

SUPPORTING MOTHERS AND INFANTS IMPACTED BY PERINATAL OPIOID USE:

A CROSS-SECTOR ASSESSMENT

HOUSTON AND SAN ANTONIO, TEXAS



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LIST OF ABBREVIATIONS

ACOG: American College of Obstetricians and Gynecologists

CAPTA: Child Abuse Prevention and Treatment Act

CARA: Comprehensive Addiction and Recovery Act

CPS: Child Protective Services

DSHS: Department of State Health Services

HHSC: Health and Human Services Commission (Texas)

HIPAA: Health Insurance Portability and Accountability Act

MAT: medically assisted treatment

NAS: neonatal abstinence syndrome. NAS is a group of symptoms that occur in a newborn who was exposed to drugs during pregnancy. Opioids such as heroin, codeine, oxycodone (Oxycontin), methadone, or buprenorphine can cause newborns to suffer from withdrawal symptoms.

Ob/Gyn: obstetrician/gynecologist

OSAR: Regional state funded centers that provide outreach, screening, assessment, and referral for substance use disorder treatment services.

OD: opioid use disorder

PPI: Pregnancy and Postpartum Intervention (state-funded services for pregnant and postpartum women at risk of or with substance use disorders)

SAMHSA: Substance Abuse and Mental Health Services Administration

SUD: substance use disorder

WHO: World Health Organization

WHO Program: Women Helping Ourselves program at Santa Maria Hostel

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These stand-alone sections are intended to provide more detailed information on our findings and processes. Sections can be read in any order and are not dependent upon information discussed in previous sections.

[Overview of Drug Trends and Overdose Mortality](#): An overview of the drug trends and overdose mortality as well as prenatal drug exposure by city.

[Interviews with Stakeholders Across the Sectors](#): A summary of our 100 interviews on each sector’s response to perinatal opioid and other substance use.

[Social Network Analysis](#): A description of our analysis of cross-sector connections in each city.

[Collaborative Meetings](#): A high level description of what occurred at each collaborative meeting along with a special pull out for the journey mapping session and process.

[Local Buprenorphine-Waivered Provider Review](#): The results of a survey of buprenorphine-waivered providers from Houston and San Antonio to determine if they provide services to pregnant women.

[Lessons Learned](#): A description of several general lessons learned by the project team to help other communities and organizations engaging in similar work.

[Spotlight on Innovation and Local Assets](#): Highlights of the many innovative services and initiatives in Houston and San Antonio that support pregnant women and families impacted by opioid and other substance use.

[Additional Resources](#): Local and national resources for those needing more information.

INTRODUCTION

In December 2017, the Section of Public Health and Child Abuse Pediatrics from Baylor College of Medicine and Texas Children's Hospital received funding from the Center for Drug Policy and Enforcement at the University of Baltimore through the Combating Opioid Overdose through Community-level Intervention (COOCLI) Initiative. Through this one-year grant, the project team conducted an assessment of perinatal opioid use within two large cities in Texas--Houston and San Antonio. The goals of this project were to:

- Form a collaborative in each city that would bring together stakeholders from each sector involved (law enforcement, justice, treatment, child welfare, and healthcare) to: inform the assessment; discuss challenges and barriers; and ultimately foster cross-sector collaboration around perinatal opioid use within each city
- Interview stakeholders across sectors to understand the policies and practices that dictate how each sector responds to perinatal opioid use and how sectors interact with one another in response to perinatal opioid use
- Develop recommendations to improve the community's response to perinatal opioid use
- Conduct a readiness and implementation assessment to help prioritize recommendations based on local needs and resources

We compiled the following report to serve two main objectives: (1) to provide the results of the assessment and recommendations; and (2) to provide information on our process, the lessons we learned along the way, and resources that may help others engaged in similar projects/collaboratives.



OVERVIEW

In Texas, drug overdose is now the leading cause of maternal mortality, with opioids involved in the majority (58%) of these deaths (Department of State Health Services [DSHS], 2018). The number of women who use and abuse opioids during pregnancy has increased significantly in the United States during the last decade (Maeda, Bateman, Clancy, Creanga, & Leffert, 2014; Martin, Longinaker, & Terplan, 2015). Consequently, the rates of the infant withdrawal syndrome commonly associated with opioid use during pregnancy--neonatal abstinence syndrome (NAS)--have also dramatically increased (Patrick, Davis, Lehmann, & Cooper, 2015; Tolia et al, 2015; Corr & Hollenbeak, 2017).

NAS is a constellation of symptoms that vary in severity and can include seizures, irritability, diarrhea, vomiting, sleep issues, fever, and in rare cases, death. Children diagnosed with NAS have significantly longer hospital stays (-3.5 times as long as non-NAS newborns) and higher medical costs than children not diagnosed with NAS (Corr & Hollenbeak, 2017). While not all neonates exposed to opioids during pregnancy will develop NAS, approximately 50-90% will develop the syndrome (Jones, Finnegan, & Kaltenbach, 2012; Patrick et al, 2015; Doberczak, Kandall, & Friedmann, 1993; Fricker & Segal, 1978; Perlmutter, 1974).

Substance use disorders (SUDs), including but not limited to opioid use disorder (OUD), are highly correlated with co-existing mental health conditions such as anxiety and depression. Previous trauma, intimate partner violence, poverty, and poly-substance use are also common among women with substance use issues (Substance Abuse and Mental Health Services Administration [SAMHSA], 2016). For pregnant women and mothers, this places their children at an increased risk of experiencing a greater number of adversities during their childhood that can have a negative impact on their future health and well-being.

Until recently, substance use has mostly been addressed through siloed efforts of law enforcement, the judicial system, and treatment providers. However, the complexities of addressing substance use as well as the vast numbers of those needing service and prematurely dying due to overdose have pushed local, state, and federal governments and agencies to begin to think of this disease as one that requires involvement and collaboration across multiple sectors. As a nation, we have not been successful at “arresting our way out of it.”

Fortunately, there are evidence-based treatment options for OUD. Medically assisted treatment (MAT) includes the use of FDA-approved medications, such as methadone or buprenorphine, with counseling and behavioral therapies, to provide a “whole-patient” approach to the treatment of SUDs. MAT is the accepted, best practice treatment for pregnant women using opioids as it reduces the risk of opioid withdrawal and overdose, as well as other risk-taking behaviors that endanger the health of both the mother and fetus (Jones et al, 2012).

Despite having evidence-based treatment, addressing substance use during pregnancy is challenging and can be overwhelming. The complexity of this problem for the woman and her family can be made even more complicated by the multiple sectors that she must interact with, and by the myriad and sometimes conflicting policies that each sector brings to the table. A woman may find herself navigating through policies held by her obstetrician, her delivery hospital, Child Protective Services (CPS), her treatment provider, the courts, law enforcement, probation, and even community-based support organizations.

The purpose of this project was to bring these sectors together to discuss their policies and practices surrounding how they interact with pregnant women with SUDs, particularly focusing on women with OUD. The goal of these meetings was to determine where there was resolvable conflict in policy between sectors. Further, all participants were asked to work together to develop and prioritize joint recommendations that would help align policies so each sector can better support pregnant women and their families impacted by perinatal substance use.

Geographic Focus

This project was focused in two very different cities in Texas: Houston and San Antonio.

Houston: The city of Houston has a population of 2.1 million and is located in Harris County, which has a population of 4.65 million. Harris County is the third most populous county in the United States, while Houston is the fourth-largest city in the US. Houston is considered one of the most ethnically diverse cities in the country.

Houston sees more overdose deaths than many states. However, opioid-based drugs are not the main drug of choice among substance users. Houston has a large problem with cocaine and methamphetamine use. These drugs dominate the conversation among law enforcement and care providers. Furthermore, overdose deaths in the city typically involve poly-substance use.

There are three characteristics of substance use in Houston that “hide” its growing opioid problem. First, opioids are often one of several drugs seen in poly-drug use overdoses. Therefore, these overdoses are not consistently classified as “opioid-related” deaths in statistics and reports. Secondly, counterfeit and designer pills are common across the city. These pills can include substances such as fentanyl and other opioids that are unknown to the user based on the markings on the pill. Consequently, people do not know and cannot accurately report what substances they are taking. Finally, pregnant women who have a baby with prenatal opioid exposure may not have the same appearance, or even live where women with more historic substance use problems live. These cases are spread widely throughout the city so no single entity or organization “feels” the scope of problem.

San Antonio: The city of San Antonio has a population of 1.4 million and is located in Bexar County, which has a population of 2 million. San Antonio is the second most populous city in Texas and the seventh largest in the United States. It was the fastest-growing city in the US in 2017. The majority of residents in San Antonio are Hispanic.

San Antonio, by all measures, has the highest burden of opioid-based SUDs in Texas. Unlike other parts of the United States where opioid use problems are driven by prescription drug use, San Antonio has a long-standing and multigenerational problem with heroin. For those who start their substance use problem with prescription pills, moving to heroin is relatively easy in San Antonio. Because heroin use is prevalent in the city, the unique needs of pregnant women with SUDs are not always addressed, as services and policies are often developed to address the problem at large.

Because of the very different landscapes in each city, collaborative meetings and results from surveys were kept separate. However, despite the differences, common needs and themes emerged from both cities.

Results: Key Informant Interviews

A total of 100 individuals across five sectors were interviewed to help determine the care landscape for pregnant women with SUDs, where sectors were misaligned, and what was needed to better support pregnant and postpartum women with SUDs.

A dominant take-away from these interviews was that neither city has a robust or high-functioning system of care to support women with SUDs and their children. There are pockets of cross-sector trust and collaboration between two or three agencies, mostly occurring through the diligent work of individuals and small groups. However, for two of the largest cities in the United States, these points of coordination are not sufficient to meet the needs of the population. Each sector has its own mission, goals, revenue-tied targets, and specific population(s) it serves. Funding streams do not tend to incentivize this type of cooperation. Consequently, the benefits of creating an organized system of care are not always evident to each sector. This lack of a clear incentive makes it difficult to convince decision makers to dedicate effort and resources towards creating and maintaining a robust and coordinated system.

Five additional issues were discussed by stakeholders from every sector as major barriers that impact their ability to optimally support women with SUDs and their children.

Lack of consistency and documentation of policies and practices. Many of the organizations we interviewed did not have documented policies or procedures guiding their response to perinatal substance use. In the case of child welfare, this was intentional as they do not want to promote “cookie-cutter” responses but instead want each family’s circumstances to guide their response. For healthcare however, the lack of written policy was described more often as a result of this issue not being prioritized. The inconsistency in response, within the same institution and across institutions, makes it difficult for members of other sectors to understand, describe, and ultimately prepare their clients for their future interactions with the other sectors. It has also resulted in mistrust within and across sectors.

Lack of training and education. More training and education was a commonly discussed need across all sectors. Training and education on SUDs, best practices for treatment, and local programming options would help decrease stigma as well as promote and improve cross-sector collaboration. However, most sectors are not required to receive ongoing education on these topics despite the prevalence of SUDs within the populations they serve.

Need to align policy and practices with recommended best practices. It was clear through our interviews that sectors were not routinely reviewing and updating policy and practice guidelines to follow current research and recommended best practices. For example, the Bexar County and Harris County jails are taking postpartum women off MAT, which does not follow current best practices and actually increases the risk that these new mothers will overdose after release from jail. Interviewees provided multiple accounts of needing to intervene in court proceedings in which a pregnant woman was ordered to stop MAT without the consent or

recommendation of her medical provider. Language and interpretation were also found to be causing a lack of compliance with best practices. In healthcare, there are multiple definitions and interpretations of the term “screening” particularly as it refers to drug screening. When obstetrician/gynecologists (Ob/Gyns) were asked if they were screening for drug use during pregnancy, they often thought the question referred to urine drug screening (testing) and not verbal, self-report questions using validated screening tools. This misunderstanding may be contributing to hesitation by providers to screen all patients as a part of standard prenatal care, as recommended by the World Health Organization (WHO), American College of Obstetrics and Gynecologists (ACOG), and Substance Abuse and Mental Health Services Administration (SAMHSA).

Misunderstanding of other sector’s roles and responsibilities. Currently in both cities, the response to perinatal substance use is fragmented and disjointed. As such, sectors do not interact with enough consistency and intention to have a good understanding of the roles of each sector with a system of care or of the guiding policies and practices of the other sectors. This misunderstanding played out in two different ways. First, assumptions and judgments were made about what specific sectors are able to do and may or may not be doing. For example, law enforcement expressed frustration that many people believe that typical street officers can take substance-using individuals to treatment when this type of service is not within their scope of work. Similarly, CPS workers noted that in Texas, CPS is not viewed as an agency that provides resources and support to families, but instead is viewed as an adversary and an agency to be feared. Secondly, policies that are meant to guide interagency collaboration are often misunderstood. As one interviewee stated, “The only thing worse than HIPAA is what people think HIPAA is.” The misinterpretation and lack of understanding of HIPAA has caused CPS workers not to share a child’s information with their pediatrician and agencies not to share data or collaborate to support individuals for fear of violating HIPAA. Title 42 CFR part 2 has also caused confusion and missed opportunities for intervention. Several hospital social workers we interviewed were fearful of providing substance use treatment information or referring a patient to treatment because of their (mis)understanding of these privacy regulations.

Stigma. Significant stigma about SUDs, especially among pregnant women, continues to be present in all sectors. This includes stigma of substance use and stigma of specific treatment options, namely MAT.

Need for timely and specific data. The need for timely data manifested itself in several ways. First, particularly in Houston, the lack of recent data on opioid-involved overdoses helped hide the impact of the opioid epidemic in the city. Most of the professionals we interviewed did not think Houston had an opioid problem and were shocked to learn about the number of overdose deaths and the counterfeit pill prolificacy. In San Antonio, where there is more awareness of the city’s heroin problem, the need for data was specifically mentioned as funding and resources are needed to address the problem. However, it has been challenging for agencies to validate their needs and to justify funding and resources using the data they are currently accessing.

Results: Key Findings from Administrative Data

Analyses of administrative datasets were used to inform the scope of the problem across Houston and San Antonio. Key findings from the inpatient hospital data from the Texas Public Use Data Files and Harris County Medical Examiner Service are highlighted below.

Texas: The rate of infants affected by drugs in utero has doubled since the mid-2000s and in 2016 impacted 9.4 in every 1,000 births in Texas. Of those substance-exposed births, nearly 35% had a diagnosis of NAS.

San Antonio: Bexar County has the highest overall number of births with NAS and drug exposure in the state. In Bexar County, 18 of every 1000 births had a diagnosis of prenatal substance exposure and close to 50% of these had a diagnosis of NAS. There was a high correlation between the communities that experienced births with diagnoses of drug exposure and NAS, indicating that intervention and outreach for all substance use during pregnancy could occur within the same communities.

Houston: Of the largest counties in Texas, Harris County has the lowest rate of NAS and prenatal drug exposure. However, the Harris County Medical Examiner classified nearly 650 overdose deaths in 2017 alone, and nearly half of these deaths involved an opioid. This puts Houston above 20 states for the number of deaths due to overdose in 2017. There was only a slight correlation between communities that experienced births with diagnoses of drug exposure and those that had NAS cases, indicating that to reach perinatal opioid users, intervention and outreach efforts need to be expanded to additional communities.

Results: Themes of the Recommendations

One major finding that emerged very early in this project was that most sectors did not have written policies to guide their response to pregnant women with SUDs. This meant mapping policy conflict between sectors would

be difficult if not impossible. This finding, along with others, resulted in four specific recommendations focused on cross-sector training, policy standardization, and practice transparency.

Specific policies and practices were found to be out of step with current recommendations or treatment practices. Three recommendations were developed to address these shortcomings.

The remaining recommendations focused on buttressing available services for women or creating new services that would help them navigate through recovery, medical care, the justice system, and CPS.

Results: Prioritizing the Recommendations

The 25 recommendations (listed on pages 9-11) that were developed represent 25 concrete ideas that were identified to improve the sector-specific and cross-sector response to pregnant women with SUDs. However, these recommendations do not represent what is feasible given the current infrastructure in each of the cities. As with the general landscape of each city, the recommendations that were rated as important and feasible to implement differed between the cities, with two exceptions.

First, both cities felt increased access to housing for families leaving treatment was a high priority and could be implemented easily. The major barrier to this recommendation was funding for housing vouchers, but both cities have an organization with the infrastructure and community connections to support a housing voucher program.

Second, both cities also felt that increasing the number of obstetric providers who can provide buprenorphine to pregnant women was very important but difficult to implement. Provider buy-in was cited as the barrier to increasing the number of providers with this waiver.

Prioritizations for San Antonio. Respondents from San Antonio gave all of the recommendations markedly higher importance scores than did respondents from Houston. Respondents felt the following recommendations were important, would have short-term impact, and had a high level of organizational readiness to implement:

- Increase the availability of safe and sober recovery housing.
- Increase the number of treatment beds.
- Have court-ordered treatment align with medical recommendations.
- Prioritize treatment for partners of pregnant women with SUDs.
- Establish protocols for law enforcement officers for responding to pregnant women.

Prioritization for Houston. Respondents from Houston felt that 4 of the 25 recommendations would have a short-term impact in the city. Of these, organizations were only ready to implement two. The following recommendations were judged by respondents in Houston to be important, to have short-term impact, and to have high levels of organizational readiness:

- Increase the availability of safe and sober recovery housing.
- Jails and prisons should expand the use of MAT to all inmates with opioid addiction, including the postpartum continuation after childbirth.

RECOMMENDATIONS AND READINESS

The ultimate goal of the project was to develop recommendations that would facilitate cross-sector coordination for pregnant and postpartum women. These recommendations were developed to help improve each sector's response and to create a system where fewer women would fall through the cracks. The following 25 recommendations were developed based on information gathered through interviews, collaborative meetings, and findings from data analysis. These recommendations were reviewed and revised by the collaborative.

Cross-sector:

1. Increase awareness of available treatment services for perinatal substance use through a public awareness campaign that targets this population specifically and is delivered in locations that pregnant substance users and opioid users frequent.
2. Increase the availability of safe and sober recovery housing, both short- and long-term housing, for women coming out of treatment and for those in recovery. Housing that allows the use of MAT and families with children are needed. Rental assistance, job training/placement resources, and other supportive services should be included.
3. Create and widely disseminate a comprehensive list of treatment providers, qualified MAT providers, and waived buprenorphine medical providers for the state. This list should specifically identify those willing to serve pregnant women, payments/insurance accepted, credentials of providers, and office location/hours.
4. Each sector encountering clients/patients with substance use disorders should develop a policy around training for their staff, including mandates for annual/routine training requirements. This training should include information specifically on best practices for recognition and treatment. It should also include best practices for treatment in pregnant and other special populations, opioids as well as other common substances abused in the populations they serve, and local treatment and referral options.
5. Develop an advocate program to support and provide advice for pregnant and parenting women who have been identified as misusing substances through either the medical, legal, or child welfare system. These advocates will work with her as she interacts with the healthcare, child welfare, legal, and treatment sectors. The advocate will help the women navigating the complex systems, providing information on what to expect, and advocating for the women when needed. This could include expansion of peer-centered approaches like recovery coaching.
6. Texas should refine its plan for how the state is going to comply with the 2016 Child Abuse Prevention and Treatment Act (CAPTA) and Comprehensive Addiction and Recovery Act (CARA) requirements, including the new provision for plans of safe care. A cross-sector workgroup should be created to assist in these revisions. The revised plans should include involvement and coordination between multiple sectors as well as defining who is responsible and accountable for each requirement, particularly when it comes to pregnant women not involved with CPS.
7. Continue to advocate for opportunities to increase health coverage and access to physical and mental health services for all Texans. Expansion of Healthy Texas Women to include screening and treatment for substance use disorders as well as treatment for other mental and medical issues that may result in or be the result of substance use disorders are needed.
8. Strengthen partnerships and linkages between obstetricians and treatment facilities with community resources to address underlying drivers of health such as food insecurity, housing, and employment.
9. More initiatives are needed to prevent substance use disorders by engaging with community sectors that provide community-based primary prevention services. Early identification of youth at risk and increasing capacity to treat trauma and mental illness are needed.
10. Establish or adopt a rapid early warning system to identify trends, alert providers during a spike in overdoses and reversals, and locate hotspots where prevention efforts can be targeted. To make the best use of this system, all emergency services organizations/personnel in an area should contribute data on overdoses and reversals. Medical examiners and hospitals should also contribute similar data.

11. Increase the awareness, training on use, availability, and affordability of overdose reversal medications (Narcan). At a minimum, all first responders should be trained and equipped with these medications. Communities with known drug use, professionals working with substance users, and families experiencing substance use issues should be targeted for training and dissemination of reversal medications.

Medical:

12. Establish healthcare clinics that specialize in the treatment and care of women with substance use disorders and drug-exposed infants. Drug-exposed infants and children should be closely monitored for developmental delays as well as their mental and physical health. The child should be promptly referred to appropriate services if there are health concerns or signs of developmental delays.
13. Obstetric practices should universally screen all patients for drugs and alcohol using the Screening Brief Intervention and Referral to Treatment (SBIRT) model at the first prenatal visits and at the beginning of each trimester. Screening is defined as using an evidence-based tool to ask women about their drug and alcohol use.
14. Healthcare facilities, particularly obstetric offices and delivery hospitals, need to have documented protocols for when (criteria needed and timing) and how to make a referral to CPS. These policies should be routinely reviewed to ensure they comply with state and federal laws as well as the most up-to-date science and best practices.

Child Welfare:

15. DFPS should expand the use of specialized investigators and/or hospital liaisons who have increased training and knowledge of substance use disorders, as well as strong partnerships with hospitals, treatment facilities, specialty courts, and law enforcement.
16. Strengthen communication and transparency of CPS investigation and case management processes between treatment facilities and healthcare with CPS. Providers and families need a better understanding of CPS's policies and procedures so that they can be better prepared.

Treatment:

17. Increase the number of available beds and slots for state-funded treatment including MAT.
18. The partners of pregnant women who are seeking treatment for substance use disorders should also receive treatment prioritization.
19. Increase the number of MAT providers who are licensed to provide multiple types of MAT-- methadone, buprenorphine (Subutex), and naltrexone (Revia, Vivitrol)--and provide funding to serve clients who do not have insurance/ability to pay. This funding needs to cover not only the medications but related staff time, laboratory testing, and operational costs needed to provide these services.

Judicial System:

20. Expand the capacity of specialty courts to be able to serve more women with substance use disorders and young children.
21. Expand programs that help seal criminal records for low-level offenses and those associated with substance use crimes after completion of treatment to help improve employment rates, access to housing, and reduce rates of recidivism.
22. Court-ordered treatment for pregnant women with a substance use disorder should align with medical recommendations and the current evidence for the safest and most effective treatment for the specific substance(s) being misused and circumstance (e.g., pregnancy). Judges and courts should be provided with timely updates of any changes in the recommendations and evidence.
23. Jails and prisons should expand the use of MAT to all inmates with opioid addiction, including the continuation of MAT post-childbirth. Jails and prisons should also expand capacity to offer buprenorphine in-house.

Law Enforcement:

24. Establish protocols for law enforcement officers for how to respond to pregnant women suspected of abusing substances. The focus of the response should be on connecting pregnant women to treatment and other necessary services.
25. Emergency personnel and hospitals should be required to report suspected drug overdoses to law enforcement. This notification should be used to identify public health threats by recognizing spikes in overdoses or the presence of lethal/toxic substances in the community.

IMPLEMENTATION AND READINESS ASSESSMENT

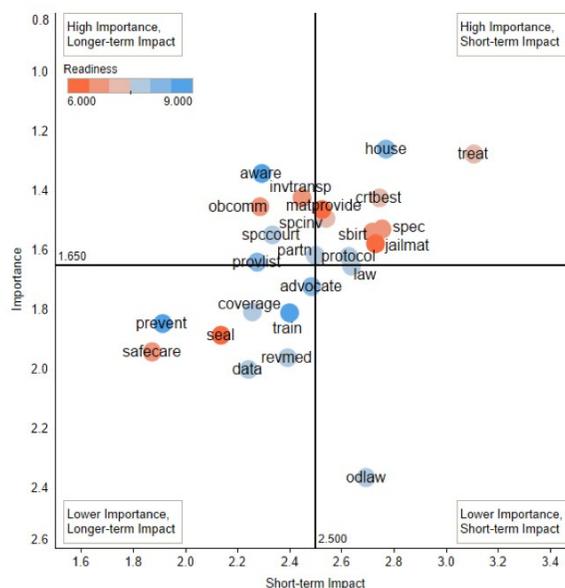
The 25 recommendations presented in this report reflect what the project team heard and confirmed with participants and stakeholders. However, these recommendations in and of themselves do not reflect the priorities or political will of the sectors. Furthermore, they may not be feasible to implement.

In order to assess priorities and feasibility, a survey was conducted with participants and stakeholders asking them to: (1) rate the importance of each recommendation, (2) identify the likelihood that the recommendation would have an immediate short-term impact, and (3) identify likelihood that the impact would be felt long-term. If respondents felt that their organization or sector would be implementing the recommendation, they were further asked to identify: (1) how leadership would respond to implementing the recommendation, (2) whether there was organizational infrastructure to implement it, and (3) whether multisector cooperation existed to implement the recommendation. The first set of questions were designed to identify which of the recommendations were high priority and immediate impact--the "low-hanging fruit." The second set of questions were designed to assess whether it was feasible to implement the recommendation.

The goal of this analysis was to determine which of these recommendations were important and would result in improvements within a year of being implemented. The second goal of this analysis was to determine whether these recommendations could be implemented. All respondents were asked about importance and short-term impact of these recommendations. However, only sectors that would be implementing the recommendation or would be directly impacted by the recommendation were asked about the feasibility of implementing the recommendation. There were 56 completed responses to the readiness survey, with respondents split evenly between the two cities.

Results for all recommendations on importance (closer to 1 indicates highest importance) and likelihood of short-term impact (closer to 4 indicates high likelihood of short-term impact) are shown in Figure 1.

Figure 1. Rankings for Importance and Likelihood of Short-Term Impact for All Recommendations and All Respondents



Note: abbreviations are explained in Table 1

Nine recommendations had above-average ratings on importance and were seen as having substantial short-term impacts for pregnant women. Six additional recommendations had above-average ratings on importance, but it was determined that their benefits would be felt in the long term. The importance and short-term impact ratings of all of the recommendations are in Table 1.

Table 1. Importance and Short-Term Impact Ratings for All 25 Recommendations Across Both Cities

Legend	Recommendation	Importance	Short-Term Impact
house	Increase the availability of safe and sober recovery housing, both short- and long-term housing, for women coming out of treatment and for those in recovery.	1.26	2.77
treat	Increase the number of available beds and slots for state-funded treatment including MAT.	1.27	3.11
aware	Increase awareness of available treatment services for perinatal substance use through a public awareness campaign that targets this population specifically and is delivered in locations that pregnant substance users and opioid users frequent.	1.34	2.30
crtbest	Court-ordered treatment for pregnant women with a substance use disorder should align with medical recommendations and the current evidence for the safest and most effective treatment for the specific substance(s) being misused and the circumstance (e.g., pregnancy).	1.42	2.74
invtransp	Strengthen communication and transparency of CPS investigation and case management processes between treatment facilities and healthcare with CPS.	1.42	2.45
obcomm	Strengthen partnerships and linkages between obstetric offices and treatment facilities with community resources to address underlying drivers of health such as food insecurity, housing, and employment.	1.45	2.29
matprovide	Increase the number of MAT providers who are licensed to provide multiple types of MAT and provide funding to serve clients who do not have insurance/ability to pay.	1.46	2.53
spcinv	Child Protective Services should expand the use of specialized investigators and/or hospital liaisons who have increased training and knowledge of substance use disorders, as well as strong partnerships with hospitals, treatment facilities, specialty courts, and law enforcement.	1.49	2.54
spec	Establish healthcare clinics that specialize in the treatment and care of women with substance use disorders and drug exposed infants.	1.53	2.76
sbirt	Obstetric practices should universally screen all patients for drugs and alcohol using the SBIRT model at the first prenatal visits and at the beginning of each trimester.	1.54	2.72
spccourt	Expand capacity of specialty courts to be able to serve more women with substance use disorders and young children.	1.55	2.33
jailmat	Jails and prisons should expand the use of MAT to all inmates with opioid addiction, including the continuation of MAT post-childbirth.	1.58	2.73
partn	The partners of pregnant women who are seeking treatment for substance use disorders should also receive treatment prioritization.	1.62	2.50
protocol	Healthcare facilities, particularly obstetric offices and delivery hospitals, need to have documented protocols for when and how to make a referral to CPS.	1.62	2.63
provlist	Create and widely disseminate a comprehensive list of treatment providers, qualified MAT providers, and waived buprenorphine medical providers for the state.	1.64	2.28
law	Establish protocols for law enforcement officers for how to respond to pregnant women suspected of abusing substances.	1.65	2.64
advocate	Develop an advocate program to support and provide advice for pregnant and parenting women who have been identified as misusing substances through either the medical, legal, or child welfare system.	1.72	2.49
coverage	Continue to advocate for opportunities to increase health coverage and access to physical and mental health services for all Texans.	1.81	2.26
train	Each sector encountering clients/patients with substance use disorders should develop a policy around training for their staff, including mandates for annual/routine training requirements.	1.81	2.40
prevent	More initiatives are needed to prevent substance use disorders by engaging with community sectors that provide community-based primary prevention services.	1.85	1.91
seal	Expand programs that help seal criminal records for low-level offenses and those associated with substance use crimes after completion of treatment to help improve employment rates, access to housing, and reduce rates of recidivism.	1.88	2.14
safecare	Texas should refine its plan for how the state is going to comply with the 2016 CAPTA and CARA requirements, including the new provision for plans of safe care.	1.94	1.88
revmed	Increase the awareness, training on use, availability, and affordability of overdose reversal medications.	1.96	2.39
data	Establish or adopt a rapid early warning system to identify trends, alert providers during a spike in overdoses and reversals, and locate hotspots where prevention efforts can be targeted.	2.00	2.24
odlaw	Emergency personnel and hospitals should be required to report suspected drug overdoses to law enforcement.	2.37	2.70

Note: importance scores closer to 1 indicates highest importance; Impact scores closer to 4 indicate high likelihood of short-term impact

When looking at the feasibility of implementing the recommendations, another clear pattern emerged. Across all of the recommendations that had high importance ratings, the inter-sector cooperation was still judged to be relatively weak with most ratings falling between “connections exist with infrequent meetings” and “collaboration exist”.

Of the 15 high importance recommendations, increasing recovery housing and increasing awareness of treatment services were the most feasible from these data. Increasing recovery housing was seen as having the highest leadership support, the third-highest organizational readiness, and the strongest inter-sector connections to implement the recommendation. Increasing awareness for treatment services had the highest organizational infrastructure, the third-highest leadership support, and the third-highest inter-sector connections.

Increasing the number of MAT providers in the state and increasing the availability of MAT in the jails were the recommendations that were seen as the least feasible from the data combined between the cities. However, as will be discussed, the cities were markedly different in how they viewed these recommendations. Increasing MAT providers had the lowest-rated leadership support, the second-lowest organization infrastructure, and the fourth-lowest inter-sector connections. Increasing MAT availability in the jails had average leadership and organizational infrastructure; however, it had the lowest inter-sector connections of all the recommendations. As was consistently found through the collaborative and recommendation process, high-priority recommendations that included obstetric/medical providers were rated with generally low feasibility scores.

The feasibility scores for all recommendations are shown in Table 2. Recommendations are sorted from highest to lowest feasibility. The 15 recommendations with above-average ratings on importance are shaded in the table.

While it is important to focus on what can be done now, it is also wise to look at what both cities saw as important but challenging. As is common, these challenging recommendations focused on changing systems of care and the culture of care provided to pregnant women with SUDs.

- Strengthen communication and transparency of CPS investigation and case management processes between treatment facilities and healthcare with CPS.
- Increase the number of MAT providers who are licensed to provide multiple types of MAT.
- Establish healthcare clinics that specialize in the treatment and care of women with SUDs and drug-exposed infants.
- Strengthen partnerships and linkages between obstetric offices and treatment facilities with community resources to address underlying drivers of health such as food insecurity, housing, and employment.
- Obstetric practices should universally screen all patients for drugs and alcohol using the Screening Brief Intervention and Referral to Treatment (SBIRT) model at the first prenatal visits and at the beginning of each trimester.

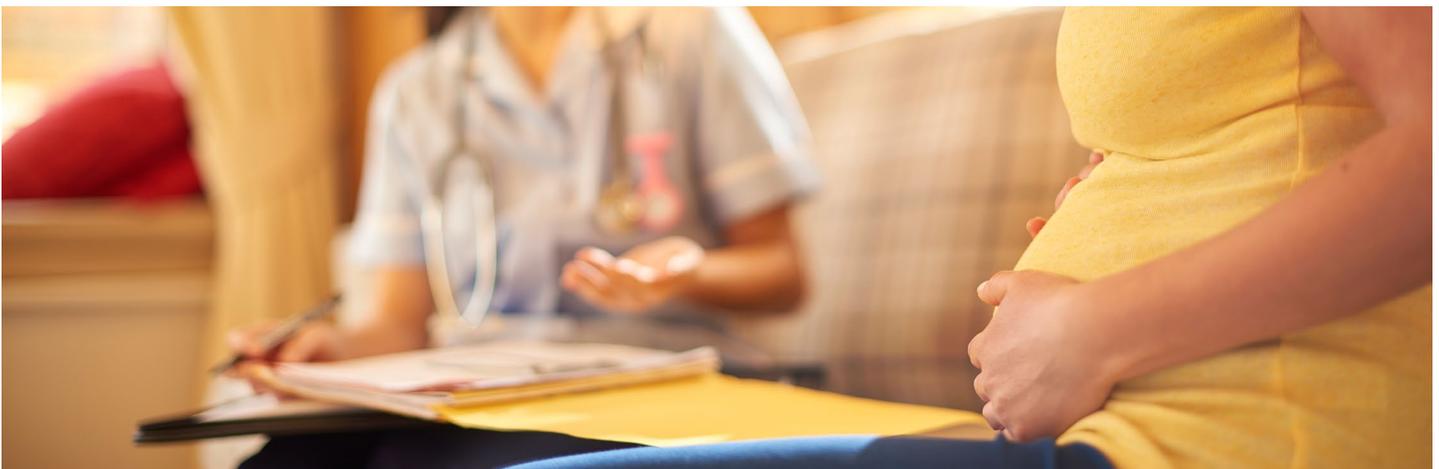


Table 2. Scores for Leadership Support, Infrastructure, and Inter-sector Connection for All Recommendations Across Both Cities

Legend	Recommendation	Leadership Support	Infra-structure	Inter-sector Connection
train	Each sector encountering clients/patients with substance use disorders should develop a policy around training for their staff, including mandates for annual/routine training requirements.	3.29	2.53	2.94
aware	Increase awareness of available treatment services for perinatal substance use through a public awareness campaign that targets this population specifically and is delivered in locations that pregnant substance users and opioid users frequent.	3.21	2.63	2.74
prevent	More initiatives are needed to prevent substance use disorders by engaging with community sectors that provide community-based primary prevention services.	3.14	2.64	2.79
house	Increase the availability of safe and sober recovery housing, both short- and long-term housing, for women coming out of treatment and for those in recovery.	3.31	2.25	2.88
advocate	Develop an advocate program to support pregnant and parenting women who have been identified as misusing substances through either the medical, legal, or child welfare system.	3.14	2.29	2.79
provlist	Create and widely disseminate a comprehensive list of treatment providers, qualified MAT providers, and waived buprenorphine medical providers for the state.	3.06	2.61	2.44
law	Establish protocols for law enforcement officers on how to respond to pregnant women suspected of abusing substances.	3.00	2.60	2.30
data	Establish or adopt a rapid early warning system to identify trends, alert providers during a spike in overdoses and reversals, and locate hotspots where prevention efforts can be targeted.	3.40	1.70	2.36
spccourt	Expand capacity of specialty courts to be able to serve more women with substance use disorders and young children.	3.18	1.88	2.82
odlaw	Emergency personnel and hospitals should be required to report suspected drug overdoses to law enforcement.	3.17	2.17	2.50
protocol	Healthcare facilities, particularly obstetric offices and delivery hospitals, need to have documented protocols for when and how to make a referral to CPS.	3.06	2.25	2.50
coverage	Continue to advocate for opportunities to increase health coverage and access to physical and mental health services for all Texans.	3.11	1.90	2.60
revmed	Increase the awareness, training on use, availability, and affordability of overdose reversal medications.	3.07	2.46	2.54
partn	The partners of pregnant women who are seeking treatment for substance use disorders should also receive treatment prioritization.	3.29	1.86	2.57
crtbest	Court-ordered treatment for pregnant women with a substance use disorder should align with medical recommendations and the current evidence for the safest and most effective treatment for the specific substance(s) being misused and the circumstance.	2.94	2.39	2.06
spcinv	Child Protective Services should expand the use of specialized investigators and/or hospital liaisons who have increased training and knowledge of substance use disorders, as well as strong partnerships with hospitals, treatment facilities, specialty courts, and law enforcement.	2.65	2.05	2.48
treat	Increase the number of available beds and slots for state-funded treatment including MAT.	2.87	1.93	2.27
safecare	Texas should refine its plan for how the state is going to comply with the 2016 CAPTA and CARA requirements, including the new provision for plans of safe care.	2.67	2.56	1.67
invtransp	Strengthen communication and transparency of CPS investigation and case management processes between treatment facilities and healthcare with CPS.	2.76	2.11	1.95
obcomm	Strengthen partnerships and linkages between obstetric offices and treatment facilities with community resources to address underlying drivers of health such as food insecurity, housing, and employment.	2.86	1.85	2.14
spec	Establish healthcare clinics that specialize in the treatment and care of women with substance use disorders and drug-exposed infants.	2.69	1.75	2.25
sbirt	Obstetric practices should universally screen all patients for drugs and alcohol using the SBIRT model at the first prenatal visits and at the beginning of each trimester.	2.67	1.83	2.08
matpro- vide	Increase the number of MAT providers who are licensed to provide multiple types of MAT and provide funding to serve clients who do not have insurance/ability to pay.	2.53	1.76	2.06
jailmat	Jails and prisons should expand the use of MAT to all inmates with opioid addiction, including the continuation of MAT post-childbirth.	2.83	1.92	1.58
seal	Expand programs that help seal criminal records for low-level offenses and those associated with substance use crimes after completion of treatment to help improve employment rates, access to housing, and reduce rates of recidivism.	3.00	1.57	1.57

Note: higher scores indicate higher levels of support, infrastructure, connection

Houston

Respondents from Houston generally rated all of the recommendations as less likely to have short-term impact than did San Antonio. Houston respondents also thought they were less ready to implement the recommendations than did respondents from San Antonio. However, responses from Houston indicated that this city was ready to expand the use of MAT in the jails, that this recommendation was important, and that it would result in short-term improvement for pregnant women with SUDs.

While there was a general finding in the responses that Houston did not see many of the recommendations as having short-term impact, there were three recommendations that did have high readiness score (Figure 2). Two of these recommendations centered on closing the training and protocol gap among providers. The third recommendation focused on developing a comprehensive list of treatment providers and medical providers with buprenorphine waivers who could treat pregnant women.

San Antonio

Unlike Houston, San Antonio is not battling a lack of awareness of their opioid use problem. There have been efforts in the city to buttress and expand existing services. Because of this, we think that respondents in San Antonio generally saw more potential for short-term improvement in the recommendations than did Houston. Respondents from San Antonio also tended to be more likely to say their systems were ready to implement the recommendations (Figure 3).

Five recommendations were rated as important and had a high potential for short-term impact, and the sector was ready to implement them:

- Increase the availability of safe and sober recovery housing.
- Increase the number of treatment beds.
- Court-ordered treatment for pregnant women should align with medical recommendations.
- The partners of pregnant women should receive treatment prioritization.
- Establish protocols for law enforcement officers on how to respond to pregnant women.

Four additional recommendations had high readiness scores:

- Prevention through engaging with community sectors that provide primary prevention services.
- Rapid early warning system to identify trends, alert providers, and locate hotspots.
- Increase the awareness, training on use, availability, and affordability of overdose reversal medications.
- Increase awareness of available treatment services through a public awareness campaign.

Figure 2. Rankings for Importance, Likelihood of Short-Term Impact, and Readiness for All Recommendations: Houston Only

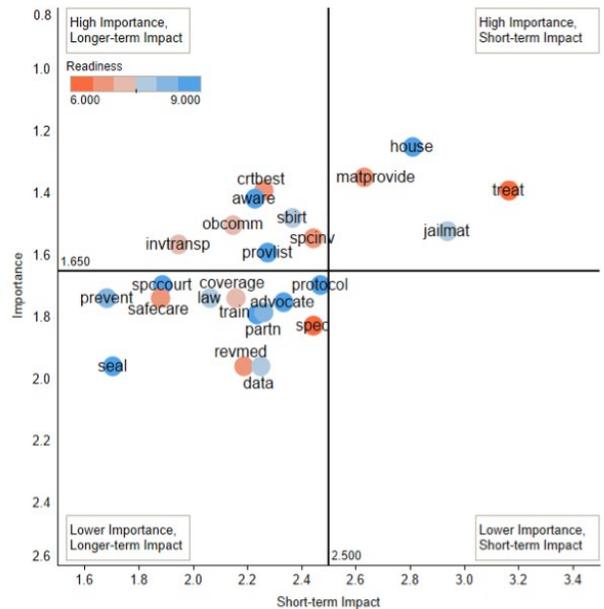
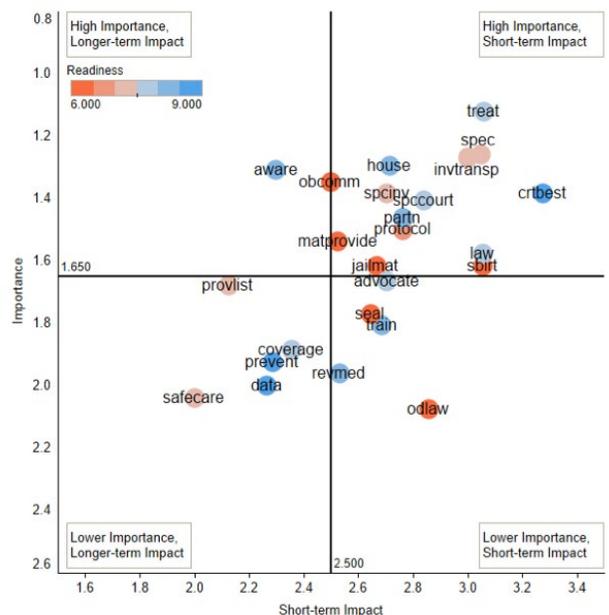


Figure 3. Rankings for Importance, Likelihood of Short-Term Impact, and Readiness for All Recommendations: San Antonio Only



ASSESSMENT FINDINGS AND PROCESSES

OVERVIEW OF DRUG TRENDS AND OVERDOSE MORTALITY

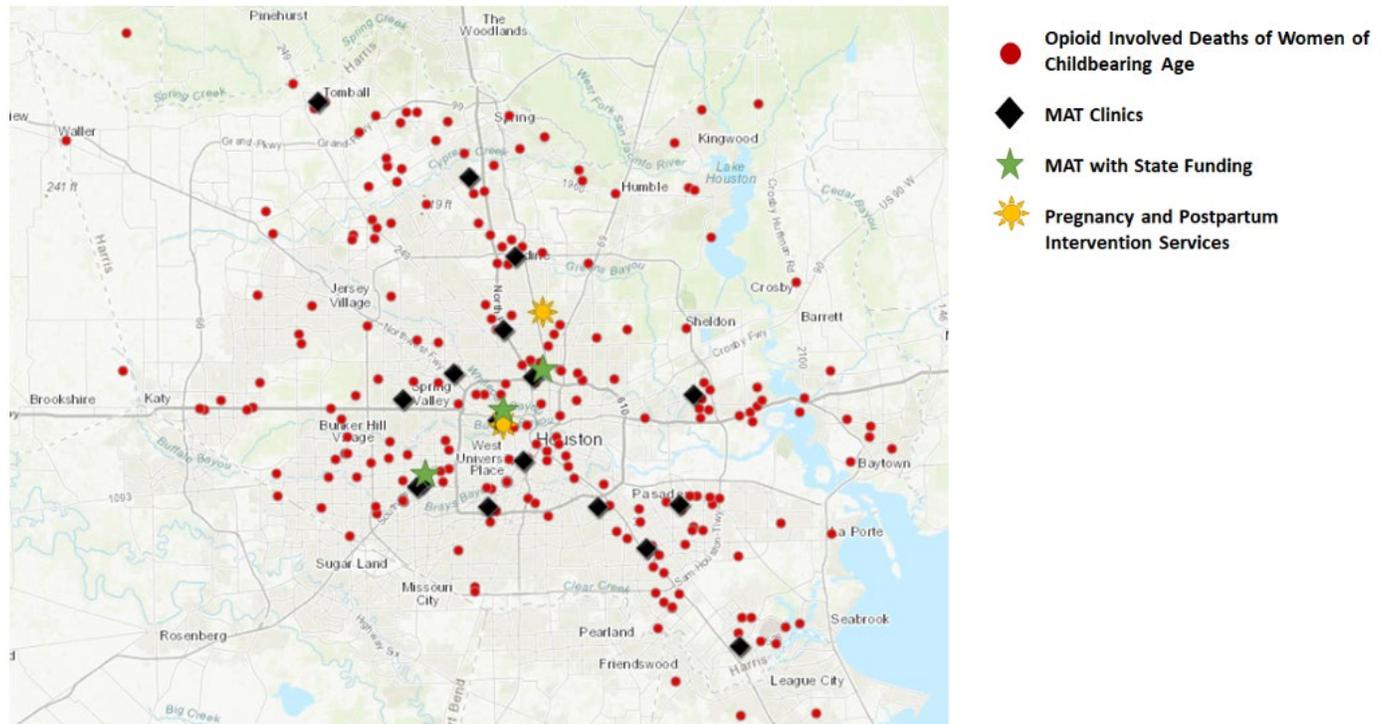
The type of opioid used by individuals in Texas varies significantly by geographic location. In South Texas, near San Antonio, heroin (specifically black tar heroin) was described by law enforcement, healthcare, and treatment providers as one of the more common substances used in the area. Heroin use was described as a long-standing intergenerational problem in San Antonio, where it was not uncommon to see multiple generations (grandparent, parent, and grandchild) seeking treatment together for heroin dependence. Heroin is typically imported from Mexico through commercial trucks and other vehicles, rather than produced within Texas itself. Within the entire state, it ranks as the #4 seized and identified drug, and constitutes roughly 5% of all items identified (Maxwell, 2018). While the South Texas Region of the High Intensity Drug Trafficking Area (HIDTA) reported a decrease in heroin seizures from 2016 to 2017 as well as a decrease in the number of adults seeking treatment for heroin addiction, the number of adults seeking treatment for heroin is still disproportionately weighted in South Texas, with 29% of adults statewide (South Texas HIDTA, 2018). Polydrug users admitted to treatment for heroin also reported use of methamphetamine (16%), cocaine/crack (13%), or marijuana (10%) (Maxwell, 2018).

In the Houston area, heroin is less common and opioid use is primarily from illegally or legally obtained prescription opioids. Due to legal changes in prescription monitoring laws in the US, the amount of prescription opioids shipped into Texas through legal channels has decreased and the number of identifications by toxicology labs for prescription opioids such as hydrocodone and oxycodone have significantly decreased in the last decade (Maxwell, 2018). Synthetic drugs are shipped into the US from laboratories in China via a third country and are often disguised as pharmaceutical pills, making them more difficult to detect (Houston HIDTA, 2018). Although still relatively low compared to heroin on the list of drugs identified by toxicology reports, the number of reports involving fentanyl and synthetic opioids are increasing, with a corresponding increase in the number of cases reported to poison centers in the state (Houston HIDTA, 2018). Houston-based law enforcement officials report synthetic opioids--including fentanyl, U-47700, methoxyacetylfentanyl, furnaylfentanyl, and phenylfentanyl--being found in counterfeit pills marked as oxycodone, alprazolam (Xanax), hydrocodone, and MDMA (Ecstasy).

Despite the low incidence of heroin use in the Houston area, opioids factor into almost half of the drug overdoses in the area. Through the Houston Police Department, the project team obtained data on deaths examined at the Harris County Institute of Forensic Sciences (HCIFS) Medical Examiners service with a primary cause of death that included toxicity from 2013-2017. Over the 5 years, 2,763 deaths were examined. Opioid-involved deaths were defined as those that included at least one opioid in the list of substances causing toxicity (e.g., combined toxic effects of fentanyl, doxylamine, and diphenhydramine; toxic effects of heroin and methamphetamine). Of these 2,763 deaths, 1,330 (48%) were found to involve an opioid. Among women of childbearing age (15-44 years), 55% of the deaths were opioid-involved. Furthermore, for this group, opioid-involved deaths have increased since 2013. In 2017, 64% of all overdose deaths to a woman of childbearing age involved an opioid.

For both the general population and women of childbearing age, those whose death was related to an opioid were more likely to be younger, white, and to have their death declared as an accident as compared to those whose deaths were non-opioid-related toxic deaths. These data highlight a unique issue in Houston as compared to San Antonio: the opioid-using population in Houston is significantly different from other substance-using populations. This is particularly seen when mapping the residence of these deaths in reference to where the state-funded MAT clinics are located. There are areas, particularly in western Houston, with high numbers of opioid-involved deaths but with no MAT clinics (Figure 4).

Figure 4. Opioid-Involved Deaths Among Women of Childbearing Age and Location of Medically Assisted Treatment and Free State Services



PRENATAL DRUG EXPOSURE AND NEONATAL ABSTINENCE SYNDROME

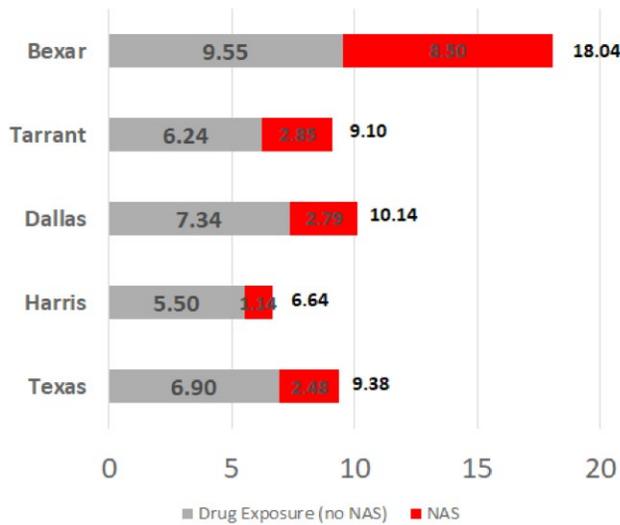
The ramifications of heroin use in San Antonio and opioid-involved overdoses in Houston do not stop with the individual with SUD. Drug use during pregnancy has effects on the fetus as well. Infants born with prenatal drug exposures have longer length of stays and more medical interventions than those without a prenatal drug exposure. When the infant also suffers from drug withdrawal--known as neonatal abstinence syndrome (NAS)--the length of stay and need for medical management increase further (Table 3).

Table 3. Outcomes by Drug Exposure Status, Texas, 2016

	Non-Drug-Exposed Births	Births with Prenatal Drug Exposure Without Withdraw	Births Diagnosed with Neonatal Abstinence Syndrome
Low birth weight	6.1%	28.8%	19.1%
Length of stay	3.3 days	9.6 days	21.9 days
Medicaid use	48.3%	69.8%	70.5%
Average cost	\$3,680	\$15,890	\$32,910

Bexar County, where San Antonio is located, has the highest number of prenatal drug exposure and NAS cases in the state (Figure 5). This county has 11% of all the births in the state but 26.8% of all NAS cases. In Bexar County, 1.8% of the babies born to a resident of the county had a prenatal drug exposure in 2016. The NAS rate in Bexar County is almost 3 times higher than the county with the second-highest NAS rate in the state.

Figure 5. 2016 Rates of Prenatal Drug Exposure by 1,000 Births for Major Counties in Texas



Given San Antonio's long-standing issue with heroin, it is not surprising that there is a high correlation ($r=.66$) between where in the city NAS cases and prenatal drug exposure cases are located (Figure 6).

Harris County, where Houston is located, has the lowest rate of prenatal drug exposure and NAS of all large counties in the state. This is surprising given the overdose data and the prevalence of drug use in the city. This low rate is probably reflective of an under-identification issue rather than low drug use during pregnancy. The zipcodes where prenatal drug exposure and NAS cases occurred are poorly correlated ($r=.30$). Cases of prenatal drug exposure without withdrawal (non-NAS cases) are concentrated in a few zip codes in the city. In contrast, NAS cases are spread out over the city, including the western zip codes, where it is rare to have an infant with prenatal drug exposure (Figure 7).

Figure 6. Rate of Prenatal Drug Exposure and NAS, Bexar County, 2015-2017, per 1,000 Births

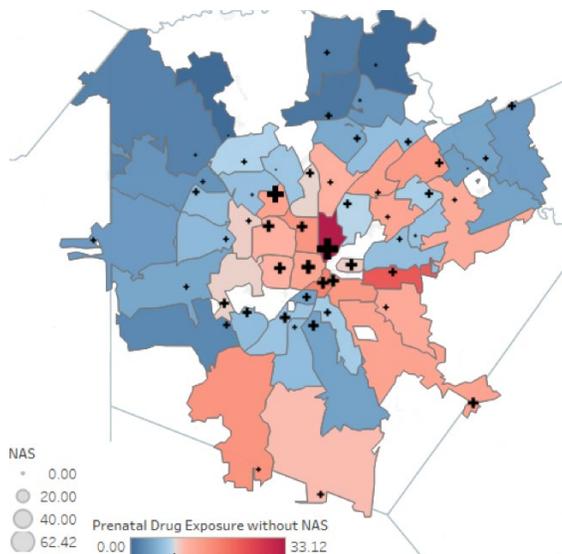
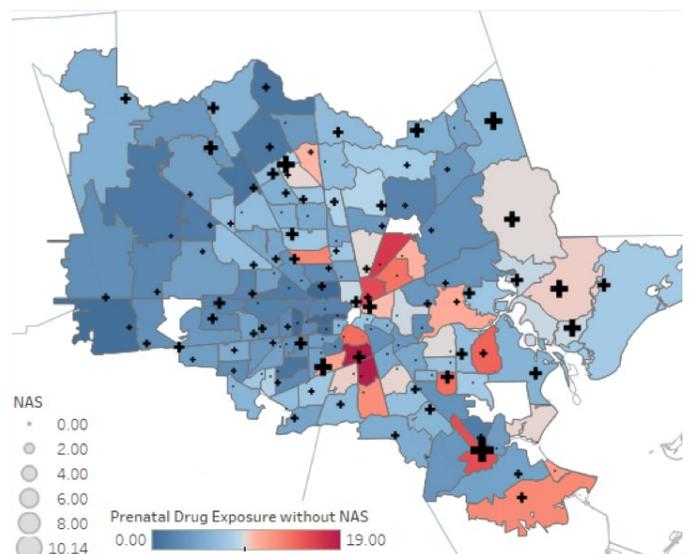


Figure 7. Rate of Prenatal Drug Exposure and NAS, Harris County, 2015-2017, per 1,000 Births



CROSS-SECTOR INTERVIEWS

Between January and December 2018, the project team met with 100 stakeholders (Table 4) to better understand:

- How sectors and agencies throughout Houston and San Antonio respond to perinatal opioid use.
- How sectors are interacting with one another in response to perinatal opioid use.
- What resources and programs are available and which are needed.
- What barriers and challenges exist that prevent sectors and agencies from providing the optimal levels of care and cross-sector coordination that would best support mothers and their children impacted by perinatal opioid use.

Initial interviews were informal and information-gathering in nature as opposed to being driven by a formal qualitative approach. Early interviews led to further interviews in hope of gaining an in-depth understanding of each sector in each city. Insights shared through the interviews are presented to describe the current state of response to prenatal opioid use as well as challenges and barriers impacting that response.

Table 4. Interviewees by Sector and Location of Service

Sector	Houston	San Antonio	State	Total
Healthcare	28	14		42
Law enforcement/ Justice	14	7		21
Treatment	6	3		9
Child welfare	7	6	3	16
Community	4	3	5	12
Total	59	33	8	100

HEALTHCARE

For the purposes of this report, the healthcare sector includes traditional medical care practices (e.g., Ob/Gyn, primary care), hospital services (e.g., emergency, labor and delivery, NICU), and healthcare coverage. Medical services provided as part of treatment or within special settings will be discussed elsewhere (e.g., care provided in jails is discussed in the law enforcement/justice sector, and MAT is discussed in treatment).

Response to perinatal opioid use:

Screening during pregnancy: In order to provide the best obstetric care as well as assist women in getting into treatment for substance use issues as early in pregnancy as possible, the WHO recommends asking *all* pregnant women about their past and present alcohol and other substance use (illicit, licit, and prescribed) during their initial visit and at every follow-up visit (WHO, 2014). ACOG and SAMHSA both have released similar guidance as well as documents listing evidence-based screening tools to assist providers in these conversations, and both recommend the SBIRT (Screening, Brief Intervention, and Referral to Treatment) approach.

To gain a general understanding of the extent to which these recommendations are being followed, Ob/Gyns, neonatologists, and nursing and social work staff were interviewed. According to the Ob/Gyns interviewed, screening protocols are within the discretion of both the individual practice and, in some cases, each individual provider. Verbal/paper pencil screening for substance use appeared to typically be given at the initial prenatal visit, but not always given at subsequent visits during pregnancy or after delivery. One specialized Ob/Gyn clinic targeting teens performs urine drug testing at each visit. Other Ob/Gyn clinics reserve urine drug testing for those who are identified as “high risk” due to medical indicators or behavior (e.g., late to enter prenatal care, acting high or inebriated during a visit, etc). Multiple Ob/Gyns interviewed expressed their concern for universal screening and testing stating they did not want women to stop or avoid attending prenatal visits for fear of

testing and reporting to child welfare. The accuracy of testing results was also a concern.

Screening or testing **positive** during pregnancy: Screening and testing for substance use during pregnancy are intended to open the door for medical professionals to have follow-up conversations with their patients about their substance use and assist them in accessing needed services. This is not intended to be a one-time conversation, but a continuous conversation throughout the pregnancy. Continuous screening throughout the pregnancy and at delivery is also recommended (WHO, 2014).

Social workers from the Ob/Gyn practices we interviewed reported that when a patient screens positive for high-risk substance use behavior, the office social worker is often the one who discusses the results and need for further services with the patient. Once a positive screen has occurred, follow-up screening/testing appears to be the typical protocol across practices. However, some practices reported their protocol is to stop screening/testing after a specific number of negative screens/tests during pregnancy and not to rescreen/retest at delivery unless recent substance use is suspected. One Ob/Gyn also reported that the response was substance-dependent: if positive for marijuana only, then they may not retest during pregnancy or at delivery. However, if positive for an opioid, they would be more likely to do follow-up testing. Reporting positive screening/testing results during pregnancy to child welfare (CPS) does not seem to be a common practice when there are no other children at home. This is in large part because, due to state statute in Texas, CPS cannot intervene before a child is born. CPS representatives confirm that they receive very few reports of substance use during pregnancy unless the mother has other children.

At delivery: Similar to prenatal care protocols in Ob/Gyn offices, hospital protocols for screening and testing at birth are commonly determined at the hospital or hospital department (i.e., labor and delivery) level. With few exceptions, birthing hospitals in Houston and San Antonio do not conduct universal testing or screening at the time of delivery; instead, they employ a “targeted” protocol, only testing when circumstances indicate risk (e.g., late to no prenatal care, placental abruption, teen mother, current CPS case involving substance use, known history of drug use). Social workers from multiple hospitals talked about feeling as if the targeted-testing practice was discriminatory and inconsistent. One major teaching hospital in Houston reported their hospital did not have a written protocol for testing in obstetrics triage, but did educate residents and midwives on the ACOG recommendations to do targeted testing if medically indicated.

All hospitals interviewed reported that once testing is ordered, both maternal and infant urine are tested and the infant’s first meconium (if collected on time) is also sent for testing. Labor and delivery social workers at multiple hospitals reported that they are often the ones who identify the need for testing, based on a thorough review of the prenatal and delivery records. The social workers then request that the Ob/Gyn order the test(s). However, prenatal records were not always accessible and those that were did not always include substance use screening information.

Testing **positive** at delivery: Hospital social workers commonly stated that they are responsible for talking to the mother once a positive test result is received and making the formal report to CPS. During our interviews with hospital staff, we asked if the hospital or department had written protocols for when to make a report to CPS. One 25-year veteran and head of social work for labor and delivery responded, “If we have one, I’ve never seen it.” Similar responses were provided by staff at other hospitals. Inconsistencies around CPS reporting were discovered both within hospitals and between hospitals. Upon receipt of a positive test result, reporting practices among social workers varied. Some social workers talked about going to great lengths to determine what substances may have caused the test to be positive, and if any of the substances administered during delivery could be the cause. If it was possible for the medications administered during delivery to have caused the positive test for the mother, they were unlikely to make a CPS report. Similarly, if the mother had a prescription for a medication that could have caused a positive test, they were unlikely to make a report. Some but not all social workers reported calling the prescribers of the medication, including MAT medications, to verify the prescription. Some said they would report to CPS if the positive test was received on a mother on MAT medications, while others stated the mother had a prescription and therefore they would not make a CPS report. Social workers at one San Antonio hospital, which frequently delivers infants with NAS, talked about their practice of preparing mothers for the initial visit with CPS. This included discussing what would happen after the CPS report was made, the need to think about safety planning (e.g., who the child could safely live with), and the various available treatment and programming options. This preparation, they felt, helped to alleviate much of the anxiety about CPS and offered mothers extra time to plan, talk to family/friends, and carefully think about their next steps.

Post-delivery in the hospital: Infants experiencing severe withdrawal symptoms or who have other medical complications are typically observed and treated in the NICU, with stays ranging from days to months. While not universally reported, some hospitals in both Houston and San Antonio reported working with mothers whose infants were in the NICU to help them stay at the hospital for as long as possible to be close to their newborn (e.g., using non-medical treatment billing codes, allowing them to sleep in unused rooms). NICU social workers reported that visiting the hospital, after the mother was discharged, could be challenging for many parents, so some reported calling the parents to provide updates on the infant and check on the mother. Both mothers and social workers reported that nurses were sometimes rude or made judgmental comments about and to women who had tested positive for substance use at birth, which was cited as an influencing factor for mothers visiting their infants in the hospital.

Infants not needing NICU services are most likely rooming in with their mothers post-delivery. ACOG and AAP both recommend rooming-in post-delivery, and many hospitals have phased out or are in the process of phasing out newborn nurseries.

In situations where CPS took custody of the infant in the hospital, decisions about visitation and rooming-in were made on a case-by-case basis by CPS. Staff at one hospital in Houston noted they had experienced cases in which CPS had taken custody, were allowing the mother to continue to room-in with the child, but required supervision. In these cases, the hospital had a nurse sit in the room with mom and baby, which was reported to be a great strain logistically as well as financially. Hospital staff from both Houston and San Antonio hospitals reflected on the sometimes lengthy hospital stays for infants in CPS custody due to the lack of placement (i.e., the infant was healthy enough to go home but there was no suitable home identified). It was their perception that because the child was “safe” in the hospital CPS was not prioritizing placement for these infants, needlessly increasing the length of stay for these infants.

Barriers and challenges healthcare providers report facing in their response to and care of women and infants affected by perinatal substance use:

- Enrolling in Medicaid is a challenge for many pregnant women because they must first prove they are pregnant before they can enroll. Presumptive eligibility rules, which could allow women to have a prenatal visit before/during the enrollment process, make it challenging for many providers to participate.
- At the time of delivery, the prenatal care records are not always available. Additionally, inconsistencies and lack of information about substance use screening and testing result in these records make it challenging for hospital staff to make a timely determination about testing the mother and infant.
- There is a breakdown in communication across healthcare providers treating the mother and her newborn, including but not limited to communication between Ob/Gyns, neonatologists, labor and delivery and NICU staff, and pediatricians. Neonatologists, hospital social workers, and pediatricians report not getting all information necessary to provide optimal care. They would like more information about the family/mother’s history, prenatal care, and issues identified prenatally and at birth. For example, it does not appear to be uncommon for labor and delivery staff, neonatologists, and pediatricians to be unaware of positive drug or other screenings that occurred during pregnancy.
- Because Texas did not expand Medicaid, there is a lack of medical coverage for women prior to pregnancy and after birth, often leaving new mothers with untreated health conditions.
- Medical staff have had limited training on SUDs, opioid dependency, best practices for treatment, and MAT.
- There are major restrictions on who can prescribe and dispense MAT. Not all hospitals have MAT medications in their pharmacy, requiring the new mothers to leave the hospital to receive their MAT medications.
- Social workers, who are making determinations on whether or not to make a report to CPS due to substance use, are often left on their own to interpret urinalysis results, which can be challenging. They reported sometimes getting different answers from doctors and pharmacists about whether a substance could cause a positive result.
- When partners are not in treatment simultaneously with the mothers (if that is needed), mothers have an increased risk for relapse endangering mothers, unborn infants, and children in the home. There is a need for both parents to access treatment, not just the mother.

LAW ENFORCEMENT/JUSTICE

Interviewees representing the law enforcement/justice sector included: city police department officers (multiple ranks), High Intensity Drug Trafficking Area (HIDTA), Drug Enforcement Agency (DEA), Federal Bureau of Investigation (FBI), sheriff's office, specialty court staff, and jail staff.

Response to perinatal opioid use:

On the street: In the absence of a crime being committed, law enforcement officers typically do not respond to substance use by any population. Several officers interviewed stated they have two choices when they approach an individual engaging in suspicious or illegal activities: "I either arrest you or I don't." When asked specifically about anything done for pregnant women they encounter, the common response was that they often do not know or cannot tell that the person is pregnant. It is not something commonly assessed for during community encounters. Despite lack of current response, officers expressed interest in finding things that they could do within their role. Providing treatment information, in the form of a flyer or business card, was one option that seemed reasonable to officers.

At arrest/in jail: At the Harris County Jail, the intake assessment includes a pregnancy test for all females within 24 hours of booking. If the woman admits to using opioids and is pregnant, she is admitted to one of the county hospitals for an inpatient stay while MAT services are arranged. The MAT clinic used by the Harris County Jail delivers a 7-day supply of medication to the jail. Jail staff are permitted to administer these medications but cannot prescribe them. Non-pregnant and postpartum women, including women who were on MAT during pregnancy and those on MAT prior to arrest, are not permitted to continue on MAT while in jail. Instead they receive the clonidine detoxification protocol to assist them with withdrawal symptoms. Jail staff stated that MAT was not available to a wider population of inmates due to cost, fear of diversion (Suboxone is a known contraband substance found in jails and prisons), and stigma. Not all staff within the jail are in favor of MAT as an option for recovery. One nurse stated that he had watched people withdraw from methadone and did not want to see other patients go through that withdrawal. It was noted that many inmates at the jail do not admit to drug use during their intake assessment and end up withdrawing on their own without assistance by the medical team.



The process at Bexar County jail is similar. There is a urine pregnancy test conducted on every female of childbearing age during the intake screening. Self-reported drug screening is also conducted. Those pregnant and using opioids are referred to a University Health System psychiatrist who evaluates them for methadone and assists inductions onto MAT as appropriate. Bexar County partners with a community MAT clinic that delivers the medication to the jail. Methadone/ MAT is not available to the general population of jail inmates, and those on MAT upon entry to jail are tapered off. Postpartum women are also tapered off of methadone if they remain incarcerated after delivery.

In court: Courts can and do play a big role in the response to perinatal opioid use when the justice system becomes involved either through a child welfare or criminal case. Courts decide: whether or not to remove a child from his/her biological parents, child placement (e.g., kinship or state care), permanency (e.g, if there is sufficient evidence to remove parental rights permanently, adoption), parental visitation schedules, and convictions along with jail/prison time for those with criminal cases. Judges may also order specific drug treatment for those with a history or evidence of current substance use/abuse. Court staff from both San Antonio and Houston noted that judges, lawyers, and court staff are not well trained on substance use, best practices for treatment and recovery, trauma-informed care, or best practices to promote bonding and attachment for young children. Stigma around drug use and MAT was described as being very present within the justice system in both cities. Instances of limiting visitation between mothers with young children because of positive drug tests and ordering pregnant

women (as well as others) to stop the use of MAT medications were cited as examples of what has happened when courts are not well informed.

Barriers and challenges law enforcement and judicial system representatives report facing in their response to and care of women and infants affected by perinatal substance use:

- Law enforcement is not notified of drug overdoses if they are not the responder or if the person goes to the hospital without EMS assistance. This limits the ability of law enforcement to investigate and identify trends/spikes that may warrant additional resources.
- Drug treatment is not always available for those who want it. Although pregnant women are a priority population, local treatment options are not always available when the woman decides she is ready and willing to go. Women with children face an even tougher time as there are a limited number of facilities that house mothers with their children during inpatient treatment.
- There is a need for training and education about substance use, local treatment options, and best practices in treatment among law enforcement officers, jail staff, lawyers, and judges. Misinformation and stigma are still prevalent in this sector, which leads to missed opportunities.
- Access to data, data sharing agreements, and the timeliness of available data were all cited by law enforcement and court program staff as a major barrier that was impeding strategic decision making and the development of solutions.
- There is a lack of services for pregnant women with comorbid conditions, particularly mental health conditions. Treatment facilities may refuse to admit women who are in a current mental health crisis, and mental health facilities will not always take an active substance user. Additionally, community access to psychiatrists and therapists that accept Medicaid and state-funding is very limited.
- There is a lack of service providers trained in or utilizing evidenced-based counseling or therapy for children in foster care. Specialized drug court programs working on family reunification have identified a huge need for parent-child therapy, but have challenges finding providers.
- There is a lack of safe and sober housing for women and families in recovery. Once women leave court-ordered treatment or jail, there are few places for them to go that will promote their recovery. This was discussed more in Houston than in San Antonio but appears to be a universal problem.

TREATMENT

Interviewees representing the treatment sector included leadership and staff from inpatient and outpatient treatment facilities, staff from MAT facilities, and regional OSAR (outreach, screening, assessment, and referral) providers. State-level staff from the Targeted Opioid Response Team and Health and Human Services Commission's (HHSC) substance use and mental health division also provided insights specific to this sector's response.

Response to perinatal opioid use:

Each region of Texas has a regional OSAR organization where those seeking treatment can receive screening and assessment to help determine their need for services. The OSAR helps connect the individual to the appropriate treatment services. Treatment programs that are contracted by HHSC must prioritize admissions for certain populations in the following order based on a combination of state and federal guidelines:

- Pregnant women with SUDs who inject drugs (must be admitted immediately)
- Pregnant women with SUDs (must be admitted immediately)
- Men and women with SUDs who inject drugs (must be admitted within 14 days)
- Men and women at high risk for overdose (must be admitted immediately)
- Men and women with SUDs who have been referred by the Texas Department of Family and Protective Services (must be admitted within 72 hours)

This means that many women experiencing perinatal opioid use will fall into one of these prioritized populations, either because they are pregnant or because they have delivered and child welfare is referring them for treatment. The state expects OSARs to find a treatment slot for pregnant substance users immediately. The treatment slot offered could be in a different region (e.g., El Paso or Lubbock), which may not be feasible for a woman due to transportation or other family issues. In these cases, the woman may need to wait until the next available slot opens in her region. Waitlists were discussed by staff in both cities as a common but not constant problem. Typically, treatment will attempt to engage the pregnant woman in services (e.g., connecting her to a MAT program, outpatient treatment, pregnancy and postpartum intervention program) until an inpatient bed opens and the OSAR will follow pregnant opioid-using women with case management services.

Medically Assisted Treatment (MAT): For pregnant women, there are two options for receiving MAT. The traditional model is to enroll in services at a MAT clinic. There are facilities scattered around both the Houston and San Antonio areas. However, not all facilities accept Medicaid plans and few (5 in Houston, 2 in San Antonio) have state-funded slots available. State-funded slots are specific treatment slots to be used as a last resort for those meeting income and eligibility criteria. MAT clinics with these slots have a specific number they can carry at any given time. Additionally, Texas has 13 sites approved as “NAS-OTS” (opioid treatment services) providers, to fund MAT through the postpartum period after the mother is no longer eligible for traditional Medicaid coverage at 60 days post-delivery. Three sites in Houston and 2 in San Antonio have this additional payment option for postpartum MAT services.

In addition to the medications dispensed at these locations, additional services are provided to assist in recovery. Clinics in Houston and San Antonio had special case managers who worked with the pregnant populations receiving services at the MAT clinic. Due to the perceived inconsistencies in the judicial and healthcare systems, one case manager in Houston created a packet for mothers to carry when they deliver and if they go to court. These packets included information on the mother’s treatment history at the clinic and dosage. It also included language from the Americans with Disabilities Act (ADA) pertaining to the rights of people in treatment as well as brochures and educational materials about MAT and drug treatment.

The second option is to receive buprenorphine through a waived provider (e.g., MD, DO, NP, PA). This would mean that the mother did not need to go daily to a MAT clinic, but instead may get the medication and additional support services through their OB/Gyn office. Treatment providers looking for this option for their pregnant clients, however, have had a difficult time finding waived providers willing to prescribe to pregnant women.

Barriers and challenges treatment providers report facing in their response to and care of women affected by perinatal substance use:

- Locating Ob/Gyn providers willing to engage with treatment is a major challenge. This includes finding Ob/Gyn providers willing and able to: accept women who are receiving SUD treatment, accept women later in pregnancy, prescribe buprenorphine to pregnant women, allow SUD treatment providers to train with their staff, and participate in related collaborative efforts.
- Many women receiving treatment have a history of trauma as well as other unmet needs (e.g., housing, food, medical/dental issues). This requires more staff time to assist these mothers as well as more resources, which can be challenging to accomplish with the limited funding provided.
- There is a need for more state-funded MAT slots. MAT providers in Houston and San Antonio unanimously agreed they could fill at least double the slots they receive each year.
- There is stigma and judgment in all sectors, but also among treatment staff around MAT. The treatment sector describes needing to do continuous training and education for their staff to help decrease these biases.
- Shame is very present in their clients and can make it very challenging for them to get women into care.
- Treatment staff described not feeling comfortable guiding and advising clients around child welfare issues. Staff would benefit from understanding the CPS process to help address fears their clients often feel. An example is assistance (e.g., training, a road map) to understand the process CPS goes through to determine safety and whether removal is necessary. Treatment staff also expressed interest in helping the state with the

plans of safe care. Treatment staff are a critical point of service in the plan of safe care for substance-using women, but have had challenges understanding Texas's plan and response to this federal legislation.

- There is a lack of housing for women and families needing safe and sober living environments (during and after treatment). Some housing does not allow MAT usage, which is an additional challenge for pregnant/postpartum women.
- Effectively handling polysubstance users is a challenge for treatment providers as most evidence-based treatment options have been tested with single-substance-using adults.
- Because of privacy laws, data sharing is a major challenge even with the best of intentions.
- Few of the referrals for treatment for pregnant women come from medical providers. This indicates that providers may not know where to send people for treatment.
- In general, there are “misunderstandings about what laws we are all governed by and what our roles are.” This causes confusion and distrust across agencies and sectors.
- Childcare for children when the parent is in treatment or working is challenging for many women, limiting their ability to engage in treatment and/or the job market.

CHILD WELFARE

Interviewees representing the child welfare sector included state and local CPS workers from all levels as well as organizations that work primarily with CPS (i.e., Harris County Protective Services).

Response to perinatal opioid use:

Federal Child Abuse Prevention and Treatment Act (CAPTA) laws require a report to CPS when a woman tests positive for drugs at any point in the pregnancy or at delivery. Once a report is made, it is screened by statewide intake to determine level of risk and if there is sufficient information to complete an investigation. If risk is indicated and there is enough information, the case is sent to the regional investigative units and assigned to a worker to complete the investigation. During the investigation, the worker will often attempt to reach the reporter to get more information as needed (if the reporter is identified). The worker will visit the mother and will do a home visit to check on the environment and family supports. S/he may speak to other family members, doctors, etc. to gather more information. Based on the information collected, the worker, together with his/her supervisor, will make a recommendation as to the agency's response to the report (e.g., remove the child due to safety concerns, refer the family to family-based safety services, close the investigation). If removal is recommended, the case then goes before a judge who makes the final decision and has the authority to place the child into state custody.

Due to state laws, CPS cannot intervene with a mom/family unless there is a child living in the home. Consequently, if drug use is discovered during pregnancy but no other children are in the home, CPS cannot respond. If there are other children in the home, a case can be opened for investigation on behalf of the children living in the home but not on behalf of the unborn child.

Response when mothers are on MAT: According to CPS, they have a policy specific to women on MAT. This includes getting a release of information signed by the mother to contact the MAT provider and get the mother's records. The main factors of CPS interest in these records are length of time in recovery and compliance. They may also request to speak to the provider to ask if there are other concerns that have been noted. “If no other concerns, then ideally the case is closed.” However, it was acknowledged that there are inconsistencies in this response, primarily due to stigma and misinformation.

Barriers and challenges child welfare representatives report facing in their response to and care of women and infants affected by perinatal substance use:

- CPS workers report there is skepticism and concern among some workers when a mother enters inpatient treatment with her child. Primary reasons for this concern include the fact that mothers can leave treatment at any time (it is voluntary) and the challenges CPS may face visiting and communicating with the mother while she is in treatment.

- Ob/Gyns and hospitals are not universally screening or testing for drug use during pregnancy, and there are inconsistencies in reporting positive results to CPS upon delivery. This causes missed opportunities for intervention.
- Clinical recommendations for MAT are not consistently followed by CPS or the judicial system, creating challenges for parents to know what to do or whose recommendations to follow--their treatment provider, the judge, or their CPS worker.
- Misinformation and stigma toward drug treatment and MAT are present both in CPS and the judicial system.
- There is a lack of consistency in how MAT cases are handled statewide by CPS.
- The OSAR process can be challenging to navigate, making it difficult for parents to get into treatment when they are ready.
- CPS recidivism rates are high among drug users. It is not uncommon for a woman to have multiple babies born exposed to drugs in utero and have a case opened after each birth. Better relapse planning and prevention were cited as a need among this population.
- There are perceived inconsistencies in the judicial system's response to perinatal drug use (outcomes are perceived as variable across courts and substances). This is a challenge for CPS workers as well as families.
- There are not enough inpatient beds to meet the needs in the community.
- Intense Drug Court programs serve a small population, and the criteria for entry is sometimes stringent. Parents are more successful when there is a team surrounding them and they are accountable, but this is challenging for CPS to do on its own.
- Family supports and additional community resources are needed after CPS and courts are no longer involved to help families continue on their path of recovery and avoid relapse triggers.
- CPS workers and the judicial system staff need more specific training on substance use, best practices for engagement and treatment, and local programs.

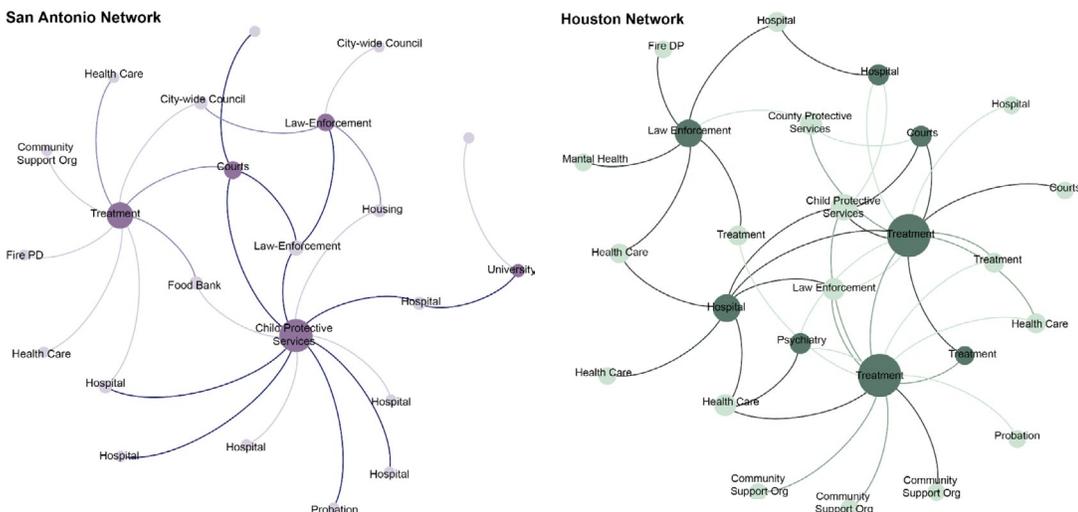


SOCIAL NETWORK ANALYSIS

After the first in-person meeting, all participants and contacted stakeholders were asked to complete an online survey that assessed the connections between participating organizations. The survey assessed the level of interaction and the level of influence the organization has in the community and with providing direct support to families. This survey was an adaptation of the PARNTERs survey, which has been used to assess the level of cooperation and interaction between other collaboratives. The purpose of this analysis was to provide insight into the cross-agency dynamics in each city. This analysis is inherently dependent on who responds, but lack of responding also provides insight into the organization's early level of engagement.

In San Antonio, 5 organizations responded to the survey. In Houston, 8 organizations responded (Figure 8).

Figure 8. Social Networks in San Antonio and Houston



Dark lines indicate frequent interaction. Colored circles indicate responding organization

Network density is the measure of how interconnected the organizations are to each other. In both cities, the networks had low density values; however, that is expected with few organizations responding. There were differences between the cities, with the network in Houston being more connected than the network in San Antonio.

In both cities, treatment provided extensive networks. Even after just focusing on this network, Houston still had a more connected network between treatment and other sectors than did San Antonio. The difference between these two cities was the connections between treatment and health care. In Houston, there were more endorsed connections with hospitals and with community clinics than in San Antonio.

In San Antonio, CPS provided the most extensive network of all responding sectors. San Antonio's CPS was more connected and involved with more sectors than was Houston's. In Houston, CPS did not respond to our survey. However, only two of the health sectors organizations endorsed being connected with CPS. Importantly, of the law enforcement sectors, only the courts and one law enforcement organization endorsed being connected to CPS in Houston. In contrast, CPS in San Antonio had frequent interactions with all hospitals in the city.

These data showed that both cities had progress to make in creating connections between sectors. While Houston had more connections between organizations than San Antonio, there were clear gaps. In particular, the lack of connection between law enforcement and treatment was identified as something that could be improved. While treatment and the healthcare sector were connected in Houston, this area was also identified as a place for improvement. Treatment was connected to hospitals and a few community-based clinics, but it was felt that they had weak connections to obstetric providers, specifically.

These data confirm what was initially felt in the key-informant interviews. The collaborative landscape in both cities was very different. While Houston had a relatively connected system for treatment, there was a general lack of acceptance of the need to respond to substance use, especially opioid use, among pregnant women. In San Antonio there was (and is) clear acceptance of the city's problem with heroin and other opioids; however, the landscape among treatment, law enforcement, healthcare, and CPS is more siloed.

COLLABORATIVE MEETINGS

We hosted collaborative meetings in Houston and San Antonio with representatives from law enforcement, healthcare, treatment facilities, community support programs, and child welfare to understand each sector's experience in responding to perinatal opioid use, identify opportunities to improve services and outcomes, and promote cross-sector communication and collaboration.

February 2018: At the first pair of collaborative meetings in Houston and San Antonio, the project team provided an overview of the project, perinatal opioid use, local and state data and maps, and themes from initial interviews. The presentation was followed by a discussion with the attendees reflecting on the presentation and themes that resonated with them and additional key factors that needed to be explored.

April 2018: At the next pair of collaborative meetings, the project team gathered stories from women about their experiences of having an opioid addiction while pregnant. In San Antonio, 3 women shared their stories in-person, and in Houston the project team shared the written accounts of 2 women. In small groups, participants at the meeting mapped the experiences of the women throughout their addiction, pregnancy, postpartum, treatment, and recovery. After mapping the lived experiences, participants developed a robust list that highlighted programs, policies, and services that helped the woman and changes that needed to occur to address the specific barriers the woman faced. See Journey Mapping for more information on this process.

June 2018: At the third pair of collaborative meetings, participants were grouped by sector and completed a group exercise to identify policy levers in their sector. Using the compiled ideas for a future state (Figure 9) developed in the April meeting, sectors first identified several concepts from the list that they would want implemented in their sector to address perinatal opioid use. Next, the sectors identified the beliefs, behaviors, and policies that would enable or inhibit the implementation of their ideas. Finally, each sector identified specific programs or policies that addressed the enablers and inhibitors in their sector.

Journey Mapping

During our initial collaborative meetings, it became clear that because each sector interacted with pregnant women using substances in different contexts and within their sector-specific roles, we needed to have a shared experience to help guide our work as a team. We needed to ground our work in the real and complete lived experiences of women from the community rather than the partial snapshots provided during the limited interactions most members of the collaborative had experienced. To do this, we asked our collaborative partners to help us gather stories from women they work with who had experienced perinatal opioid use. Using the stories, we utilized the journey mapping process to break down the story of each woman and design an "ideal future state" that would have positively impacted that individual's specific journey.

For this activity, we broke into small groups (8-10) and read or listened to the woman's story. We then had the group visually draw the story highlighting key experiences, leverage points, and relationships. We then asked the group to forget about the current system of care and think about what the ideal system of care would have been for this particular individual. They were asked to identify key criteria needed for this ideal experience and devise a framing question that would guide them through the rest of the activity. One example of the guiding questions that a group developed was, "How might we create a supportive system with no wrong door and screening to connect to services that a mother wants to connect to?" The group was then asked to define:

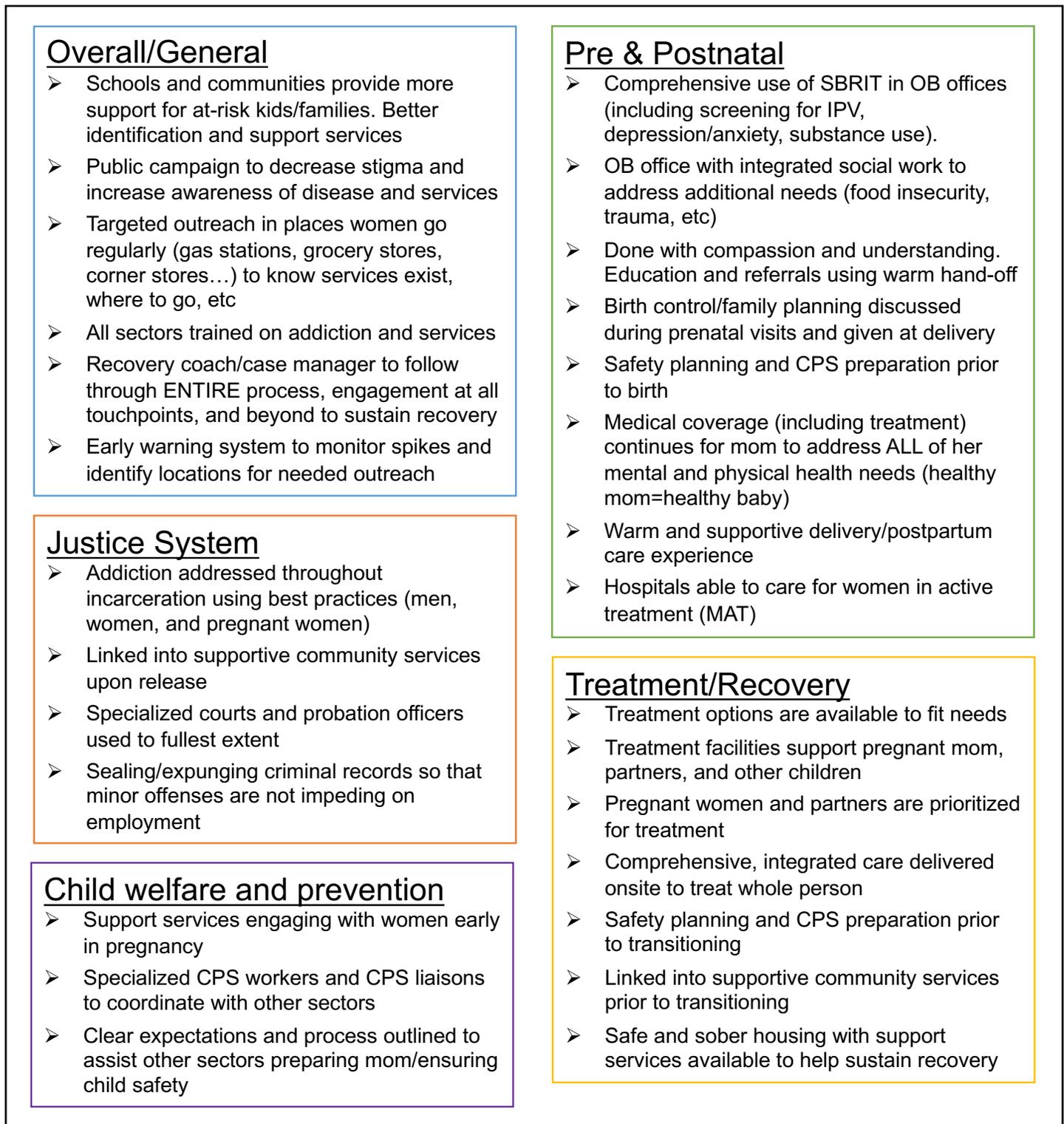
- Entry (how would the person find out about the services, what would their experience be signing up, where/when would this happen?)
- Engagement (what do they experience as part of this program/service?)
- Exit (when can/should the person leave the program, what is the moment like when they leave, how do they feel?)

At the end of the meeting, the groups shared their ideal state with the other groups, so that all participating in the meeting had a chance to ask questions and comment. Upon completing this activity with groups in Houston and San Antonio, the project team compiled the ideas and sent them out for review by the collaborative (Figure 9).

September 2018: At the fourth pair of collaborative meetings, the project team presented 23 recommendations on how to create a system and alignment across sectors to better respond to perinatal opioid use. In small groups, the attendees reviewed the list and offered suggestions on improvements and additional recommendations. After reviewing the final list, each participant “voted” on the recommendations. Participants selected 5 recommendations they thought were the most important to improve services for women with perinatal opioid use as well as 5 they thought would be the easiest to implement (i.e., low hanging fruit).

December 2018: At the final collaborative meetings, the project team presented the final findings from the initiative. The participants broke into small groups to discuss how to implement the highest-priority recommendations.

Figure 9. Compiled Ideas for the Ideal Future State



LOCAL BUPRENORPHINE-WAIVERED PROVIDER REVIEW

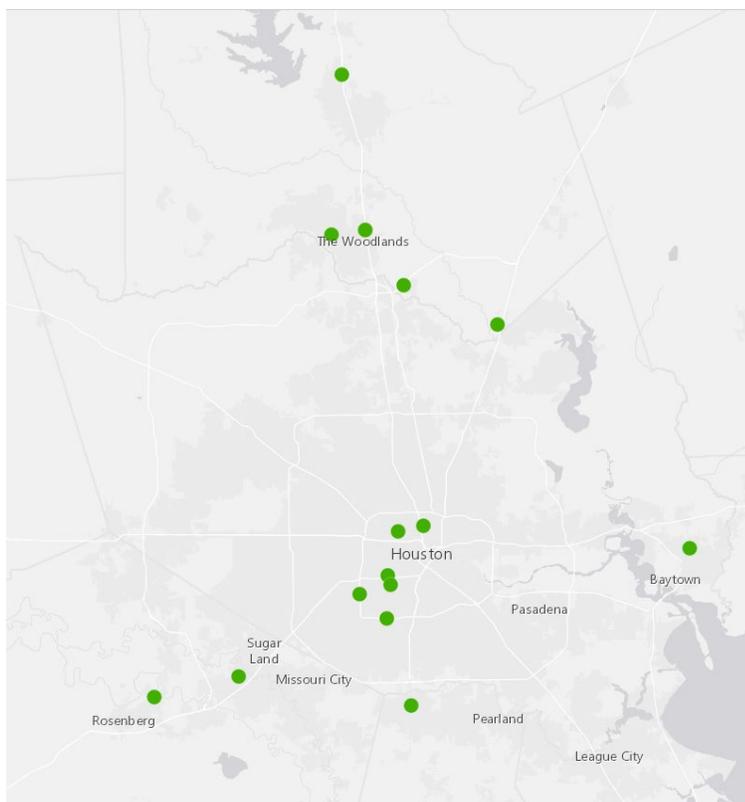
In recent years, buprenorphine has emerged as an alternative treatment to methadone for opioid use disorder and is an accepted treatment option for pregnant women. While also an opioid-based prescription drug, buprenorphine differs in that it requires practitioners to go through a waiver training process administered by SAMHSA but does not need to be administered in a federally certified opioid treatment program in the same way methadone does (SAMHSA, 2018). After receiving a waiver, a physician, physician assistant, or a nurse practitioner can directly administer or prescribe buprenorphine (brand name Subutex) to the patient. SAMHSA maintains a directory of all those who are waived on their website, which can be filtered by various factors, including location. However, the list does not include the type of specialty or populations the practitioner serves, insurance/payment types accepted, or whether or not the provider is currently prescribing (or has ever prescribed) the medication. This limits the usefulness of this list and does not provide an accurate account of available providers, particularly for pregnant women.

During our assessment, it became clear that having an accurate list of waived providers would be helpful to our collaborative members and the community. Treatment providers, in particular, were seeking this information as they often have difficulty finding healthcare providers willing and able to see pregnant women with SUDs.

In our initial review of the list, we tried to determine the specialty (e.g., Ob/Gyn, pediatrics, psychiatry) of every provider listed in Harris, Bexar, and the surrounding counties using a combination of a Google search and the Texas Medical Board medical licensing lookup. Because our population of interest was primarily pregnant women with OUD, we decided to attempt to contact all Family Medicine and Ob/Gyn practitioners to survey them on their buprenorphine prescribing practices. We narrowed it to Family Medicine or Ob/Gyn practitioners due to the likelihood that these specialties interact with women who are pregnant or likely to become pregnant to provide routine physical exams and prenatal care. For all practitioners we were able to contact, we asked them if they currently, plan to, or would be willing to prescribe buprenorphine to pregnant women. We also asked: their patient load limit, or the number of patients SAMHSA allows them to prescribe or administer buprenorphine to in a given year; what type of insurance they accept; and if there is a point in pregnancy after which they are no longer willing to administer buprenorphine.

In Houston, out of the 99 Family Medicine and Ob/Gyn practitioners that are waived to administer or prescribe buprenorphine, we were able to confirm the status of 62 practitioners. The remainder either had outdated contact information or were otherwise unreachable. Of those 62, fifteen practitioners were either currently prescribing or willing to prescribe buprenorphine to pregnant women (Table 5). Three of these identified have a patient limit of 275 or more, indicating they've been prescribing buprenorphine for a longer period of time, and roughly half of those who prescribe accept Medicaid. Figure 10 is map of where the 15 identified practitioners are located in Houston, although they may also practice at multiple hospitals or have other office locations across the city.

Figure 10. Locations of Buprenorphine-Waivered Ob/Gyn or Family Medicine Practitioners Currently Prescribing to Pregnant Women, Harris County (as of October 2018)



In San Antonio, there are proportionally far fewer practitioners waived with only 26 Family Medicine or Ob/Gyn practitioners waived. Due to outdated information or our inability to reach the provider/office to administer the survey questions, we were able to confirm the status of 13 practitioners. Of those 13, five practitioners were either currently prescribing or willing to prescribe or administer buprenorphine to pregnant women (Table 5). Approximately half of the providers had a patient load limit of 200 or more and 2 confirmed they accept Medicaid. Figure 9 presents a map of where the 5 identified practitioners are located in San Antonio. Again, they may also practice at multiple locations.



For both cities, several common themes were found in our research. First, and perhaps most consequential, the contact information on the SAMHSA website is not updated nor does it include the specialty of the provider (e.g., psychiatry, Ob/Gyn, family medicine). Considering the large number of out-of-service numbers and notifications that providers had relocated to another practice, retired, or moved out of state, maintaining a list with current contact information along with medical specialty is crucial for those looking to locate buprenorphine-waivered practitioners who serve their needs. We also found it common for Family Practice physicians to refer their pregnant patients with a substance use issue to an Ob/Gyn, but the referral was not always to an Ob/Gyn who could prescribe buprenorphine. In general, due to the special considerations in treating pregnant women with an opioid use disorder, there seemed to be a general hesitation among providers to prescribe buprenorphine to this population, particularly among providers with little experience with substance use during pregnancy.

Figure 11. Locations of Buprenorphine-Waivered Ob/Gyn or Family Medicine Practitioners Currently Prescribing to Pregnant Women, Bexar County (as of October 2018)

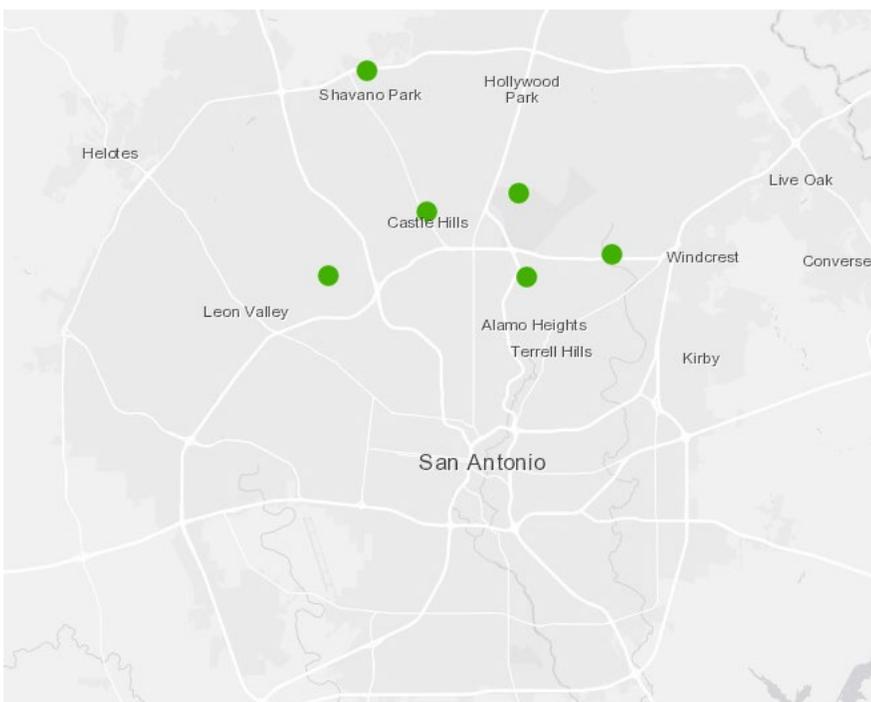


Table 5. Listing of Buprenorphine Waivered Ob/Gyn and Family Medicine Physicians Currently or Willing to Prescribe to Pregnant Women (as of October 2018), Houston and San Antonio

	Buprenorphine Waivered Physicians	Address	City	Zip	Phone	Specialty	Bup. limit	Type of Insurance Accepted
Houston Area	Alicia Ann Kowalchuk, D.O.	3701 Kirby Drive, Suite 600	Houston	77098	713-873-5180	Family Medicine	100	Harris Health Gold Card
	Chinasa Anugwom, M.D.	920 Medical Plaza Dr, Suite 370	The Woodlands	77380	832-246-8935	Family Medicine		Private & Medicaid
	Claudel Jean-Pierre, M.D.	19701 Kingwood Dr, Building 8	Kingwood	77339	832-615-1107	OBGYN		Private & Medicaid
	David Michalak, M.D.	4840 W. Panther Creek Dr, Suite 101	The Woodlands	77381	281-367-1720	Family Medicine		Self-pay for Suboxone
	Deborah Anugwom, NP	920 Medical Plaza Drive, Suite 560	The Woodlands	77380	832-246-8935	Family Medicine		Private & Medicaid
	Demetris Allen Green, Sr., M.D.	2646 South Loop West, Suite 220	Houston	77054	713-808-9658	Family Medicine	275	Private & Cash
	Fariborz Nazari-Adli, M.D.	4002 Garth Rd, Suite 150	Baytown	77521	281-420-4000	Family Medicine		
	Francisco Lopez, M.D.	6565 West Loop S, Suite 525	Houston	77401	713-661-7888	Family Medicine	30	Private, Medicaid , Medicare
	Gary Lew, D.O.	1111 Highway 6 South, Suite 225	Sugar Land	77401	281-277-4600	Family Medicine	300	Private
	Jason Z.W. Powers, M.D.	1010 Waverly St	Houston	77008	832-856-2156	Family Medicine	250	Private & Medicaid
	Nisha Varghese, M.D.	400 Austin St.	Richmond	77469	281-342-4530	Family Medicine	100	Private, Medicaid, Nonpayers
	Riaz Haque, M.D.	2404 Smith Ranch Road, Suite 200	Pearland	77584	713-436-4333	Family Medicine	100	Medicaid (only traditional, Amerigroup, United)
	Robert Laningham, M.D.	4015 I-45 North Suite 220	Conroe	77304	936-441-1122	Family Medicine		Self pay for Suboxone; Private
	Rodney Trimble, D.O.	2342 Quenby St.	Houston	77005	281-797-6749	Family Medicine	100	Private & Medicaid
	Teresa Macleod, NP	28533 Spring Trails Ridge, Suite 125	Spring	77386	281-419-5993	Family Medicine	300	Private; No cash
Warren Longmire Jr., M.D.	6801 Delaney Rd	Hitchcock	77563	409-986-5521	Family Medicine		Private & Medicaid; Suboxone program is self-pay	
William Z. Cohen, M.D.	4000 Fulton St, Suite A	Houston	77009	713-931-4040	Family Medicine	60	Cash only	
San Antonio Area	Elias Jurado Lorenzana, M.D.	8530 Village Dr	San Antonio	78232	210-828-4404	Family Medicine	200	Doesn't take insurance
	Keeli Stumbo, M.D.	1854 Lockhill-Selma Rd, Suite 202	San Antonio	78213	210-481-8335	OBGYN	200	Private & Medicaid
	Kylie Hanchey, NP	3619 Paesanos Pky	Shavano Park	78231	833-210-4673	Family Medicine		Private
	Ometeotl Acosta, M.D.	7703 Floyd Curl Dr, MSC 7836	San Antonio	78229	210-567-5009	OBGYN		Private & Medicaid
	Robert P. Morin, Jr., M.D.	303 West Sunset, Suite 102	San Antonio	78209	210-660-8760	Family Medicine	250	Doesn't take insurance
Wiley Alexander Patterson, M.D.	11503 Jones Maltsberger Rd, Suite 1106	San Antonio	78216	210-224-6611	Family Medicine	100	Private	

LESSONS LEARNED

Through the course of this project, several lessons were learned that can help other communities and organizations as they seek to form collaborations to help address substance use and opioid use problems in their communities.

Be responsive to needs. Before the first in-person meeting, it became clear that there were needs in the community that could, and should, be met by the project team. One of the most immediate needs that the team fulfilled was to help raise awareness around pregnant women with SUDs. This was accomplished with presentations on substance use in pregnancy and the impact of the opioid epidemic to community organizations and by sponsoring or participating in training presentations. Through these presentations, the team made a traveling slide deck that all participants could use in grants or presentations.

Another need that emerged focused on knowing how many buprenorphine providers there were in the state. While SAMHSA maintains a list, its accuracy has been called into question and many participants did not know if the providers with waivers would treat pregnant women. The project team culled through the entire list for San Antonio and Houston by calling all family practice and Ob/Gyn providers to determine if they were currently providing buprenorphine to patients and if they would treat pregnant women with SUDs.

Be sensitive to levels of awareness and need for data. Houston and San Antonio have very distinct and divergent substance use problems, and the level of awareness in each city was also found to be remarkably different. In San Antonio, there was a clear understanding of the heroin and opioid problem, as this is a long-standing multigenerational issue within the city. However, the impact of this problem on pregnant women and infants was less understood across all sectors. In Houston, there was a general lack of awareness of any opioid problem. The feeling was that the city was not suffering from an increase in opioid use, and the substance use problems remain the long-standing issues the city has been dealing with (i.e., cocaine, methamphetamines, marijuana, and synthetic cannabis).

Data were the strongest tool that we had to show each city the scope of the problem they are facing. When we began the collaborative, each city was eager for data that was difficult to obtain. By focusing on these hard-to-get, sometimes nuanced data, they were unaware of more easily obtainable data from other sectors that could help answer many of their questions. Furthermore, these existing data could be used to support their efforts to collect and obtain additional, more-nuanced data.

Identify mismatches between innovation and attitudes about sectors. In both cities, the key informant interviews revealed distrust and negative feelings between key sectors, but through the course of the collaborative meetings, it was clear that there was quite a bit of innovation being done that would address that distrust. These innovations had not caught up with the prevailing attitudes about the sector. CPS in San Antonio was the prime example of this disconnect. During the interviews, many sectors expressed concern over the high rates of turnover among CPS staff as well as their lack of understanding of CPS processes. Because of this, the sectors felt that CPS was challenging to work with. However, CPS in San Antonio reported many innovations they had implemented in order to help families and providers with reporting and to increase their understanding of what would happen during a CPS investigation when the woman was in treatment or using substances during her pregnancy. Furthermore, major changes in pay structure and job requirements have dramatically reduced turnover within CPS statewide. When the project team went back to the non-CPS sectors to ask if they knew about these innovations, most said that they did and that these changes were positively received. Ultimately, these changes were helpful to both the providers and the families, and positively impacted the way other sectors interacted with CPS. While this disconnect was largely between CPS and other sectors, it was not only seen there. This disconnect also existed between treatment and law enforcement, and treatment/medical providers and state Medicaid policy.

Confronting the discrepancy between attitudes about a sector and innovations occurring in that sector was important for moving the policy discussion away from ingrained feelings about the sector and toward supporting and refining the innovations already taking place.

Go broad and humanize the problem. One of our goals with this project was to bring to the table a broad

collection of sectors that do not normally interact. This naturally leads to some sectors not knowing how they fit in with the goals of the group or meetings. When the collaborative meetings began, we had sectors that directly stated that they didn't know why they were involved. They saw their role as very narrow, and they did not see what they could do to help pregnant women.

The use of journey mapping to show how real women interact and navigate through the sectors was a poignant tool to help sectors see their role. This tool helped humanize what women go through in a very sympathetic way. It showed each sector their contribution to the larger journey that these women experienced. More importantly, it showed each sector how they could be of better assistance to the women and how their response, or lack of one, contributed to women falling through the cracks.

Find creative ways to engage those not at the table. Collaboratives are usually defined by those who attend collaborative meetings, and the voices are limited. For this project, we needed to engage multiple levels of professionals from more than 5 sectors. Finding a meeting time when everyone could participate was next to impossible. Therefore, engagement was defined broadly and creatively. In this project, all participants who answered a survey, participated in an interview, or attended an in-person meeting were considered engaged in the project. This meant that not only were these participants providing us valuable feedback, but we were providing them data, results, and help with forming new connections with other sectors.



SPOTLIGHT ON INNOVATION AND LOCAL ASSETS

During this project, we encountered many innovative initiatives and people working to improve support for women and families impacted by perinatal substance use. However, we found that these efforts were not always well-known, particularly across sectors. This section serves to highlight local innovations and assets in Houston and San Antonio.

Collaboratives:

Both Houston and San Antonio have cross-sector collaboratives focused on NAS and strengthening the local response to women and families impacted by opioid use. In San Antonio, the **Bexar County NAS Collaborative (BCNC)** was established in 2016 in response to the high rates of NAS in the San Antonio area. This multi-sector collaborative brings together researchers, healthcare providers, treatment programs, community support organizations, and impacted mothers and their families to improve outcomes through research, education, and advocacy. Their current opioid-related efforts include: exploring mother-infant interaction and response to stress, the experiences of Hispanic grandparents raising grandchildren, common stressors experienced by opioid-using pregnant and parenting women, recovery support housing for women and children, paramedicine post-overdose follow-up and referral to treatment, first-responder overdose identification/reversal, Narcan administration, and referral to treatment. www.KeepingFamiliesTogether.org

In Houston, the **NAS collaborative** is led by Santa Maria Hostel and The Council on Recovery. Similar to the BCNC, this group brings together multiple sectors to discuss NAS, SUDs, and the needs of the Houston community. During the last year, this collaborative has focused on increasing awareness of the opioid epidemic locally and strengthening the relationships between healthcare organizations and treatment facilities.

Healthcare:

Baptist Medical Center (BMC) in San Antonio is a nationally recognized Center of Excellence for NAS Care, the only one in Texas. The NAS team at BMC, led by neonatologist Dr. John Isaac and NICU director Susie Aldous, changed the culture of response to perinatal opioid and substance use across the hospital. Now all levels of staff “from janitors to the CEO” are trained in compassionately responding to NAS and women experiencing SUDs. This program actively engages with mothers, treatment facilities, and CPS to best support both the mother and her infant. For more information: <https://www.baptisthealthsystem.com/our-services/womens-health/labor-delivery/neonatal-abstinence-syndrome-treatment>

Two outstanding physicians dedicated to serving pregnant women with SUDs deserve specific recognition. **Dr. Alicia Kowalchuk** is an associate professor of family and addiction medicine at Baylor College of Medicine (BCM) in Houston. She serves as the medical director for several SUD community-based and safety-net hospital system based treatment programs and provides lay and medical community education on SUDs. In 2016, Dr. Kowalchuk signed the first statewide standing order for naloxone in Texas, making this life-saving medication available without prescription at any Walgreens in the state, and has since signed the statewide standing order through the pharmacy board, expanding availability to all pharmacies across Texas. **Dr. Ometeotl Acosta** is an Ob/Gyn, fellowship trained in Maternal-Fetal Medicine, at UTHealth San Antonio who provides specialized care to women with SUDs. Understanding that trust is a key component to quality care and that many women with SUDs have difficulty with change and developing trust, Dr. Acosta worked with University Hospital in San Antonio to become the sole provider to this population.

The Texas Department of State Health Services has teamed up with the Alliance for Innovation on Maternal Health (AIM) and the Texas Hospital Association to create the **TexasAIM initiative**. TexasAIM will help hospitals and clinics in Texas carry out maternal safety projects with the ultimate goal of ending preventable maternal death and several maternal morbidities. One of the safety bundles under development focuses on obstetric care for women with opioid use disorder (OUD). The goals of this bundle are to:

- Improve identification and care of women with OUD through screening and linkage to treatment.
- Optimize medical care of pregnant women with OUD.
- Increase access to MAT for pregnant and postpartum women with OUD.

- Prevent OUD by reducing the number of opioids prescribed for deliveries.
- Optimize the care of opioid-exposed newborns by improving maternal engagement in infant management.

Participation in this bundle is voluntary and it will be piloted in 2019 in several hospitals in Houston and San Antonio, including Ben Taub Hospital (Houston), Memorial Hermann Greater Heights (Houston), Baptist Medical Center (San Antonio) and University Hospital (San Antonio).

In an effort to increase access to MAT, **Dr. Jennifer Potter** from UTHealth San Antonio has received funding to provide buprenorphine waiver trainings and additional support to waived providers. Her goals is to expand the number of providers administering buprenorphine across the state.

Treatment:

The Mommies Program: Started by Briseida Courtois at the Center for Health Services in San Antonio, the Mommies Program helps pregnant women and mothers that have a SUD receive recovery services. It was launched with a grant from SAMHSA in 2007 with a focus of pairing comprehensive substance use and mental health services. Women in this voluntary program are required to access intensive inpatient or outpatient treatment services. Counseling is offered to address trauma these women may have experienced in childhood or adulthood. Additionally, the women take courses in parenting, relapse prevention, and life skills. Women are also taught by local healthcare providers about prenatal care, NAS, and how to soothe a baby experiencing withdrawal symptoms. Other services available include case management, transportation assistance, and child care services while in sessions. This program is still active and is funded by support from University Hospital and the Department of State Health Services and Medicaid.

Pregnant and Postpartum Intervention (PPI) Programs: Of the 18 state-funded PPI programs across the state, 12 focus on opioid-using women and are modeled after the San Antonio Mommies Program. Two of these programs are housed in Houston (the Cradles Project at the Council on Recovery and Caring for Two at Santa Maria Hostel) and one in San Antonio (Family First at Alpha Home). These programs are designed to be intensive wraparound services, providing intensive case management, educational programs (e.g., parent education, child development), individual and family counseling, peer recovery support, healthy mom-child bonding activities, assistance with finding MAT services, and residential/outpatient drug treatment as needed. Community outreach and engagement is also a strong component of these programs, where staff target high-risk neighborhoods and high-risk individuals to provide education, safe-sex kits, safe-drug kits, and HIV and hepatitis C testing.

The Center for Health Care Services (CHCS) in San Antonio is a one-stop shop for those needing addiction services. This treatment facility has both inpatient and outpatient services, several inpatient beds for women and their children, onsite MAT services, counseling services, the Mommies Program, and primary care services. CHCS also serves as the region's OSAR.

Alpha Home in San Antonio provides residential treatment to women only and outpatient treatment to both men and women. The Family First Intervention Program provides services through 3 different programs, PPI, PADRE and NAS. The Pregnant and Postpartum (PPI) program provides services to pregnant and parenting women who are at risk for SUDs. A goal of the PPI program is to decrease the number of babies who are exposed prenatally to alcohol by educating women about the harmful effects of drinking during pregnancy including Fetal Alcohol Spectrum Disorder (FASD). The Parenting Awareness and Drug Education (PADRE) program provide services for Dads who are involved with CPS and who are at risk for substance use/abuse or addiction. The program provides case management and support services to women who are using opioids or who are in MAT Support services, education and case management are offered through the Mommies Program. Women participating in the NAS program are eligible for Alpha Home Recovery Support Services which provide a Recovery Support Coach to help them navigate the numerous resources in the city that could help them sustain long term recovery. <http://www.alphahome.org/>

Santa Maria Hostel is Houston's only residential facility that allows children to join their mother's in residential treatment. They have two residential facilities, one for mothers and children and one for women only. In addition, they offer outpatient treatment, housing, counseling services, parenting class, and

prevention and educational programs. The hostel houses one of Houston's PPI programs, Caring for Two, as well as two programs for incarcerated women and infants. <http://www.santamariahostel.org/>

The Council on Recovery offers a wide range of services and programs for the entire family. The Council serves as the OSAR for greater Houston. In addition to housing OSAR, it billets the Cradles Project and the Mommies Program, which are specialized comprehensive programs for pregnant and postpartum women who have or are at risk of having a substance use or mental health disorder. In addition, The Council offers a vast array of outpatient services and educational programs for individuals of all ages, including special programs for children and teens, impacted by or at risk of substance use. <https://www.councilonrecovery.org/>

Law Enforcement/Justice:

Specialty court programs in both Houston and San Antonio are finding creative ways to address the needs of the families they serve. These are intensive programs designed specifically to meet the needs of children in CPS custody with parents who have a history of substance use. In Houston, the **Infant Toddler Family Intervention Court**, overseen by Judge Katrina Griffith and directed by Sarah Bogart, has received local and federal grants to provide counseling, transportation, housing, treatment, and medical assistance to both children and parents in the program. The court is one of 15 demonstration sites chosen by Children and Family Futures to participate in the National Quality Improvement Center for Collaborative Community Court Teams Initiative.

The Bexar County Early Intervention Program, overseen by Judge Peter Sakai and directed by Barbara Schafer, is an intensive court model designed to work intimately and early in the life of a child to develop mental and physical health and well-being. The program provides these unique services via community partners specializing in therapeutic models just for infant and toddlers. Additionally, Bexar County has a Family Drug Court program working primarily with those parents who have an identified substance abuse issue. These cases come to this court because substance abuse has hindered the parents' ability to properly parent their child or children. Family Drug Court began in 2004 with a public-private partnership and continues to work with community partners to help families rebuild a life of sobriety. Not only is there support and education for the parents but also for the children. A unique class, called Celebrating Families, allows the family unit to understand what drugs have done to their family unit. This program allows the child/children to have a voice with the court and their parents about how addiction has hurt them. Working together with a wraparound approach has led to the successful reunification of over 719 children to date. <https://www.bexar.org/1986/Childrens-Court-Division-Programs>

Harris County Jail Reentry Services: The Harris County Jail books approximately 100,000 individuals each year and can house up to 9,434 inmates at any given time. While many inmates will be released fairly quickly, a large number of individuals will remain in jail awaiting trial or serving short sentences. To assist these individuals and prepare them to transition back to the community, in 2013 Jennifer Herring started reentry programs for specific vulnerable populations. Currently, there are programs for pregnant and postpartum women (up to 3 years), substance abuse, human sex trafficking and prostitution, and veterans. Counseling, case management, life skills, social support, and education are the cornerstones of each of these programs. In addition, the jail recently opened a new reentry center to provide resources to those exiting the jail. <http://www.harriscountycit.org/diversion/re-entry-services/>

A treatment alternative to incarceration located at Santa Maria Hostel, the **WHO (Women Helping Ourselves) program** works with pregnant and postpartum women referred through the Harris County Community Supervision and Corrections Department. Women who are referred to the program typically have charges related to their substance use, and most enter the program via the Harris County Jail. The majority of women enter pregnant and deliver while at Santa Maria, and their infant is able to stay with them during the duration of their program. While in the program, women receive SUD treatment, mental health services, parenting education and coaching, recovery support services, education and employment preparation, and case management services. Women and their infants are typically in the program for 6 to 12 months.

To increase awareness of drug trends and response efforts, law enforcement officers in Houston and San Antonio provide education to fellow officers as well as the community. **Lt. Stephen Casco and Senior Officer Erik ter Meulen** have trained all 5000+ Houston Police Department officers on opioid trends in the Houston area and how to respond to an overdose. They routinely present at events to educate community members and professionals across sectors about the local opioid problems in Houston. In addition, they were instrumental in helping HPD receive federal funding for opioid overdose response initiatives and, as responding officers, have gone above and beyond helping connect pregnant and parenting mothers with treatment services.

As part of the DEA 360 Initiative, **Special Agent Armando Talamantez** helps to educate Central and South Texas, including the San Antonio area, on the impact of the use and abuse of prescription and illicit drugs, including opioids. He often works with local schools and community groups to raise awareness, decrease the stigma of SUDs, encourage treatment when needed, and promote prevention and a drug-free lifestyle.

Child Welfare:

CPS in San Antonio has made tremendous strides in their response to the high prevalence of NAS and prenatal substance exposure in their community. Within this city, CPS has 5 dedicated liaisons that provide assistance on child welfare cases to area hospitals and juvenile probation. These liaisons have a high level of experience in CPS (5 years or more) and have offices in the hospitals they serve, allowing them to know and become trusted by the staff and to serve as a resource. They provide orientation and ongoing training to hospital staff so they understand the CPS processes. In addition to dedicated liaisons, this CPS unit now has dedicated investigative workers handling cases involving prenatal substance exposure. Both of these efforts are helping to improve trust across sectors and consistency in response by CPS.

The state's **Child Protective Investigations (CPI) Alternative Response Initiative** started in November 2014 in select areas of the state and is now active in every region of the state with the exception of the region that includes Harris County. Through this initiative, CPI is working with families that meet specific criteria to better support and connect them to community resources. CPI is actively working to change the culture of how it handles substance use cases with older children. Instead of only focusing on drug test results and referring to treatment, this team focuses on getting to the underlying causes of drug use. They use a strengths-based model to help the family identify harm reduction strategies, identify and use their own support network, and connect them to community resources while still achieving child safety. While this initiative currently does not target perinatal substance use, it is certainly a step in the right direction. Workers receive more training on working with families with substance use issues and available community support programs. https://www.dfps.state.tx.us/Investigations/alternative_response.asp

Training and Technical Assistance:

The **State Targeted Response Technical Assistance Consortium (STR-TA)** provides training, education, and technical assistance around prevention, treatment, and recovery of opioid use disorders. Webinars, educational materials, as well as personalized assistance and consultations are available. <https://getstr-ta.org>

ADDITIONAL RESOURCES

Relevant best practice guidelines:

[The ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use \(2015\)](#)

[ACOG Committee Opinion Number 511: Healthcare for Pregnant and Postpartum Incarcerated Women and Adolescent Females \(2011\)](#)

[ACOG Committee Opinion Number 711: Opioid Use and Opioid Use Disorder in Pregnancy \(2017\)](#)

[ACOG Patient Safety Bundle: Obstetric Care for Women with Opioid Use Disorder \(2017\)](#)

[ACOG Committee Opinion Number 736: Optimizing Postpartum Care \(2018\)](#)

[ACOG Committee Opinion Number 742: Postpartum Pain Management \(2018\)](#)

[ACOG Patient Safety Bundle: Obstetric Care for Women with Opioid Use Disorder \(2017\)](#)

[SAMHSA: Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants \(2018\).](#)

[Joint Commission Pain Assessment and Management Standards for Hospitals \(2017\)](#)

[WHO. Guidelines for the identification and management of substance use and substance use disorders in pregnancy. \(2014\)](#)

Toolkits:

[North New England Perinatal Quality Improvement Network: A Toolkit for the Perinatal Care of Women with Opioid Use Disorders \(2018\)](#)

[SAMHSA. A Collaborative Approach to the Treatment of Pregnant Women with Opioid Use Disorders \(2016\)](#)

[SAMHSA. Opioid Overdose Prevention Toolkit \(2018\)](#)

[The MOMMIES Toolkit: Improving Outcomes for Families Impacted by Neonatal Abstinence Syndrome \(2015\).](#)

Screening:

[NIDA. Chart of Evidence-Based Screening Tools and Assessments for Adults and Adolescents. \(2018\)](#)

[SAMHSA. Screening Tools and Resources \(2018\)](#)

[US HHS Medicare Learning Network \(MLN\) Screening, Brief Intervention, and Referral to Treatment \(SBIRT\) Services.](#)

Handouts for Pregnant Women Using Opioids:

[Childbirth, Breastfeeding, and Infant Care: Methadone and Buprenorphine](#)

[SAMHSA. Opioid Use and Pregnancy Handouts. \(2018\)](#)

HIPAA and Substance Treatment Regulation Information:

[Substance Abuse Confidentiality Regulations: Frequently Asked Questions \(FAQs\) and Fact Sheets regarding the Substance Abuse Confidentiality Regulations.](#)

Child Welfare Related:

[National Center on Substance Abuse and Child Welfare. A Planning Guide: Steps to Support a Comprehensive Approach to Plans of Safe Care \(2018\).](#)

[Texas DFPS Substance Use Resource Guide: A Child Protection Practice Guide \(2018\)](#)

Treatment Resources:

[SAMHSA. Finding Treatment and Services](#)

[State Listing of Substance Use Programs \(Texas\)](#)

[Texas HHSC's Listing of Regional OSAR Organizations](#)

LOCAL RESOURCES FOR PREGNANT AND PARENTING WOMEN IN AND AROUND HOUSTON AND SAN ANTONIO

Organization	City	MAT	Housing	In-patient	Outpatient Counseling & Therapy	Adolescent Services	Accepts Medicaid
Austin Recovery Inc - Austin Recovery Hicks Family Ranch http://www.austinrecovery.org/familyhouse 512-697-8600	Austin		✓	✓	✓		✓
Brazos Valley Council on Alcohol and Substance Abuse http://bvccasa.org 979-846-3560	Bryan		✓	✓	✓	✓	✓
Land Manor - Franklin House North http://www.landmanor.org 409-869-5911	Beaumont		✓	✓	✓		✓
Adult Rehabilitation Services http://adult-rehab.com/ 713-541-4422	Houston	✓			✓		✓
Alpha Home http://www.alphahome.org 210-735-3822	San Antonio		✓	✓	✓		✓
Brazos Place http://www.brazosplace.org 1-855-862-3278	Houston		✓	✓			

LOCAL RESOURCES FOR PREGNANT AND PARENTING WOMEN IN AND AROUND HOUSTON AND SAN ANTONIO

Organization	City	MAT	Housing	In-patient	Outpatient Counseling & Therapy	Adolescent Services	Accepts Medicaid
The Council on Recovery https://www.councilonrecovery.org 713-914-0556 Serves as the regional OSAR	Houston				✓	✓	
The Harris Center for Mental Health and IDD https://www.theharriscenter.org/ 713-970-7000	Houston				✓	✓	✓
Santa Maria Hostel http://www.santamariahostel.org 713-691-0900	Houston		✓	✓	✓	✓	✓
Volunteers of America Texas http://www.voatx.org/ 713-818-6618	Houston		✓		✓		No cost when criteria is met
Oxford House http://www.oxfordvacancies.com/ 1-800-689-6411	San Antonio		✓				
Center for Health Care Services https://chcsbc.org/get-help/treatment-for-substance-use-disorders/ 210-261-3001	San Antonio	✓	✓	✓	✓		✓

*MAT indicates medically assisted treatment.

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