

DRAMATIC INCREASES IN MATERNAL OPIOID USE DISORDER AND NEONATAL ABSTINENCE SYNDROME

Opioid use during pregnancy can result in a drug withdrawal syndrome in newborns called **neonatal abstinence syndrome**, or **neonatal opioid withdrawal syndrome** (NAS/NOWS), which causes **costly** hospital stays. A recent analysis showed that an estimated **32,000** babies were born with this syndrome in the United States in 2014, a more than **5-fold increase** since 2004.



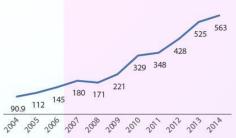
EVERY ~ 15 MINUTES, A BABY IS BORN SUFFERING FROM OPIOID WITHDRAWAL.

NAS/NOWS and Maternal Opioid Use Disorder on the Rise Rates per 1,000 Hospital Births



Growing Hospital Costs for Treatment of NAS/NOWS

Inflation-Adjusted U.S. Dollars (millions)



Honein et al. Pediatrics 2019, Winkelman et al. Pediatrics 2018, Haight et al. MMWR 2018.





Every day, more than **2 babies** are born passively dependent in AZ.





Neonatal Abstinence Syndrome

Condition experienced by an infant after birth due to sudden discontinuation of exposure to certain drugs such as opioids that were used by their mother during pregnancy.

Prabhakar Kocherlakota



Hushabye Nursery's Mission

"To embrace substance exposed babies and their caregivers with compassionate, evidence-based care that changes the course of their entire lives."



Hushabye Nursery's Care Model NAS Center of Excellence



Prenatal Services

- Medical Care
- Addiction Treatment
- Counseling
- DCS Collaboration
- Medication Assisted Tx
- · Financial Guidance
- Home Visiting



Nursery Services

- NAS Recovery Services
- NAS Environment
- Specialized Training
- Nonjudgmental Environment
- Family Care Model



Discharge Services

- · Newborn Follow-Up
- · SENSE
- Pediatric specialists
- Developmental services
- Family Counseling
- Financial Guidance
- Home Visiting

Service Coordination Access to Care

HOPPE PROGRAM

Hushabye Opioid Pregnancy Preparation & Empowerment







Outpatient Services

Five Protective Factors Framework

- Peer Supports
- Trauma Specialist
- EMDR
- Counseling
- Transportation, food and housing support
- NAS education-diagnosis treatment and follow-up care
- Infant CPR
- Car Seat Education
- Safe Sleep Education
- Baby Supplies and Resources
- Care Coordination
- Evidence Based Parenting Classes such as Triple P Parenting
- Baby Soothing Education
- Social Connections
- SMART Recovery

Current NICU Environment





Hushabye Nursery is Different.

NICU Model

NICU environment

Design NICU for premature babies, not NAS babies

Limited resources for family recovery and DCS navigation

Restricted visitation due to COVID and space

Ensure one caregiver to every three babies (1:3)

Hushabye Model

Treat babies in quiet, dark, calm environment

Private nurseries

Educate families on how to care for NAS baby

Family can stay in-room 24/7

Ensure one caregiver per baby (1:1)

DCS Case manager

Hire specially-trained staff with passion for NAS babies

Promote bonding and breastfeeding

Use five Ss, rock up and down, 6th S-squat techniques

Wean and treat babies with medications as necessary

Eat Sleep & Console Treatment Model (ESC)

Validate Finnegan Neonatal Abstinence Scoring System

Provide outpatient behavioral health treatment onsite









Inpatient Services

- Care for babies as they go through the withdrawal process
- Families may stay with their baby 24/7
- ESC model with Modified Finnegan assessment tool
- Phototherapy
- Gavage Feedings
- Pharmacologic care if needed
- DCS Support
- Family Education
- Counseling
- Family Coaching
- Lactation Support
- Developmental Specialist Consultations
- Trauma Support Specialist (EMDR)

Hushabye Nursery is meeting or exceeding NAS emerging models of care outcomes after 1 months of operation (November 17, 2020 – Feb 20th, 2021) and 230 infants served.

OUTCOME	Current Standard	•
		Nursery
NAS infants treated with morphine	98%	24%
NAS infants Average Length of Stay in NICU	22 days	7 days
NAS infants Average cost of hospitalization	\$44,824	\$5,922
Percent of infants who took majority of feeds from breast	20%	33%
Percent of infants who were safely discharged to a biological parent	Not reported	65% (82%if active with Hushabye Nursery prenatal program)



Source: Grossman, MR, Berkwitt AK, Osborn RR, et al. An Initiative to Improve the Quality of Care of Infants with Neonatal Abstinence Syndrome. Pediatrics. 2017; 139(6):e20163360.

Hushabye Nursery makes a Difference.

We care for babies, support families, and save taxpayer dollars, resulting in:

- 1 Collective Impact
 - By connecting community partners, we will build collaboration and connect the silos.
- **3** Reduced Costs

By providing specialized care and wraparound services, we will save money throughout their entire lives.

2 Stronger Families

By providing wraparound services (including DCS Safe Model), we will help families stay together.

4 Better Outcomes

By caring for NAS babies – the tiniest victims of the opioid epidemic – we will build brighter futures.



HUSHABYE BABIES





Future Impact of Hushabye Nursery

