



# Prenatal Alcohol Use

Fetal alcohol exposure occurs when a woman drinks any type of alcohol (beer, wine, liquor, etc.) during pregnancy. Alcohol use during pregnancy is the only 100 percent preventable cause of birth defects, including intellectual disabilities, neuro-developmental disorders and Fetal Alcohol Spectrum Disorders (FASD). FASD is an umbrella term describing the range of effects that can occur in an individual whose mother drank alcohol during pregnancy, with Fetal Alcohol Syndrome (FAS) being the most severe diagnosis. The Centers for Disease Control & Prevention (CDC) report that 0.2 to 1.5 cases of FAS occur for every 1,000 live births in certain areas of the U.S. Some researchers estimate FASD rates as high as 9 or 10 per 1,000.<sup>1</sup>

**There is no cure for FASD.** FASD is an irreversible, lifelong condition that can become apparent at any time during childhood. It affects every aspect of a child's life and the lives of the child's family.

## How Alcohol Affects the Developing Fetus

### By Trimester

- **1<sup>st</sup>:** Alcohol interferes with the formation and organization of a baby's brain cells.<sup>2</sup>
- **2<sup>nd</sup>:** Facial features related to alcohol exposure begin to appear.<sup>3</sup>
- **3<sup>rd</sup>:** Memory systems are affected, leading to problems with reading and math skills.<sup>4</sup>

### Deficits

- **Central nervous system:** Poor fine and gross motor coordination. A range of learning disabilities, intellectual disabilities, developmental disabilities, speech and language problems, memory and processing problems, and attention problems.
- **Growth:** Low birth weight and/or short birth length and ongoing growth retardation.
- **Appearance:** Small eye openings, a flattened ridge between the mouth and nose and a thin upper lip.

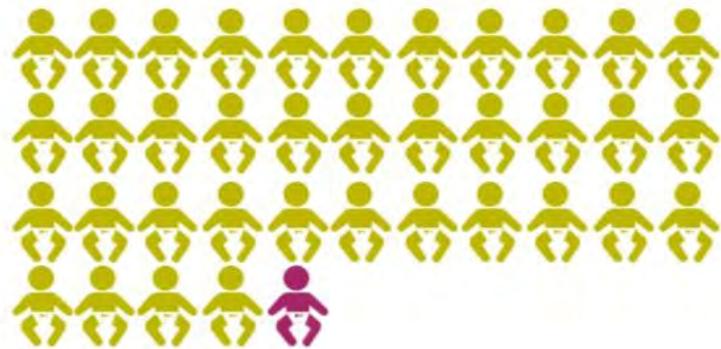
### Long-term

- **Lifelong services** are often needed such as education, vocational, residential and/or social supports.
- Babies were at least **seven times more likely to die from sudden infant death syndrome** when born to mothers diagnosed with an alcohol-use disorder (while pregnant or during the baby's first year) versus born to non-alcoholic mothers.<sup>5</sup>

## Estimated Costs of FASD in Ohio<sup>6\*</sup>

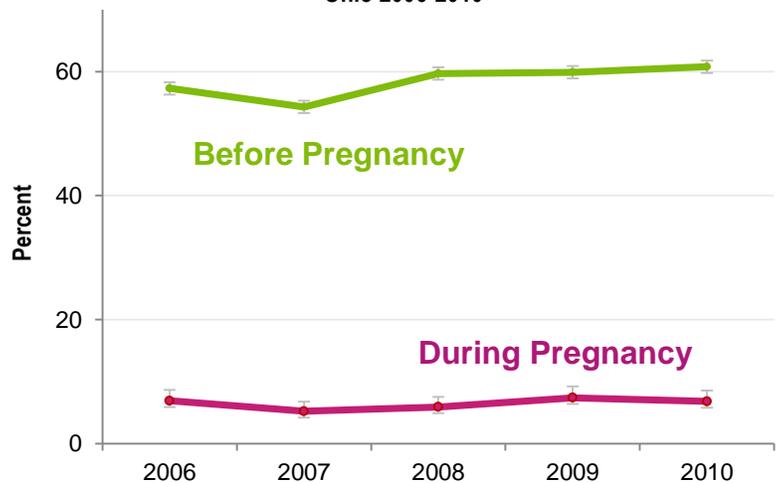
- \$50,364,720 in annual costs for special education and juvenile justice for children aged 5-18 years with FAS.
- 89 babies born with FAS each year.
- 1,193 babies are born with FASD each year.

## ONLY 1 IN 38 OHIOANS LIVING WITH FASD ARE CLINICALLY DIAGNOSED



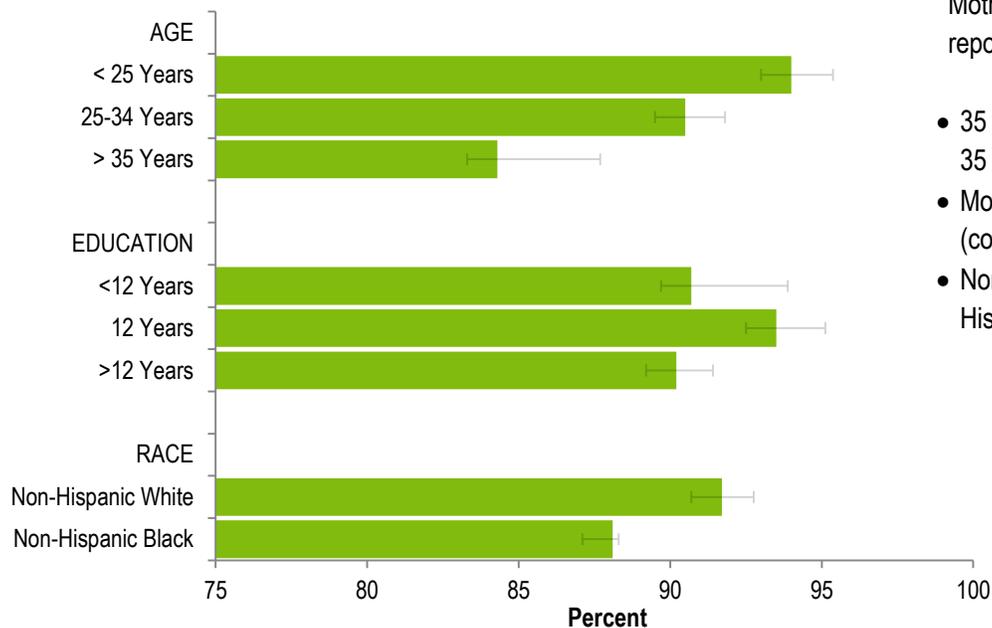
- An estimated 114,000 Ohioans live with FASD.
- Most cases of FASD go undiagnosed due to a combination of factors.

Women Having a Live Birth Who Reported Alcohol Use 3 Months Before Pregnancy\*\* and Who Reported Alcohol Use During the Last 3 Months of Pregnancy, By Year, Ohio 2006-2010<sup>†</sup>



- Close to 60 percent of Ohio mothers reported drinking three months before pregnancy.
- Approximately 7 percent of mothers reported drinking during the last three months of pregnancy.
- Alcohol use has not changed significantly from 2006-2010, before or during pregnancy.

**Women Having a Live Birth Who Reported NO Alcoholic Drinks in an Average Week During the Last 3 Months of Pregnancy, by Demographics, Ohio 2006-2011†**



Mothers within these groups less often reported NO alcohol use during pregnancy:

- 35 years or older (compared to less than 35 years old)
- More than a high school education (compared to 12 years)
- Non-Hispanic Black (compared to non-Hispanic White)

**There is no safe amount and no safe time to drink alcohol during pregnancy.**

**NOT A SINGLE DROP!**

Source: Ohio Pregnancy Risk Assessment Monitoring System. Ohio Department of Health



**State and Local Efforts to Address FASD**

**Not a Single Drop** is Ohio's FASD initiative. The FASD Steering Committee efforts are led by the Ohio Department of Mental Health and Addiction Services, the Ohio Department of Health, and the Ohio Department of Developmental Disabilities. The mission of the steering committee is to integrate FASD activities into existing agency and program systems. The goals of the initiative are to increase availability of services for those affected by FASD; increase awareness about the risks for alcohol use during pregnancy; provide FASD-specific education and training for agencies, organizations and professionals who provide services to children and families with or at risk of FASD; to adopt appropriate FASD screening tools and protocols and increase access to screening; and to create and implement a data system to track FASD risk factors, prevalence and incidence in Ohio. The website provides information, fact sheets, evidence-based practices for screening and diagnosis, living with FASD and resources: <https://notasingledrop.mh.state.oh.us/>

**Alcohol Screening and Brief Intervention (ASBI):** Since September 2008, Ohio's Montgomery County WIC Program has practiced the ASBI process. It is a process modeled after a similar program in California, which screens all pregnant WIC participants for alcohol use, provides brief interventions to all who screen positive, follows those receiving brief interventions during pregnancy and, if needed, refers them to treatment services. The Ohio WIC Program and the Montgomery County WIC Program developed the ASBI process for all Ohio WIC projects, which can be adapted in other maternal and child health programs and settings. The Ohio Department of Health WIC ASBI website provides information, tools, and other resources: <http://www.odh.ohio.gov/odhprograms/ns/wicn/Alcohol%20Screening%20and%20Brief%20Intervention.aspx>

**Data Notes:**

- \* 2012 Ohio Births and Population were used in the calculations as well as the mean of CDC's FAS rates of 0.2-1.5 cases of FAS/1,000 live births
- \*\* Measure of alcohol use sometimes used as proxy for alcohol use during very early pregnancy
- † Grey bars within figures represent 95% confidence intervals (CI). The width of the CI gives us an idea of how certain we are about the true prevalence. The 95% CI means that if this study was repeated 100 times, 95 of the intervals generated would contain the true estimate.

**References:**

- 1 Fetal Alcohol Spectrum Disorders Competency-Based Curriculum Development Guide for Medical and Allied Health Education and Practice, 2009
- 2 Claren, Streissguth, Journal of Pediatrics, 92(1):64-67
- 3 Early-Human-Development; 1983 Jul Vol.8(2)99-111
- 4 Coles, Neurotoxicology and Teratology, 13:357-367, 1991
- 5 O'Leary, C. Pediatrics, 2013;doi:10.1542/peds.2012-1907
- 6 Burd, L., Fetal Alcohol Syndrome Online-Clinic: Prevalence & Cost Calculator, North Dakota Fetal Alcohol Syndrome Center, 2011 May, <http://www.online-clinic.com/calcs/calc-prev-cost.aspx>

**Data Contact: Sierra Mullen**  
[sierra.mullen@odh.ohio.gov](mailto:sierra.mullen@odh.ohio.gov)

**Program Contact: Anna Starr**  
[anna.starr@odh.ohio.gov](mailto:anna.starr@odh.ohio.gov)



[www.odh.ohio.gov](http://www.odh.ohio.gov)

