



NOWS Toolkit: Collaborative Discharge Plan

This information is being provided to help hospitals improve care to babies identified with Neonatal Opioid Withdrawal Syndrome (NOWS) formerly known as Neonatal Abstinence Syndrome (NAS). The information should be helpful in exploring various resources and best practices to develop practices best suited to your hospital and its patients. Nothing herein is meant to be legal advice or advice on a standard of care.

Creating a Collaborative Discharge Plan:

*It is crucial that a plan of care begins once prenatal screening reveals fetal drug exposure and the possibility of NOWS. Enhanced prenatal services should include NOWS education, as well as, preparing mother for role of caregiver. Monitoring, education, and support services should continue throughout pregnancy, during mother and infant hospital, and following discharge of infant.

Coordination of federal, state, and local entities ultimately affects how families in need obtain the services necessary to ensure a safe plan of care and achieve optimal outcomes (Chasnoff & Gardner, 2015). Without a structured plan and timeline in place, agencies and stakeholders cannot work in a coordinated effort to achieve agency goals related to treating NOWS and caring for these families (GAO, 2017).

This section provides some techniques hospitals can explore to use with their patients.

The Framework for Childhood Health Promotion (FCHP) outlines a pathway in which public policies and programs can be utilized to promote optimal health outcomes by augmenting the capacities of these families and their communities (Mistry et al., 2012). Using this framework allows policymakers and practitioners the ability to evaluate policies and programs that connect the social, economic, and cultural determinants of health with services that meet the needs of these vulnerable infants and their families (see Figure 1). It is the nurturing and care an infant receives from its parents, other family members, the community, and society that creates a foundation for the development of basic biological and psychosocial functioning (Morris et al., 2004).

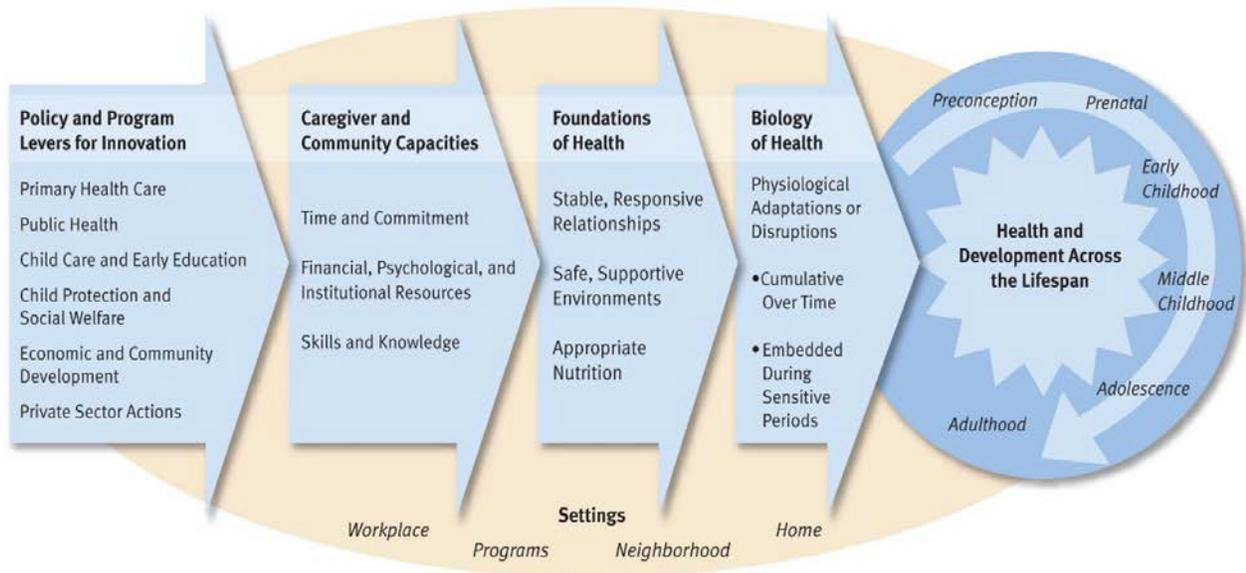
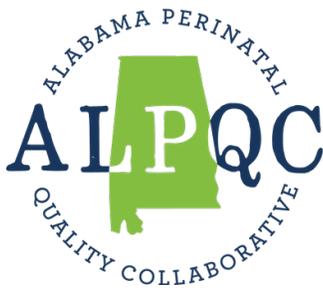


Figure 1. The Harvard Center’s Framework for Childhood Health Promotion Reconceptualizing Early Childhood Policies and Programs to Strengthen Lifelong Health. Retrieved from the Center on the Developing Child (2010). *The Foundations of Lifelong Health Are Built in Early Childhood.*

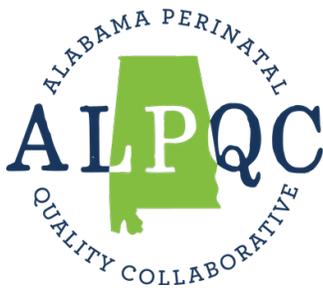
Discharge education specific to the unique needs of infants with NOWS should be provided to caregivers.

In creating a Collaborative Discharge Plan, all involved stakeholders should ensure that support is offered to caregivers to ensure that four essential foundations of health are met, these include:

1. **Responsive Caregiving**
2. **Safe and Secure Environment**
3. **Adequate and Appropriate Nutrition**
4. **Health Promoting**

Responsive Caregiving

- Education in the recognition of infant cues that signal the need for responsive care- hunger, pain, or other stressors
- Importance of breastfeeding, if not contraindicated.
- Education and support for caregivers to effectively manage and cope with possible symptoms that persists with NOWS including irritability, feeding intolerances, and growth concerns
- Recognition of early signs that immediate medical attention is needed
- Provide resources for caregiver support and encouragement



Safe and Secure Environment

- Discharge education should include the importance of a safe and secure environment for infant, other children and caregivers in the household.
 - Specifically include efforts that support optimal neurodevelopment. Interventions include continuing the non-pharmacological treatment interventions that assist in limiting environmental stressors to the NOWS infant including reduction of noise, low light surroundings, and supporting an enhanced sleep/wake cycle for infants to feel safe and secure in the discharge environment.
- Ensuring that appropriate supervision will be provided, as well as, adequate housing and resources necessary for the safety and security of the infant and family.
 - Appropriate housing, electricity, and water
 - Fostering safety for infant, caregivers, and household
 - Removing barriers that may include unsafe adults, illegal activities and substances in the discharge environment
 - Address further interventions that may avoid abuse, neglect, sudden infant death syndrome, co-sleeping.
- Provide resources and contact information for caregiver if safety is compromised

According to Mirick & Steenrod (2016) utilizing risk assessments, evaluation for attachment-based interventions, and opioid dependency treatment may help to promote a safe and secure environment for infants suffering from NOWS. Providing adequate resources and supportive education to families is crucial in ensuring that parents have the tools necessary to properly care for their infants and safeguard their future well-being following discharge home.

Adequate and Appropriate Nutrition

Adequate nutrition in the first years of life is essential for optimal growth and brain development. Infants who exhibit poor postnatal growth due to inadequate nutrition suffer from suboptimal neurodevelopmental outcomes (Martin, Fanaroff, & Walsh, 2015).

- Providing education and support that encourages breastfeeding when appropriate will help to facilitate bonding, reinforce maternal commitment to sobriety, and provide the enormous health benefits associated with breast milk (Wachman et al., 2016).
 - Lactation support following discharge will be beneficial- follow up visits (in home, if available) during first month following discharge; weekly nurse calls to check in, etc.
 - Frequent weight checks for infants with growth issues
- Facilitate nutritional needs for infant, caregiver, and household following discharge.
 - Assisting qualified caregivers in obtaining federal government aid that assist in purchasing and providing optimal nutrition to infants, children, and families.
 - WIC program



Health Promoting Behaviors

A Collaborative Discharge Plan provided to newborns with NOWS and their mothers incorporates services that seek to establish a strong foundation for health promoting behaviors. Meeting the needs of these families includes providing appropriate referrals and services that support health promoting behaviors such as treating and managing SUD.

- Providing education for caregiver that includes the importance of preventive healthcare
 - Maintaining scheduled appointments for healthcare promotion and therapies as needed
 - Providing caregiver encouragement to reach out for needed assistance and/or additional resources
 - Education and awareness of long-term effects and outcomes of NOWS and importance of meeting appropriate developmental milestones and early intervention as needed
- Following discharge, ensuring pediatrician is fully aware of infant's history and the need for post discharge management of NOWS that may include close observation and follow up. This may include:
 - Frequent weight checks
 - Frequent neurodevelopmental exams to ensure early intervention if needed
- Collaborative efforts between discharging facility and pediatrician should ensure that NOWS infants are not lost in the transfer of care among healthcare providers and public services.

Evidence to support this practice:

Various studies indicate infants suffering from NOWS are at risk for long term consequences such as maltreatment, mental health and behavioral issues, and visual disturbances (Uebel et al, 2015). They are often discharged home with mothers receiving inadequate services and support. This further places these infants at risk for failure to thrive, child abuse, and neglect (Association of State and Territorial Health Officials [ASTHO], 2014). Of extreme importance is a direct relationship between adverse childhood events (neglect and abuse) and substance use disorder of persons in the home (Maguire et al., 2016). This correlation demonstrates the essential need for changes to state CAPTA plans that will ensure safe environments for these children in the home by providing services and supportive programs to these families. Patrick et al. (2015) notes that infants with NOWS benefit from additional resources provided post-discharge such as case management and follow-up home visitation.



People to involve in this effort:

A Collaborative Discharge Plan will require a multidisciplinary approach. This will require healthcare providers including:

- Obstetrician/Gynecologists
- Substance Use Disorder Treatment Providers
- Substance Use Disorder Treatment Counselors
- Neonatologists
- Pediatricians
- Nurse Practitioners
- Occupational Therapists
- Physical Therapists
- Child life Therapists
- Nutritionists
- Social Workers
- Department Human Resources

Gap analysis & resources:

1. Specific discharge education for NOWS infants
2. Collaborative effort utilizing specific discharge follow up checklist to ensure needs of infant and mother are met following discharge
3. Support services for infant and caregiver following discharge- home health nurse visits for first week following discharge, when available
4. Detailed communication between discharging provider to pediatrician assuming care of infant prior to discharge
5. Ensure pediatric providers are prepared to assume care for high risk NOWS infants.
6. Creating a program between OB/GYN and infant healthcare providers that begins the education and planning process early in pregnancy.
7. Increasing NOWS education at substance use disorder clinics

Best practices from other hospitals:

- Neurodevelopmental exams for all infants diagnosed with NOWS prior to discharge
- All NOWS infants referred for early intervention/neurodevelopmental follow up exam and assessment
- Provider to provider discharge hand-off with detailed information regarding infant's NOWS history and need for further follow up or observation.
- Follow up pediatrician appointment following discharge- within 3 days of discharge