ASTHO Report
In-depth coverage of leading state and territorial public health issues.
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The Role of State Health Leaders in Addressing Substance Use Disorders Among Women, Infants, and Families

Introduction

The use of opioids and other substances during pregnancy has increased significantly in the past decade, and so too have complications from their use, including neonatal abstinence syndrome (NAS).[1] According to a 2018 CDC report, national opioid use disorder rates for hospital deliveries more than quadrupled between 1999 and 2014.[2] Prenatal exposure to opioids may result in an increased risk of low birthweight, preterm delivery, and expected—but treatable—short-term negative outcomes for newborns, such as NAS.

Pregnant and parenting women tend to have far fewer options for outpatient treatment and recovery programs, with only 19 states having programs designed for pregnant women, and only 15 percent of treatment centers nationally offering specific services for this population.[3,4] One study estimates that about 80 to 95 percent of women with substance use disorders (SUD) have unmet treatment needs.[5]

As states address the rising challenge presented by SUD and NAS, many are beginning to implement strategies that systematically consider the needs of women, infants, and their families, using a public health approach. State health leaders play a critical role in supporting a comprehensive public health approach.[6] This report highlights six public health approaches for addressing the rising incidence of SUD and NAS—and draws out the critical role that state health leaders play in each.

1. Strategic planning and cross-sector coordination.
2. Leveraging ongoing efforts within public health and across agencies.
3. Implementing policy and legislation.
4. Facilitating partnerships and stakeholders
5. Using data and surveillance to inform population health efforts.
6. Addressing provider education and workforce issues.

Six Public Health Responses to Addressing SUD

In 2017, ASTHO sought to build upon recent research efforts that focused on NAS—including ASTHO's 2015 "How State Health Departments Can Use the Spectrum of Prevention to Address Neonatal Abstinence Syndrome" report and its 2017 NAS Framework Report—to highlight states' wide-ranging efforts to address substance use disorders for women. For this report, ASTHO reviewed 30 opioid state plans compiled from states' websites, internet searches, or directly from state health departments and found that states have worked to build and develop their systems approaches to address SUD in six major ways discussed below.

1. Strategic Planning and Cross-Sector Coordination

State health leaders facilitate cross-sector coordination in various ways, such as by engaging with executive branch, legislators, and state agency stakeholders. States have used ongoing strategic planning processes to address SUD and have the opportunity to integrate and coordinate efforts with their states' overall opioid plans or to create standalone NAS strategic plans that establish goals, identify roles and responsibilities for agencies and partners, and use data to establish targets for reduction in SUD, for pregnant women, NAS, or their children and families.

State Highlight: Alaska

After years of increasing focus on opioid addiction, Alaska activated an Opioid Response Incident Command System to address the growing crisis. On Feb. 15, 2017, Gov. Bill Walker issued a state disaster declaration, allowing the state to access federal funds to address the crisis. Walker also issued Administrative Order 283 on Feb. 16, 2017, directing Alaska's Department of Health and Social Services, under the direction of the state health officer, to develop strategies and implement responses to address the epidemic. Under this Incident Command framework, Alaska's response activated different sectors and state agencies to strategically collaborate and coordinate efforts, including the attorney general's office, justice and corrections, medical boards, and emergency medical services. Other partners include healthcare providers, hospitals and clinics, community coalitions, business and labor, media, social service agencies, faith communities, third party payers, educators, and others. The response mirrored Alaska's strategic map to prevent substance misuse, addictions, and related consequences.

This strategic map's goals are to:

- Reduce stigma and change social norms.
- Increase protective factors and reduce risk factors in communities.
- Strengthen multi-sectoral collaboration.
- Strengthen prevention infrastructure.
- Optimize use of cross-sector data for decision making.

Alaska approached each of these goals using a public health lens, identifying opportunities to assist women and their families along the prevention continuum. For example, the strategic plan identifies improving access to preconception care, increasing screening and diagnosis, and reducing the need to self-medicate and promoting protective factors as key opportunities. Alaska has leveraged existing data sources, such as the Behavioral Risk Factor Surveillance System, to assess exposure to adverse childhood experiences (ACEs) and is promoting healthy families to increase resiliency. As part of this effort, Alaska is promoting maternal and early childhood health programs, prioritizing pregnant women for screening and access to treatment, utilizing evidence-based tools to prevent child abuse and neglect, and promoting postpartum social support. Alaska's life stage framework purposefully addresses the comprehensive and integrated needs of women, children, and families. Of the available plans that address NAS, only Alaska's coordinates the planning process.

2. Leveraging Ongoing Efforts Within Public Health and Across Agencies

Most states already have robust and ongoing maternal and child health programmatic and policy portfolios, with focus areas including improving access to contraception and prenatal care, reducing maternal and infant mortality, improving birth outcomes, reducing low birthweight, among other goals. Strategies to meet these goals include increasing breastfeeding, promoting the adoption of Baby Friendly Hospital policies and practices, as well as through the Supplemental Nutrition Program for Women, Infants, and Children (WIC), Early Head Start, and Maternal, Infant, and Early Childhood Home Visiting (MIECHV), or similar interventions that support women, infants, and families.

Many of the recommended strategies for preventing and mitigating the effects of NAS align with or are identical to approaches already being encouraged by state and local entities. These policies and practices could be refined and enhanced to specifically address the needs of women with SUDs, as well as incorporate other necessary components, such as case management, treatment and recovery, or social service coordination.

State Highlight: Ohio

The Ohio Department of Health (ODH) and the Ohio Hospital Association (OHA) collaborated, leveraging their partners and resources, to create unified statewide goals, work strategically across programmatic areas, and set joint priorities, interventions, and objectives to reduce infant mortality. The ODH-OHA collaboration worked successfully on a Safe Sleep campaign to reduce infant mortality and delaying birth until 39 weeks as clinically appropriate. As the work progressed on these campaigns, the group added breastfeeding to its priorities.

Through this effort, the Ohio team promoted its state-level hospital recognition program, First Steps for Healthy Babies, distinguishing maternity hospitals that are progressing towards meeting the Ten Steps to Healthy Breastfeeding. Based on similar initiatives in other states, the Ohio team developed, branded, and marketed this recognition program to the state's 105 maternity hospitals. In addition to the basic components of the Ten Steps, Ohio's program includes a fatherhood component.

These advances in hospital policies to support breastfeeding and other aspects of maternal and child health outcomes align with the Ohio Perinatal Quality Collaborative recommended non-pharmaceutical interventions for infants born with NAS. According to the organization's NAS protocol, all infants born in Ohio hospitals will be treated with non-pharmacological interventions first, which align with those practices promoted by the Ohio First Steps for Healthy Babies, such as rooming-in, on-demand feeding, skin-to-skin care, and breastfeeding when appropriate, and other interventions as necessary.[7] The First Steps recognition program explicitly acknowledges the challenges faced by NAS infants; for example, through the Baby Friendly policy pacifier use is discouraged in order to encourage frequent breastfeeding, however, newborns with NAS can have difficulties with soothing that may benefit from pacifier use.[8,9] The First Steps program acknowledges a need for flexible policies to meet the needs of newborns with NAS in order to provide them with the care necessary to thrive, and ensuring hospitals within the First Steps network are not penalized but rather encouraged to allow this type of flexibility.

To complement these efforts, Ohio has created a statewide effort to address NAS and support mothers with SUDs and their families. The goal of this collaborative, called Maternal Opiate Medical Supports (MOMS), is to improve maternal and fetal health outcomes, improve family stability, and reduce costs of NAS to Ohio's Medicaid program by providing treatment to pregnant mothers with opiate issues during

and after pregnancy through the maternity care home team-based healthcare delivery model that emphasizes care coordination and wrap-around services engaging expectant mothers in a combination of counseling, medication assisted treatment, and case management. Child care is provided during the treatment process with funding from the Substance Abuse Prevention Treatment women's block grant.

3. Implementing Policy and Legislation

During the 2018 state legislative sessions, many states considered laws and policy measures to address substance use disorders in general and NAS. State legislative approaches range from creating supportive networks for women and families to strengthening criminal remedies for substance misuse by pregnant women. In fact, only one state does not have any legislation related to substance use during pregnancy.

The federal Substance Abuse Prevention and Treatment Block Grant, distributed to all states and territories, requires that pregnant women and women with dependent children must be given priority in treatment admissions, and those that are referred to the state for treatment must be placed within a program or have interim arrangements made within 48 hours.[10] Federal guidance also requires notification and a plan of safe care; however, reporting such cases under federal guidance does not establish child abuse or neglect, nor does it require states to prosecute.

As described in the state example below, state health leaders can play a variety of roles with respect to federal and state legislative and policy initiatives, such as by advocating for and educating on legislation and policy options; developing regulations and clarify legislation; declaring a public health emergency; participating in cross-sector partnerships, such as perinatal quality collaboratives; developing education curricula for hospitals and providers; or promoting evidence-based screening and counseling for pregnant women.

State Highlight: Virginia

In November 2016, Virginia's former health commissioner, Marissa Levine, declared a public health emergency related to opioids. As the crisis has expanded, Virginia's legislature, in collaboration with state agencies, have enacted and implemented laws, regulations, policies, and programs to address the emerging and growing threat of opioids to the state's women, infants, and children.[11] Virginia's laws, policies, and new board of medicine regulations around proper use of opioids and buprenorphine are designed not only to identify infants at risk, but also to address the variety of treatment, health, and other possible social service needs that the woman and her family might face.

Virginia's approach seeks to address both the immediate needs of the family, as well as the longer-term, chronic barriers that women might face in accessing treatment and recovery. Virginia's state agencies promote strategies that support women's path to recovery by recommending that healthcare providers provide pregnant women with education on maintaining health during pregnancy, such as nutrition and prenatal care, as well as routinely screen women for substance use disorder, STIs, and other routine prenatal screenings in a private and confidential manner using evidence-based screening tools.[12] Virginia also suggests that providers learn more about addiction and recovery, including how and where to refer women for assessment and treatment, be supportive and non-judgmental to women, and to follow up with women routinely. The Addiction and Recovery Treatment Services (ARTS) program initiated in October 2016 by Virginia's department of health and the state Medicaid agency is making quality addiction treatment more available.

Healthcare providers are required to screen all pregnant women and provide counseling as appropriate. However, the results of a health history screen or substance misuse evaluation are not admissible in criminal proceedings.[13] In 2017, the Governor approved legislation requiring that the board of health adopt regulations, making NAS a reportable condition.[14] Attending physicians or other medical providers are required to immediately report to child protective services (CPS) if an infant is exposed to substances during pregnancy, based on clinical indicators, such as maternal and infant presentation at birth, medical history, or toxicology findings. Virginia statute requires that hospitals establish procedures to assess and test women and their infants.[15]

Recognizing that infants with NAS are at an increased risk of injury and violence, the Virginia Department of Health is developing an injury prevention education curriculum for Project Link case management professionals, birth hospitals, and community comprehensive maternity case management programs caring for pregnant and postpartum women at risk for, or with a history of addiction to substances, and for mothers of infants diagnosed with NAS.

Additionally, in 2017, Virginia's General Assembly included state funding for the Virginia Neonatal Perinatal Collaborative (VNPC), a public-private partnership between the Virginia Department of Health, the Virginia Hospital and Healthcare Association, and the March of Dimes. Through partnership and collaboration with state agencies, Project Link, community partners, the health care systems, and providers serving the mothers and babies across the Commonwealth, the VNPC's goal is to identify gaps and leverage additional resources needed to address the opioid crisis affecting this population. Virginia's laws and statutes, as well as complementary programs in the state, seek to protect infants from harmful environments and adverse health outcomes, while ensuring that women have the support they need for promoting healthy families.

Select Federal Legislation Addressing Substance Use Disorders
Examples of recent federal legislation that affect states are highlighted below.

1. The SUPPORT for Patients and Communities Act (H.R. 6), signed into law in October 2018, authorizes funding to expand prevention, research, treatment, and recovery programs. Among its provisions, H.R. 6 temporarily makes medication assisted treatment (MAT) a mandatory Medicaid benefit from 2020–2025. State Medicaid programs will be required to cover SUD treatment, even though SUD treatment in general is not a required benefit in Medicaid. Other provisions related to substance misuse prevention for MCH populations follow.
    - Section 1007 improves coverage options for babies with NAS to receive care in residential recovery centers and allows these centers the option to provide counseling or other services to parents or caretakers provided those services are otherwise covered.
    - Section 5022 requires CHIP programs to cover mental health services including SUD for eligible pregnant women and children.
    - Section 7061 requires HHS, CDC, NIH, SAMHSA and IHS to submit a report on addressing maternal and infant health in the opioid crisis.
    - Section 7062 requires HHS to release a report outlining recommendations relating to prenatal opioid use including NAS and authorizes $29,931,000 for FY19-23 for residential treatment programs for pregnant and postpartum women.
    - Section 7063 requires the Center for Substance Abuse Prevention in consultation with relevant stakeholders and the CDC director to develop educational materials for clinicians to use with pregnant women for shared decisionmaking regarding pain management and the prevention of SUDs during pregnancy.
    - Section 7065 through section 105(a) of the Child Abuse Prevention Act, HHS authorizes grants to states to improve and coordinate their response to ensure the safe, permanency, and well-being of infants affected by substance use.

2. States have taken a variety of approaches to preventing and mitigating NAS, including updating state laws to comply with requirements under The Child Abuse Prevention and Treatment Act (CAPTA). Under CAPTA, states must certify that there are policies and procedures in place "to address the needs of infants born with and identified as being affected by substance abuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder."[1] Although the law further specifies that, under such policies and procedures, healthcare providers must notify child protective services if they encounter a child with NAS, federal law does not define prenatal exposure to substances as child abuse or neglect or require prosecution for illegal action. Rather, CAPTA requires states to ensure there is a plan of safe care for infants with such substance exposure that addresses SUD treatment needs of the infant and family and a monitoring system to ensure that a plan of safe care is implemented appropriately.

4. Facilitating Partnerships and Engaging Stakeholders

According to ASTHO's NAS Framework Report, state health departments depend on integral cross-sector partnerships to facilitate and catalyze systems-level approaches to address the needs of women and their families. Statewide multi-sector partnerships can coordinate efforts, align resources, and harmonize messaging to women and families, creating a streamlined approach to prevention, support, resiliency, and recovery. In many cases, states have a multi-sector task force, usually coordinated or named by governors, with the state health departments as a member.

In the absence of an official task force, state health departments can coordinate with partners to prevent and address SUDs for women across the lifespan. Within the state government system, health departments could consider coordinating and aligning efforts between public health, Medicaid, Maternal and Child Health Block Grant (Title V), Family Planning services (Title X), Maternal and Infant Early Childhood Home Visitation (MIECHV) programs, early childhood comprehensive systems, community health centers (including Federally Qualified Health Centers), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), criminal justice, child welfare, education, and other statewide entities. Additional partnerships outside the state government might include pediatric, family medicine, mental health, reproductive service providers, hospitals, and community coalitions. Families also need opportunities to rebuild and create new social and economic support systems through education, employment, housing, transportation, and childcare support.

State Highlight: West Virginia

Founded in 2006, West Virginia created the West Virginia Perinatal Partnership to coordinate multi-sector efforts by individuals and organizations involved in all aspects of perinatal care by coordinating programs and developing policies to address the state's health outcomes among mothers and their babies. The group's key partners include healthcare providers, insurers, schools of medicine, and the Department of Health and Human Resources.

The Perinatal Partnership formed the Substance Use During Pregnancy Committee to make policy recommendations, identify best practices, and develop a collaborative and coordinated approach specific to the needs of this high-risk population.[16] In conjunction with the Bureau for Behavioral Health and Health Facilities, the West Virginia Office of Maternal, Child and Family Health, and the Claude Worthington Benedum Foundation, the West Virginia Department of Health and Human Services' Bureau of Public Health funded the three-year Drug-Free Moms and Babies Project to address the need for integrated and comprehensive care models for pregnant women with substance use disorders. Through the project, the state partners:

- Tested the integration of uniform screening instruments.
- Coordinated comprehensive medical, behavioral health, and social services, including follow up for two years postpartum, including family planning, health care, counseling, social services, home visiting, recovery support, as well as vocational and housing services.
- Evaluated the interventions.
- Provided outreach to partners across the state to scale and spread effective interventions.

Preliminary results from the interventions suggest more collaboration and enhanced communication between obstetric and behavioral health care providers, effective screening integration and 72 to 95 percent of participants tested negative for illicit substances at delivery.[17]

In 2015, the state legislature passed a bill allowing NAS treatment facilities outside of the hospital setting to be licensed throughout the state. These facilities treat infants who have been safely discharged from local hospitals and provide the same level of medical care at a lower cost. Additionally, West Virginia's neonatologists and pediatricians coordinated with the Perinatal Partnership to develop a standard definition of NAS and guidance on documenting exposure and withdrawal in newborns. The NAS measurements were also integrated into the West Virginia Birth Score System in October 2016, which is typically used to identify babies at risk for developmental delays.

State entities focused on improving maternal and child health outcomes have also collaborated to develop and utilize prescription drug monitoring programs (PDMPs), data dashboards, and heat maps to inform population health efforts, build relationships with law enforcement, and promote family planning services at harm reduction clinics.

5. Using Data and Surveillance to Inform Population Health Efforts

State health departments rely upon robust data systems to inform them of trends in population health, including related to SUDs. Most states have PDMPs to monitor opioid use, and several share data from these systems across multiple sectors within states and other states in their regions to track patients and drug use. Although PDMPs are a critical component of monitoring and surveillance to inform epidemiology trends, data related to women, infants, and children often reside in other sectors and entities. States can leverage multiple data sources, with appropriate privacy protections in place, to develop a more comprehensive understanding of women's and infant's experiences, from pre-pregnancy/prenatal, birth and neonatal, and post-natal/post-discharge stages. Data sources might include vital statistics (birth records), social service agency tracking, obstetric-gynecology records, hospital in-patient and discharge data, breastfeeding rates, and insurance claims.

State Highlight: Massachusetts

In August 2015, Massachusetts Gov. Charles D. Baker signed into law Chapter 55 of the Acts of 2015, authorizing the Massachusetts Department of Public Health (MDPH) to link and analyze existing datasets from across state government to better understand the complex nature of the current opioid epidemic. Since the passage of Chapter 55, MDPH's public health data linkage authority has been reauthorized indefinitely and has been broadened to enable MDPH to analyze other drivers of morbidity and mortality. As required under the 2015 law, MDPH has published annual reports that uncover causes and risk factors of opioid-related overdose to inform the state's response. Linking over 20 datasets, the 2017 report found that rates of opioid-related overdose decrease during pregnancy and are the lowest during the second and third trimesters, but significantly increase in the postpartum period, with the highest rates six months to one year after delivery. More than a third (38.3%) of deaths among women delivering a live birth between 2011 and 2015 were fatal opioid-related overdoses, compared to a fifth (19.9%) among women who did not deliver a live birth.

In addition, the Executive Office of Health and Human Services convened the Commonwealth's Interagency Task Force on Newborns with Neonatal Abstinence Syndrome and recently released its report, which identified data collection and quality improvement as systemic gaps and opportunities.[18]

According to the report, Massachusetts lacks centralized data collection across intervention stages, and information sharing for clinical care coordination is inconsistent across the state.

The task force recommended that Massachusetts create:

- A statewide NAS Dashboard of key metrics to monitor progress on aspects of care for families impacted by perinatal substance misuse.
- Provider accountability for the transition from one level of care to the next, ensuring efficient and effective care coordination. These linkages may also include bi-directional data sharing from outpatient clinics to primary care offices, community health centers, as well as birthing, acute care, and other hospitals throughout the stages of intervention.
- A unified privacy policy for state agencies for sharing confidential data, with guidance to providers about best practices for care coordination.[19]

Through opioid and NAS data dashboards, MDPH is using a precision public health approach to turn existing data into information that can lead to policy and program changes to address the devastating impacts of this current opioid epidemic, including NAS.

6. Addressing Provider Education and Workforce Issues

As the prevalence of NAS increases, healthcare providers across settings, from private practitioners to community clinics to hospitals, need to improve their understanding of how to better meet the needs of women and their infants. This includes ensuring that providers understand:

- Prescribing guidelines, screening, and referral needs for pregnant women with possible SUDs.
- The array of community resources available to help women access treatment and recovery services.
- Evidence-based newborn screening, treatment, and follow-up care guidelines.
- Standardized protocols for follow up and continuity of care, specific to communities and provider sites.

As states and providers increase their understanding of NAS, they have the possibility of developing more sophisticated and responsive approaches to preventing and mitigating the effects of NAS and SUDs on women, infants, and their families.

State Highlight: New Hampshire

As opioid use increased in New Hampshire, one of the state's major medical systems piloted a new care approach, changing practice in neonatal units and educating providers on maintaining a calm environment for newborns with NAS, as well as ways to reduce medication treatment for these infants. The Children's Hospital at Dartmouth-Hitchcock used a quality improvement approach, testing interventions to improve care for infants. The study team trained nurses on standardized Finnegan assessments, adapted scoring procedures to be more baby-friendly, such as performing assessments based on the infant's sleep-wake cycle and only after the infants received skin-to-skin care and on-demand feedings. They also promoted infants to room-in with their mothers throughout the newborn's entire hospital stay regardless of whether pharmacologic treatment was needed, decreasing the stimulation received by the infants from the NICU. The team also helped the nurses and providers to more thoughtfully include parents in the care of the infant, such as monitoring and recording symptoms using a symptom diary. The results of these new practices included a decrease in use of medications to

treat opioid-exposed infants, shorter hospital stays for infants, and lowered hospital costs for infants by more than half.[20]

These practice changes required careful and methodical staff education and engagement. Alison Holmes, the principal investigator, explains in an article, "[b]efore we started on our improvement work, most of us did not possess basic skills in how to work with families struggling through various stages of addiction and recovery. As we made a conscious decision to learn these skills, the work with the families and the support we were able to provide became much easier, and we could focus on keeping families together through the hospital stay with a consistent supportive care team…"[21] The hospital's psychiatry team trained nursing leadership and staff on trauma-informed techniques and approaches to working with families with substance use disorders. With this new information and approach, the team has seen changes in attitudes towards families facing substance use disorders, leading to more trust in and empowerment of families to care for their infants.[22]

This work is currently being scaled up to other hospitals in New Hampshire and the region through a Northern New England Perinatal Quality Improvement Network (NNEPQIN) QI Learning Collaborative titled "Healthy Moms/Healthy Babies" funded in part by the Children's Hospital at Dartmouth-Hitchcock, the Cardinal Health Foundation, and the March of Dimes. The neonatal collaborative educates providers through monthly webinars, biannual conferences, and online support from regional experts in the care of opioid-exposed newborns and their families. Patient-centered videos regarding varied aspects of care relevant to mothers with opioid use disorders and their care of newborns are in development.

The New Hampshire Department of Health and Human Services has also partnered with stakeholders in the state including obstetrics, pediatrics, addiction psychiatry, and other maternal-child health providers and services to form a Governor's Task Force on Substance Use in Pregnancy to help guide the Governor's Commission on Alcohol and Drug Abuse regarding the delivery of effective and coordinated alcohol and drug misuse prevention, treatment and recovery services throughout the state for women with substance use disorders.

Conclusion and Next Steps for States

Women, infants and children have unique and specialized needs and planning processes should take these needs into account, using a public health approach of prevention, mitigation, and treatment and recovery. By using a multi-sector, systems-level approach, states can ensure that policies, practices, and services are aligned to provide prevention, mitigation, and treatment services for women with SUDs and their families.

Each of the states profiled above has initiated targeted action to address SUD and NAS, with a focus on improving birth outcomes through policy and comprehensive system-wide changes.[23] As described above, state health leaders play a critical role by facilitating cross-sector partnerships, aligning SUD efforts with ongoing public health initiatives, and sharing population and evidence-informed data and resources to inform the state's response to a complex and multi-faceted public health epidemic.

Resources

ASTHO, federal agencies, and several national organizations have developed evidence-based guidelines and recommendations to address the impacts of opioid misuse across the lifespan. Several resources are listed below. States rely upon these guidelines and recommendations to develop their own approaches to addressing SUD and NAS.

Select ASTHO Resources

- Elements of a Comprehensive Public Health Response to the Opioid Crisis (*Annals of Internal Medicine*, 2018)
- How State Health Departments Can Use the Spectrum of Prevention to Address Neonatal Abstinence Syndrome: Companion Report (2015)
- Neonatal Abstinence Syndrome: How States Can Help Advance the Knowledge Base for Primary Prevention and Best Practices of Care (2014)
- Preventing Opioid Misuse in the States and Territories: A Public Health Framework for States and Territories (2018)
- The Neonatal Abstinence Syndrome Framework: Structuring Collective State-Level Efforts to Prevent NAS (2017)

Select Federal Resources

- A Collaborative Approach to the Treatment of Women with Opioid Use Disorders (SAMHSA, 2016)
- Addressing the Unique Challenges of Opioid Use Disorder in Women (CDC, 2017)
- Opioid Crisis (HRSA, 2018)
- The U.S. Opioid Crisis: Addressing Maternal and Infant Health (CDC, 2018)
- Treating for Two: Medicine and Pregnancy (CDC, 2018)

Select Other Resources

- A Public Health Response to Opioid Use in Pregnancy (American Academy of Pediatrics, 2017)
- Committee Opinion on Opioid Use and Opioid Use Disorder in Pregnancy (ACOG 2017)
- Evidence-Based Interventions for Neonatal Abstinence Syndrome (Pediatric Nursing, 2016)
- Neonatal Drug Withdrawal Guidelines (American Academy of Pediatrics, 2012)
- Obstetric Care for Women with Opioid Use Disorder (ACOG, 2017)
- Substance Use During Pregnancy (Guttmacher Institute, 2018)

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