

## **Prenatal Alcohol Exposure & Fetal Alcohol Spectrum Disorders: Prevention & Support**

### **Executive Summary**

Prenatal alcohol exposure (PAE) can lead to a spectrum of physical, cognitive, behavioral, and neurodevelopmental disabilities known as Fetal Alcohol Spectrum Disorders (FASD). These lifelong conditions pose significant challenges for individuals, families, and society. This paper examines the current landscape of PAE prevention efforts, highlighting effective strategies, persistent challenges, and promising future directions, as well as provides recommendations and resources for those impacted by FASD, their families, and the professionals that work with them.

### **Introduction & Background**

Fetal Alcohol Spectrum Disorders (FASD) represent a range of effects that can occur when alcohol is consumed during pregnancy. Decades of research indicates that alcohol use during pregnancy can pose significant health risks to fetal development. These may include growth deficiencies, facial abnormalities, intellectual disabilities, learning difficulties, and problems with attention, memory, and social interactions. PAE is the leading cause of preventable birth defects and developmental disorders in the United States. There is no known safe amount of alcohol, type of alcohol, or timing of alcohol use during pregnancy (CDC, 2023).

Alcohol readily crosses the placenta, and the developing fetus lacks the ability to effectively metabolize it, resulting in higher and prolonged exposure (Gupta et al., 2016). This exposure can interfere with the normal development of the brain and other organs, leading to a range of physical, cognitive, and behavioral problems. The severity of these effects can vary depending on the timing, frequency, and amount of alcohol consumption during pregnancy (Chung et al., 2021).

Early and consistent prenatal care for pregnant people, as well as universal screening for early identification of PAE and intervention, are crucial for preventing adverse outcomes. In addition, for those children impacted, obtaining an early and accurate FASD diagnosis allows for timely intervention, which can significantly improve developmental outcomes and quality of life. By identifying PAE/FASD, professionals, caregivers, and providers can implement tailored support strategies, including specialized educational programs, behavioral therapies, and family support services to address these challenges.

### **Prevalence & Impact**

FASD is common and costly: prenatal alcohol exposure and FASD are major public health concerns due to the worldwide prevalence and extensive resources required for management and support. Within the United States, prevalence rates suggest that FASD affects 1% to 5% of school-aged children, with higher rates observed in certain high-risk groups (May, 2014). The lifelong challenges associated with FASD place a significant economic burden on individuals, families, and society. People with an FASD typically require life-long assistance and are at higher risk for educational challenges, involvement in the justice system, high healthcare utilization,

homelessness, substance use, difficulty maintaining employment, and mental health challenges (Popova et al., 2019). Costs associated with healthcare, special education, social services, and lost productivity are substantial.

Therefore, in addition to its impact on individuals and families, FASD has social and economic implications for every major system in the country: legal, justice, education, health, human services, housing and employment. Investing in prevention programs, early intervention services, and comprehensive support systems can reduce the incidence and impact of prenatal alcohol exposure. With appropriate diagnosis and treatment, community support, and specialized care, people affected by FASD can reach their full potential.

### **Current Challenges**

FASD remains a major public health concern due to a variety of factors impacting progress in screening, prevention, identification of those impacted, and treatment. Approximately 54% of women of childbearing age report alcohol use (CDC, 2023), while 41% of pregnancies across the U.S. are estimated to be unplanned (Rossen et al., 2023). In total, approximately 3.3 million people are at risk for an alcohol exposed pregnancy in the United States (Gosdin et al., 2022).

While significant advancements in medical research and public health education have been made, there continues to be a troubling lack of public awareness regarding prenatal alcohol exposure and its severe consequences, including FASD. Therefore, some people continue to consume alcohol during their pregnancy, despite the well-documented risks. Reasons for continued alcohol use in pregnancy are diverse. A significant factor is the lack of awareness or understanding about the dangers of prenatal alcohol exposure, often due to insufficient public health education and inconsistent advice from healthcare providers (Taylor et al., 2023). Additionally, societal and cultural norms can play a role, where alcohol consumption is a routine part of social interactions and celebrations, leading to unintentional exposure before pregnancy was known. Psychological factors, such as stress, anxiety, and depression, may also lead to alcohol use as a coping mechanism. Finally, alcohol use disorders can make it challenging for some women to abstain from alcohol, even when they are aware of the risks.

The American College of Obstetricians and Gynecologists (ACOG), the Centers for Disease Control and Prevention (CDC), and the U.S. Preventive Services Task Force (USPSTF) all advocate for routine screening of alcohol use in pregnant people as part of standard prenatal care. Despite this, only 80% of pregnant people reported screening for alcohol use at their last visit to their healthcare provider. Of those screened, just 25% were provided with health education on the risks of prenatal alcohol exposure (CDC, 2023). Opportunities for healthcare providers to screen for alcohol use and educate patients on the risks of PAE (brief intervention) are missed due to a number of factors: time restraints in clinic visits, poor reimbursement for services, lack of standardized screening tools assessing alcohol use during pregnancy, limited provider awareness on the need for screening and brief intervention, reduced confidence in providing this intervention, as well as provider stigma and/or fear about asking questions that may hinder the provider-patient relationship. Socioeconomic factors, such as limited access to specialized healthcare services and disparities in healthcare delivery, further exacerbate these screening challenges.

Diagnosing Fetal Alcohol Spectrum Disorders (FASD) presents significant challenges as well, due to the complex and often subtle nature of its manifestations. Unlike other congenital conditions, FASD lacks a single definitive test, relying instead on a comprehensive assessment of physical, cognitive, and behavioral symptoms, which can vary widely among affected individuals. Additionally, accurate diagnosis is often hindered by incomplete or unreliable maternal alcohol consumption histories, as stigma and recall bias can lead to underreporting. The overlap of FASD symptoms with other developmental disorders, such as ADHD and autism spectrum disorder, adds another layer of complexity, making differential diagnosis challenging.

Of great concern, there are very few trained diagnostic providers and a dearth of diagnostic clinics nationwide, causing many families to wait for months and months to obtain medical evaluation and neurodevelopmental testing to assess for FASD. This delays access to life-changing services and resources for families impacted. Consequently, many individuals with FASD remain undiagnosed or misdiagnosed, preventing them from receiving the targeted interventions and support they need to improve their long-term outcomes.

### **Solutions for Preventing PAE and Caring for People Impacted by an FASD**

Preventing prenatal exposure to alcohol and caring for those impacted is a critical public health priority. Addressing screening and diagnostic barriers requires comprehensive education and training for healthcare professionals, sustainable payment/reimbursement models, the development of standardized and culturally sensitive screening tools, and the implementation of policies that promote equitable access to health education, intervention, and treatment. Increased public awareness, improved professional training, enhanced diagnostic and treatment options, and comprehensive support services are also key components of prevention efforts. Effective prevention and FASD-informed care require a multifaceted approach encompassing education, policy, and healthcare interventions:

1. **Public Awareness Campaigns:** Raising public awareness about the risks of alcohol consumption during pregnancy is fundamental. Comprehensive public awareness campaigns are essential to inform people of childbearing age about the risks associated with alcohol consumption during pregnancy, emphasizing that no amount of alcohol is considered safe. These campaigns should avoid language that is stigmatizing and can utilize various media platforms to disseminate information and promote alcohol-free pregnancies. Targeted messaging for specific populations, such as young people and women in higher risk communities, is essential. Statewide prevention campaigns can leverage public service announcements; transit advertising on buses, light rail and at bus stops; mall advertisements; billboards; multichannel social media strategies; earned media opportunities; participation in community events; and the distribution of prevention and awareness materials such as brochures, fact sheets, and customized prevention swag.
2. **Training:** In-person, virtual and on-demand training for a wide range of professionals can build knowledge about prenatal alcohol exposure and help create FASD-informed systems (education, research, legal/judicial, healthcare, law enforcement and social service systems). Equipping professionals with the knowledge and skills to understand the impact of PAE is critical.

3. Screening and Brief Intervention (SBI): Healthcare providers play a pivotal role in prevention by universally and routinely screening for alcohol use in people of reproductive age and offering counseling and resources for those who may struggle with an alcohol use disorder. Health systems can integrate policies and procedures to ensure SBI is part of routine healthcare visits, allowing for early identification and intervention for people at risk of alcohol consumption during pregnancy. Validated screening tools and motivational interviewing techniques can effectively reduce alcohol use and prevent PAE. Training programs should focus on screening, counseling, and referral procedures, as well as providing culturally sensitive care.
4. Diagnostic Capacity: A definitive diagnosis can help reduce the stigma and misunderstanding surrounding the behaviors and needs of individuals with FASD, fostering a more supportive and informed community. Ultimately, diagnosing FASD not only benefits the affected individuals by providing them with the necessary resources and support, but also aids families and caregivers in understanding and managing the condition more effectively. To address the unmet diagnostic need across the nation, more health systems need to provide medical and neuropsychological evaluations for FASD. To make this a reality, healthcare must grow the pipeline of FASD-competent clinicians by providing rotations, preceptorships, and fellowships to future medical providers, including nursing students, advance practice providers, physicians, and psychology post-doctorate fellows. Leveraging technology, such as telehealth platforms and mobile applications, can expand diagnostic reach and provide accessible resources. In addition, building opportunities to share clinical advancements and conduct PAE/FASD quality improvement initiatives will further refine clinical guidelines, promote sustainable reimbursement models, and foster FASD diagnostic best practices. By implementing standardized screening protocols and enhancing screening and diagnostic capabilities, healthcare systems can ensure timely and accurate detection, enabling targeted support and resources for families.
5. Policy Interventions: Organizations can initiate and champion public policies to improve equitable access to FASD-informed education, health care, housing and life-altering services to prevent prenatal alcohol exposure and improve the quality of life for families impacted by FASD. Organizations can also work to secure funding for diagnosis, treatment, and support services. By advancing legislation through policy advocacy, organizations can raise awareness and ensure that people with an FASD have access to the specialized care and community support needed to thrive and reach their full potential.
6. Community-Based Programs: Programs such as resource navigation, one-on-one support, support groups, family events, education, and social/recreational activities can lead to improved outcomes for youth and caregivers impacted by an FASD. Culturally tailored community-based programs can address specific needs and barriers within communities. Tailoring interventions to individual needs and circumstances can also enhance their effectiveness. This includes considering cultural factors, socioeconomic status, and mental health conditions. Additionally, community-based programs that provide support and education to at-risk populations (i.e. populations with fewer protective factors) can help reduce the incidence of prenatal alcohol exposure. These programs may involve peer support groups, educational workshops, and access to resources for pregnant people and their families.

By integrating these prevention strategies, prenatal alcohol exposure and its effects can be significantly reduced, ensuring healthier outcomes for both pregnant people and their children.

## Conclusion

Prenatal alcohol exposure and resulting Fetal Alcohol Spectrum Disorders represent a significant public health issue with far-reaching consequences for every major system in the country including legal, justice, education, health, human services, housing and employment. Preventive measures, including public awareness, training, screening, diagnosis, and policy interventions, are essential to reduce the incidence of FASD and improve outcomes for affected individuals and the community at large. Early identification and intervention are crucial in mitigating the long-term adverse effects associated with FASD, thereby improving the quality of life for affected individuals and reducing societal and economic impacts. It is essential for policymakers, healthcare providers, and communities to collaborate in raising awareness, promoting preventive measures, and fostering an environment where early identification and intervention is prioritized and adequately resourced. Through these combined efforts, we can make significant strides in addressing the challenges posed by prenatal alcohol exposure and FASD, ultimately fostering healthy children and healthy communities for generations to come.

Families, providers, and the professionals that support them have access to several valuable resources on prenatal alcohol exposure and FASD:

- To find an FASD United affiliate in your area, go to: <https://fasdunited.org/resource-directory/>
- For information on FASD, support, and training for families and professionals, visit the following websites:
- Proof Alliance: [proofalliance.org](http://proofalliance.org)
- FASD United: <https://fasdunited.org/>
- Healthcare providers can learn more about screening and diagnosis through the American Academy of Pediatrics (AAP) FASD Toolkit and Resources:
- [https://www.aap.org/en/patient-care/fetal-alcohol-spectrum-disorders/srsltid=AfmBOoq\\_XmusOziv9QY8YPmyojlbkRFkCITM4L0VhnbJC4mIgulfJqwf](https://www.aap.org/en/patient-care/fetal-alcohol-spectrum-disorders/srsltid=AfmBOoq_XmusOziv9QY8YPmyojlbkRFkCITM4L0VhnbJC4mIgulfJqwf)

For information on prevalence rates, diagnosis, treatment, and resources, visit the Centers for Disease Control (CDC): <https://www.cdc.gov/fasd/index.html>

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