CLINICAL CARE AVAILABLE TO PREGNANT WOMEN WITH OPIOID USE DISORDERS IN MINNESOTA JAILS

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EXECUTIVE SUMMARY

This report provides a summary of results from a statewide survey of correctional health care workers about their facilities’ treatment protocols and the challenges in providing care to pregnant women with opioid use disorder (OUD). Key findings include:

- Correctional health care providers in county jails are facing considerable challenges in meeting the needs of pregnant women with OUD.
- There are numerous barriers to providing reproductive health care and substance use disorder treatment to justice-involved women who are pregnant.
Rates of incarceration have dramatically increased for women over the last several decades. As more women are incarcerated, correctional facilities have struggled to respond to the unique needs of women, including pregnant and parenting women. The American College of Obstetricians and Gynecologists (ACOG) states that “the intersection of incarceration and maternal and child health has become a major public health concern.” Indeed, the prevalence of substance abuse and dependence among incarcerated women is substantially higher than the general population. The challenges of caring for pregnant women who experience substance use disorders (SUD) and are involved in the justice-system are especially complex and difficult to address for jail administrators, health care providers, and their local communities alike.

Opioid use disorder (OUD) during pregnancy is associated with adverse outcomes that can have lifelong negative consequences for women and their infants. Unmanaged and abrupt withdrawal from opioids can cause pregnancy complications that could include miscarriage, poor fetal growth, preterm birth, and neonatal abstinence syndrome (NAS). In addition to affecting the physical and mental health of both mother and baby, these conditions are associated with high costs of care.

Proper care and medical management of OUD during pregnancy can help reduce these costs. Medication-assisted treatment (MAT) is currently recognized as the preferred treatment of OUD by organizations such as the Substance Abuse and Mental Health Services Administration (SAMHSA) and ACOG.

MAT is preferred over medically supervised withdrawal due to the association with higher relapse rates using the latter. However, availability of MAT in prisons and jail is very low and system-wide barriers to treatment are not well understood.

Addressing OUD has become a national public health issue, and federal, state and local governments have increased efforts and resources to improve access to treatment, to reduce overdose deaths, and to prevent prescription and illicit opioid abuse. Unfortunately barriers to accessing treatment remain, especially for pregnant women. Treatment with MAT requires either separate provider training and authorization (buprenorphine), or treatment in a federally supervised opioid treatment program (methadone).
When incarceration is necessary, jails may provide an important opportunity to connect individuals, especially vulnerable populations (e.g., pregnant women), with treatment and to provide community resources upon release. Research has demonstrated an increased risk for opioid-related death among individuals with untreated OUD immediately following release from correctional facilities. It is also recognized that jails often do not have the capacity to effectively treat the growing number of patients experiencing OUD. Furthermore, a jail's capacity to adequately treat pregnant women may be even more limited. In a recent national study, Kelsey et al. found that in roughly half (45.7%) of jails surveyed, pregnant women with OUD experienced opioid withdrawal without the use of symptom alleviators. Such practices are not in line with current recommendations for treatment in pregnancy, and may increase the risk of significant pregnancy complications.

### Opioid Use Disorder Policies and Practices

| State Policy: | While there has been some attention to these issues in terms of national and state policy, few resources are currently allocated to OUD treatment in correctional facilities, especially as it relates to the care of pregnant women. |
| Hospitals, Clinics, Health Care Providers: | Federal legislation, regulations, and guidelines govern the use of MAT. This limits who can provide MAT (e.g., in order to prescribe or dispense buprenorphine, providers must apply for and complete required training) and where such treatment can be provided (e.g., federal law requires that methadone only be dispensed in federally-overseen opioid treatment programs, often outside of the general health care system). As such, primary care or Ob/Gyn providers otherwise equipped to care for a pregnant patient may be unable to manage pregnant women’s OUD. In addition, barriers to proper treatment are worsened as increasing numbers of hospitals and clinics close down and further limit treatment access, particularly in rural areas. |
| County Jails: | Limited resources and lack of round-the-clock health services can complicate the management of opioid use disorder for women who experience pregnancy in jail custody. |
| Community: | Substance use treatment programs are not necessarily readily available, particularly in rural communities. Programs that do exist may not accept pregnant or parenting women. |
The opioid epidemic has been less striking in Minnesota than in other states, but remains deeply concerning, particularly for already vulnerable populations. In 2017 there were 422 opioid-related deaths in the state and more than 2,000 non-fatal opioid overdoses; these numbers have been growing steadily over the past ten years.  

Perhaps more noteworthy than the numbers themselves are the stark disparities in overdose death rates by race. African Americans were more than twice as likely, and Native Americans were more than six times as likely, to die of opioid-related causes than their white counterparts in Minnesota. The disproportionate impact of this epidemic on the state’s communities of color is clear, and extends well beyond overdose deaths.

Another measure of the opioid epidemic’s impact is NAS birth rate. The incidence of NAS nearly doubled between 2009 and 2012, and increased steadily each year until 2016, resulting in 6 NAS births per 1,000 live births. NAS incidence is particularly high in the northern half of the state, with an incidence of 202 per 10,000 live births in the northwest region and 139 per 10,000 live births in the northeast. NAS also disproportionately occurs among communities of color. For example, Native infants were 7.4 times more likely to be born with NAS than non-Hispanic white infants.

State efforts have more recently been directed to understanding and addressing the interaction between the opioid epidemic and individuals who experience incarceration. Minnesota’s State Opioid Oversight Project names “justice-involved populations” (those who come into contact in any way with the state’s courts, jails, or prisons) as one of its primary focus areas. Ongoing efforts to decriminalize substance use disorders and to properly care for individuals with these health conditions requires consistent dedicated resources and significant attention.

In 2014, an interprofessional committee was developed to address the complex needs of pregnant women experiencing incarceration in Minnesota. Since making its recommendations to the Legislature in 2015, this committee has continued to meet to discuss issues related to the care and treatment of pregnant women in Minnesota’s jails and prisons. During 2017, committee members discussed the considerable challenges in providing care for pregnant women in correctional facilities who experience OUD. Committee members acknowledged that little was known about current practices in jails across the state. As such, a statewide survey was developed with the goal of understanding the current policies and practices, and the challenges faced by correctional health care providers working with opioid-dependent pregnant women in jails across the state.

Detailed information about the formation of the committee and the methodology of the survey can be found in the Appendices following the report.
This report summarizes the findings from the 34 respondents from jails across the state. These 34 respondents represented approximately 43 jails in counties across Minnesota. Because several counties use a contracted agency for health services, some of the respondents work at more than one correctional facility. Further, not every county runs their own correctional facility (e.g., Northwest Regional Corrections Center serves Norman, Polk, and Red Lake counties) and several counties have more than one correctional facility (e.g., Hennepin County has separate facilities for women and men, and pre- and post-adjudication individuals).

As shown in Figure 1, participating facilities span the geographic regions of the state, as well as urban, suburban, and rural areas. Most participating county facilities served a small number of women, with an average daily population (ADP) for females of less than 20. Respondents representing ten jails had ADPs between 20 and 40 women; three larger jails (with ADPs between 40 and 100 women) were also represented.

This survey provided a vital perspective on health care and treatment for pregnant women with OUD who are incarcerated in Minnesota jail facilities. The survey included a number of open-ended questions that provided rich qualitative information. Respondents identified the challenges jails are facing in serving this population of women, as well as the barriers to providing certain types of care. Some respondents highlighted case studies showing the key issues relevant to this patient population. The results of the survey are described in detail in the following sections:

1) general information about jails and care for pregnant individuals in those facilities

2) specific information about treatment protocols and practices for pregnant women experiencing SUD, with special attention to OUD

A majority of survey respondents were clinicians, primarily jail nurses (88%). Many were supervisory leads, nurse managers, or public health nurses, as well as registered nurses (RNs) and one advanced practice nurse. Other respondents included correctional health care managers.
Figure 1: Survey respondents (in dark blue) represented approximately 43 county correctional facilities in Minnesota. The average daily population (ADP) of incarcerated women is shown in red.
Respondents described considerable variation in the ways in which health care services were delivered at their facilities. For example, 10 respondents indicated that care was administered through multiple contracts or agencies. Most (n=23) stated that care was delivered through a contract with a private company, while others (n=8) used public agencies, such as county public health or contracts with local clinics (n=6). A few respondents indicated that these services were administered directly by the facility or indicated other means, such as partnerships with Tribal organizations or the Minnesota Department of Health. Of those who stated their care was delivered via a private company, most relied on two larger companies: MenD Correctional Care (n=16) and Advanced Correctional Health (n=5). Two respondents reported that their jail relied on smaller contracted healthcare companies. Approximately 80% of respondents indicated using more than one type of provider for health care services at the jail. Care by nurses was most common (n=33), although physicians (n=23) and advanced practice providers (n=22), such as nurse practitioners, were also frequently utilized.

For respondents that indicated their jail utilized regular care from physicians or advanced practice providers, there was considerable variation in the frequency of care. Most said that care from physicians or advanced practice providers happened on average between 1 and 10 hours per week, with a handful of respondents describing more (11 - 20 hours per week) or less (as needed or < 1 hour per week) frequent care. None of the respondents described having more frequent provision of care from physicians, though a few respondents indicated that they regularly had advanced practice providers more than 30 hours per week. Nurses provided care most frequently, with most indicating between 21 and 40 hours per week, but many noting that this happened more often, closer to 80 hours and up to greater than 120 hours per week of care. In general, availability of care was correlated with facility size; larger facilities reported more frequent care from multiple types of providers.

These responses indicate that there may be significant barriers to providing care consistent with recommendations from ACOG, which advocate for ongoing MAT throughout the entire pregnancy when possible. Even with the highest number of health care hours provided per week, these data indicate that health care with a provider experienced in perinatal addiction treatment is not always available. This results in considerable difficulties for clinicians trying to properly manage opioid detoxification or to treat with MAT. Furthermore, the additional requirements for providers to be able to prescribe methadone and buprenorphine further limit the number of patients who can access MAT.
PREGNANCY TESTING AND OBSTETRIC AND
GYNECOLOGICAL CARE

Consistent sources of health care become all the more important for women who are pregnant. The survey asked a number of questions to identify processes for testing for and tracking pregnancy, and to identify the types of health care provided to this population, beyond the general care previously described.

Pregnancy Testing

Most respondents (89%) reported that women were routinely tested for pregnancy at their jail, in compliance with current state law, Minn. Stat. § 241.89. When asked to describe the process for pregnancy testing, respondents reported varying practices.

Many mentioned that this was offered on or before a particular day (day 10 or 14) or offered to all women of childbearing age at intake/booking. Some respondents indicated that their pregnancy testing occurred along with substance use testing, or matched up to the timing of required tuberculosis testing. Other respondents described offering pregnancy tests if they were requested or if a pregnancy was reported by an individual in custody.

Of the 34 respondents, eight (24%) reported tracking pregnancy rates regularly, and seven of those provided data from pregnancy tests during the first quarter of 2018 (January 1-March 31). The combined totals of all seven facilities that reported data are shown below.

Table 1: Pregnancy testing among seven correctional facilities, January through March, 2018.

<table>
<thead>
<tr>
<th>Number Offered a Pregnancy Test</th>
<th>Number who Consented to be Tested</th>
<th>Number Tested Positive</th>
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<tbody>
<tr>
<td>130</td>
<td>68 (52%)</td>
<td>17 (25%)</td>
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As Table 1 illustrates, just over half of the women who were offered a pregnancy test consent to be tested. Of those tested, one in four were identified as being pregnant.

When it comes to the provision of health care services for women who are pregnant, regular Ob/Gyn care is necessary for optimal outcomes. All 34 respondents indicated that their facilities rely on local clinics or hospitals for Ob/Gyn care. One respondent said that emergency Ob/Gyn care was all that is typically available, while seven (20%) indicated that women received obstetric care inside their correctional facilities, in addition to also utilizing local clinics or hospitals.
COMMUNITY PARTNERSHIPS & REFERRALS

Half (n=17) of all respondents indicated existing partnerships with community-based organizations or clinics that provide care to women who are pregnant, ranging from Tribal clinics to local public health organizations to doula services.

Many jails make referrals to outside agencies for women who are pregnant; 21 respondents stated that their jails make referrals to local public health organizations, either their county public health department or another maternal and child health program.

MENTAL HEALTH CARE

Nearly all (97%) respondents indicated that their jail provides mental health services to individuals experiencing incarceration. One respondent stated that their facility did not provide these services. Of those who did (n=33), the majority were provided in the following ways:

1. Telemedicine
2. Regular on-site care
3. As-needed/requested on-site care
4. Medication management

TELEMEDICINE

Fifty-eight percent of the 34 respondents stated that their jail used telemedicine; the vast majority of these services were for mental health care. Other uses of telemedicine included medication prescription refills and for on-call/as-needed services.
Care for pregnant women with OUD becomes much more complex than care for individuals who are not pregnant. Respondents described a range of ways that care is managed in the context of this comorbid condition, and most indicated that individual care was determined on a case-by-case basis. Respondents reported using one or more of the following treatment options: transfer to a local hospital, medication assisted detoxification/withdrawal, ongoing treatment throughout the pregnancy with opioid substitution therapy/MAT, not medically-supported detoxification/withdrawal (e.g., “cold turkey”), or other care.

Figure 2: County jails’ treatment of pregnant women using opioids.
TRANSFERRING TO LOCAL HOSPITALS

Ten respondents indicated that they primarily transferred pregnant women with OUD to a local hospital for care. The distance from jails to local hospitals ranged from 0.5 to 6.3 miles, with possible referrals taking place to other larger medical centers farther away, up to 27 miles. Respondents indicated that women are primarily transferred by squad car or ambulance, depending on the clinical situation and level of acuity.

These findings have important implications for the care and treatment of this patient population. During committee meetings, jail administrators and health care providers reported considerable concerns about the time and resources required to safely and securely transport patients to and from local hospitals. Correctional health care providers experience additional care barriers when providers at the local hospital discharge a patient that the jail does not have the appropriate clinical tools to manage.

DETOXIFICATION/WITHDRAWAL AND MEDICATION-ASSISTED TREATMENT (MAT)

Ten respondents indicated that their facilities respond to pregnant women with OUD by initiating detoxification/withdrawal that is supplemented with an opioid agonist or partial agonist/antagonist, such as Tylenol with codeine or buprenorphine (also known as Subutex).

Six respondents said that their facilities treat women on an ongoing basis throughout their pregnancies with opioid substitution therapy, or MAT. Of these, the most frequent medication utilized was buprenorphine, followed by methadone.

For pregnant patients admitted to jails while currently participating in MAT, most respondents indicated that their facilities tapered with the goal of discontinuing treatment (n=16), while some continued MAT throughout pregnancy (n=12), and one discontinued MAT (n=1).

Six respondents indicated that the care of pregnant women with OUD was managed at their facilities in more than one way. Of these, four respondents said that they typically initiated medication assisted withdrawal/detoxification; two said they most often transferred the woman to a local hospital for additional care.

These findings reflect considerable variation in care across counties; sentiments that were echoed in committee meetings. Notably, not all of this variation is aligned with optimal treatment practices for pregnant women with OUD, as identified by ACOG, and the American Society of Addiction Medicine.
CHALLENGES TO CLINICAL CARE PROVISION FOR PREGNANCIES WITH OPIOID USE DISORDER

Respondents were asked to comment on some of the challenges they encounter providing clinical care to pregnant patients with OUD. Major themes of responses included the following:

1. Barriers to accessing medications, providers, and health care services
2. Stigma
3. Patient compliance with care plan
4. Lack of care coordination among providers
5. Inconsistency in application of treatment protocols within the facility

1. BARRIERS TO ACCESSING MEDICATIONS, PROVIDERS, AND HEALTH CARE SERVICES

Many respondents described difficulty in accessing MAT (e.g., methadone or buprenorphine) at their facilities, as well as a lack of access and resources needed to provide round-the-clock care. Additional concerns related to the need for clinical staff with Ob/Gyn experience or providers with authorization to dispense, prescribe, or adjust MAT. Other respondents spoke to challenges in fetal monitoring without the necessary medical equipment in their facility, and to a general lack of support and scarcity of community providers willing or able to treat these patients.

2. STIGMA

Some respondents articulated a sense of disapproval or discrimination from hospital staff towards pregnant women with OUD, and a need to overcome this to provide recommended care. In addition, due to fear of consequences of reporting, some noted a reticence among women to disclose substance use, leading to concerns about proper treatment being administered in a timely manner.

“...the local hospital we use for any ER visits deemed necessary for the patient has many physicians who do not care about mom/baby if mom uses drugs. We have since changed our policy that pregnant women go to a different hospital much farther away so mom and baby get the care they need”
3. PATIENT COMPLIANCE WITH CARE PLAN

Respondents spoke to difficulties in patients’ compliance with MAT in the jails’ treatment protocols. Patients are allowed to refuse medications, which can create difficulty in the consistency necessary for effective management of OUD during pregnancy.

4. LACK OF CARE COORDINATION AMONG PROVIDERS

Other respondents highlighted a need for more coordinated care throughout the individual’s pregnancy, including before they arrive and after they leave the jail. Respondents spoke further to the fact that many patients were not receiving prenatal care prior to incarceration and only discovered their pregnancy in the jail setting. In addition, respondents highlighted follow-up issues they had and concern for ongoing health care access after they were released from jail.

5. INCONSISTENCY IN APPLICATION OF TREATMENT PROTOCOLS WITHIN THE FACILITY

Still other respondents emphasized an inconsistency among jails and hospitals/clinics in terms of patient management. Respondents reported on the lack of a standard of care among all jails, and highlighted considerable variability in practice.
In addition to reporting barriers to care for pregnant patients with OUD, respondents were asked to comment on some of the challenges they encountered providing clinical care to pregnant patients with other substance misuse or SUD. The majority stated that the challenges were the same or very similar to the challenges of treating OUD, and added some additional comments, included the following:

1. Clinical care management challenges
2. Relapse and addiction issues
3. Issues with mandated reporting

Below are descriptions of each of these themes, as well as representative comments that best reflect the themes.

1. CLINICAL CARE MANAGEMENT CHALLENGES
   Many respondents described challenges in managing the risks to both mother and fetus as health care is delivered with staff that are limited in number and specific training; care for this medically complex population is especially difficult. Respondents expressed worry that lack of care or mismanaged withdrawal could trigger miscarriage and other adverse health outcomes. Some respondents articulated a need for more education and awareness among clinical staff about the use of other substances during pregnancy. Others reaffirmed the presence of limited prenatal care among this population of women.

2. RELAPSE AND ADDICTION ISSUES
   Some respondents described general difficulties working with patients who have SUDs, including relapse and return to non-prescribed use, when maternal and child health is at risk. Respondents described a need for patient education, with the goal of truly helping patients understand the effects of the substances they are using and the importance of compliance with treatment. Respondents also described struggles to get patients to continue to abstain from substance use or to comply with treatment protocols such as MAT or nurse home visits, including after they are released from incarceration.
3. MANDATED REPORTING

Finally, respondents identified the challenges in asking about substance use during pregnancy due to current mandatory reporting as required by law in Minn. Stat. § 626.5561. Patients may be hesitant to disclose their use for fear of social service/child welfare involvement. Likewise, respondents expressed concerns about the processes for mandated reporting, noting some variability and inconsistency in how individual county human services are responding to the complex issues raised in response to mandatory reporting.

CASE EXAMPLE

The case below illustrates some of the many complexities in providing reproductive health care to pregnant women with SUD. As this case highlights, there are many challenges, as well as opportunities, surrounding public health, corrections, and community-based organizations and their collaboration in supporting these women’s complex needs.

“I see at least 1 opioid-dependent pregnant female a month, usually more. We do not have a protocol for the care of anyone going through withdrawals, but we do have a screening tool and a typical set of orders for any uncomplicated case of withdrawal though there are no standing orders or protocols, a provider must be contacted if a patient needs medication due to withdrawals. Mille Lacs Reservation experienced a syphilis outbreak in 2017 that has continued into 2018. From March 2017-Dec 2017 approximately 50 individuals tested positive for syphilis, of those several were pregnant women. The population affected by the outbreak are very skeptical of outsiders, because of this widespread skepticism the efforts of Infectious Disease at the Minnesota Department of Health (MDH) were largely unsuccessful at reaching persons identified as exposures who needed testing and treatment. I worked with MDH to test and treat almost every case of syphilis that was reported during this outbreak; jail was the 1 place that most of this population frequented that an outsider like myself has their trust and direct access to them. Since then MDH and Mille Lacs County Jail/MEnD Correctional Care have partnered to offer syphilis testing and treatment to all persons booked on a drug or drug-related charge and to all pregnant women regardless of their charges. During the outbreak I tested and treated 3 pregnant women for syphilis who did not know they were infected prior to being tested here. Working with the Mille Lacs Band Public Health and Ne Ia Shing Clinic all 3 women completed the recommended treatment, usually 1 or 2 doses in jail and coordinating the final dose with Ne Ia Shing Clinic. The Band paid for the medication, at $300/dose cost was a huge barrier to care that many would have refused treatment had they been faced with paying for the medication out of pocket. And insurance isn’t active while in jail so it would have been entirely out of pocket if not for the Band.”
POLICY RECOMMENDATIONS

1. Adopt and formalize policies and procedures around treatment of pregnant women with OUD, in accordance with ACOG standards, to decrease the incidence of case-by-case basis treatment determinations in MN jails.

2. Enhance jails' capacity to provide OUD treatment, particularly MAT in county jails.

3. Prohibit jails from discontinuing MAT among pregnant women, and set up supports for jails to continue MAT to their patients with OUD.

4. Ensure coordinated and consistent care when patients transition from jail to the community, including medical, Ob/Gyn, substance use, and mental health care, in addition to access to safe housing, nutrition, childcare, etc.

5. Provide opportunities for education and training for correctional health care providers on proper treatment and management of pregnant women with SUD, including mandatory reporting requirements, which has an explicit trauma-informed approach.

CONCLUSIONS

The policy recommendations identify several strategies for local and state decision-makers to improve maternal and child health among this vulnerable population in the state. Implementing these strategies is critical for addressing the unique needs of pregnant women with OUD and would also begin to address the profound health disparities that exist in Minnesota.
COMMITTEE BACKGROUND

In 2014, the Minnesota State Legislature enacted Senate File 2423 that, among other provisions, created a committee to advise on the care and treatment of incarcerated pregnant women. After submitting recommendations to the Legislature in 2015, this committee continues to meet informally to address current issues affecting this population. The Legislative Advisory Committee on Care and Treatment of Incarcerated Pregnant Women is comprised of health care providers, jail and prison administrators, researchers, public health professionals, and representatives from community-based organizations.

In 2017, the committee reconvened to discuss pressing issues affecting people who were pregnant and incarcerated. During these meetings, members of the committee expressed an urgent need to understand what was being done across Minnesota to treat the increasing number of pregnant individuals who come in to jails using opioids. Several providers noted that for a number of complex reasons, best practices for clinical care were often impossible to achieve when treating pregnant women in county jails. The committee determined a need to capture a general snapshot of the situation; to do this, a survey was conducted.

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METHODOLOGY

An online survey of correctional health care providers was used to assess health care treatment for pregnant women with OUD in county jails across Minnesota, and to understand the barriers to treating this population. The survey was developed by Dr. Rebecca Shlafer, in partnership with the Legislative Advisory Committee on the Care and Treatment of Incarcerated Pregnant Women and the Correctional Health Division of the Minnesota Sheriffs’ Association. Using a recent national survey about pregnancy in prison as a foundation, the survey contained a range of questions about each jail’s process for pregnancy testing, the type and availability of health care providers at the jail, as well as the barriers and challenges providers face when caring for women who enter their facilities pregnant and using opioids.31

The survey was distributed by email and administered online via Qualtrics, an online survey platform. Participants were recruited in collaboration with the Minnesota Sheriffs’ Association. Requests for participation were sent via email to all jail administrators and members of the correctional health division. Surveys were completed between mid-June and early-September 2018.

TIMELINE

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REFERENCES


