

## Summary of Articles Featured in the Special Issue in the *Maternal and Child Health Journal* on Public Health Approaches to Perinatal Substance Use



### INTRODUCTORY PAPERS

#### **Public Health Approaches to Perinatal Substance Use: An Overview of Strategic Directions ([Article Link](#))**

**Authors:** Amani Echols, Stacy Collins, Sanaa Akbarali, Ramya Dronamraju, Keriann Uesugi

**Summary:** The special issue of the *Maternal and Child Health Journal* on public health approaches to perinatal substance use builds on the evidence base, with 21 open access articles that feature the latest research, program, and policy initiatives in perinatal substance use disorder (SUD). Echols et al. (2023) identified five strategic directions, derived from the articles in the journal, for addressing perinatal SUD including advocating for removing silos to care and promoting collective action on behalf of pregnant and postpartum women with SUD.

#### **Promoting Innovation in State and Territorial Maternal and Child Health Policymaking ([Article Link](#))**

**Authors:** Sanaa Akbarali, Ramya Dronamraju, Jessica Simon, Amani Echols, Stacy Collins, Betsy Kaeberle, Attya Chaudhry

**Summary:** The Association of Maternal & Child Health Programs (AMCHP) and the Association of State and Territorial Health Officials (ASTHO) launched the PRISM (Promoting Innovation in State and Territorial MCH Policymaking) Learning Community, funded by the Health Resources and Services Administration, Maternal and Child Health Bureau. The goal of PRISM was to build the program and policy-making capacity of state and territorial health agencies to address substance use and mental health in perinatal populations. PRISM learning community states identified four key priorities to inform their work going forward: leveraging multisector collaborations, supporting equitable screening practices, developing the perinatal behavioral health workforce, and exploring opportunities to enhance Medicaid coverage for perinatal SUD.

### ASSESS THE STATE OF PERINATAL BEHAVIORAL HEALTH

**Prenatal Substance Exposure and Neonatal Abstinence Syndrome: State Estimates from the 2016-2020 Transformed Medicaid Statistical Information System ([Article Link](#))**

**Authors:** Kristina D. West, Mir M. Ali, Martin Blanco, Brenda Natzke, Linda Nguyen

**Summary:** This study utilizes data from the 2016-2020 Transformed Medicaid Statistical Information System (T-MSIS) to estimate neonatal abstinence syndrome (NAS) and prenatal substance exposure rates in the Medicaid population. Key findings include a national decline in NAS rates and increased prenatal substance exposure rates, with considerable state-level variation. The data suggest that substances beside opioids are impacting the observed trend.

**Substance Use Disorder-Related Deaths and Maternal Mortality in New Mexico, 2015-2019 ([Article Link](#))**

**Authors:** Jessie R. Fuchs, Melissa A. Schiff, Eirian Coronado

*This paper is affiliated with the New Mexico Department of Health.*

**Summary:** This study from the New Mexico Department of Health analyzes risk factors related to substance use patterns and explores SUD-related maternal mortality findings in New Mexico from 2015-2019. Postpartum people with SUD-related deaths were more likely to die within 43-365 days after delivery compared to postpartum people with non-SUD-related deaths. Amphetamines were identified as the most used substance at time of death, and researchers noted that in most instances, postpartum people engaged in polysubstance use.

**Demographics, Birth Parameters, and Social Determinants of Health among Opioid-Exposed Mother-Infant Dyads Affected by Neonatal Abstinence Syndrome in Pennsylvania, 2018-2019 ([Article Link](#))**

**Authors:** Caryn M. Decker, Mohsin Mahar, Callie L. Howells, Zhen-qiang Ma, Carrie Thomas Goetz, Sharon M. Watkins

*This paper is affiliated with the Pennsylvania Department of Health.*

**Summary:** This study from the Pennsylvania Department of Health characterizes demographics, birth parameters, and social determinants of health among mother-infant dyads affected by neonatal abstinence syndrome (NAS) in Pennsylvania. Using surveillance data, birth record data, and local social determinants of health data, the researchers modeled the association between maternal characteristics, birth parameters, social determinants of health, and NAS. Results of the study demonstrate inequity in prenatal care receipt among mothers of infants with NAS.

**Evaluation of Administrative Data for Identifying Maternal Opioid Use at Delivery in Florida ([Article Link](#))**

**Authors:** Amanda L. Elmore, Jason L. Salemi, Russell S. Kirby, William W. Sappenfield, Joseph Lowry, Ashley Dixon, Heather Lake-Burger, Jean Paul Turner

**Summary:** This cross-sectional study by the Florida Birth Defects Registry evaluates the accuracy of maternal opioid-related diagnosis codes (ICD-10-CM diagnoses). Researchers noted high accuracy,

however, the findings indicate that maternal opioid use may be greatly underreported, as over 30 percent of mothers with confirmed opioid use at delivery did not receive an opioid-related diagnosis. This study provides information on the utility and accuracy of ICD-10-CM opioid-related codes at delivery among mothers of infants with NAS.

## BUILD A DIVERSE AND CULTURALLY COMPETENT PERINATAL BEHAVIORAL HEALTH WORKFORCE

### **Doula Support Program: A reflection on the development and implementation of a program supporting women and birthing people affected by Substance Use Disorder ([Article Link](#))**

**Authors:** Nadia Haerizadeh-Yazdi, My-Phuong Huynh, Arielle Narva, Amirah Grasty, MaryNissi Lemon, Nick Claxton, Kelly Gillespie, Stacey Kallem

*This paper is affiliated with the Philadelphia Department of Public Health.*

**Summary:** This article describes the early successes and challenges of the Philadelphia Department of Health’s Doula Support Program, which provides one year of postpartum doula care for birthing people with SUD. The following were identified as early successes: partnering with local community-based programs to recruit and retain doulas, incorporating perinatal SUD-specific training into traditional doula education, and maximizing client referrals by collaborating with local organizations and treatment centers. The primary challenge reported was client retention. The DSP can serve as a model for other state and local health departments interested in providing doula care for birthing people with SUD.

## INTEGRATE PERINATAL AND BEHAVIORAL HEALTH CARE SERVICES

### **Early insights into implementation of universal screening, brief intervention, and referral to treatment for perinatal substance use ([Article Link](#))**

**Authors:** Sarah E. Reese, Annie Glover, Stephanie Fitch, Joe Salyer, Valerie Lofgren, Clayton “Tersh” McCracken III

*This paper is affiliated with the Montana Department of Health and Human Services.*

**Summary:** This study explores the implementation of universal screening, brief intervention, and referral to treatment (SBIRT), a systems-level approach to addressing perinatal substance use, in an outpatient obstetric clinic in Billings, Montana. The following factors were identified as implementation barriers: (1) lack of time and competing priorities during visits, (2) delays in integrating SBIRT into the electronic health record, (3) staff education and utilization, (4) challenges with coordination, (5) impact of SUD, and (6) the impact of the COVID-19 pandemic. Recommendations resulting from this initiative include investing resources in intensive training and ongoing coaching for providers; and adopting strategies to track the frequency and fidelity of SBIRT implementation in clinic settings.

### **Lessons Learned Serving Pregnant and Parenting People with Substance Use Disorder in Massachusetts: The Moms Do Care Program ([Article Link](#))**

**Authors:** Laura Sternberger, Amy Sorensen-Alawad, Telyia Prescott, Hibiki Sakai, Kayla Brown, Norma Finkelstein, Amy Salomon, Davida M. Schiff

*This paper is affiliated with the Massachusetts Department of Public Health.*

**Summary:** The Moms Do Care (MDC) program is a multidisciplinary peer-led approach to support pregnant, postpartum, and parenting people with a history of substance use and their families. The program prioritizes trauma-informed integrated care and peer recovery, and addresses inequities, stigma, and the impact of structural racism on behavioral health access. MDC is a model for those working to build community-based multidisciplinary, integrated systems of health care and SUD services for the perinatal population.

### **Group Well Child Care for Mothers with Opioid Use Disorder: Framework for Implementation ([Article Link](#))**

**Authors:** Neera Goyal, Meghan Gannon, Erica Sood, Grace Harris, Elizabeth Franko, Diane J. Abatemarco, Dennis J. Hand, Susan Leib, Vanessa L. Short

**Summary:** This qualitative study investigates barriers and facilitators to the group well child care framework for mothers with opioid use disorder (OUD). Implementation barriers included intervention complexity and difficulty, loss of privacy and increased exposure to COVID-19. Six themes were uncovered as implementation facilitators: focus on parental OUD and recovery, peer support, accessibility and coordination of care, clinician skill and expertise in parental OUD, increased time for patient care, and continuity of care.

### **Postpartum Hepatitis C Linkage to Care Program in a Co-located Substance Use Disorders Treatment Model ([Article Link](#))**

**Authors:** Aneesha Cheedalla, Katherina Hinely, Lauren Roby, O. Trent Hall, Carlos Malvestutto, Kara M. Rood

**Summary:** This study assesses a Hepatitis C Virus (HCV) linkage to care (LTC) program for postpartum people with HCV. The LTC model aims to reduce barriers to obtaining HCV treatment for eligible postpartum patients in a co-located obstetric and SUD program. Between December 2020 and July 2022, The HCV LTC team identified 34 patients with HCV who were eligible for treatment, assisted 55 percent in obtaining necessary laboratory and liver imaging requirements, and connected 15 of those patients to HCV treatment. Barriers to treatment included completion of necessary laboratory and liver imaging requirements, securing childcare, and transportation. The program was successful in treating postpartum patients for HCV if they participated in the co-located obstetric and SUD program.

## **ADVANCE NON-PUNITIVE AND HARM REDUCTION APPROACHES**

### **Three-year custody outcomes among infants investigated by child protection systems for prenatal substance exposure in California ([Article Link](#))**

**Authors:** Julia Reddy, Lindsey Palmer, Emily Putnam-Hornstein

**Summary:** This study analyzes involvement and custody outcomes among infants investigated by child protection systems (CPS) with or without documented prenatal substance exposure (PSE). Researchers linked birth records to CPS records to estimate the likelihood of a child being in nonparental custody at age three. Children who had documentation of PSE were 2.2 times as likely to be in nonparental placement at age 3.

**Prescribed and penalized: The detrimental impact of mandated reporting for prenatal utilization of medication for opioid use disorder ([Article Link](#))**

**Authors:** Erin C. Work, Serra Muftu, Kathryn Dee L. MacMillan, Jessica R. Gray, Nicole Bell, Mishka Terplan, Hendree E. Jones, Julia Reddy, Tomothy E. Wilens, Shelly F. Greenfield, Judith Bernstein, Davida M. Schiff

**Summary:** Massachusetts' policy requires automatic filing of child abuse and neglect for substance-exposed newborns, including exposure to clinician-prescribed medications to treat opioid use disorder (MOUD). This study examines the effects of these mandated reporting policies on pregnant and postpartum people receiving MOUD through 26 semi-structured interviews with postpartum individuals with opioid use disorder (OUD). Researchers identified three themes: 1) mothers perceive mandated reporting as discriminatory, unjust, and stigmatizing, 2) mandated reporting causes anxiety, stress, and negatively impacts family health, and 3) medical decisions by pregnant and postpartum people with OUD were influenced by the statewide mandated reporting policy. The authors advocate for a shift from surveillance and stigma to evidence-based treatment and access to supportive services and resources.

**An implementation evaluation of the Comprehensive Addiction Recovery Act (CARA) policy in New Mexico ([Article Link](#))**

**Authors:** Nicholas Sharp, Jessi Fuchs, Amy Drake

*This paper is affiliated with the New Mexico Department of Health.*

**Summary:** In 2019, New Mexico passed state legislation to provide nonpunitive supportive care for pregnant people affected by substance use, including a required plan of safe care (PoSC) for all newborns with substance exposure and care coordination for families with a PoSC. This report evaluates the fidelity with which the policy has been implemented using program reports, family surveys, Medicaid claims data, and the state PoSC database. The evaluation found that families were not engaged consistently in developing a PoSC, often felt judged by medical staff, and felt that the time-period immediately after delivery was not the optimal time to discuss the PoSC. Program funding, limited system capacity, lack of systematic screening for perinatal substance use, regional differences in access to care, and provider biases affected healthcare workers' ability to identify at-risk families and develop a PoSC.

**They Will Never Forget How You Made Them Feel: Implementing Harm Reduction in the Perinatal Setting ([Article Link](#))**

**Authors:** Joelle Puccio

**Summary:** This commentary, written by the Director of Education at the Academy of Perinatal Harm Reduction, describes the harm reduction framework and opportunities to implement harm reduction practices in the perinatal setting. The author describes perinatal harm reduction as a critical component of reproductive justice and clarifies misconceptions about harm reduction. The author concludes with recommendations for providers, health systems, and policymakers, including do no harm, promote respect and eliminate stigma, support patient goals and timelines, and address social determinants of health and root causes of perinatal substance use.

## **FACILITATE CHANGE BY STRENGTHENING SYSTEMS OF CARE FOR PERINATAL PEOPLE WITH SUBSTANCE USE DISORDER**

### **Strengthening the System Supporting Perinatal People with Substance Use Disorder in the Midwest Using Group Model Building ([Article Link](#))**

**Authors:** Jessica Simon, Isabella Guynn, Meagan Thompson, Sarah Hambright, Cresta Jones, Kristen Hassmiller Lich

**Summary:** The National Maternal and Child Health Workforce Development Center facilitated a system-strengthening process utilizing group model building (GMB) with the Midwest Substance Use in Pregnancy (SUPper) Club, a regional collaborative of health care providers, state public health agencies, and community-rooted organizations. Three causal loop diagrams (CLDs) were created to capture the interconnected dynamics of the Midwest perinatal SUD system and four priorities for action emerged. The GMB process effectively strengthened collaboration and advanced strategic planning for the SUPper Club and can be further utilized across MCH systems to create shared mental models and accelerate collaborative planning efforts.

### **Improving reproductive health communication between providers and women affected by homelessness and substance use in San Francisco: Results from a community-informed workshop ([Article Link](#))**

**Authors:** Erin E. Wingo, Sara J. Newmann, Deborah E. Borne, Brad J. Shapiro, Dominika L. Seidman

**Summary:** Using participatory research methods, the authors developed a workshop for San Francisco-based medical and social service providers to improve reproductive counseling for women experiencing homelessness and/or who use substances, in collaboration with a community and provider stakeholder group. Results of the workshop indicate that community-informed workshops such as the one described can reduce provider bias and increase provider empathy and confidence.

### **The Effect of Maternal Adverse Childhood Experiences (ACEs) on Substance Use During Pregnancy ([Article Link](#))**

**Authors:** Shae Duka, Sadeea Rahman, Susan E. Hansen, Debra Esernio-Jenssen

**Summary:** This retrospective cohort study analyzes adverse childhood experiences (ACEs) among mothers of newborns referred to a hospital's child protection team (CPT) for suspected substance exposure. Researchers found a higher prevalence of mothers referred to the CPT had  $\geq 4$  ACEs than the

general population (50.9% vs. 15.2%) and 85 percent of those referred to CPT reported prenatal substance use. There was a statistically significant association between prenatal substance use and ACEs in the household challenges category, especially parental separation or divorce. Routine prenatal ACEs screening and universal, nonpunitive toxicology testing of infants and mothers at birth may provide opportunities for intervention while reducing the transgenerational impact of ACEs.

**Investigating the Role of Race and Stressful Life Events on the Smoking Patterns of Pregnant and Postpartum Women in the United States: A Multistate Pregnancy Risk Assessment Monitoring System Phase 8 (2016–2018) Analysis ([Article Link](#))**

**Authors:** Rauta Aver Yakubu, Kobi J. Ajayi, Shubecchha Dhaurali, Keri Carvalho, Anna Kheyfets, Blessing Chidiuto Lawrence, Ndidiama Amutah-Onukagha

**Summary:** This study examines the impact of race and stressful life events on the smoking patterns of pregnant and postpartum women in the United States. The study utilized survey data from the Pregnancy Risk Assessment Monitoring System Phase 8 (2016-2018) in Connecticut, Louisiana, Massachusetts, Missouri, and Wisconsin. Researchers found a significant association between all stressful life events and smoking during pregnancy. The interaction effect between race and stressful life events on smoking yielded varied results. Additionally, women who smoked during pregnancy or the postpartum period were more likely to experience maternal morbidity than those who did not smoke.

**Reducing fear to help build healthy families: Investing in Non-Punitive Approaches to Helping People with Substance Use Disorder ([Article Link](#))**

**Authors:** Karen A. Scott, Maridee Shogren, Kenneth Shatzkes

**Summary:** The commentary by the Foundation for Opioid Response Efforts, a national grantmaking philanthropy focused on addressing the opioid crisis, shares lessons from its grantees' efforts to expand access to substance use treatment and recovery supports for pregnant and parenting people. The commentary highlights the work of University of North Dakota's "Don't Quit the Quit" program, which supports postpartum people in recovery and trains health care providers, postpartum doulas, and WIC staff on effective perinatal substance use treatment options. Authors share their framework for building accessible systems for those seeking treatment: expanding opioid use disorder (OUD) training for perinatal providers, engaging and supporting trusted organizations and community-based services, and clarifying child welfare reporting rules.

**A Different Vision: Centering Love Not Punishment for Families Affected by Substance Use ([Article Link](#))**

**Authors:** Kimá Joy Taylor

**Summary:** This commentary by Dr. Kimá Joy Taylor, Managing Principle at Anka Consulting, advocates for building new systems of care based on a wellness framework for families affected by substance use. Key steps for achieving this vision include partnering with impacted populations, funding and supporting policy implementation and evaluation, training on providing respectful maternity care, diversifying the behavioral health workforce, and holding systems accountable. The author calls for policies that provide the health and social support all families need to thrive.

**DISCLAIMER**

The views expressed in this publication are solely the opinions of the authors and do not necessarily reflect the official policies of the U.S. Department of Health and Human Services or the Health Resources and Services Administration, nor does mention of the department or agency names imply endorsement by the U.S. Government. The views expressed in this publication are solely the opinions of the authors and do not necessarily reflect the official policies of the Association of Maternal & Child Health Programs (AMCHP) or the Association of State and Territorial Health Officials (ASTHO), nor does mention of the organizations' names imply endorsement by AMCHP or ASTHO.