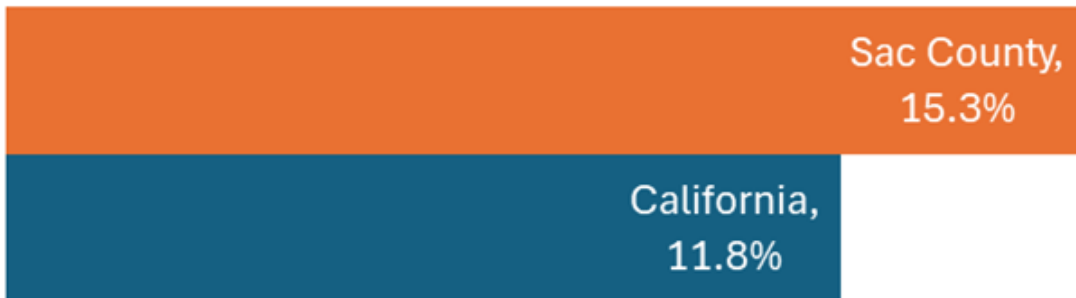
Clinical stabilization → caregiving stability



Prenatal Substance Exposure and Foster Care

- Between 2011 & 2018 infant foster care entry rose 24% in U.S.
 - Infants accounted for 70% of total increased entries.

Percent of Foster Entries Age Less than One Month



Impact of opioid epidemic on foster entry:

- Child Abuse Prevention and Treatment Act & Safe Plans of Care
- Disproportionate representation of substance-exposed infants



Supporting Families - Public Health Nursing

Informal Supervision Public Health Nursing

- ▶ Voluntary program within Child Protective Services
- ▶ Goal is keeping children in their homes, if possible, by providing support to the family



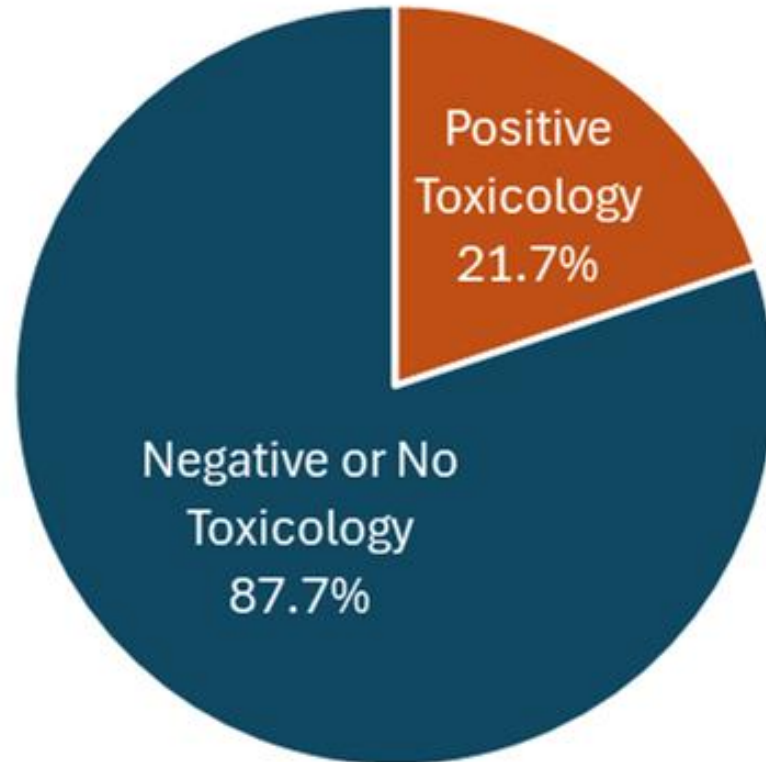
Families receive:

- Case management from Social Workers
- Home visitation and case management from a Public Health Nurse
- All family members in the home receive support and services

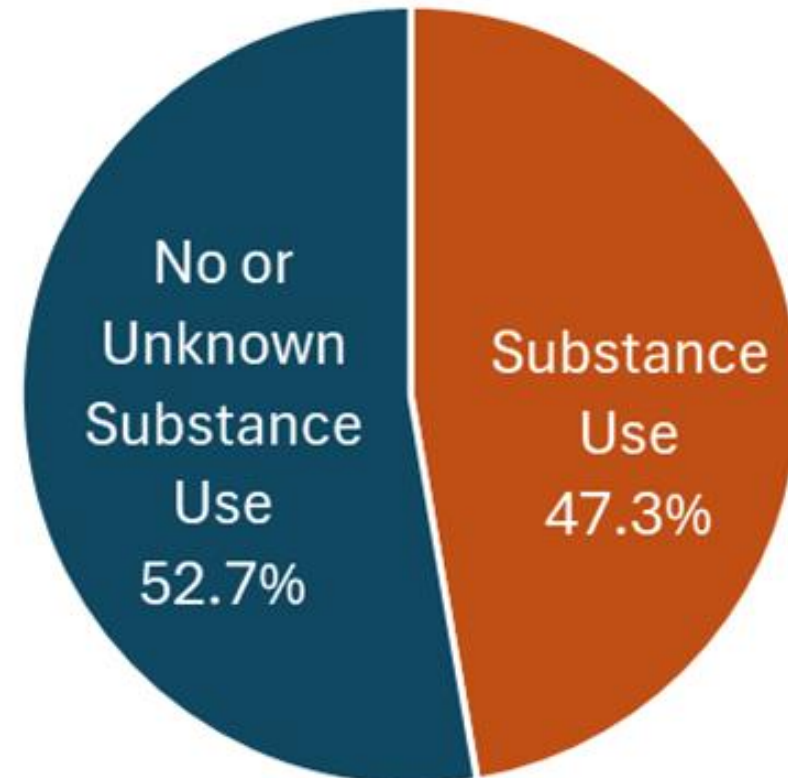
Nearly half (%) of all children served are 0-2 years old.

Percentage of Clients Served Affected by Substance Use

Child Toxicology at Baseline (n = 653 children)



Maternal Substance Use at Time of Referral (n = 349 mothers)



Symptoms of NAS



Neurologic/Behavioral

- ✓ Excessive, high-pitched crying
- ✓ Extreme irritability & restlessness
- ✓ Tremors
- ✓ Excessive wakefulness
- ✓ Tight muscle tone
- ✓ Hyperactive reflexes



Gastrointestinal

- ✓ Poor feeding
- ✓ Vomiting or diarrhea



Autonomic/respiratory

- ✓ Frequent sneezing, stuffy nose
- ✓ Fever, sweating
- ✓ Rapid breathing



Severe Symptoms

- ✓ Seizures



Long term: developmental delays, motor skill problems, learning/behavioral issues, hearing/vision problems



Tools for Positive Outcomes



Comprehensive nursing assessments including physical growth, nutrition, and development



Assistance with timely access to well child, specialty care services, and dental care



Advocacy to ensure children receive appropriate care



Education on caring for exposed infants

- Learning and understanding infant cues
- Reducing environmental stimulation
- Feeding and care
- Safety
- Monitoring for changes
- Knowing when to seek medical care

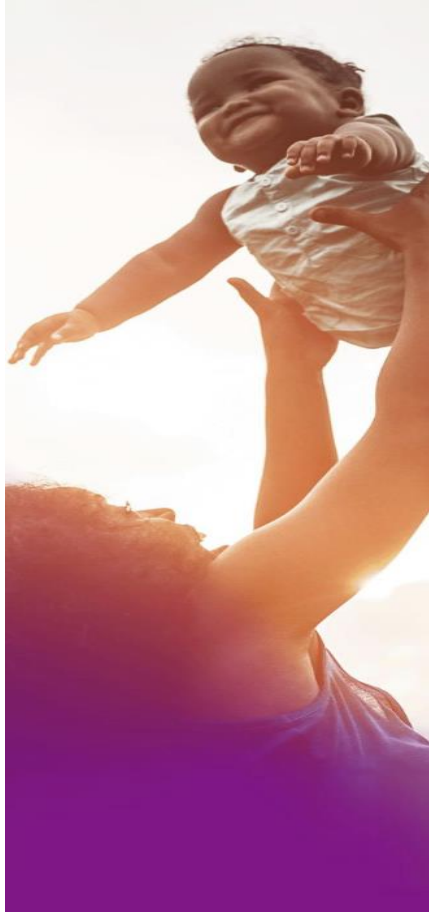
Keys to Success

- 1 Non-judgmental support from care team
- 2 Early intervention
- 3 Parenting classes and support groups
- 4 Recognition and celebration of parent success

Families who historically have had unsuccessful attempts at sobriety and a history with CPS have made life changes through this program.

Families express sadness when the case is closed, acknowledging the impact that their relationship with the PHN has had in their lives.

Local Behavioral Health PSE Resources



SACCounty Healthy Beginnings

Mission: SACCounty Healthy Beginnings will promote a healthy and safe environment for Sacramento County's families and children through outreach and education for professionals and community members, addressing perinatal substance use prevention and intervention.

Vision: Empowering families and children to thrive physically, socially, and emotionally, free from the effects of substance use and misuse in pregnancy

[SACCounty Healthy Beginnings](#)

Additional Resources & Partners

BRIDGES PROFESSIONAL TREATMENT SERVICES

Full Continuum of Services:

- Residential Treatment
- Intensive Outpatient (IOP)
- Outpatient Services
- Sober Living Environments (SLE) for parents and infants

Onsite supports:

- Developmental assessments, immunization checks, prenatal/postnatal support, lactation services, and the Celebrating Families program.

DHS's Healthy Beginning Perinatal Program Partners (start July 1)

Managed Care Plans (MCPs)

- Health Net
- Molina Healthcare
- Kaiser Permanente
- Anthem
- Federally Qualified Health Centers (FQHCs)
 - WellSpace Health
 - Elica Health Centers
 - One Community Health

- CPSP-certified prenatal providers and hospital OB units
- Lactation services, Doula collectives
- Child Welfare/Family Resource Centers
- WIC & Early Childhood programs (Early Head Start, First 5 initiatives)
- Home Visiting (e.g., Nurse-Family Partnership, Parents as Teachers)
- Housing and Social Services divisions; benefits eligibility offices
- Perinatal advocacy organizations
- Legal aid, immigration services, workforce development
- Food banks, diaper banks, 2-1-1 resource navigation
- Transportation and mobility services (Paratransit and similar)
- Childbirth & Newborn Care Education: Classes covering labor, postpartum recovery, safe sleep, infant feeding, and early development.
- Home Visiting (e.g., Public Health, Birth & Beyond): Evidence-based home visits for coaching, developmental screening, and resource navigation.
- Early Childhood Development: Ages & Stages Questionnaire screening; referral to Early Head Start or other early intervention agencies as appropriate.
- Father/Partner Engagement: Inclusive education (Celebrating Families), co-parenting support, and linkage to employment/skills resources for partners.

Cross- systems accountability

Key Take-Aways

- Neonatal abstinence syndrome = withdrawal, not addiction
- Data are incomplete; use with context and humility
- Family-centered approaches improve outcomes
- NAS often intersects with child welfare; what follows is most important.

Call to Collaborative Action

- Use non-stigmatizing language
- Treat NAS as a shared systems issue
- Support early, non-punitive engagement
- Align care, strengthen handoffs, support families together

Thank You

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