Alaska Substance Affected Pregnancies Initiative
Change Package

The Alaska Perinatal Quality Collaborative (AKPQC) launched in January 2019 with a goal to engage hospitals in collaborative quality improvement to eliminate preventable perinatal morbidity and mortality in Alaska. For the past two years, the AKPQC has been collaborating with six Alaska hospitals in an initiative to reduce severe maternal morbidity (SMM) caused by severe hypertension and preeclampsia. As a result of this initiative and efforts of participating hospitals, the AKPQC exceeded its primary goal by reducing the rate of SMM among birthing people with preeclampsia by 28% from 2018 to 2020.

Following this successful first initiative, the AKPQC is launching a new maternal and neonatal initiative focused on substance affected pregnancies. This dyad-centered initiative will follow the Institute for Healthcare Improvement[1] (IHI) Breakthrough Series model for collaborative quality improvement.[1] This IHI model brings together teams of hospitals seeking to improve healthcare quality focused on a specific topic and shared aims.[1]

Problem Statement

The AKPQC conducted a survey of stakeholders prior to its launch in December-January 2019. Results of this survey, and a prioritization process during the launch event, indicated that substance exposure during pregnancy is a large problem in Alaska and that there is a high-level of urgency among health care professionals to improve the identification and care of pregnant people and newborns affected by substances.

The number of pregnancies affected by substances in Alaska has been increasing. The rate of Medicaid-enrolled infants diagnosed with neonatal abstinence syndrome (NAS) per 1,000 live births has increased from 4.2 in 2007 to 21.4 in 2018. The 2018 Alaska rate of NAS per 1,000 hospital deliveries also exceeds the United States (US) rate, 12.8 and 7.0 respectively. Among Medicaid-enrolled infants with NAS in 2007-2018, 55% of their mothers received inadequate or no prenatal care, and of those reported to OCS, 20% were placed in protective custody within one month of birth.

According to the Alaska Substance Exposed Newborns Initiative[2] (SENI), among the 2,121 pregnant people screened for use of harmful substances at the four SENI-participating hospitals between January 2018 and April 2020, 50% reported use of alcohol, tobacco, or marijuana one month before pregnancy indicating a positive screen. Among the 1,062 pregnant people with a positive screen, 42.2% reported use of any harmful substance during the last month of pregnancy.[2]

Increasing NAS also has significant financial implications. The average length of stay among the 302 infants diagnosed with NAS in Alaska in 2016-2018 was 16 days. Medicaid payment per infant diagnosed with NAS was approximately $41,755 compared to the average charge for all newborns of $12,731.

Nationally, PQCs have made substantial gains in quality of care for infants and pregnant people affected by substances. The Illinois PQC Mothers and Newborns Affected by Opioids Initiative increased screening for substances with a validated tool at participating hospitals from less than 10% to 83% over the course of an 18-month project.[3] They also made significant statewide improvements in connecting patients to medication assisted treatment (MAT) and behavioral health services by delivery discharge.[3] In a similar initiative, hospitals in Colorado successfully reduced average length of stay among infants with opioid exposure from 14.8 to 5.9 days while pharmacologic therapy decreased from 61% to 23%.[4]

Initiative Implementation

With input from multiple stakeholders statewide, the AKPQC developed the following key driver diagram, change package, and measurement plan with specific strategies and resources to improve the care of pregnant people and newborns affected by substances. These strategies to improve care are based on the Alliance for Innovation for Maternal Health (AIM) Substance Use Disorder Patient Safety Bundle as well as other national standards and best practices in obstetrics and neonatal care. The AKPQC is recruiting hospital teams to participate in the initiative, and expert faculty will be identified to provide support to hospitals during the 18-month implementation phase.

Learning Sessions

There will be three, day long learning sessions during this initiative. At learning session one, AKPQC staff and faculty will present a vision for ideal care and provide an overview of the change package and measurement plan. Hospital teams will also receive training on quality improvement methodologies which will enable them to test the changes locally.

At the second and third learning sessions, hospital teams will learn from each other as they report on successes, barriers, and lessons learned using general sessions, workshops, storyboard rounds, and informal dialogue and exchange.

Action Periods

Between learning sessions, hospital teams will engage in action periods that provide opportunities for learning and engagement with other hospitals and AKPQC staff and faculty. The goals of the action periods are to support teams in their improvement work, build collaboration and shared learning, and assess progress on implementation.

Action periods will include the following supports:

- **Monthly reporting system:** The AKPQC will host a data system to collect data and review progress on implementation at each hospital. The AKPQC will review each report monthly and will provide feedback to hospital teams.
- **Hospital team meetings:** Hospital teams will participate in monthly, one-hour virtual meetings on various topics and quality improvement methods. The meetings will be hosted by AKPQC staff and faculty and will feature opportunities to highlight successes and learning of hospital teams.
- **Online communication platform:** The AKPQC will support and monitor an online communication platform for hospital teams to share resources and connect with each other and with AKPQC staff and faculty throughout the initiative.

Hospital team meetings and learning sessions will be held virtually via Zoom. If it is safe to travel in the Spring of 2022, the AKPQC will host an in-person learning session that will coincide with its annual summit.

Expectations of the AKPQC and Participating Hospitals

The AKPQC staff and faculty will:

- Develop the change package and measurement plan
- Recruit hospital teams to join the initiative
- Plan and facilitate engaging and informative learning sessions
- Plan and facilitate monthly hospital team meetings during action periods
- Provide as needed technical assistance to hospital teams
- Manage the AKPQC Data System and support hospital teams with data submission
- Review monthly reports and provide feedback to hospital teams

Participating hospitals will:

- Sign a memorandum of understanding and data use agreement
- Designate a senior leader to serve as a sponsor for the frontline team and identify a frontline leader to drive the day-to-day improvement work
- Identify frontline team members with expertise in obstetrics, newborn care, and quality improvement
- With support of the day-to-day leader, hospital teams will:
    - Conduct tests of the recommended changes in alignment with their aims
    - After successful testing and adaptation, implement and spread changes to other units
    - Actively participate in learning sessions and monthly hospital team meetings
    - Submit a monthly report with process, structure, and balancing measure data as well as updates on implementation through the AKPQC Data System
- Provide resources to support the improvement team, including sufficient time to devote to this effort
    - Team members should have adequate time for weekly team meetings, testing changes/PDSA cycles, and engaging with senior leadership
- Identify and include a patient/family member as a regular member of the improvement team (encouraged but not mandatory)
- If it is safe to travel, send teams to one in-person learning session in the Spring of 2022 (to coincide with the AKPQC Annual Summit)

Key Changes

Primary Driver: Improve the Identification of Pregnant People and Newborns Affected by Substances

Key Change #1: Develop and implement a guideline for universal screening for substances utilizing a validated instrument
Facilities should develop and implement a guideline for universal screening for substances during routine prenatal care and around the time of birth. Screening for substances should generally begin as early in prenatal care as possible. Some pregnant people who use substances may not have access to regular prenatal care, so the delivery admission is an important opportunity for screening.

Universal verbal screening for substance use in pregnancy utilizing a validated instrument is recommended by the American College of Obstetricians and Gynecologists (ACOG), the American Society of Addition Medicine (ASAM), and the Society for Maternal-Fetal Medicine (SMFM).[5] The Alaska Perinatal Quality Collaborative (AKPQC) supports the Substance Exposed Newborns Initiative (SENI), a program to advance universal screening for substance use during pregnancy. The SENI tool relies on the 4P's Plus©, the only instrument that screens for all substances and is specifically validated for use during pregnancy.[6] Facilities participating in the Substance Affected Pregnancies Initiative are highly encouraged to enroll in SENI. Facilities participating in SENI will receive access to the copyrighted 4P's Plus© instrument at no cost. Email seni@alaska.gov to enroll. Participation in SENI is not a requirement, and facilities may choose to utilize another validated tool to screen for substances.

Current resources and guidelines for screening:
SAMHSA Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants
Substance use disorders in pregnancy: clinical, ethical, and research imperatives of the opioid epidemic: a report of a joint workshop of SMFM, ACOG, and ASAM
Neonatal Abstinence Syndrome and Ethical Approaches to the Identification of Pregnant Women Who Use Drugs
ACOG Committee Opinion Number 711: Opioid Use and Opioid Use Disorder in Pregnancy
NNEPQIN Screening for Alcohol, Tobacco and Drug Use in Pregnancy
Alliance for Innovation on Maternal Health: Screening Tools

Key Change #2: Train providers and nurses in use of the screening tool and brief intervention (focus on harm reduction and eliminating stigma)

All members of the healthcare team who will be responsible for screening should be trained in the use of the screening instrument and how to conduct a brief intervention. A brief intervention should be offered to all pregnant people who report use of substances during pregnancy. Brief intervention is a dialogue between a healthcare professional and patient using simple motivational interviewing techniques that educate the patient about potential consequences of substance use, motivate the patient towards behavior change, and support the patient to make choices that reduce the risk of harm.[7] The healthcare professional should take a harm reduction approach, meaning that the end goal may not be abstinence for every patient. The goal of brief intervention is to provide a safe space for the patient to consider behavior change and opportunities for referral and treatment.[7] Healthcare professionals conducting screening and brief intervention should also identify their own biases and work to destigmatize this process for the patient.

Facilities should also identify processes to share information about potential exposures among treatment teams and units. A pediatric prenatal consult can be considered if current maternal use of opioids or other harmful substances is identified.

For facilities participating in SENI, training is available on use of the SENI tool. Email seni@alaska.gov to schedule a training.

Current resources and guidelines for training:

University of Cincinnati School of Social Work: Online module to train healthcare workers in SBIRT with pregnant people (includes video example of a brief intervention)
New Hampshire SBIRT Implementation Playbook for Perinatal Providers
Conversation guide for delivering a trauma-informed brief intervention
Words Matter: Terms to use and avoid when talking about addiction
CMQCC/CPQCC Mother & Baby Substance Exposure Toolkit: Understand and implement the principles of motivational interviewing

Key Change #3: Develop and implement a guideline for newborn risk-based toxicology testing

Facilities should develop a guideline outlining clinical scenarios that would trigger a newborn toxicology test. While universal toxicology testing of the pregnant or person or newborn is not recommended, newborn toxicology may be considered when risks are present and results could influence the care plan.[8] Certain pregnancy complications of unknown etiology, maternal symptoms of withdrawal, or newborn symptoms of exposure with unconfirmed maternal substance use history may warrant toxicology testing. Facilities must ensure that guidelines do not directly or indirectly target testing based on socioeconomic status, race, or other discriminatory factors. Healthcare professionals should be aware of their biases and should be educated on how institutional racism and implicit bias impact toxicology and care decisions.[8] If maternal toxicology is pursued, informed consent should be obtained and patients should understand the potential consequences of positive toxicology results.[9]

There are several limitations of newborn toxicology testing including delayed results and the possibility of false positive or negative results. Guidelines should address when confirmatory testing may be necessary and which biologic testing methods are preferred and available at the facility.

Current resources and guidelines for risk-based toxicology:
AAP Neonatal Opioid Withdrawal Syndrome
Alaska Substance-Exposed Newborns Initiative: Identification of Affected and At-Risk Newborns and Plans of Safe Care
CMQCC/CPQCC Mother & Baby Substance Exposure Toolkit: Implement selective newborn biological toxicology testing
CMQCC/CPQCC Mother & Baby Substance Exposure Toolkit: Maternal urine toxicology and the role of explicit/implicit bias in decision-making
ASAM Appropriate Use of Drug Testing in Clinical Addiction Medicine

Primary Driver: Improve Clinical Care and Treatment for Pregnant People and Newborns Affected by Substances

Key Change #4: Implement Eat, Sleep, Console in newborn care environments
Facilities should establish guidelines for and implement Eat, Sleep, Console (ESC) in newborn care environments. Studies suggest that function-based newborn assessments may reduce pharmacologic treatment and length of stay. The ESC method focuses on the function and comfort of the newborn with neonatal opioid withdrawal syndrome (NOWS) rather than the reduction of withdrawal symptoms.[10] The ESC Care Tool assists the care team and family to assess the newborn for feeding, sleeping patterns, and ability to be consoled. The ESC model recommends non-pharmacologic care as a first-line treatment for NOWS. Interventions include rooming-in, parental presence and involvement in care, skin to skin contact, swaddling, optimal feeding/breastfeeding, low stimulation environments, and clustered care to promote sleep. Regular inter-rater reliability assessments are recommended with a goal of 80% agreement or higher.[10] Facilities should also develop a guideline for pharmacologic treatment including triggers for initiation, escalation, and weaning of medications. Staff should receive training in the ESC model and families should be trained in ESC assessment and non-pharmacologic care.

Current resources and guidelines for ESC:
Eating, Sleeping and Consoling (ESC) Neonatal Abstinence Syndrome Care Tool
AAP Neonatal Opioid Withdrawal Syndrome
Webinar: Infants with Prenatal Substance Exposure and their Parents: Family Approach of Yale New Haven Children's Hospital

Key Change #5: Provide or connect to medication assisted treatment and/or behavioral health services

Providers should offer to prescribe or refer all pregnant or postpartum people with substance use disorder (SUD) for medication assisted treatment (MAT) and/or behavioral health services. SUD is a chronic relapsing condition that can and should be treated. ACOG[11] and the Substance Abuse and Mental Health Services Administration[12] (SAMHSA) recommend MAT for pregnant people with opioid use disorder (OUD). Treatment with an opioid agonist may prevent relapse-associated complications and may improve adherence to behavioral health treatment and prenatal care plans. While there is a risk of NOWS with maternal use of opioid agonists, there is no evidence that MAT increases the rate of NOWS when compared to illegal opioid use.[13] Ideally, MAT will be provided along with comprehensive behavioral health services, but MAT should not be delayed for people who decline or lack access to behavioral health services.[11,13]

Providers who prescribe buprenorphine during prenatal care or the delivery admission should provide a referral and warm handoff to an outpatient buprenorphine provider prior to discharge. Providers should be knowledgeable of behavioral health and MAT referral resources in their local area (see key change #9 on community resources). The postpartum period is a vulnerable time for people with OUD, and relapse is more common in the postpartum period than during pregnancy.[11] Patients should also be given naloxone, a short-acting opioid antagonist, prior to discharge as a potential life saving measure in the event of an overdose.[11]

Current resources and guidelines for MAT:

ACOG Opioid Use and Opioid Use Disorder in Pregnancy Committee Opinion Number 711
ASAM National Practice Guideline for the Treatment of Opioid Use Disorder—2020 Focused Update
SAMHSA Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants
Medication Assisted Treatment Guide: Key components for delivery community-based MAT in Alaska
Substance Use Disorder - Residential and Outpatient - Alaska Grantees & Private Providers
Opioids in Alaska: Get Narcan® (Project Hope)
National Clinical Consultation Center Substance Use Management Warmline

Key Change #6: Ensure obstetric providers complete buprenorphine waiver training and/or receive a waiver to prescribe

Methadone and buprenorphine are recommended as first-line agents for pregnant people experiencing OUD.[11] While methadone must be dispensed by registered opioid treatment programs, buprenorphine can be prescribed and dispensed in medical office settings by waivered providers. To administer, dispense, or prescribe buprenorphine for up to 30 patients, providers must complete the buprenorphine waiver notification of intent.[14] To treat over 30 patients, providers must also complete a buprenorphine waiver training. Facilities should ensure that all obstetric providers have the opportunity to become waivered prescribers of buprenorphine.

Current resources and guidelines for MAT waiver training:
SAMHSA Find Buprenorphine Waiver Training (free online webinar and self-paced training options for MD/DO, NP/CNM, and PA)
SAMHSA Become a Buprenorphine Waivered Practitioner
ACOG Opioid Use and Opioid Use Disorder in Pregnancy Committee Opinion Number 711
Vermont Guidelines for Medication Assisted Treatment (MAT) for Pregnant Women

Key Change #7: Develop and implement a pain management plan for people with OUD focused on shared decision making
Facilities should develop and implement a pain management plan for pregnant people with OUD. Pregnant and laboring people who are on MAT should continue their maintenance dose and should also receive additional pain relief as needed, although routine opioids beyond maintenance doses for vaginal births is not recommended.[8,11] Patients should be aware of the plan to continue MAT during hospitalization to reduce anxiety. Providers should optimize non-opioid analgesics and may consider nerve blocks in consultation with an anesthesiologist.[8]

When opioids are indicated, people with OUD and those taking buprenorphine or methadone may require higher doses to achieve pain relief. Some people who are dependent on opioids may not disclose use, so agonist-antagonist medications (butorphanol, nalbuphine, and pentazocine) should be avoided due to risk of acute withdrawal.[11]

Consultation with a pain specialist and/or anesthesiologist to develop a pain management plan is recommended in settings where these services are available.[11] The patient is an integral member of the team, and shared decision making should be utilized to develop the plan. Shared decision-making tools and resources, such as the S—seek, H—help, A—assess, R—reach, E—evaluate (SHARE) approach, should be incorporated into trainings and guidelines.

To prevent future opioid-exposed pregnancies, facilities should also consider guidelines for the optimization of non-opioid pain relief for patients without a substance use disorder. Postpartum pain must be adequately treated, however, the number of opioids prescribed at discharge should be limited to prevent future opioid misuse. It is estimated that postpartum people use half of the opioids prescribed at discharge.[8] Additionally, most postpartum people do not require opioids after an uncomplicated vaginal delivery.[8] Non-opioid therapy is preferred for uncomplicated, spontaneous vaginal deliveries. When opioids are necessary, providers should prescribe the lowest effective dosage and quantity to achieve pain relief.[8]

Current resources and guidelines for pain management and shared decision making:
ACOG Opioid Use and Opioid Use Disorder in Pregnancy Committee Opinion Number 711
ACOG Postpartum Pain Management Committee Opinion Number 742
CMQCC/CPQCC Mother & Baby Substance Exposure Toolkit: Utilize shared decision making to tailor post-procedure pain control
AHRQ The Share Approach
Society for Obstetric Anesthesia and Perinatology: Consensus Statement and Recommendations for Enhanced Recovery After Cesarean

Key Change #8: Provide access to voluntary immediate postpartum contraception
All patients, including those with a SUD, should be counseled on timing of return to fertility following birth and risk of subsequent pregnancy so that they may consider contraception options and be offered voluntary immediate postpartum contraception based on results of shared decision making. Immediate postpartum contraception should be offered because as many as 10-40% of patients will not return for their postpartum visit, largely due to systemic or structural barriers to care.[15]

Long-acting reversible contraception (LARC), such as intrauterine devices (IUDs) or contraceptive implants, are recommended in the immediate postpartum period and have the potential to reduce unintended and short-interval pregnancies.[15] The United States Medical Eligibility Criteria (US MEC) for Contraceptive Use provides guidance to healthcare providers advising patients on contraception options. Based on systematic review of evidence and expert feedback, the US MEC found that initiation of LARCs (including copper IUDs, hormonal IUDs, and contraceptive implants) are safe at any time postpartum and that breastfeeding people under six weeks postpartum can generally receiving hormonal IUDs and contraceptive implants.[16] Facilities should develop and implement systems that facilitate placement of LARC after both vaginal and cesarean births, including stocking LARC devices on labor and delivery units and training obstetric providers in implant insertion and IUD placement.[15]

Current resources and guidelines for immediate postpartum contraception:
ACOG Immediate Postpartum Long-Acting Reversible Contraception Committee Opinion Number 670
Postpartum Contraception Access Initiative
Webinar: Immediate Postpartum LARC for Clinicians Doing Deliveries
US Medical Eligibility Criteria (US MEC) for Contraceptive Use, 2016

Primary Driver: Improve Discharge and Follow-up for Pregnant People and Newborns Affected by Substances

Key Change #9: Develop a Plan of Safe Care for the newborn and family

Providers should develop a Plan of Safe Care (POSC) for newborns and families affected by substances. POSC has been a requirement under the federal Child Abuse Prevention and Treatment Act since 2003. In 2016, the Comprehensive Addiction and Recovery Act (CARA) was enacted which expanded CAPTA and POSC to include infants born affected by, or experiencing withdrawal symptoms from, any legal or illegal substance including alcohol.[17] Under CARA, states are required to develop and monitor a POSC for these infants to address their safety, well-being, and the treatment needs of caregivers.[17] States are also required to provide definitions and guidance to assist facilities and providers in determining when a report or notification should be made to child protective services.[17] All providers and staff should understand their legal responsibility and should be sensitive to the consequences for the infant and family when concerns are reported to authorities.[12]

Alaska's Office of Children's Services (OCS) POSC initiative, known as Hello BABY (Building Alaska Babies with You), is currently being piloted in Juneau. While awaiting the statewide roll-out, facilities and providers may begin to develop systems and processes that facilitate continuity of care and linkages to healthcare and social services for newborns and families affected by substances. The Substance Exposed Newborns Initiative's Identification of Affected and At-Risk Newborns Plans of Safe Care tool, combined with clinician judgement, can help providers determine if a report or notification is required. As always, reports of suspected or identified harm should be made to OCS. Notification is a new category and does not initiate OCS involvement and is not an allegation of maltreatment or neglect.

A copy of the POSC should be provided to the infant's primary care provider or medical home. Parents should be given information about POSC and notification or reporting requirements, including the potential for OCS involvement. Offering a POSC for all infants regardless of level of risk may reduce discrimination and stigma for families experiencing challenges with substance use. It is important to note that POSC is voluntary, and declination of POSC by any family regardless of risk level should not be the sole reason for an OCS report.

Current resources and guidelines for POSC (this section will be updated as Alaska POSC resources are made available):

National Center on Substance Abuse and Child Welfare, Plans of Safe Care resources and online trainings

Alaska Substance-Exposed Newborns Initiative: Identification of Affected and At-Risk Newborns and Plans of Safe Care

Key Change #10: Provide referral and warm handoff to treatment, behavioral health, and community resources/wraparound supports
Facilities should develop systems and processes for referrals and warm handoffs to SUD treatment and recovery services, primary care, behavioral health services, infant developmental services, and other community resources and wraparound supports for families experiencing challenges with substance use. Linkages should also be established with community resources for home visiting, parenting and peer support programs, and food and housing assistance. When possible, referring providers should speak directly to the outpatient provider assuming care of the birth parent and infant.

To aid in the referral process, facilities should maintain a list of healthcare and community resources. This list should include resources available within the community and those that can be accessed within the region or remotely for low-resource settings. Facilities should utilize Alaska 211 and Help Me Grow Alaska as these agencies maintain lists of community and healthcare resources. Early intervention and developmental screening and support resources should be included in the list of resources and referrals. Help Me Grow Alaska's website and call center offers resources and support for both families and providers. Their family support specialists are available to help families get connected with appropriate resources and services.

Current resources for treatment and community supports:
Substance Use Disorder - Residential and Outpatient - Alaska Grantees & Private Providers
SAMHSA Buprenorphine Practitioner Locator
Traditional Health & Wellness Guide: Cultural Resources for Alaska Families
Help Me Grow Alaska
Alaska 211
Alaska Infant Learning Program and Infant Learning Program Alaska Providers Map
Alaska Women, Infant, and Children Program
Alaska Home Visiting Resource Network
Illinois PQC Coordinated Discharge Worksheet

Key Change # 11: Develop a system for scheduling early (2-week) postpartum visit prior to discharge

Facilities should develop systems for scheduling early (within 1-2 weeks) postpartum visits for people with SUD prior to discharge. ACOG[18] recommends that postpartum care start within the first 3 weeks postpartum, ongoing care should be based on individual needs, and a comprehensive visit should be provided prior to 12 weeks postpartum. The postpartum period is a vulnerable time for people with SUD, so early (within 1-2 weeks) and frequent postpartum care and support is recommended. People with SUD should be counseled on the importance of early follow-up and ongoing care with their primary provider.[18]

Current resources and guidelines for postpartum care:

ACOG Optimizing Postpartum Care Committee Opinion Number 736

NNEPQIN Toolkit for the Perinatal Care of Women with Substance Use Disorders—Chapter 14 Postpartum Care

Measurement Plan

State Surveillance Measures				
Measure Name	**Operational Definition**	**Submitted by (data source)**	**Frequency**	**Data Collection Guidance**
SS1. Percentage of newborns diagnosed as affected by maternal use of opioids or drugs of addiction	Denominator: Number of newborns during birth admission, excluding transfers Numerator: Among the denominator, those diagnosed as affected by maternal use of opioids or other drugs of addiction	State (HFDR)	Quarterly	Short-term goal is not to decrease; improved screening will likely result in increased detection and use of ICD-10 codes for affected newborns. ICD-10 codes for newborn birth admission indicating single or multiple liveborn neonate: Z38.x, Z38.xx Transfers excluded to generate a nationally comparable rate. ICD-10 codes for infants affected by maternal use of opioids or other drugs of addiction: P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction P04.49 Newborn affected by maternal use of other drugs of addiction P04.14 Newborn affected by maternal use of opioids (new in October 2018 – not frequently used in Alaska yet) Newborns limited to those under 28 days at time of admission to control for erroneous data.
SS2. Percentage of newborns diagnosed with neonatal abstinence syndrome (NAS)	Denominator: Number of newborns during birth admission, excluding transfers	State (HFDR)	Quarterly	SS2 is a subset of SS1 Short-term goal is not to decrease; improved screening will likely result in increased detection and use of ICD-10 codes for NAS.

	Numerator: Among the denominator, those diagnosed with neonatal abstinence syndrome			ICD-10 codes for newborn birth admission indicating single or multiple liveborn neonate: Z38.x, Z38.xx Transfers excluded to generate a nationally comparable rate. ICD-10 code for NAS: P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction Newborns limited to those under 28 days at time of admission to control for erroneous data.
SS3. Birthing people with opioid dependence or opioid abuse	Denominator: Number of birthing people during birth admission, excluding ectopic and miscarriages Numerator: Among the denominator, those with diagnosis of opioid dependence or opioid abuse	State (HRDR)	Quarterly	See AIM SMM Codes List for ICD-10 codes used to identify birth admission Maternal Opioid-Related ICD-10 Codes: Opioid Dependence: F11.20-F11.29 (excluding opioid dependence in remission F11.21) Non-Dependent Opioid Abuse: F11.10-F11.19 Long-term Use of Opioid Analgesics: Z79.891 Unspecified Opioid Use: F11.90-F11.99
SS4. Severe maternal morbidity	Denominator: Number of birthing people during birth admission, excluding ectopic and miscarriages Numerator: Among the denominator, cases with any SMM code	State (HFDR)	Quarterly	See AIM SMM Codes List for ICD-10 codes used to identify birth admission and SMM

Outcome Measures				
Measure Name	**Operational Definition**	**Submitted by (data source)**	**Frequency**	**Data Collection Guidance**

O1. Average length of stay for newborns diagnosed as affected by maternal use of opioids or drugs of addiction	Denominator: Number of newborns ≥35 weeks gestation diagnosed as affected by maternal use of opioids or drugs of addiction Numerator: Among the denominator, total number of hospital days	State (HFDR)	Quarterly	Length of stay calculated as admission date to discharge date. If admitted and discharged on same day, length of stay is counted as one day. Includes transferred newborns who are under 28 days old at admission at both the transferring and receiving facilities. As a result, the statewide denominator may contain duplicate cases. ≥35 weeks gestation includes absence of less than 35 week code: P07.20-P07.26, P07.31-P07.37 ICD-10 codes for infants affected by maternal use of opioids or other drugs of addiction: P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction P04.49 Newborn affected by maternal use of other drugs of addiction P04.14 Newborn affected by maternal use of opioids (new in October 2018 – not frequently used in Alaska yet)
O2. Percentage of opioid-exposed newborns requiring pharmacologic therapy	Denominator: Number of newborns ≥35 weeks gestation with opioid exposure Numerator: Among the denominator, those that received pharmacologic therapy	Hospital	Monthly	Include any newborn (≥35 weeks gestation) with opioid exposure who received care at facility, regardless of where they were born or their transfer status. Denominator identified by 1) ICD-10 codes or 2) clinical criteria (recommended if possible) 1) ICD-10 codes: P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction P04.14 Newborn affected by maternal use of opioids

				P04.49 Newborn affected by maternal use of other drugs of addiction • *Maternal opioid-use should be verified when this code is used to identify denominator cases* OR 2) Clinical criteria: All infants of mothers with opioid use disorder if mother has: • positive self-report screen or positive opioid toxicology screen during pregnancy and assessed to have OUD, or • patient endorses or reports misuse of opioids / opioid use disorder, or • using non-prescribed opioids during pregnancy, or • using prescribed opioids chronically for longer than a month in the third trimester, or • if newborn has an unanticipated positive neonatal cord, urine, or meconium screen for opioids • if newborn affected by maternal use of opioids including NAS
O3. Average number of days of pharmacologic therapy for opioid-exposed newborns	Denominator: Number of newborns ≥35 weeks gestation with opioid exposure who received pharmacologic therapy Numerator: Among the denominator, total number of days of pharmacologic therapy	Hospital	Monthly	Numerator of measure O2 as denominator.

Process Measures				
Measure Name	**Operational Definition**	**Submitted by (data source)**	**Frequency**	**Data Collection Guidance**

P1. Percentage of birthing people verbally screened for use of all substances utilizing a validated tool	Denominator: Number of birthing patients Numerator: Among the denominator, those verbally screened for substance use utilizing a validated tool prior to discharge	Hospital**	Monthly	**These data are collected by the SENI program for those facilities submitting data to the SENI program.
P2. Percentage of birthing people with opioid-use disorder (OUD) who either received or were referred to medication assisted treatment (MAT) during pregnancy or prior to discharge	A. Denominator: Number of birthing people with OUD Numerator: Among the denominator, those who received or were referred to MAT during pregnancy or prior to discharge	Hospital	Monthly	Someone who was in treatment at some point during pregnancy, but may not have been in treatment at time of delivery would still be counted here. Definition of referred: Directing a patient to a medical specialist/clinic/resource which is documented in the medical record. Denominator identified by 1) ICD-10 codes or 2) clinical criteria (recommended if possible) 1) Maternal Opioid-Related ICD-10 Codes: Opioid Dependence: F11.20-F11.29 (excluding opioid dependence in remission F11.21) Non-Dependent Opioid Abuse: F11.10-F11.19 Long-term Use of Opioid Analgesics: Z79.891 Unspecified Opioid Use: F11.90-F11.99 2) Clinical criteria: All women delivering at your hospital with: • positive self-report screen or positive opioid toxicology screen during pregnancy and assessed to have OUD, or • patient endorses or reports misuse of opioids / opioid use disorder • using non-prescribed opioids during pregnancy • using prescribed opioids chronically for longer than a month in the third trimester (This excludes

				women using opioids solely prescribed for medical conditions) • newborn has an unanticipated positive neonatal cord, urine, or meconium screen for opioids or if newborn has symptoms associated with opioid exposure including NAS Code P96.1
P3. Percentage of birthing people with OUD with documented plan/referral for postpartum care within 2 weeks	Denominator: Number of birthing patients with OUD Numerator: Among the denominator, those with a documented plan or referral for postpartum care within 2 weeks	Hospital	Monthly	See measure P2 for denominator.
P4. Percentage of buprenorphine waivered obstetric providers	Denominator: Number of obstetric providers who perform deliveries at facility Numerator: Among the denominator, those who have obtained a buprenorphine waiver	Hospital	Monthly	
P5. Percentage of providers trained in screening and brief intervention utilizing the chosen validated tool	Denominator: Number of obstetric providers who perform deliveries at facility Numerator: Among the denominator, those who have received training in screening and brief intervention utilizing the validated tool chosen by your facility	Hospital	Monthly	
P6. Percentage of nurses trained in screening and brief intervention utilizing the chosen validated tool	Denominator: Number of obstetric nurses who perform deliveries at facility Numerator: Among the denominator, those who have received training in screening and brief intervention utilizing the validated tool chosen by your facility	Hospital	Monthly	

Balancing Measure				
Measure Name	**Operational Definition**	**Submitted by (data source)**	**Frequency**	**Data Collection Guidance**
B1. Percentage of opioid-exposed newborns transferred to a higher level of care	Denominator: Number of newborns ≥35 weeks gestation with opioid exposure Numerator: Among the denominator, those transferred to a higher level of care	Hospital	Monthly	Include transfers within the facility (to NICU care) and facility-to-facility transfers. See measure O2 for denominator.

Structure Measures				
Measure Name	**Operational Definition**	**Submitted by (data source)**	**Frequency**	**Data Collection Guidance**
S1. Guideline for screening all birthing patients for use of all substances utilizing a validated tool	Date your facility fully implemented a guideline for screening all patients for substance use utilizing a validated tool around the time of birth	Hospital	Once	
S2. Guideline for pain management for pregnant and birthing people with OUD	Date your facility fully implemented pain management guidelines for	Hospital	Once	

	pregnant and birthing people with OUD			
S3. Guideline for risk-based newborn toxicology testing	Date your facility fully implemented a guideline for risk-based newborn toxicology testing	Hospital	Once	
S4. Guideline for voluntary access to immediate postpartum contraception for all patients	Date your facility fully implemented a guideline for universal access to immediate postpartum contraception	Hospital	Once	

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