



A Public Health Response to Opioid Use in Pregnancy

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The use of opioids during pregnancy has grown rapidly in the past decade. As opioid use during pregnancy increased, so did complications from their use, including neonatal abstinence syndrome. Several state governments responded to this increase by prosecuting and incarcerating pregnant women with substance use disorders; however, this approach has no proven benefits for maternal or infant health and may lead to avoidance of prenatal care and a decreased willingness to engage in substance use disorder treatment programs. A public health response, rather than a punitive approach to the opioid epidemic and substance use during pregnancy, is critical, including the following: a focus on preventing unintended pregnancies and improving access to contraception; universal screening for alcohol and other drug use in women of childbearing age; knowledge and informed consent of maternal drug testing and reporting practices; improved access to comprehensive obstetric care, including opioid-replacement therapy; gender-specific substance use treatment programs; and improved funding for social services and child welfare systems. The American College of Obstetricians and Gynecologists supports the value of this clinical document as an educational tool (December 2016).

INTRODUCTION

Substance use during pregnancy occurs commonly in the United States. In 2009, the Substance Abuse and Mental Health Administration estimated that 400 000 infants each year are exposed to alcohol or illicit drugs in utero.¹ Although concern regarding substance use in pregnancy is not new, it has recently increased among health care providers, the public, and policy makers as the opioid epidemic's impact reached an increasing portion of the US population, including pregnant women and their infants.^{2,3} Several recent studies highlighted an increase in prescription opioid use among women of childbearing age⁴ and among pregnant women.^{5,6} As opioid use among pregnant women increased, the rate of infants in the United States experiencing opioid withdrawal after

abstract

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birth, known as neonatal abstinence syndrome (NAS), grew nearly fivefold over the past decade.^{2,7} By 2012 in the United States, on average, 1 infant was born every 25 minutes experiencing signs of withdrawal, accounting for an estimated \$1.5 billion in hospital charges.² The issues surrounding substance use in pregnancy are complex and merit a thoughtful public health response focused on prevention, expansion of treatment to women with substance use disorder, and improved funding for child welfare systems to improve the health of the substance-exposed mother-infant dyad.

Primary Prevention

A public health approach to substance use in pregnancy should begin with primary prevention: preventing substance and opioid misuse before pregnancy. In 2011, the White House Office of National Drug Control Policy released a plan to respond to the prescription opioid epidemic that has 4 main pillars: (1) improve public and provider education about the abuse potential of opioids, (2) reduce the abuse of prescription opioids by bolstering prescription drug monitoring programs, (3) ensure that unused opioids are properly disposed, and (4) provide law enforcement with the tools needed to stop illegal prescribing or dispensing of opioids.⁸ Public health and policy approaches to the prescription opioid epidemic will help eliminate the burden of opioid use disorder before pregnancy begins.

Preconception and interconception (between pregnancies) care plays an important role in improving outcomes for pregnant women. Counseling during these crucial periods may play a role in identifying and mitigating risk to mothers and their infants.⁹ Although 31% to 47% of US pregnancies are unintended, research suggests that, for women with opioid use disorder,

the proportion of unintended pregnancies was higher than 85%.¹⁰ Education and expansion of access to effective contraception, particularly long-acting reversible contraception (LARC) methods,¹¹ are important components of primary prevention. Access to LARC methods is supported by both the American Academy of Family Physicians (AAFP) and the American College of Obstetricians and Gynecologists (ACOG)^{12,13} during both the pre- and interconception periods. However, there remain barriers to highly effective contraception in many states. For example, the ACOG supports placement of LARC devices during the immediate postpartum period to improve the use of LARC among postpartum women¹³; however, bundled payments for delivery create a relative financial disincentive to place LARC devices at the time of delivery. State Medicaid programs play a critical role in ensuring access to highly effective contraception at the time when it is desired, including the time of delivery. However, recent research suggests that states are variable in aligning financial incentives to ensure access to LARC methods if elected at the time of delivery.¹⁴

Improved Identification and Access to Treatment

The early identification of women who use illicit substances during pregnancy is vital to improving outcomes for both mothers and infants. Routine universal screening through brief questionnaires for drug, alcohol, and tobacco use before and throughout pregnancy is recommended by the ACOG and AAFP.^{9,15,16} The ACOG recommends that screening consist of a mutual dialogue between clinician and patient and be performed in partnership with the woman with the use of validated screening tools,^{17,18} with her consent, and screening should be applied equally to all

women, regardless of their age, race, ethnicity, or socioeconomic status.¹⁹

The benefits of drug testing in addition to screening during pregnancy remain uncertain. Targeted urine drug-testing programs have been shown to disproportionately affect low-income women of racial or ethnic minorities,²⁰⁻²³ prompting some to develop universal urine toxicology testing protocols at the time of delivery.²⁴ Although urine toxicology tests can provide objective evidence of drug use at 1 point in time, they do not enable providers to determine the frequency of use or to characterize the frequency or degree of use.^{25,26} Studies comparing the difference between verbal screening and urine drug testing are mixed; 1 study found superior identification with verbal screening and another identified individuals with positive urine drug test results who were not previously known to have used opioids.^{17,24} Consistent with ACOG policy, informed consent should occur at the time of drug testing and a woman should be informed how a positive test result will be used for both medical treatment and reporting to child welfare agencies.¹⁹

Drug screening and testing in pregnancy should be used to identify women with substance use disorder and enable access to comprehensive treatment. Access to comprehensive prenatal care and treatment of women with substance use disorders is associated with fewer preterm deliveries, small-for-gestational-age infants, and infants with low birth weight.²⁷⁻³⁰ The literature suggests that pregnancy can motivate women with substance use disorders to seek treatment.³¹ However, there remains a dearth of comprehensive treatment programs geared toward pregnant and parenting women. Only 19 states have treatment programs specifically designed for pregnant women.³² Furthermore, only 15% of current treatment centers across

the country offer specific services for pregnant women with substance use disorders, and the majority of these are located in urban areas.³³ Women with substance use disorder report high rates of past trauma, including physical and sexual abuse, and need access to gender-specific, family-friendly addiction treatment programs, psychosocial services, and mental health treatment.^{34–36} Trauma-informed services should be framed by an understanding of the effects of interpersonal violence and victimization of women with substance use disorders, with a focus on creating a strengths-based environment to foster resiliency and to minimize the possibility of retraumatization.³⁷ In addition, pregnant and parenting women are likely to remain in treatment if on-site child care and child services are provided and staff work to develop collaborative and nonjudgmental therapeutic alliances through the use of trauma-informed care approaches.^{38,39} Positive outcomes of treatment in pregnant and parenting women who complete treatment programs include employment, less engagement in criminal activity, and lower risk of relapse.^{40,41}

For women with opioid use disorder, the abrupt discontinuation of opioids in pregnancy can result in preterm labor, fetal distress, or fetal demise. Furthermore, medically supervised withdrawal from opioids in opioid-dependent women is currently not recommended during pregnancy, because the literature suggests that withdrawal is associated with high relapse rates.¹⁶ Opioid agonist therapy, also known as medication-assisted treatment, with methadone or buprenorphine has emerged as the standard for pregnant women with opioid use disorder.⁴² Opioid agonist therapy has been shown to be safe and effective in pregnancy^{16,43,44} and is associated with improved maternal and infant outcomes.^{45,46}

Knowledge of substance use during pregnancy is vital to the pediatrician's ability to effectively provide care for substance-exposed infants. For example, exposure to opioids in utero may lead to an infant developing NAS. The presentation of NAS may be delayed for several days depending on several factors (eg, timing of maternal drug use, drug type, infant metabolism),⁴⁷ and clinical signs of NAS can be vague (eg, irritability, poor feeding). Each of these factors creates the possibility that a diagnosis of NAS may be missed without the knowledge of opioid exposure, potentially leading to poor outcomes for infants.⁴⁷ Teamwork between all health care providers, including but not limited to obstetric, pediatric, family, and addiction medicine, is vital to optimal care of substance-exposed infants. When inadequate information about drug exposure exists, testing an infant's urine, meconium, or umbilical cord tissue can be important in ensuring the optimal care of the infant.

Criminal Justice Approaches to Substance Use in Pregnancy

In recent years, a number of state legislatures have passed new laws or applied existing child endangerment laws to prosecute pregnant women for illicit drug use during pregnancy.^{32,48} The American Academy of Pediatrics (AAP) first published recommendations on substance-exposed infants in 1990 and reaffirmed its position in 1995 that "punitive measures taken toward pregnant women, such as criminal prosecution and incarceration, have no proven benefits for infant health" and argued that "the public must be assured of nonpunitive access to comprehensive care that meets the needs of the substance-abusing pregnant woman and her infant."^{49,50}

More than 20 national organizations have since published statements against the prosecution and

punishment of pregnant women who use illicit substances: these include the American Medical Association, the AAFP, the ACOG, the American Public Health Association, the American Nurses Association, the American Psychiatric Association, the National Perinatal Association, the American Society of Addiction Medicine, the March of Dimes, and the Association of Women's Health, Obstetric and Neonatal Nurses.^{51–60} Despite the strong consensus from the medical and public health communities affirming that a punitive approach during pregnancy is ineffective and potentially harmful, there has been a recent increase in the number of states passing and considering criminal prosecution laws that selectively target pregnant women with substance use disorders.^{61–63}

The existing literature supports the position that punitive approaches to substance use in pregnancy are ineffective and may have detrimental effects on both maternal and child health. Qualitative research performed in pregnant women with substance use disorders shows that women may avoid prenatal care for fear of being reported to the police and child protective services.^{23,64–66} In addition, surveys of pregnant women found that punitive laws targeted at pregnant women who use drugs are a significant deterrent to obtaining regular prenatal care and agreeing to drug testing,⁶⁷ and women who deliver without receiving any prenatal care are more likely have a history of substance use.⁶⁸ For these reasons, the AAP supports an approach toward substance use in pregnancy that focuses on a public health approach of primary prevention, improving access to treatment, and promoting the provider-patient relationship rather than punitive measures through the criminal justice system.

Role of Child Welfare Systems

The Child Abuse Protection and Treatment Act mandates that states have in place “policies and procedures to address the needs of infants born with and identified as being affected by illegal substance abuse or withdrawal symptoms from prenatal drug exposure.”⁶⁹ Reporting requirements for in utero illicit substance exposure to child welfare systems have been interpreted differently by each state. More than 25% of states currently have statutes that consider illicit substance use during pregnancy to be reportable as child abuse or neglect.³² Health care providers caring for pregnant women with substance use disorders and their infants should be knowledgeable about their state requirements and be able to educate women during pregnancy. Notably, although the incidence of NAS has increased in recent years,^{2,7} federal funding for child welfare systems has not changed,⁷⁰ even as some state child welfare systems are reporting an increased workload attributable to NAS.⁷¹ In recent years, Congress has addressed the issue of substance-exposed infants in child welfare systems; however, there has not been a substantial increase in funding to state child welfare systems to bolster the response to the growing number of opioid-exposed infants. There is an urgent need for improved funding to child welfare systems to ensure the safety of infants and to promote the well-being of families.

RECOMMENDATIONS

Opioid use in pregnancy is increasingly common, with an associated increase in opioid-exposed infants. This critical public health issue demands a public health approach grounded in science. For these reasons, the AAP recommends the following:

1. The treatment of pregnant women with substance use disorder requires a coordinated, evidence-based, public health approach. The AAP reaffirms its position that punitive measures taken toward pregnant women are not in the best interest of the health of the mother-infant dyad.
2. Primary prevention strategies should be bolstered to educate the public about the addictive potential of prescription opioids and enhance access to reproductive health services, including effective forms of contraception such as LARC.
3. The ACOG policy that universal substance use screening of all pregnant women via validated screening tools such as questionnaires should occur at routine health care visits and at several points throughout prenatal care and be applied equally to all women, regardless of age, race, ethnicity, or socioeconomic status, should be supported. If urine drug testing is performed, a reasonable effort to obtain a woman’s informed consent should be made before collecting the sample, and the woman should be aware of the results and who will have access to the results.
4. Access should be improved to comprehensive prenatal care for pregnant women with substance use disorders, including medication-assisted treatment and gender-specific substance use treatment programs that provide nonjudgmental, trauma-informed services.
5. Health care providers caring for women who use substances during pregnancy should be knowledgeable about their state’s reporting mandates around illicit drug use and educate pregnant women prenatally about these requirements. In addition, states should clarify which substances constitute mandated reporting and explicitly define the health care provider’s role in reporting.
6. To adequately ensure the safety of substance-exposed infants and to provide optimal care to families, social support services and child welfare systems are in need of additional funding.

The American College of Obstetricians and Gynecologists supports the value of this clinical document as an educational tool (December 2016).

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ABBREVIATIONS

AAFP: American Academy of Family Physicians
 ACOG: American College of Obstetricians and Gynecologists
 LARC: long-acting reversible contraception
 NAS: neonatal abstinence syndrome

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