Findings and Recommendations from an Environmental Scan of Provider Practices Around Neonatal Abstinence Syndrome and Neonatal Opioid Withdrawal Syndrome

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Executive summary

When an infant is exposed to substances before birth, they may experience withdrawal symptoms and developmental delays ("Neonatal Abstinence Syndrome" or "Neonatal Opioid Withdrawal Syndrome") that require special care. In 2024-25, MDH and an evaluation partner surveyed and interviewed providers to hear what providers most need from MDH for providing this care. One hundred thirty-three providers took the survey, and 15 providers participated in interviews. "Providers" included medical doctors as well as professionals who provide other types of care to infants and birthing people. Participants included registered and public health nurses, social workers, and substance use treatment providers. Participants were based in hospitals, public health, and community organizations (e.g., substance use treatment centers). Between the survey and interviews, providers in all eight regions of Minnesota participated.

Providers shared:

- Parents and pregnant people fear their baby being taken away from them due to their substance use. Instead of risking this possibility, parents and pregnant people avoid services where they may be reported.
- Worsening this fear is confusion over the state's prenatal exposure reporting law, which providers implement inconsistently.
- Compassion toward parents and pregnant people using substances improves care for infants affected by substance exposure and addresses harmful stigma and bias.
- Yet, even when compassionate care is in reach, postpartum life is hard—especially for people impacted by substance use. Overwhelmed families struggle to seek and stay connected to care.
- Siloing of health care systems complicates referrals. The earlier referrals are made, the better. But providers are not consistently connecting families to voluntary support services.
- Screening, documentation, and plans of safe care practices vary across the state. One fairly common practice, meanwhile, is family home visiting (FHV). FHV provides wide-ranging supports that meet families where they are.
- Overall, providers need support and direction from MDH on how to provide NAS/NOWS care and practice harm reduction.

Participants and MDH made the following recommendations:

- Ensure a good transition from hospital to home through early FHV. Focus on facilitating warm handoffs from medical providers to FHV programs.
- Communicate and endorse expectations of care. Ensure providers grasp the importance of telling families that support is available and not penalizing them.
- Lift up people’s humanity and strengths to reduce stigma and bias. Change the harmful narrative around NAS/NOWS.
- Involve people with lived experience in further outreach and support.

Introduction

When an infant is exposed to opioids, medications, or other substances before they are born, they may experience withdrawal symptoms after birth, called Neonatal Abstinence Syndrome ("NAS"). When the symptoms are caused by exposure to opioids, the syndrome is called Neonatal Opioid Withdrawal Syndrome ("NOWS"). Infants with NAS or NOWS may have growth and development concerns, in addition to living in especially vulnerable families or social situations.

The Minnesota Department of Health's (MDH) Children and Youth with Special Health Needs Section (CYSHN) has sought to understand how to support people involved in the care of birthing/postpartum people and infants affected by substance use.[1] To do this, the Section sought:

- Analysis, interpretation, and summarization of quantitative and qualitative survey data to identify opportunities, barriers, and potential next steps for best supporting these providers, and
- An environmental scan of provider[2] key informant interviews to understand current practices (i.e., screenings, protocols), gaps, and opportunities.

After a competitive process, MDH selected The Improve Group (IG), a St. Paul-based evaluation firm, to conduct this environmental scan and analysis. The project took place from January-June 2025.

The primary purpose of the environmental scan is to: learn about the range of current provider practices across the state for NAS and NOWS; determine how MDH can support providers; disseminate the results widely to enhance NAS and NOWS support; and establish relationships with providers that MDH can utilize moving forward.

Environmental scan approach and methods

MDH and IG used a mixed-methods approach to gather and analyze qualitative and quantitative data from both a survey and individual interviews. The following questions guided the environmental scan.

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[1] This report uses "substance use" to refer to any substance use, with or without a diagnosis of Substance Use Disorder. References to survey data specifically use "Substance Use Disorder" or "SUD" as the survey used this language in its questions.
[2] In this report, "providers" refers broadly to anyone involved in caring for a person affected by NAS/NOWS. Participants included public health nurses, substance use treatment providers, and medical doctors. When a finding or recommendation relates to a specific type of provider, the report notes this.

- What are we learning about **processes** of identifying NAS and NOWS and procedures for responding?
- What are we learning about **barriers and gaps** that providers and families experience that prevent families from receiving needed NAS and NOWS support?
- What are we learning about most needed and helpful **supports for providers** in identifying and supporting infants with NAS and NOWS and their families?

Survey

MDH conducted an NAS SUD Environmental Scan online survey in the fall of 2024, of which IG analyzed the results. 133 NAS/NOWS providers responded to the survey. The survey asked respondents if they wanted to participate in the environmental scan. IG reached out to those who indicated interest to invite them to interviews and/or act as advisors on the environmental scan.

Advisors

During outreach for interviews, IG also invited NAS/NOWS providers to serve as advisors for the project. Advisors could contribute to all or part of the process, including designing the interview protocol, reaching out to potential interviewees, and providing feedback on analysis. IG worked with five advisors to incorporate feedback.

Interviews

IG conducted individual interviews with 15 NAS/NOWS providers in March and April 2025. IG did the interviews via Microsoft Teams, phone call, and over email.

IG sent interview invitations to survey respondents who said they would be interested in further collaboration. Additionally, IG invited NAS/NOWS providers whom they or MDH knew professionally. IG attempted to reach interviewees in different regions of Minnesota, different provider work settings (i.e., hospital versus treatment center), and different provider profession types (i.e., physician versus social worker).

Originally, outreach materials only mentioned NAS. During outreach, one advisor recommended IG add language to include NOWS. Upon reflection with MDH, IG added reference to NOWS to materials across the project.

In each interview, IG asked providers about their care processes before, during, and after the birth of a baby. IG then asked about barriers and gaps providers experience or see families experience. Lastly, IG asked about the most needed supports for NAS/NOWS providers.

Table 1. Survey and interview representation by region[3]

Region	Survey representation	Interview representation
Northeast	26	3
Northwest	22	3
West Central	12	-
Central	30	2
Metro	43	5
Southeast	7	2
South Central	13	-
Southwest	8	-
TOTAL	161[4]	15

Table 2. Survey and interview representation by provider profession

Profession	Survey representation	Interview representation
Provider	29	2
Registered Nurse	60	2
Public Health Nurse	-	3
Social Worker	17	3
Doula	2	-
Community org/advocate[5]	4	5
Other	20	-
TOTAL	132	15

Table 3. Survey and interview representation by work setting[6]

Setting	Survey representation	Interview representation
Hospital	8	4
Public health	43	6
Clinic	3	-
Community organization	-	4
Other practice setting	5	1
N/A	74	-
TOTAL	133	15

[3] County names are listed per region on the MDH State Community Health Services Advisory Committee (SCHSAC) Regions (www.health.state.mn.us/communities/practice/connect/docs/schsac.pdf) PDF.
[4] Survey respondents were asked: "What region(s) of Minnesota do you serve? Select all that apply." This total is larger than the 133 survey respondents because some respondents serve more than one region in Minnesota.
[5] Includes substance use treatment providers.
[6] Only survey respondents who selected the profession "provider" were asked their work setting, which is represented in Table 3.

Analysis

IG analyzed quantitative and qualitative data from the MDH NAS SUD Environmental Scan survey using Microsoft Excel. After each interview, interviewers completed a summarizing debrief sheet. IG then themed summary data from both methods in the online whiteboard software Miro. The IG team identified findings and supporting evidence through a group workshop and then presented initial findings to a group of MDH employees and provider advisors. This "emerging findings" meeting helped the IG team better understand the findings and begin to formulate recommendations. IG then met with MDH staff to consider the feasibility of potential recommendations, and any refining needed for recommendations to be most usable by MDH.

Limitations

The following limitations should be kept in mind when interpreting results of this environmental scan:

- MDH used a convenience sample for the survey, meaning survey respondents were people MDH could easily reach with the survey invitation. Results cannot be generalized to a larger population.
- IG used convenience and snowball sampling for the interviews, drawing from survey respondents, professional contacts of the MDH and IG teams, and recommendations of project advisors and other interviewees. These findings cannot be generalized to a larger population.
- Interviews were conducted with busy professionals and ranged from 30 minutes to 60 minutes. Time constraints prevented interviewers from probing for more detail on some responses.
- This report paraphrased interviewee quotes based on the interviewer's notetaking. Paraphrased quotes may be close to what the interviewee said, or they may be summaries of longer responses.
- This environmental scan was not designed to gather insights from specific cultural communities or from families with lived experience. An additional scan(s) would need to be designed to gather these insights in an equitable manner.

Findings

Parents and pregnant people[7] affected by substance use are often afraid that their baby may be taken away from them, which stops these parents and pregnant people from seeking care.

Parents' and pregnant people's concern about being reported to child protection limits service utilization.

Interviewees discussed how parents' and pregnant people's fear of their baby being taken away persists throughout each step in their care process, from prenatal care to after the baby is born. Due to this fear, **parents and pregnant people do not often share about their use prenatally, hindering early supports**. This has a cascading effect on utilizing other potential supports, like early intervention services for infants. 67% (89 of 133) survey respondents listed "concern of report to child protective services" as a barrier they see to birthing and postpartum people accessing services/care—the most selected option.

"Parents have a hard time trusting many local entities due to child protection overreach, so they are hesitant to accept referrals to agencies that they believe are affiliated with the county." - Survey respondent

This fear **extends to services that people associate with child protection**. One county interviewee discussed difficulty in working with some families in person due to their office being in the same building as child protective services. While documentation of prenatal substance use can connect families with supports, the potential for child protection involvement often prevents disclosure and documentation.

One interviewee shared their understanding that Minnesota considers prenatal substance misuse to be child abuse and neglect.[8] This provider said they try to be transparent about documentation of substance use, but because of state law, it is very **difficult for prenatal providers to accurately document without damaging the relationship they have with their patients or disrupting their care**. Another interviewee said this is especially challenging for racial and ethnic minority populations who experience bias in the child protection system and who experience out-of-home removal more often.

[7] This report uses "pregnant people" to refer to all people who carry babies, including transgender and non-binary people. When interviewees used other language (e.g., "moms"), it is stated as such.
[8] This environmental scan did not attempt to verify the accuracy of interviewees' perceptions of state law. Rather, this report shares people's perceptions and how these perceptions influence their actions with patients.

"The best thing [providers can do] is to keep moms connected to their healthcare team—you don't want to scare moms away by having them be afraid of anything punitive happening." – Interviewee

One interviewee's comments showed that not all attitudes about CPS reports are negative. This provider, who reaches out to mothers reported to CPS to connect them with resources, discussed the repercussions of providers not making a report to child protection. This provider said **they see the report as an opportunity to connect families with services**.

"By not reporting, that prevents their patients from receiving other care/resources that they could benefit from: treatment, [medicated-assisted treatment], harm reduction, preventing them from having a safe pregnancy and a healthy baby … if they could connect them with us, we could assist them with needs they may have." - Interviewee

Providers said that the law about reporting prenatal substance exposure is hard to understand and is followed in different ways.

A recent change to state law affecting prenatal exposure reporting is perceived as well-intentioned but harmful due to the room for interpretation.

Given the lack of clarity of this statute, **parents and pregnant people may err on the side of not accessing services like prenatal care out of fear of being reported**. One interviewee noted that providers who misunderstand the law may tell families that child protection will take their baby, preventing patients from going back for regular prenatal or follow-up care. Several interviewees also discussed how different providers have varying interpretations of the statute, which can lead to confusion among both providers and patients.

One interviewee raised **concerns about their uncertainty regarding what they are supposed to communicate to patients** due to a lack of clarity on the law regarding reporting. Multiple interviewees stated that both patients and providers often misunderstand the statutory requirements for reporting to child protection. Exacerbating this confusion, interviewees may be referring to different prenatal exposure reporting statutes at both the federal and state level.[9]

"Fear of reporting and not understanding current statute is a huge barrier for health care providers." – Interviewee

[9] See Appendix A for or the Office of the Revisor of Statutes website for Minnesota Statute 260E.31.

Compassion toward parents and pregnant people using substances improves care for infants affected by substance exposure and addresses harmful stigma and bias.

Parents and pregnant people using substances face stigma and a lack of compassion from providers and society at large, creating a cycle of distrust with care systems.

Interviewees said the strong stigma against parents and pregnant people using substances is a major barrier to care. As a result of experiencing stigma, **people do not seek prenatal and follow-up care and avoid community supports**, even if they have a referral. A public health nurse home visitor interviewee noted their team does not drive county vehicles when performing home visits due to the questioning or stigma a family may face from their neighbors or community for having a county car come to their home.

"Stigma and bias is alive and well." – Interviewee

Families may also distrust care systems if they are generally fearful about contact with outside entities. To add another layer to the stigma and bias that families face, one interviewee said that since early 2025, immigration-related fears are a greater barrier. Some immigrant families who were connected and engaged with services ceased using county services, refusing to answer the door to anyone, the interviewee said. 56% (74 of 132) of survey respondents reported "bias/stigma" as a major barrier to accessing services/care.

"Stigma often results in mothers leaving against hospital recommendation after birth more often than not." - Interviewee

Interviewees **highlighted compassion as an antidote to stigma and bias**. Multiple interviewees said that compassion is often part of service when things go well.

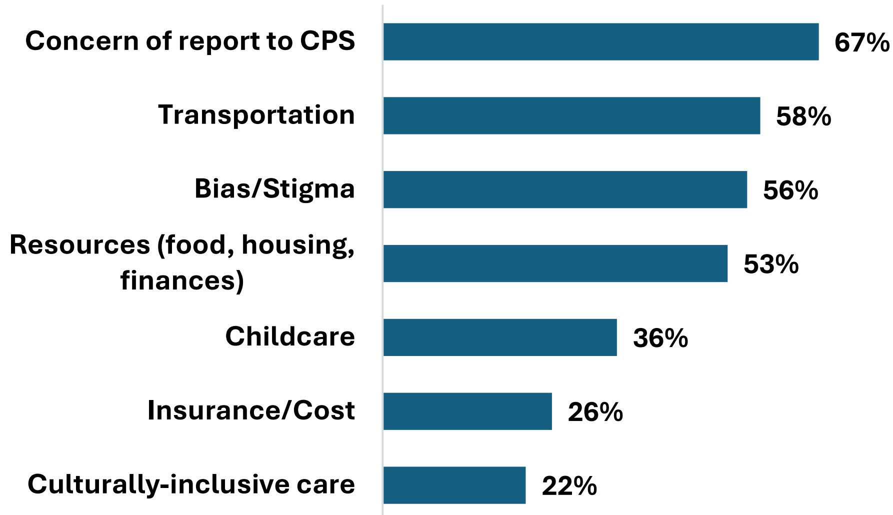
"Mom's not perfect, mom loves baby with all her heart. I would hope that everyone who is working with her through this very difficult transition is doing so with love and kindness and empathy." - Interviewee

The realities of postpartum life for parents and pregnant people impacted by substance use make it hard to start and continue care.

Basic needs get in the way of seeking NAS/NOWS care, and overwhelmed families need more support coordinating and accessing care for themselves and their infants.

Interviewees outlined the various barriers that they see preventing families from seeking care for themselves and their babies. **Families face needs related to transportation, basic resources (food, housing, finances), and childcare**. 58% (77 of 132) of survey respondents said "transportation" was one of the top three barriers for people accessing care.

Figure 1. What barriers do you see birthing and postpartum people face when accessing services/care (prenatal, postpartum, well child checks, mental health, SUD)? Select Top 3 (n=132)



"Those moms have to be in such a better spot to be able to support their kids. If they don't know where their next meal is going to come from, how are they going to support their kids?" – Interviewee

These barriers to basic needs are sometimes already being addressed by public health programs. For instance, public health home visitors support more than NAS/NOWS supportive care—they can **help people meet basic needs** by assisting families in finding resources such as food shelves or other community services. Home visitors also support families by helping them coordinate their prenatal or follow-up appointments, finding phone numbers to call, and arranging transportation to attend the appointments. One interviewee said a "fair proportion" of families do not come to NICU follow-up appointments; another interviewee, a home visitor, said they often help families who are struggling to attend appointments. This support is essential for families dealing with SUD, NAS, or NOWS, who may find it difficult to coordinate care postpartum.

"It's not just substance use—it is everything else wrapped around that." – Interviewee

To address these barriers, interviewees discussed the **need for more funding and support for all counties to provide preventative care** to address these barriers in the first place.

Interviewees specifically cited the need for more "boots-on-the-ground" social workers to support families from early on in pregnancy with accessing appointments and services.

"Have it feel a little bit like a warm hug so we can talk about NAS easier." - Interviewee

Greater Minnesota families face distance barriers to accessing care.

Greater Minnesota interviewees also referenced **transportation and time barriers in getting to appointments in metro areas**. One pain point exists when a baby needs to be in the NICU in the Twin Cities metro area due to care needs, but parents live in greater Minnesota. While the baby is receiving care in the NICU, the parent is at an increased risk for relapsing due to increased stress about their child and increased availability of substances in the metro area. One interviewee highlighted how their greater Minnesota hospital received training and equipment upgrades to serve more infants with higher care needs locally, resulting in fewer referrals to metro hospitals.

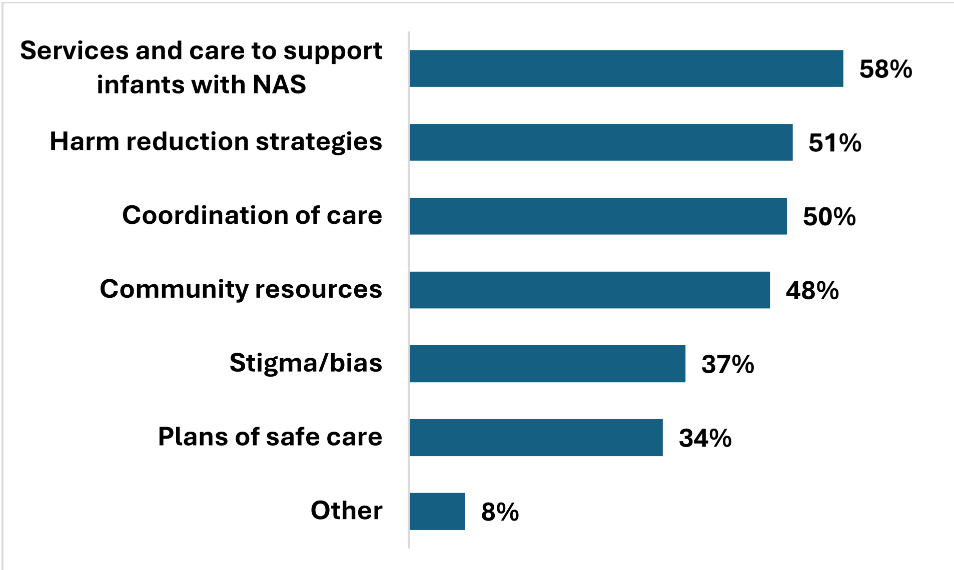
Gaps between health care systems make it hard for providers to connect families with more support. Without a referral to supportive services, families may miss the chance to get all the help they need.

Providers struggle with the lack of coordination and communication between care systems, specifically between hospital and home visiting care.

Multiple interviewees discussed the difficulties they face due to the separation of health care systems and the different procedures for supporting SUD/NAS/NOWS patients. One interviewee mentioned that **referrals involve minimal actual communication and connection across providers**, creating challenges for those receiving the referral when context for a patient is required. Another interviewee raised that because health care systems are siloed, patients need to tell their story multiple times to different providers with whom they have no relationship. This burden can retraumatize patients and make it even more difficult to build relationships with providers.

51% (67 of 132) of survey respondents highlighted "coordination of care" as a top three needed resource or training that would be the most helpful to effectively provide care.

Figure 2. What resources/trainings would be the most helpful for effectively providing care to birthing and postpartum people and their infants impacted by SUD? Select Top 3 (n=132)



"The biggest problem is the siloing of healthcare systems. Every healthcare system does things a little bit different, and there are confidentiality concerns. There are a lot of barriers to collaboration … my goal for the state is that every pregnant patient who has SUD can show up at a hospital or support organization and know what's going to happen. But it is radically different everywhere." – Interviewee

Providers may not be making referrals to non-medical supports and services, which negatively impacts parents and infants who do not receive services early or ever.

Parents and pregnant people want to utilize supports that will help them and their baby, but face different barriers. They may not know what supports are available or may fear losing their children, interviewees said. Home visiting programs often begin with a referral from a medical provider, but **participants lamented that these referrals do not always happen**. One interviewee, a public health nurse supervisor, noted that more referrals come from WIC than from primary care physicians and that it "would be nice" to get more referrals from primary care physicians.

"When families are referred and I'm able to connect with them, 95% of the time, they are interested in working with me. They want to be good parents." – Interviewee

In one interview, a home visiting director expressed a desire for clear, deliberate referrals from hospitals so that they know parents have agreed to the referral, specifically regarding NAS. This would help maintain continuity of support.

“We want to make sure that we’re supporting parents and infants right out of the gate.” - Interviewee

Most survey respondents, 86% (114 of 132), said they make referrals if a patient is determined to be at a high risk for a mental health or substance use disorder. But only half (56 of 113) reported performing warm handoffs with their patients to referral organizations.

Asked to select the top three barriers when referring patients to supportive services, 73% (96 of 132) of survey respondents selected “lack of providers to refer to,” by far the most common selection.

Interviewees attributed providers not making referrals to a variety of reasons:

- Providers’ lack of knowledge of supports or referral sources.
- Providers’ own stigma against substance use.
- Discomfort in speaking to patients about substance use/NAS/NOWS.
- Concern or confusion regarding child protection involvement.
- Short appointment times that do not allow a full addressing of patients’ complex needs. Interviewees did not say what might be prioritized over referrals.

“When doctors or OB providers are not sending us the referrals, it is such a disservice to these moms.” – Interviewee

Providers do not always make referrals as early as possible.

Interviewees discussed the importance of educating providers on the value of making early and consistent referrals to some kind of voluntary case management or program like home visiting. They suggested **setting the expectation that early referrals are best practice**.

“We truly need an entire pregnancy worth of time to get them in a better spot.” – Interviewee

The earlier providers find out about prenatal substance use and refer the person for support, the earlier potential supports are provided, which interviewees stressed as critical. Early referrals—in the prenatal period—are a critical way to set families on a path to getting them and their infants the care they need.

“Ages zero to three is really high impact for early intervention. Whatever we can fit in those early, early years is really important for the outcome.” - Interviewee

Just over half (69 out of 133) of survey respondents said they refer infants with NAS to early intervention services. 36% (48 out of 133) responded “N/a” to this question.

Of survey respondents who said they refer infants to early intervention, 81% (55 out of 68) said they refer to Help Me Grow; about half (31 out of 68) said they refer to family home visiting (FHV). Interviewees with FHV experience mentioned monitoring children's development as part of the support they provide.

Survey respondents also mentioned making referrals to:

- WIC.
- Primary care providers.
- Early childhood special education and family education.
- Parenting support and resources (e.g., Parent Support Outreach Program).

If survey respondents said they do not refer infants with NAS to early intervention, the survey asked about their current practices regarding follow-up for infants with NAS upon hospital discharge. Several of these respondents said they refer families for follow-up with their primary care physician. One respondent said, "We provide family home visiting and don't refer to early intervention based solely on NAS. We provide nurse assessments and refer if indicated." Another said, "There is little known openly discussed supports. Doulas will provide support services to families and continue to support anything in place for families that experienced NICU."

All survey participants were asked about barriers they see in connecting families and infants impacted by NAS to early intervention services. Responses frequently fell into one or more of the following categories:

- Bias, stigma, judgment, and fear.
- Family-level factors, such as families not following through or not having awareness of the effects on their baby and the importance of early intervention.
- Provider-level challenges like struggling to keep in touch with the family; challenges coordinating care; and lacking service availability. Service availability challenges included lacking services in greater Minnesota and waiting periods.
- Resource needs, like transportation.

Screening, documentation, and Plans of Safe Care (POSC) practices vary across the state and setting types.

Screening for substance use disorder (SUD) in pregnancy is not universal.

Providers described variation in how screening is performed and what tools are used to screen. Some ways interviewees said they learn about substance use in pregnancy were:

- The "5Ps" questionnaire, which asks a pregnant person about substance use of their parents, peers, partner, past, and pregnancy.[10]
- A urinary toxicology screen.
- The patient choosing to disclose to provider, such as to an FHV nurse.

About half of survey respondents said they screen birthing/postpartum people for SUD using a standardized screening tool. About one third of respondents screen all patients for SUD using a standardized tool. IG did not find any patterns in care setting, provider type, or region in survey analysis of screening practices.

Survey respondents and interviewees said **screening, whether formal or informal, can happen at different points**: prenatally, during the birth hospitalization, or through follow-up care.

Documentation of substance use in pregnancy varies.

Documentation of substance use during pregnancy varies by setting type and the individual documenting. Interviewees mentioned documenting substance use in a patient's Electronic Health Record (EHR), the Social Services Information System (SSIS), and/or nursing notes.

Plans of Safe Care components and implementation are not uniform across Minnesota.

Less than a quarter (30 of 132) of survey respondents said they were involved with the development and/or implementation of Plans of Safe Care (POSC) for substance-exposed newborns.

Some interviewees referenced plans of safe care informally, including practices such as respite care or preventing relapses. Interviewees described **differing practices related to formal or informal plans of safe care**, including the following responses:

- One interviewee's organization, a physician practice, now uses the phrase "Family Care Plans" instead of "Plans of Safe Care." This person discussed planning for the high risk of fatal overdose of the birthing parent after delivery. For this interviewee, harm reduction tools are part of the POSC.
- A public health-based interviewee said they considered their local hospital as the entity implementing a POSC, while this interviewee saw her focus with a person as being on safe housing, recovery resources, education on withdrawal signs in the baby, and knowing who to call for help.

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[10] The 5Ps Prenatal Substance Abuse Screen For Alcohol and Drugs (https://ilpqc.org/wp-content/docs/toolkits/MNO-OB/5Ps-Screening-Tool-and-Follow-Up-Questions.pdf) is an example of a 5Ps questionnaire.

- Working with a parent prenatally to establish a POSC for after they bring their baby home. This plan could include setting expectations of child protection involvement, caring for the baby, planning for how to handle relapse, and transportation to NICU and other follow-up appointments, one interviewee said.
- The Nurse Family Partnership home visiting curriculum includes talking about a safe plan for if a parent needs help or a break immediately, in order to prevent shaken baby syndrome, one interviewee said. This interviewee, who is a public health nurse supervisor, said social services have a bigger list of items for establishing a plan. Another interviewee, also in public health, described collaborating with hospitals and social services to implement a POSC. This interviewee said they are involved with the POSC as much as the family wants them to be.

Family home visiting programs benefit babies because public health professionals provide wide-ranging supports that meet families where they're at.

Supports after birth vary widely and cover a holistic range of needs for both the baby and parents.

Interviewees who work with families through programs like family home visiting (FHV) **aim to establish stability for the family**, ideally before the baby arrives. They see caring for the birthing parent and family as a way of caring for the baby. Care might focus on coordination and connecting people to services, like through transportation support or calling to schedule appointments.

FHV home visitors, who are often public health nurses, may check in on a child's development; provide health and safety information; screen the caregiver for depression and family violence; refer the family to services; and help the family with goal-setting and skill-building.

Participants said **FHV can work well for families** because it can be:

- Culturally responsive, since it is often county- or Tribe-based.
- Long-lasting—home visitors can work with families for many years, which allows home visitors to build relationships and earn trust.
- A middle ground between legal (e.g., child protection) involvement and medical care.

"Relationships are our intervention." - Interviewee

As a voluntary service, FHV gets support to families in a way that families are more likely to accept, rather than having child protection come to their house.

Interviewees said that while referrals to FHV may not explicitly mention NAS/NOWS, these programs end up serving babies affected by NAS/NOWS nonetheless.

Family home visiting programs are common forms of care.

Ninety-six of 133 (72%) survey respondents said that they refer prenatal/postpartum people impacted by SUD to other services. They most commonly reported referring people to public health/home visiting, mental health resources, basic needs resources, substance use recovery resources, parenting support and resources, and community networks and organizations.

Providers need MDH support and direction on how to provide care for babies and how to practice harm reduction.

Some participants desire more direction for and endorsement of a harm reduction approach in SUD/NAS/NOWS care.

42% (55 out of 132) survey respondents reported that they provided harm reduction services, while a quarter of respondents (33 out of 132) reported that they do not. The rest of respondents selected "not applicable (N/A)." IG did not find any patterns in responses by setting type, provider type, or region.

For the 55 respondents who said they do provide harm reduction services,

- 73% (40 out of 55) provide Naloxone;
- Two-thirds (37) provide Medications for Opioid Use Disorder; and
- Just under half (26) provide fentanyl test strips.

One interviewee said **MDH could take a more active role in giving providers of all types more direction**. Without clearer direction, providers may penalize, use non-evidence-based practices, and not make referrals based on client preference. This person said that now that data shows harm reduction and prevention practices work, **it would help for MDH "to say in layman's terms, 'We love this idea, you can trust this.'"**

Just over half (68 of 132) of survey respondents ranked "harm reduction" as a top-three need for training and resources for providers (see Figure 2 above).

Interviewees defined and practiced harm reduction in varying ways. As one person said:

"We do not give out clean needles to people. We do not hand out Narcan. But we do not stop seeing somebody because they're using. You're not going to find that in a list of harm reduction techniques. To me, harm reduction is working with someone where they're at." - Interviewee

Participants explained MDH needs to **not only to clarify what providers should do, but also how they should do it**. They emphasized compassion. For example, an interviewee called for MDH to model best care practices like how to speak to patients who have relapsed.

Providers responding to NAS/NOWS need more knowledge about effective care and where to refer people for additional support.

For treatment of babies with NAS/NOWS, **Eat, Sleep, Console is a common starting point** among interviewees. One interviewee who serves infants who spend time in a NICU said she recommends follow-up appointments to monitor neurodevelopment at 4 months and then yearly until school age.

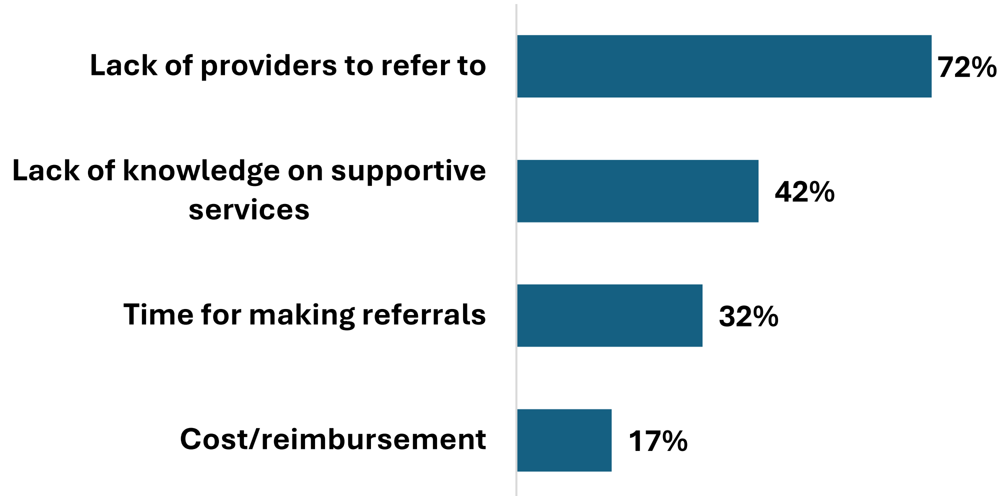
Interviewees **highlighted the need for MDH to lift up best practices and programs that work to care for NAS/NOWS**. They said knowledge about good practices is lacking and people want more information. For example, one public health nurse supervisor said the nurses she oversees have requested more updated information on responding to NAS/NOWS.

One interviewee referenced a 1-hour monthly presentation through Project ECHO on providing the best care for pregnant people with SUD. Participants get a CEU.

"Their goal is providing best care for best practice. Their focus is really on the pregnant person. There may be opportunities for whole care in that venue for all different types of providers. It's a whole conglomeration of professional people: doctors, social workers, drug/alcohol counselors. If MDH could help support these projects that have happened, that would be very helpful for providers seeking clarity on best practices." - Interviewee

In addition to knowledge on care practices that work, participants **raised a need to increase providers' awareness of who else can support families**. With more of this knowledge, providers may make more referrals. Of survey respondents who refer people for supportive services, 42% (56 out of 133) cited lack of knowledge on supportive services as a top-three barrier to making referrals.

Figure 3. What barriers do you face when referring birthing and postpartum people for mental health and substance use disorder supportive services? (Select all that apply) (n=133)



Knowledge of family care is also an area for awareness-building. These programs allow the parent to stay in a residence with their baby, which removes many barriers to care. But knowledge of these programs is not universal.

Providers emphasized a need for more culturally responsive care, such as through doulas. Several interviewees discussed the need for culturally responsive care, both in urban and rural areas. Multiple interviewees that serve rural areas specifically named the need for culturally responsive care for Native American and Indigenous birthing people, parents, and infants. One interviewee said that they have been successful when referring pregnant people to Ninde Doulas, a network of Indigenous doulas.

Another interviewee said that having another person in the room for appointments—this could be a doula, a second provider, or the person's partner—seems to reduce bias and racism by medical providers.

The majority of interviewees identified themselves as white females/women, exemplifying that the representation of provider identities does not always align with patients.

"The networks that have access to doulas have been really successful ... Having more access to community health workers and the doulas within the hospital systems that can be a warm handoff to certain communities outside would be beneficial." - Interviewee

Key considerations for MDH

In the survey, interviews, and emerging findings meeting, participants said what they think MDH and its Children and Youth with Special Health Needs (CYSHN) section should do to improve care for infants affected by NAS/NOWS.

Ensure a good transition from hospital to home through early referrals to family home visiting.

CYSHN can **facilitate the connections** that need to be in place for families to enroll in family home visiting (FHV) early. Ideally, families enroll in FHV and meet their nurse before giving birth. CYSHN could work with medical providers to ensure they are making referrals when they learn a pregnant person has used substances. CYSHN could also work with hospitals where births occur to ensure people enroll in FHV before going home with their baby, if they were not already enrolled. Given the barriers posed by fear of child protection involvement, CYSHN could also work to **raise awareness and provide assurance that FHV is not the same as child protection, and that FHV is voluntary**. At the same time, as with many other care providers, family home visitors are mandated reporters. Therefore, it is important that FHV providers, along with all other providers who are mandated reporters and come into contact with families, have a strong understanding of the prenatal reporting statute.

While out of the direct scope of CYSHN, participants also recommended MDH **deepen the positive impact of FHV programs** by expanding eligibility for FHV and allowing FHV programs to provide an allowance to people, which could incentivize enrolling in and continuing with FHV.

Some of these practices may be happening in parts of the state. CYSHN can promote and **support statewide adoption** of these practices. Continuing efforts to **integrate MDH's FHV program** across the agency can support this recommendation.

Communicate and endorse expectations/standards of care for NAS/NOWS.

The environmental scan found that the separation of medical health care systems from public health systems hinders NAS/NOWS care. CYSHN and MDH can **better bridge health care and public health systems** to improve health care providers' understanding of the standard of care. Variation in care at the health care setting has major implications for the immediate and long-term care of a child affected by NAS/NOWS. Increased provider knowledge of the standard of care—and clear expectations from MDH to apply that standard—can improve care..

Interviewees said MDH needs to **ensure providers fully grasp the importance of telling families support is available, versus penalizing families for asking for help**. MDH could also provide support to providers related to:

- Facilitating a smooth transition from the hospital to home, such as through referrals to FHV.
- How to support infants once they go home.
- Compassionate care for working with families, such as how to talk to someone about the possibility of child protection involvement.
- Addressing bias and stigma related to SUD during pregnancy.
- Harm reduction.
- Early intervention processes.
- Knowledge of available support services, such as FHV and family care programs.

In terms of how to reach providers, interviewees shared the following ideas:

- A one-page fact sheet providers can share with families on how to support their baby once they get home from the hospital.
- A roadmap visual that shows the expected pathways of care for a baby affected by NAS/NOWS, such as referral processes.
- A conference for providers and county staff to share practices and reinforce the importance of referrals.
- Email newsletters, marketing campaigns, a dedicated website, and commercials.

Lift up people's humanity and their strengths to reduce stigma and bias.

Participants repeatedly decried the harm that stigma and bias cause families affected by NAS/NOWS. **Changing the narrative** from one focused on deficits and blame to a story of loving families who have overcome challenges can help. Narrative change takes multiple strategies across sectors over many years. For its part, CYSHN can heed participants' calls to emphasize people's strengths and humanity. CYSHN could share success stories of families who are doing great after being affected by NAS/NOWS and going through recovery. Small actions can contribute to narrative change over time.

Involve people with lived experience.

Some participants in the scan discussed the strengths of community-based work and lived experience with substance use and NAS/NOWS. CYSHN and MDH can **build relationships with people with lived experience** to build trust and improve the quality of care.

People with lived experience can support:

- Provider training.
- Facilitating stronger relationships and trust among MDH, providers, and communities.
- Gathering feedback from people affected by NAS/NOWS, which was out of the scope of this scan.

One specific recommendation was for MDH to **physically travel to and shadow community-based responses to NAS/NOWS**.

Policy recommendations

Healthy birthing people will result in healthy babies, participants emphasized. They pointed to various structural barriers to health in the state. CYSHN can **share policy recommendations with agencies and partners that have more direct influence over policy**. Participants recommended:

- Changing income guidelines for pregnant people for behavioral health funding.
- Providing support, including funding, for people to access social determinants of health like transportation, childcare, housing, and finances.
- Clarifying the prenatal exposure reporting statute for providers and families.

Conclusion

This report summarized findings from an environmental scan of provider practices for NAS/NOWS in Minnesota. Interviewees and survey respondents, who had experience as providers of different types in Minnesota, described what is working for caring for infants and their families; where challenges exist; and what support from the state could be most helpful. MDH's CYSHN division intends to use results to inform support to providers.

Appendix A: Minnesota prenatal exposure reporting law

Minnesota Statute 260E.31 - Reporting of Prenatal Exposure to Controlled Substances reads:

"A person mandated to report under this chapter shall immediately report to the local welfare agency if the person knows or has reason to believe that a woman is pregnant and has used a controlled substance for a nonmedical purpose during the pregnancy, including but not limited to tetrahydrocannabinol, or has consumed alcoholic beverages during the pregnancy in any way that is habitual or excessive.

A health care professional or a social service professional who is mandated to report under this chapter is exempt from reporting under paragraph (a) if the professional is providing or collaborating with other professionals to provide the woman with prenatal care, postpartum care, or other health care services, including care of the woman's infant. If the woman does not continue to receive regular prenatal or postpartum care, after the woman's health care professional has made attempts to contact the woman, then the professional is required to report under paragraph (a)."

Appendix B: Survey results

Table 4. In your role, do you screen birthing/postpartum people for the following using a standardized screening tool? (Select all that apply)

Answer Choice	n	%
Substance Use Disorder	72	54%
Mental Health Disorders	87	65%
No	19	14%
N/A	17	13%
TOTAL	133	N/A

Table 5. How often do you screen for Substance Use Disorder (SUD) using a standardized tool? (if you answered SUD to the question above)

Answer Choice	n	%
All – 100% of patients	47	65%
Frequently – 75-99%	12	17%
Mostly – 51-75%	7	10%
Sometimes – 26-50%	3	4%
Rarely – 1-25%	3	4%
TOTAL	72	N/A

Table 6. How often do you screen for mental health using a standardized tool? (if you answered Mental Health Disorders above)

Answer Choice	n	%
All – 100% of patients	55	63%
Frequently – 75-99%	22	25%
Mostly – 51-75%	6	7%
Sometimes – 26-50%	3	3%
Rarely – 1-25%	1	1%
TOTAL	87	N/A

Table 7. In your role, do you refer birthing/postpartum people to substance use disorder or mental health services if determined to be at high risk?

Answer Choice	n	%
Yes	114	86%
No	4	3%
Unsure	1	1%
N/A	13	10%
TOTAL	132	N/A

Table 8. If yes (to above), do you do a warm handoff to the provider they are being referred to?

Answer Choice	n	%
Yes	56	49.5%
No	57	50%
TOTAL	113	N/A

Table 9. In your role, do you refer prenatal/postpartum people impacted by substance use disorder to other services? (Ex: family home visiting, community organizations)

Answer Choice	n	%
Yes	96	72%
No	18	14%
Unsure	1	1%
N/A	18	14%
TOTAL	133	N/A

Table 10. What barriers do you face when referring birthing and postpartum people for mental health and substance use disorders supportive services? (Select all that apply)

Answer Choice	n	%
Lack of providers to refer to	96	72%
Lack of knowledge on supportive services	56	42%
Time for making referrals	42	32%
Cost/reimbursement	22	17%
Other	18	14%
N/A	14	11%
TOTAL	133	N/A

Table 11. What barriers do you see birthing and postpartum people face when accessing services/care (prenatal, postpartum, well child checks, mental health, SUD)? (Select top 3)

Answer Choice	n	%
Concern of report to Child Protective Services	89	67%
Transportation	77	56%
Bias/Stigma	74	56%
Resources (food, housing, finances)	72	54%
Childcare	48	36%
Insurance/Cost	37	28%
Culturally Inclusive Care	29	22%
Other	7	5%
N/A	3	2%
TOTAL	133	N/A

Table 12. Are postpartum people able to be seen within 3 weeks after birth with an OB/GYN or family practice provider?

Answer Choice	n	%
Yes	93	70%
No	15	11%
N/A	25	19%
TOTAL	133	N/A

Table 13. Do you provide harm reduction services to pregnant/postpartum people? (ex. Patient being discharged with Naloxone)

Answer Choice	n	%
Yes	55	42%
No	33	25%
N/A	44	33%
TOTAL	132	N/A

Table 14. If yes (to above), which of the following? (Select all that apply)

Answer Choice	n	%
Naloxone	40	33%
Medications for Opioid Use Disorder	37	30%
Fentanyl strips	26	21%
Syringe exchange kits	9	7%
Other	11	9%
TOTAL	123	N/A

Table 15. If you work with infants and families impacted by neonatal abstinence syndrome (NAS), how often do you see them referred to or engaged with early intervention services (ex. family home visiting, Help Me Grow, etc.)?

Answer Choice	n	%
Frequently – 76-100% of cases	25	19%
Often – 51-75% of cases	23	17%
Sometimes – 26-50% of cases	25	19%
Rarely – 1-25% of cases	11	8%
Never	1	1%
N/A	47	36%
TOTAL	132	N/A

Table 16. Are you referring infants with NAS to early intervention services (ex. Help Me Grow, Part C)?

Answer Choice	n	%
Yes	66	50%
No	15	11%
N/A	48	36%
TOTAL	133	N/A

Table 17. Are you involved with the development and/or implementation of Plans of Safe Care for substance-exposed newborns?

Answer Choice	n	%
Yes	29	22%
No	103	78%
TOTAL	132	N/A

Table 18. What resources/trainings would be most helpful for effectively providing care to birthing and postpartum people and their infants impacted by SUD? (Select top 3)

Answer Choice	n	%
Services and care to support infants with NAS	77	58%
Harm reduction strategies	68	51%
Coordination of care	67	50%
Community resources	64	48%
Screening	53	40%
Stigma/bias	49	37%
Plans of safe care	45	34%
Other	10	8%
TOTAL	133	N/A

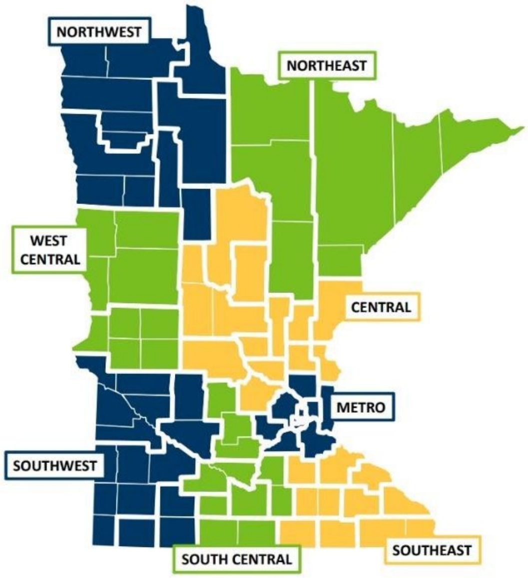
Appendix C: SUD/NAS Needs Assessment Survey protocol

SUD/NAS Needs Assessment Survey

This survey aims to gather insight from multi-disciplinary professionals regarding current interventions or supports used while caring for birthing/postpartum people who are impacted by substance use disorder (SUD) and/or mental health concerns, along with infants impacted by neonatal abstinence syndrome (NAS). The results of this survey will drive potential programs and interventions from a state perspective based on identified areas of need.

- Please Select your profession
  - Provider (Branching logic for sub-bullets, open free form text box)
    - Specialty (ex. OBGYN, Neonatologist, Midwife, NP)
    - Primary practice setting (clinic, hospital, community, etc.)
  - Registered Nurse-hospital or clinic based, or public health nurse
  - Social worker
  - Doula
  - Community organization/advocate
  - Other

- What region(s) of MN do you serve? (Select all that apply)



  - Northwest
  - Northeast
  - West Central
  - Central
  - Metro
  - Southwest
  - South Central
  - Southeast
- In your role, do you screen birthing/postpartum people for the following using a standardized screening tool? (Select all that apply)
  - Substance use disorder (SUD)
    - If selected (branch)
      - How often do you screen for SUD using a standardized tool?
      - All-100% of patients
      - Frequently:75-99%
      - Mostly 51-75%
      - Sometimes-26-50%
      - Rarely-1-25%
  - Mental health disorders
    - If selected (branch)
      - How often do you screen for MH using a standardized tool?
      - All-100% of patients
      - Frequently:75-99%
      - Mostly 51-75%

        - Sometimes-26-50%
        - Rarely-1-25%
    - No (branching) If no, explain (ex. Do you use a different, non-standardized tool?)
    - N/A
- In your role, do you refer birthing/postpartum people to SUD or mental health services if determined to be at high risk?
    - Yes
    - No
    - Unsure
        - If yes, do you do a warm handoff to the provider they are being referred to?
            - Yes
            - No
- In your role, do you refer prenatal/postpartum people impacted by SUD to other services? (Ex: family home visiting, community organizations)
    - Yes (branching: If yes, what are the other services/programs you refer to?) (open answer)
    - No
    - Unsure
- What barriers do you face when referring birthing and postpartum people for mental health and SUD supportive services? (Select all that apply)
    - Time for making referrals
    - Cost/reimbursement
    - Lack of knowledge on supportive services
    - Lack of providers to refer to
    - Other- (leave open for answering)
- What barriers do you see birthing and postpartum face when accessing services/care (prenatal, postpartum, well child checks, mental health, SUD)? (Select top 3)
    - Bias/Stigma
    - Culturally Inclusive Care
    - Concern of report to child protective services
    - Transportation
    - Insurance/Cost
    - Childcare
    - Resources (food, housing, finances)
    - Other-
- Are postpartum people able to be seen within 3 weeks after birth with an OB/GYN or family practice provider?
    - Yes

    - No
    - N/A
        - If no, in your opinion what are barriers to postpartum people seeing a provider within 3 weeks.
- Do you provide harm reduction services to pregnant/postpartum people? (Ex: Patient being discharged with Naloxone)
    - Yes
    - No
        - If yes (branching), which of the following? (Select all that apply)
            - Medications for Opioid Use Disorder (MOUD)
            - Naloxone
            - Fentanyl strips
            - Syringe exchange kits
            - Other:
        - If not, why? (branching)
            - Open answer? (Lack of time, not trained, lack of policies supporting harm reductions, lack of company support?)
- If you work with infants and families impacted by neonatal abstinence syndrome (NAS), how often do you see them referred to or engaged with early intervention services (Ex. family home visiting, help me grow, etc.)
    - Frequently (76-100% of cases)
    - Often (51-75%)
    - Sometimes (26-50%)
    - Rarely (1-25%)
    - Never
    - N/A
- Are you referring infants with NAS to early intervention services (Ex. help me grow, part C)?
    - Yes
    - No
        - (If yes, branching) To who are you referring? (Ex. help me grow, family home visiting, etc.)
        - (If no, branching) If not, what are your current practices regarding follow-up for babies with NAS upon hospital discharge? (ex. NICU follow up clinic, PCP, etc.)
- What barriers do you see in connecting families and infants impacted by NAS to early intervention services?
    - Free form answer

- Are you involved with the development and/or implementation of plans of safe care for substance exposed newborns?

    - Yes
    - No
        - (If yes, branch) What barriers, if any, impact your capacity to effectively implement/utilize the POSC?
- What resources/trainings would be the most helpful for effectively providing care to birthing and postpartum people and their infants impacted by SUD?
    - (Rate Top 3 by priority)
    - Harm reduction strategies
    - Stigma/bias
    - Screening
    - Coordination of care
    - Services and care to support infants with NAS
    - Community resources
    - Plan of safe care
    - Other (Can we do text box?)
- (Optional) Do you have any additional thoughts or comments?
    - (Open form)
- (Optional) Are you interested in connecting more about these topics? If so, please provide your name and contact information.
    - Provide name and contact information

Appendix D: Interview protocol

Interview protocol: MDH Neonatal Abstinence Syndrome professional interviews

*=priority question that we would aim to ask regardless of interview length.

Introduction and informed consent

I'm ___________ with The Improve Group, which is a consulting firm helping the Minnesota Department of Health or MDH learn more about practices around the state for addressing Neonatal Abstinence Syndrome, or NAS, and Neonatal Opioid Withdrawal Syndrome, or NOWS. Thank you so much for taking the time to chat with me. These interviews ask about current practices, barriers and gaps, and opportunities for supporting providers, and usually take about 30-60 minutes. Do you have that time available, or would you rather have a shorter conversation? Okay, thank you! Your input will help MDH understand how they can best support professionals around the state who work with people on the topic of NAS and NOWS.

Before we begin, I'd like to review important information about how we will protect your information, use the input you provide, and plans to follow up with you after the study is complete. We're doing up to 18 interviews with people holding a variety of roles across all regions of the state, and we'll include in our report what we learn from across all interviews without indicating who said what. However, because the MDH team can see the list of people to be invited for an interview, and we will indicate the region, role, and specialization of interviewees in the report, it's possible you may be identifiable if you hold a unique role in your area. If you have any concerns about confidentiality of your input, we will be happy to work with you to draft your input in a way you are comfortable with.

We may use quotes from interviews, but if we do, I will email you any quotes for you to optionally make any corrections or request we do not use the quote. We will attribute all quotes to "interviewee." IG will also not ask about any specific infants or families you have served.

Of course, this interview is voluntary and participating or not will not affect your relationship with MDH in any way. If you would like to end early or skip any questions, that's totally fine, just let me know.

We or MDH will be sure to send a copy of the final report to everyone we interview so that you can see the results of the study and how the information you provided was used.

I'll be taking notes while we talk, so I may pause to type or ask you to repeat something. In addition to taking typed notes, would you be comfortable with me recording our conversation today? I want to ensure that we capture all your feedback. If you do consent to a recording, know that the recording will be kept in a secure electronic folder and will be deleted when the project is over.

What questions do you have? So far, we have talked about confidentiality, use of your contribution, and your ability to stop participation at any time. Are we okay to continue with the interview?

Great, shall we get started then? [timed at 1:57]

Scope of what we hope to learn

As you know, the scope of influence of MDH is to support public health systems and provide resources across the state. Our interview questions will try to get at things that will be within MDH's scope to address. For example, when MDH can learn what's going well, they can share best practices with others, and where professionals need support, they can share resources. [timed at 2:30]

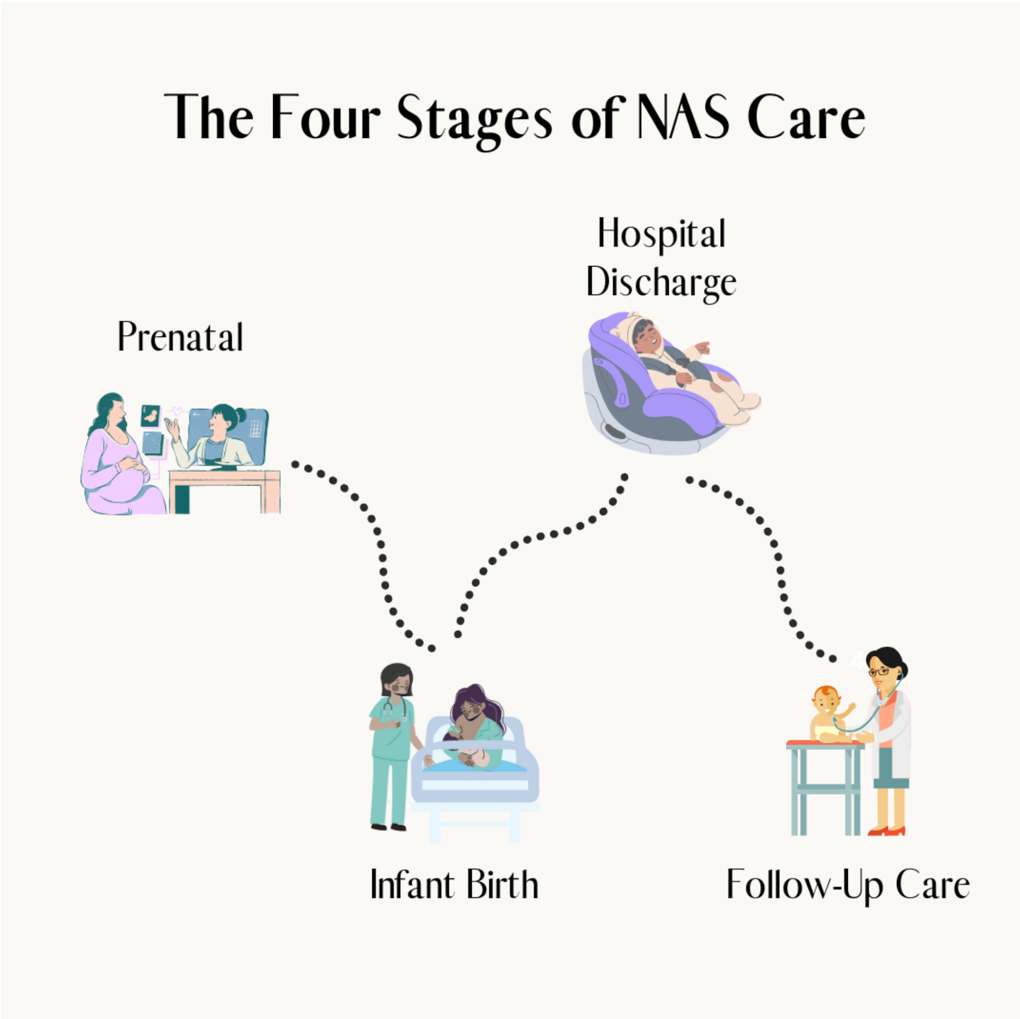
Warm-up questions [including introduction, estimate up to X:05]

1) First, I'd like to hear a little bit more about you and your work. Where do you work and what is your role and responsibilities within the organization?
    a) Prompt for if not mentioned:
        i) What specialty do you have in your role, if any?
        ii) How long have you been in this role or working as a provider?
2) In your role, what populations do you typically serve?
    a) Prompt for if not mentioned:
        i) Specific region?
        ii) Any particular communities?
        iii) Infants and/or birthing person?

Deeper questions

Next, I will be asking you a bit about your current practices as a provider for infants with NAS/NOWS and their parents and guardians.

Current practices [Up to 10 minutes, X:05 – X:15]



3) *We have a visual here that shows four stages of potential NAS/NOWS care: prenatal, birth, hospital discharge, and follow-up care. Please talk me through how your role intersects with this process, and/or what this process looks like at your organization. Feel free to tell me where your process deviates from this graphic.

   a) Prenatal care

      i) NAS/NOWS identification

      ii) How is illicit and/or prescription substance use by the pregnant person documented, if at all?

      iii) If documented, how does knowing about this substance use inform care for the infant down the road, if at all?

   b) Infant birth

i) NAS/NOWS identification

(1) How often are babies with NAS/NOWS admitted to the hospital for NAS/NOWS (as opposed to birth hospitalization)?

ii) Prompt if not covered above: How is illicit and/or prescription substance use by the pregnant person documented, if at all?

(1) If documented, how does knowing about this substance use inform care for the infant down the road, if at all

c) Hospital discharge

i) What does the hospital discharge process look like after identifying an infant with NAS/NOWS?

ii) Prompt if not covered above: How often are babies with NAS/NOWS admitted to the hospital for NAS/NOWS (as opposed to birth hospitalization)?

d) Follow-up care

i) Who are you as a provider or your colleagues referring to for infants with NAS/NOWS? What organizations do you typically refer infants with NAS/NOWS to?

(1) How quickly do infants with NAS/NOWS get referred?

ii) Throughout this process, what outcomes are you and your team monitoring in the infant or parent?

iii) How often do you see infants diagnosed with NAS/NOWS after they have been discharged from the hospital?

(1) How does NAS/NOWS identification at this stage affect care for the infant?

e) Prompt if not mentioned:

i) What do the plans of safe care for infants with NAS/NOWS look like for you, if any?

(1) If you are not involved in the development and/or implementation, what are reasons for this?

ii) Do you take a harm reduction approach, or offer any harm reduction services to pregnant and parenting people?

Barriers and Gaps [up to 10 minutes, X:15 – X:25]

Now, I want to discuss any barriers or gaps in infants and their families getting the care they need.

4) First, what would tell you that infants and their families are getting the care they need for NAS/NOWS?
    a) What enables you and your colleagues to give infants and their families the care they need?
5) *Now I'd like you to think about times when infants and families do **not** receive the care they need for NAS/NOWS. We saw in the survey that common barriers are concern of report to CPS, transportation barriers, bias/stigma, and resource barriers. What are some other common reasons for people not receiving the care they need?
    a) If time: Prompt for any (not all) of the following, if not mentioned ("What about …"):
        i) Identification of NAS/NOWS after an infant has been discharged from the hospital.
        ii) Lack of documentation of pregnant person's substance use during pregnancy.
        iii) Lacking or vague institutional policies and procedures
        iv) Variability in staff knowledge and skill level
        v) Your institution's relationships with potential referral partners
        vi) Whether available referral partners exist for identified needs of the infant or their family, including cultural or language needs, keeping parent & baby together during treatment, or other things?
        vii) Funding and/or other resources, including insurance and out-of-pocket costs
        viii) Social determinants of health, aka factors outside the care setting that influence someone's health
        ix) Parents' and guardians' access to health care like prenatal care and substance use disorder treatment
        x) Insufficient staff and/or time
        xi) What other barriers do you see?
    b) How do these barriers and gaps impact infants and/or families?
6) *What groups/geographic areas do you see needing NAS/NOWS services the most?

a) How does it go serving [identified group/geographic area]?

i) What gets in the way of providing high-quality care for this group, if anything?

Opportunities for supporting providers [~5 minutes: X:25 – X:30]

7) *Survey respondents most frequently said that things that would be helpful for providing effective care to birthing and postpartum people and their infants impacted by SUD are: coordination of care, services and care to support infants with NAS/NOWS, harm reduction strategies, and community resources. Thinking about MDH's purpose and scope and what you shared about gaps and barriers, what specific support could MDH provide that would be most helpful to you and your colleagues in these four areas?

a) Prompt for the following if not addressed:

i) Coordination of care

ii) Services and care to support infants with NAS/NOWS

iii) Harm reduction strategies

iv) Community resources

v) Access to specialty care

8) *How can MDH deliver support in a way to meet providers' needs?

a) Prompt for the following if not addressed:

i) Training?

ii) Newsletter information?

iii) Presentations at grand rounds?

iv) Pre-licensure/degree training, like through partnering with nursing/medical schools

9) What would motivate providers to participate in training and education opportunities?

a) Prompt for if not mentioned:

i) Opportunities for continuing education credits ("CEUs" or "CMEs").

Summary [here to the end: X:30 – X:35]

10) Thinking about what you shared today and the purview of MDH, what do you hope MDH will do to support systems that care for infants with NAS/NOWS?

Anything to add we haven't talked about

11) What else would you add that we haven't talked about?

Consent recap and thank you

Thank you again for taking time out of your day to provide this valuable input. As a reminder, we will not indicate who said what in any reporting. If we'd like to use an anonymous quote from the interview, may we email you for your optional review? Is [fill in from outreach list] the best email address? Thank you. We or MDH will get a copy of the report to you when completed.

All reporting is confidential, but we know that sometimes people like to be listed in the acknowledgements as having contributed to the study. We are offering to list our advisors and any interviewees who want their names listed. It's totally optional. Would you like us to list your name?

[If time: If interviewee is also an adviser, per their interest survey:] Thank you for volunteering to be an adviser on this project in addition to participating in this interview. We see you expressed interest in [pull from survey results in outreach tracker], so you'll next hear from us … [Refer to Stock responses for interested advisors].

If you have any questions or concerns, feel free to reach out to project leads Amy Cyr at The Improve Group at 651-447-5543 or amyc@theimprovegroup.com, or Jennifer Heath (She/Her/Hers) at MDH at jennifer.heath@state.mn.us .

To help us understand who we are reaching with these interviews, we would like to ask you if we got your role or specialization down correctly and about your race, ethnicity, and gender. These questions are completely voluntary. Are you willing to take about 10 seconds to answer these questions?

Great, thank you.

12) I'd just like to confirm your role or specialization per our earlier discussion. You said you were a ___________, is that correct?

13) What is your racial/ethnic identity?

14) What is your gender identity?