# Middle TN NAS Community Collaborative Report

Prepared for the TN Department of Health

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TN Department of Health

Consilience Group™, LLC

nurses for newborns

SAVING BABIES. STRENGTHENING FAMILIES.

# History of Middle TN NAS Community Collaborative

From 1999–2011, Tennessee saw a ten-fold increase in the incidence of babies born with Neonatal Abstinence Syndrome (NAS), a condition in which a baby has withdrawal symptoms after being exposed to certain substances, primarily opioids. This rise in NAS is linked to a growing usage of opioids by young women of child bearing age. The baby is exposed when the mother uses either prescription medications or illicit drugs during pregnancy. The baby then goes through withdrawal because it is no longer receiving the substances after being born.[1]

Effectively addressing this issue is tremendously complex. It requires proactive, intentional coordination of services across the care continuum, including medical providers such as obstetricians and neonatologists, hospitals, drug treatment centers, mental health providers, and health care payers. While Davidson County has a robust and high quality network of healthcare and social service providers, these resources had not been aligned to address the growing needs of opioid dependent women and their babies.

In late 2014, prompted by an incident where an NAS baby was discharged without appropriate supports, representatives from the TN Departments of Health and Mental Health and Substance Abuse Services, Middle Tennessee hospitals and private healthcare providers, as well as social service providers held an informal meeting to discuss ways in which they could more effectively work together. At this meeting the group identified some of the key underlying challenges in serving opioid dependent pregnant women and their babies, which included:

- **Limited availability of prenatal services** designed to address the needs of opioid dependent pregnant women and help prevent or mitigate the chances of a NAS diagnosis upon the birth of their baby.
- **Inconsistent practices** regarding NAS across providers.
- **Limited education and training resources** regarding the impact of opioid usage by pregnant women tailored for different audiences (e.g., health care providers, mothers, and other care providers).
- **Limited communication** between and coordination among service providers.
- **Payer limitations** regarding allowable healthcare costs and length of hospital stays.

This initial meeting resulted in a commitment from the participants to formalize a working group dedicated to developing a coordinated approach to serving opioid dependent women and their newborn babies.

The TN Department of Health (TDH) took the leadership role in coordinating this effort. They identified and engaged key healthcare and community stakeholders and encouraged them to participate in this newly formed working group to be called the **Middle TN NAS Community Collaborative**. Additionally, TDH provided initial funding to support the development of a NAS demonstration model in Davidson County. The facilitation of the collaborative design process was led by Consilience Group, a strategy firm specializing in multi-stakeholder collaborative system and service design.

[1]TN Department of Health - Neonatal Abstinence Syndrome (NAS): http://tn.gov/health/topic/nas

A Nashville-based home visitation program, Nurses for Newborns, provided local project facilitation, guidance, and on-the-ground support of the Collaborative's efforts.

January 2015 marked the first official Collaborative meeting and included representatives from a range of providers working with opioid dependent pregnant women and their drug exposed babies. During its initial meeting, the group identified two primary goals:

1. Develop a demonstration model for family-centered, coordinated services that optimizes outcomes for babies born with NAS.

2. Develop a replicable process for establishing a NAS service delivery system that can be applied to other communities across the state.

Over a nine month period, January through September, the Collaborative convened monthly. These meetings and work sessions culminated in a series of design documents, which are compiled in this report's companion document, The Middle TN NAS Collaborative: Design Documents Compendium.

This report documents the Collaborative's process as well as key learnings. It is the expressed desire of TDH that this report help to inform related work across the state and that the information presented here is leveraged by other communities to address their specific NAS needs.

# Participants

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# Aligning to Mobilize: Collaborative Design Process

The Middle TN NAS Collaborative co-created a shared service delivery process using the Consilience by Design (CxD)© method, facilitated by Consilience Group, LLC. 'Consilience' means finding the common essence among principles from different disciplines especially when forming a comprehensive theory. The CxD method enhances traditional human-centered design practices with a consilience lens to deeply engage and mobilize stakeholders for collective impact. The total process, from research to initial pilot design, took nine months to complete. An overview of the steps undertaken by the group is provided below.

- **Initial formation of working group.** While a specific incident prompted an initial meeting, Middle Tennessee hospitals, state agencies, and community service providers have been working individually to improve outcomes for NAS-affected families for years. Representatives from the TN Departments of Health and Mental Health and Substance Abuse Services, Managed Care Organizations, Middle Tennessee hospitals and private healthcare providers, and social service providers met to discuss how they could more intentionally coordinate their services.
- **Expansion of core group to identify and engage additional healthcare and community service providers.** The next step in the design process was to assess the local NAS provider landscape, learn about the organizations, and recruit new partners to the Collaborative. Nurses for Newborns conducted this early information gathering and partner recruitment, which was critical to the later success of the design work sessions.
- **Best practice research and resource inventory development.** Along with gathering information about services in Middle Tennessee, the Collaborative sought out similar programs in other parts of the United States. Not many programs currently exist, but a handful of initiatives and collaboratives informed the group's service delivery model:
  - » Vermont's Children and Recovering Mother's Collaborative (CHARM)
  - » Vermont Oxford Network
  - » Ohio Perinatal Quality Collaborative
  - » East Tennessee initiatives
  - » TIPQC
- **Facilitation of collaborative design workshops.** Consilience Group facilitated three design work sessions. These focused on developing a replicable demonstration model for a family-centered, coordinated set of services that optimize outcomes for babies born with NAS and their families. All Collaborative members were invited to attend the sessions, and each session ranged from 40-50 attendees. In these sessions, participants established a shared understanding and vocabulary for their collective work; agreed on the Collaborative's target population, vision, and goals; identified key partners and existing assets; and drafted a shared service delivery model.
- **Formation of focused workgroups and related plans.** After the three design work sessions there was consensus that there was a need for smaller targeted work groups focused on three core components of the demonstration pilot: 1) Developing the pilot service delivery model, which included a care coordination component; 2) Designing NAS-related education and training for the proposed pilot; and 3) Identifying key data points to for tracking and evaluation. Consilience Group developed work plans for each group and Nurses for Newborns mobilized the Collaborative's partners to participate in one or more of the work groups.
- **Design of demonstration pilot.** The workgroups met monthly during the summer to develop an initial design for the demonstration pilot. Information gathered and materials developed were shared among collaborative members via Dropbox, a shared file system. A working draft of the pilot design is contained within the Compendium.

# Mobilizing for Action: Work Groups


## Service Delivery Model

- Established pilot eligibility criteria and target enrollment numbers.
- Designed service delivery flows for prenatal, perinatal and postnatal services.
- Identified key partners and their respective roles and responsibilities.

## Education & Training

- Inventories existing NAS educational and training materials.
- Secured permissions to adapt select materials for Davidson County.
- Secured grant to adapt and produce educational materials and host a NAS educational conference targeting professional providers.

## Outcomes & Evaluation

- Developed data collection survey tool.
- Collected initial baseline data via a CxD survey tool.
- Identified key data collection points.
- Assigned data collection responsibilities to Care Coordinator.
- Selected RedCAP as the shared data collection tool.

# Key Learnings

While babies born with opiate addiction is a problem faced throughout Tennessee, every affected community has its own unique challenges, assets and solutions. However, the Middle TN NAS Collaborative's journey produced important learnings that may help any community accelerate its response to this urgent issue. The following guidance is offered as important considerations for any community before embarking on a similar initiative.

1. **Engage stakeholders and service providers with the widest possible range of viewpoints and perspectives.** Providing services to opioid dependent women and their drug exposed babies is complex, and there are varying — and sometimes conflicting — viewpoints about appropriate treatment approaches. It is important that the collaborative includes an array of members who can represent and speak to these various perspectives and approaches to establish durable common ground as a foundation for sustained engagement. Over 70 individuals, representing 32 agencies including medical institutions, treatment centers, government agencies, social service providers, and private foundations participated The Middle TN NAS Collaborative. Input from varied representatives enhances the program design and helps the group to anticipate service delivery needs. Additionally, if organizations have an opportunity to inform the solutions they are more likely adopt them.

2. **Establish a culture that balances collaboration and sharing with the required autonomies of each member organization or institution.** A driving force in the formation of the Middle TN NAS Collaborative was enhanced alignment of NAS related services through intentional service coordination and collaboration. While this alignment is achieved through adopting agreed-to shared standards and common practices it cannot come at the price of organizational autonomy. For example, the Labor and Delivery units of the local hospital all have distinct care algorithms for mother and baby. It was not the intent or desire of the Collaborative to force each hospital to adopt the same algorithm, but rather develop a shared protocol for connecting mother and baby to services post discharge. The Collaborative's value comes from respecting and leveraging each member's unique skill set, expertise, and perspective — not stifling them.

3. **Agree on common language and definitions.** As previously noted, Collaborative stakeholders provide an array of services to overlapping populations. Each entity uses a specific set of terms and tools to meet their unique service delivery needs. Often times the words associated with this population have different meanings to different users, which can cause a great deal of confusion. In the case of the Middle TN NAS Collaborative, there were a variety of different interpretations of the term "NAS". For some members of the Collaborative the term was a default label for any baby born to a mother using opioids. For representatives from the medical community the term "NAS" was only applied to those babies exhibiting distinct withdrawal symptoms which warranted a formal NAS medical diagnosis. For this reason, it is important to develop a lexicon of terms and agreed-upon definitions as they relate to the work of the Collaborative.

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# Key Roles

» Project Champion/Funder:

This is an entity that can mobilize organizations and resources to address the identified problem or need and provide ongoing guidance and support. Ideally this entity is also able to provide initial seed funding to support the formation of the Collaborative and undertaking of a collaborative design process. In the case of the Middle TN NAS Collaborative, TDH fulfilled this role.

» Neutral Facilitator/Systems Designer:

This is an entity that is considered a neutral third party that has the skills and expertise to facilitate a multi-stakeholder guide the group through a collaborative design process. They do not need to be a subject matter expert, but rather an expert in facilitation and process design. In the case of the Middle TN NAS Collaborative this role was fulfilled by Consilience Group, LLC, a Memphis based strategy and design firm.

» Local Coordinator:

This is a local entity that has deep knowledge of the subject matter as well as collaborative partners, and available resources. They are responsible for identifying and engaging potential Collaborative members; handling meeting logistics, forming and managing work groups; and overseeing the creation of the local demonstration pilot. Nurses for Newborns' Executive Director Vicki Beaver fulfilled this role for the Middle TN NAS Collaborative.

» Subject Matter Experts:

These are experts in a field or discipline who can share their unique perspective and knowledge with the broader collaborative. In the case of the Middle TN NAS Collaborative this role was fulfilled by all the members which included local healthcare providers, social services providers, managed care organizations, as well as representatives from other regions of the state who were able to inform the group on the large statewide context.


4. **Deliver a productive process with entities accountable for serving in critical process management roles.** Described on this page are the key roles that were essential to the successful creation of the Middle TN NAS Collaborative and resulting pilot design. The entities fulfilling these roles for the Middle TN NAS Collaborative are identified; however, this may differ for each community based on available resources and partnerships.

5. **Invest necessary time to co-create a collective vision and framework.** Since the Collaborative included such a diverse group of stakeholders serving somewhat overlapping but distinct populations, achieving consensus on an overarching vision, target population to be served, and associated Collaborative goals took a fair amount of dedicated discussion (approximately two, day-long design work sessions). For the Middle TN NAS Collaborative, there was extensive conversation regarding the possible target populations — all women of child bearing age, all pregnant mothers using any type of prescribed or illicit substance, only pregnant women using illicit drugs, only women using opioids, only opioid exposed babies needing pharmacological treatment. Informed by best practice, gaps in service, and a desire to be targeted the Collaborative made the decision to focus on serving opioid dependent pregnant women and their drug exposed babies. Reaching consensus regarding this framework was critical to establishing a foundation upon which further work could be built.

6. **Leverage convening time to build the foundation for sustained connections.** While nobody wants to "meet for the sake of meeting," there is inherent value in bringing people together across organizations and disciplines for structured, intentional relationship-building. In this case, members of the Collaborative in related areas or fields were often unaware or had misconceptions about each other's work. Forums that convened diverse NAS stakeholders gave them intentional opportunities to learn about assets and resources that can accelerate both their collective and individual impact. Such intentional formal discussions, as well as the informal relationships that organically develop between participants, improve awareness of potential partnership resources and provide opportunity for relational connections as the foundation for sustained collective effort.

7. **Build a foundation for data collection, sharing, and reporting.** Measuring the effectiveness of a newly proposed demonstration pilot requires a clearly defined data collection, tracking and reporting design. For an initiative that coordinates efforts of existing services providers, gathering these data necessitates that each partner agree to share information. This makes it essential to identify early on specific data collection needs to establish required data sharing agreements and/or client consents. It is equally important to identify benchmarks against which the performance outcomes of the demonstration pilot can be measured, as well as an agreed-upon method for regularly collecting and reporting on relative performance. The Middle TN NAS Collaborative partners are using an array of screening and assessment tools and tracking a diverse set of outputs and outcomes. Early on in the process an inventory of tools was conducted as well as a survey of partners regarding their data collection efforts. The intent was to make use of existing tools and processes in place rather than creating another layer of assessment and reporting. The information gathered through this survey process was used to identify common tools that could be leveraged for the pilot, data points to be collected and tracked throughout the pilot, and established benchmarks.

8. **Engage key community leaders as champions for the Collaborative's work.** Engaging and sustaining participation from diverse stakeholders for a community issue such as NAS requires the commitment of recognized, respected community leaders. This instills a sense of confidence that precious time spent in Collaborative meetings and work session is likely to lead to tangible outcomes and meaningful positive change. In the case of Davidson County that initial leadership came from the Department of Health and Nurses for Newborns, as well as medical representatives from each of the three local hospitals.

9. **Secure dedicated resources to build collaborative systems and infrastructure.** In the long run increased efficiency and improved outcomes resulting from service alignment generate cost savings; however, establishing the initial system infrastructure to support alignment requires dedicated resources. In the case of Davidson County the following resources were committed:

   - Initial seed funding provided by THD to support the formation of the Collaborative and the development of the NAS demonstration pilot.
   - Dedicated staff time participating in Collaborative meetings, design sessions and work groups.
   - Grant funding to support the adaption and printing of educational materials and professional development training opportunities.

   It is anticipated that additional funding will need to be raised to support the ongoing refinement of the pilot design, pilot launch and the initial coordination of partners. However, all proposed participant services are currently funded through existing programs and resources.

10. **Think big, start small.** While there are many aspects and service needs to be addressed for a defined NAS population, it is best to take a targeted approach when designing a demonstration pilot. This will allow demonstration partners to focus on refining and honing aspects of the model and take the time needed to address unanticipated challenges or barriers. It also allows for testing the validity of the proposed theories. This approach is based on the Plan-Do-Study-Act (PDSA) model, which is a four step model for carrying out change. Middle TN NAS Collaborative focused first on creating a shared vision, big picture outcomes and achieving consensus regarding the service gaps and service delivery needs of the target population. This was a critical first step in assuring shared vision and commitment from the members of the group. Once this vision was crafted, the work of the Collaborative shifted to designing a targeted demonstration model that would allow this group to design and test a collaborative approach to service delivery that integrated a care coordination component. The proposed NAS Pilot will serve approximately 30 women and their infants through three primary stages of care: pregnancy, intrapartum, and postpartum. The goal is to enroll prenatally 15 opioid dependent women living in Davidson County and 15 women and their newborns at the point of delivery. A criteria for enrollment at delivery is that the baby is NAS diagnosed and requires pharmacological treatment to address withdrawal symptoms. Mothers and babies will be enrolled up until the baby reached 6 months of age. A small group of providers who were willing to commit their time and resources to participating in the Pilot will provide the initial services to these women and their children.

Following the close of the nine month design process, the Middle TN NAS Collaborative is moving into an implementation phase with the goal of launching the NAS Pilot in early 2016. Members of the Middle TN NAS Collaborative agreed to meet quarterly throughout the initial implementation to review the status of the Pilot and provide feedback and guidance to the Pilot partners.

As previously noted, it is the expressed hope that the work of the Middle TN NAS Collaborative inspires other communities to take action. Once a community is mobilized, the strategies, techniques and learnings documented within this report can be adopted and applied. The result is a movement from vision to action that creates positive systemic change across the care continuum and ultimately improves the lives of mothers, their babies and the broader community.

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