



Drinking During Pregnancy is one of twelve Maternal and Child Health (MCH) **Standardized Measures (SMs)** for the Title V MCH Services Block Grant to States Program. This SM is focused on decreasing the percent of women* who A) drink any alcohol during pregnancy; and B) binge drink during pregnancy.

The [What Works Evidence Accelerators](#) provide background information and a summary of effective strategies to advance each of the SM topic areas. The strategies support brief and extended intervention options, including trauma-informed and behavioral approaches, to reduce alcohol-exposed pregnancies and improve MCH outcomes.

Overview. Prenatal alcohol exposure is a leading preventable cause of birth defects and developmental disabilities.¹ Multiple federal and non-federal health agencies recommend that pregnant women and those planning to become pregnant abstain from alcohol. Any alcohol use is considered unhealthy during pregnancy.¹ Although most women stop drinking alcohol when they realize they are pregnant, there are women who continue to drink at levels that are hazardous to the fetus, who may be suffering from alcohol use disorders.² Binge drinking alcohol during pregnancy is defined as having four or more alcoholic drinks on at least one occasion in the past 30 days.³ All types of alcohol are equally harmful, including wine and beer.⁴ Alcohol crosses the placenta with fetal blood alcohol levels approaching maternal levels within two hours of maternal intake.⁵

Prenatal alcohol exposure can result in a range of adverse outcomes, including preterm birth, low birth weight, and Fetal Alcohol Syndrome (FAS).¹ Fetal Alcohol Spectrum Disorders (FASDs) are defined as a group of conditions that can occur in a person who was exposed to alcohol before birth.⁶ The term describes the range of lifelong physical, mental, and behavioral effects that can occur in an individual exposed to alcohol in utero.⁷ Often, a person with FASD has a mix of physical, behavior, and learning problems, and conditions can range from mild to severe.⁶ Impairments may appear at any time during childhood and last a lifetime.⁷

Research has found that pregnant women may underreport drinking, may not recognize how much they drink, or how harmful alcohol can be at non-dependent drinking levels.⁸ Women are generally accepting of alcohol use screening, so prenatal care visits provide an opportunity for intervention.⁸ The

American College of Obstetricians and Gynecologists endorsed use of routine screening, brief intervention, and referral to treatment for alcohol and other substances as part of comprehensive obstetric care starting at the first prenatal visit.⁹ A brief alcohol-screening questionnaire that was specifically developed for the prenatal setting and with the highest at-risk drinking sensitivity is the [T-ACE](#).^{10, 11} Although screeners suffer from an underreporting bias due to inaccurate patient recall, embarrassment, or denial regarding actual consumption, clear and consistent advice, given in a compassionate manner, can support behavior change.⁸

Data. This SM is measured through data collected from the [Pregnancy Risk Assessment Monitoring System \(PRAMS\)](#). Other data sources, such as the [Behavioral Risk Factor Surveillance System \(BRFSS\)](#), also collects data on alcohol during pregnancy. During 2018-2020, 13.5% of pregnant women reported current drinking and 5.2% reported binge drinking according to CDC estimates from BRFSS data.³ Both estimates were 2% higher than during 2015-2017.³

Social Determinants of Health (SDOH).

Alcohol use during pregnancy is intertwined with structural and [SDOH](#), such as early childhood experiences of trauma and violence, mental health challenges, racism and discrimination, as well as lack of access to services and supports for mental health and trauma.¹² Pregnant women with frequent mental distress were 2.3 to 3.4 times as likely to report current and binge drinking, respectively, compared with those without frequent distress.³ Pregnant women without a usual health care provider were also 1.7 times more likely to report current drinking than those with a current provider.³

For [Drinking During Pregnancy](#), there are 9 evidence-based strategies from [MCHbest](#) and 10 field-based practices from [Innovation Hub](#) (see page 3)

Strategies to address structural and SDOH include:

- Utilizing trauma-informed approaches to help address the root causes of alcohol use during pregnancy, as well as the stigma around women's use of alcohol during pregnancy.¹²
- Integrating mental health care into clinical care and increasing access to care to help address alcohol use and mental distress during pregnancy.³
- Having a regular health care provider or usual source of prenatal care who screens for alcohol use and acts as an entry point for specialized services for alcohol use challenges.¹²
- Promoting protective factors during the prenatal period for pregnant women, such as social support and peer connections, to foster a sense of belonging, community, safety, and hope.¹²

Health Equity. According to data from the National Survey on Drug Use and Health for years 2002-2017, among all pregnant women, factors associated with higher risk of any use or binge drinking were early pregnancy, other substance use, alcohol use disorders, depression, and being unmarried.¹³ For any drinking, higher risk was associated with higher socioeconomic status and adolescence.¹³ For binge drinking, in early pregnancy, lower risk was associated with ages 35-44, while in middle/late pregnancy, higher risk was associated with lower socioeconomic status and Black race/ethnicity.¹³ Of women who drink in pregnancy, there is an increased risk of FAS in those who are of older maternal age, high parity, and African American or Native American ethnicities.⁵

For Indigenous women, influences such as isolation, cultural barriers, and historical trauma have made it uniquely challenging to prevent alcohol use during pregnancy.¹⁴ Findings from the *Safe Passages* study of a rural Tribal Nation in the central U.S. revealed factors that were protective against substance use during pregnancy: living with someone, having 12 years or more of education, being employed, and not being depressed.¹⁴ Culturally appropriate screening and programs are needed to eliminate inequities in poor outcomes associated with prenatal drinking.¹⁴

Special Considerations. If a woman has a child with FASD, she often experiences many forms of judgment, assumptions, guilt, fear, and shame, and

these experiences are a significant barrier to accessing support and care.¹³ With much greater emphasis and concern for children with FASD and not the mothers themselves who are struggling, this can lead to children being removed from their mother's care and placed in foster care with no clear mandate to support the mother. The most promising practices to reduce drinking during pregnancy involve using a collaborative and relational approach to provide integrated and comprehensive supports enabling women to feel welcomed, free of judgment, seen, and treated as a whole person.¹³ Providing such supports necessitates trauma-informed training, education, and policies for the people responsible for programs, supports, and services for pregnant and parenting women who drink alcohol.¹³

Key Resources. There is substantial research on the impacts of drinking alcohol while pregnant.^{1, 2, 5, 7} To reduce prenatal alcohol exposure, individual-level strategies, such as screening, counseling, brief interventions (e.g., motivational interviewing), referrals, and pharmacotherapy, are an important part of a comprehensive effort alongside population-level strategies, such as pricing and taxation policies and regulation of alcohol retail access, to address alcohol-related harms.^{15, 16}

Search the [Established Evidence database](#) for peer-reviewed research articles related to strategies for decreasing drinking during pregnancy.

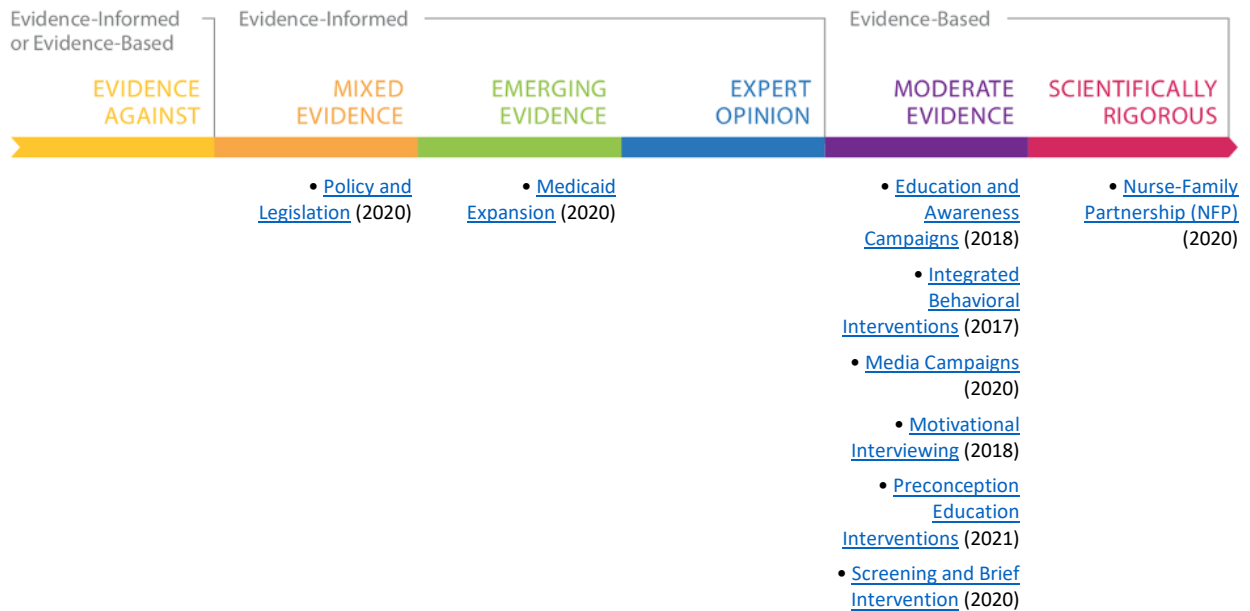
Find [field-based resources](#) focused on decreasing drinking during pregnancy relevant to Title V programs in the [MCH Digital Library](#).

Partnership and the Role of Title V. Title V agencies can collaborate with other agencies, health care providers, and community organizations to address drinking during pregnancy by:

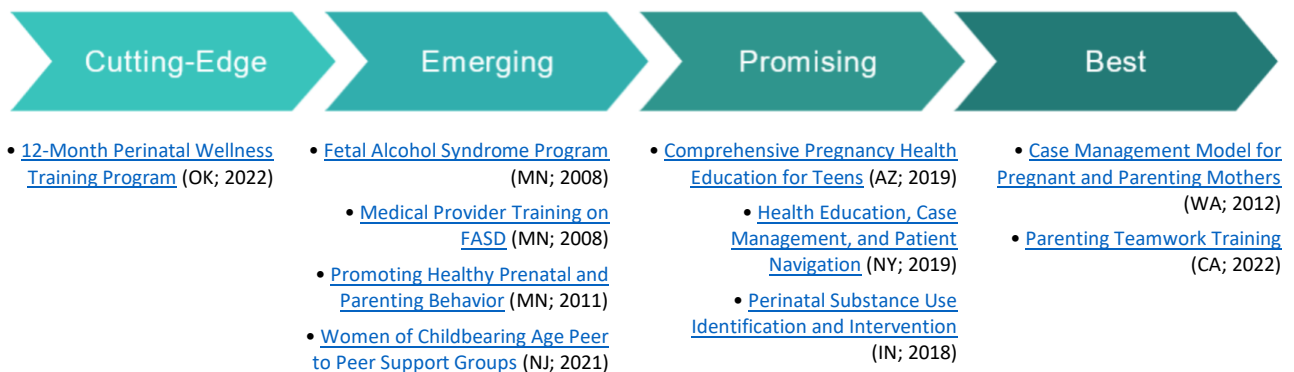
- Disseminating educational materials and supporting community outreach programs to increase awareness about risks of alcohol use.¹⁷
- Offering provider trainings to increase knowledge of promising and effective practices, such as electronic alcohol screenings.¹⁸
- Supporting emerging technology-based interventions, such as text messages in mobile health programs, to reduce prenatal alcohol use.¹

Drinking During Pregnancy Strategies. This page summarizes the latest strategies and practices that have emerged as potential approaches for decreasing the percent of women who A) drink any alcohol during pregnancy; and B) binge drink during pregnancy. It provides a framework to identify, understand, and implement “what works” in creating new or strengthening current Evidence-based/informed Strategy Measures (ESMs). Use the links below to access strategy and practice details, approaches, supporting evidence, outcomes, and examples of how Title V agencies are either using these strategies directly or adopting components of the intervention that address this SM.

Evidence-Based/Informed Strategies. 9 strategies have emerged from studies in the scientific literature as being effective in advancing the SM. They can be adopted or adapted to meet your program needs. More information on these strategies can be found in the MCH Evidence Center’s [MCHbest](#) database.



Field-Based Practices. 10 practices from state-/community-based programs have emerged as potential approaches for advancing the SM for specific communities or populations. They can be used as models to meet your program needs. More information can be found in the Association of Maternal and Child Health Program’s (AMCHP’s) [Innovation Hub](#).



Key Findings.

1. There is no known safe amount of alcohol use during pregnancy or while trying to get pregnant. There is also no safe time for alcohol use during pregnancy. All types of alcohol are equally harmful, including all wines and beer.²⁰
2. The literature does not differentiate approaches between strategies to prevent women who drink any alcohol or who binge drink during pregnancy.
3. Honest maternal disclosure of alcohol intake is necessary to increase the efficacy of intervention programs to reduce alcohol-exposed pregnancies.²¹
4. Increased reporting of alcohol use can be attributed to increased knowledge of the risks of prenatal alcohol exposure and improved screening and recording of alcohol use as part of a community-led FASD prevention strategy.²²
5. Studies indicate that participants in brief intervention groups show significant reductions in the rate of unprotected sex, risky drinking, and alcohol-exposed pregnancy risk from pre-treatment to post-treatment and to the 6-month follow-up.²³

Discussion: Research, Practice, Partnership.

Research. Multiple strategies are emerging as potential approaches to advance this SM, but they have not been studied with enough rigor to be included in the evidence-based continuum. Additional research is needed to verify outcomes, but initial studies have shown promise of these strategies in MCH settings:

- Using social media to promote awareness and recruitment of participants into intervention programs to prevent or reduce alcohol-exposed pregnancies.²⁴
- Building trust and credibility for recruitment purposes in interventions by conducting in-person outreach within communities that allows direct connections with women.²⁵
- Tailoring web-based interventions designed for audiences at risk with the goal of promoting healthy behaviors and reducing alcohol-exposed pregnancies.²⁶

- Identifying precursors for risky drinking patterns during the prenatal/postpartum periods and addressing factors such as access to alcohol and pregnancy-related changes for young mothers.²⁷

Practice. The following tools can be used to translate evidence to action to advance this SM:

- [Screening, Brief Intervention, & Referral to Treatment \(SBIRT\) Tool](#) (New York State). This tool assesses the severity of substance abuse and identifies appropriate levels of treatment.
- [Alcohol Screening and Brief Intervention: A Guide for Public Health Practitioners](#) (APHA). The guide provides information, skills, and tools needed to conduct alcohol-related Screening and Brief Interventions (SBIs).

Partnership. The following organizations have developed tools to address drinking during pregnancy:

- [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#). Offers a [National Helpline](#) and [Treatment Referral](#).
- [American Addiction Centers](#). Maintains an [Alcohol and Pregnancy Portal](#) with information and sources of assistance for women and families.



Frameworks and Tools for “What Works.”

Use this accelerator to strengthen current or new programs that align with multiple MCH frameworks across domains and settings. Access toolkits related to these frameworks for additional resources:

- [MCH Evidence Framework](#)
- [Blueprint for Change for CYSHCN](#)
- [Maternal Health Toolkit](#)
- [Life Course and Social Determinants Brief](#)

Need More Help? [Contact us for training and technical assistance](#) customized to your needs.

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*** Note.** Throughout this document, we use terms such as woman, women, and mother to describe people who have the biological capacity to become pregnant. We acknowledge that some pregnant and/or birthing people do not identify with these terms. However, we use these terms as a reflection of language used in the peer-reviewed research that predominantly refers to study participants as “women.” Our findings are not meant to be exclusive of individuals who do not identify as female. Read more in [NCEMCH’s Gender Identity Statement](#).

References

1. Floyd, RL, Ebrahim, S, Tsai, J, O’Connor, M, Sokol, R. (2006). Strategies to reduce alcohol-exposed pregnancies. *Maternal and child health journal*, 10, 149-151.
2. DeVido, J, Bogunovic, O, Weiss, RD. (2015). Alcohol use disorders in pregnancy. *Harvard review of psychiatry*, 23(2), 112–121.
3. Gosdin LK, Deputy NP, Kim SY, Dang EP, Denny CH. Alcohol Consumption and Binge Drinking During Pregnancy Among Adults Aged 18–49 Years — United States, 2018–2020. *MMWR Morb Mortal Wkly Rep* 2022;71:10–13.
4. Centers for Disease Control and Prevention. (2024 May). [About Alcohol Use During Pregnancy | Alcohol and Pregnancy | CDC](#).
5. Dejong, K., Olyaei, A., & Lo, J. O. (2019). Alcohol Use in Pregnancy. *Clinical obstetrics and gynecology*, 62(1), 142–155.
6. Centers for Disease Control and Prevention. (n.d.). [Fetal Alcohol Spectrum Disorders \(FASDs\) | CDC](#).
7. National Institute on Alcohol Abuse and Alcoholism. (2023 August). [Understanding Fetal Alcohol Spectrum Disorders | National Institute on Alcohol Abuse and Alcoholism \(NIAAA\) \(nih.gov\)](#).
8. Ujhelyi Gomez, K., Goodwin, L., Chisholm, A., & Rose, A. K. (2022). Alcohol use during pregnancy and motherhood: Attitudes and experiences of pregnant women, mothers, and healthcare professionals. *PloS one*, 17(12), e0275609.
9. Association of Maternal & Child Health Programs. (October 2020). [Screening, Brief Intervention, and Referral to Treatment \(SBIRT\) for Pregnant and Postpartum Women. Opportunities for State MCH Programs](#).
10. T-ACE Screening Tool. Retrieved from [T-ACE alcohol screen.pdf \(projectteachny.org\)](#). Originally from Sokol, Robert J., "Finding the Risk Drinker in Your Clinical Practice" in G. Robinson and R. Armstrong (eds), *Alcohol and Child/Family Health: Proceedings of a Conference with Particular Reference to the Prevention of Alcohol-Related Birth Defects*. Vancouver, BC., December, 1988.
11. Chang, G., Fisher, N. D., Hornstein, M. D., Jones, J. A., & Orav, E. J. (2010). Identification of risk drinking women: T-ACE screening tool or the medical record. *Journal of women's health* (2002), 19(10), 1933–1939.
12. Morton Ninomiya, M. E., Almomani, Y., Dunbar Winsor, K., Burns, N., Harding, K. D., Ropson, M., Chaves, D., & Wolfson, L. (2023). Supporting pregnant and parenting women who use alcohol during pregnancy: A scoping review of trauma-informed approaches. *Women's health (London, England)*, 19, 17455057221148304.
13. Shmulewitz, D., & Hasin, D. S. (2019). Risk factors for alcohol use among pregnant women, ages 15-44, in the United States, 2002 to 2017. *Preventive medicine*, 124, 75–83.
14. Jorda, M., Conant, B. J., Sandstrom, A., Klug, M. G., Angal, J., & Burd, L. (2021). Protective factors against tobacco and alcohol use among pregnant women from a tribal nation in the Central United States. *PloS one*, 16(2), e0243924.
15. American Public Health Association. (2019 November). [Addressing alcohol-related harms: A population level response](#).
16. Tan, C. H., Denny, C. H., Cheal, N. E., Sniezek, J. E., & Kanny, D. (2015). Alcohol use and binge drinking among women of childbearing age—United States, 2011–2013. *Morbidity and Mortality Weekly Report*, 64(37), 1042-1046.
17. CDC. (2024 May). [Resources for Healthcare Professionals and Patients Toolkit | Alcohol and Pregnancy | CDC](#).
18. CDC. Alcohol use, screening, and brief intervention among pregnant persons – 24 U.S. jurisdictions, 2017 and 2019. *MMWR Morb Mortal Wkly Rep* 2023;72(3):55–62.
19. Chang, G. (2023). Reducing Prenatal Alcohol Exposure and the Incidence of FASD: Is the Past Prologue? *Alcohol Research: Current Reviews*, 43(1).
20. Centers for Disease Control and Prevention. (2024 May). [About Alcohol Use During Pregnancy | Alcohol and Pregnancy | CDC](#).
21. Morrello, R., Cook, P. A., & Coffey, M. (2022). "Now, with a bit more knowledge, I understand why I'm asking those questions." midwives' perspectives on their role in the Greater Manchester health and social care partnership's programme to reduce alcohol exposed pregnancies. *Midwifery*, 110, 103335.
22. Symons, M., Carter, M., Oscar, J., Pearson, G., Bruce, K., Newett, K., & Fitzpatrick, J. P. (2020). A reduction in reported alcohol use in pregnancy in Australian Aboriginal communities: a prevention campaign showing promise. *Australian and New Zealand journal of public health*, 44(4), 284–290.
23. Ingersoll, K., Frederick, C., et al. (2018). A Pilot RCT of an Internet Intervention to Reduce the Risk of Alcohol-Exposed Pregnancy. *Alcoholism, clinical and experimental research*, 42(6), 1132–1144.

24. Kaufman, C. E., Asdigian, N. L., et al. (2023). A virtual randomized controlled trial of an alcohol-exposed pregnancy prevention mobile app with urban American Indian and Alaska Native young women: Native WYSE CHOICES rationale, design, and methods. *Contemporary clinical trials*, 128, 107167.
25. Hanson, J. D., Oziel, K., Sarche, M., MacLehose, R. F., Rosenman, R., & Buchwald, D. (2021). A culturally tailored intervention to reduce risk of alcohol-exposed pregnancies in American Indian communities: Rationale, design, and methods. *Contemporary clinical trials*, 104, 106351.
26. Hanson, J. D., Weber, T. L., et al. (2020). Acceptability of an eHealth Intervention to Prevent Alcohol-Exposed Pregnancy Among American Indian/Alaska Native Teens. *Alcoholism, clinical and experimental research*, 44(1), 196–202.
27. Tung, I., Chung, T., Krafty, R. T., Keenan, K., & Hipwell, A. E. (2020). Alcohol Use Trajectories Before and After Pregnancy Among Adolescent and Young Adult Mothers. *Alcoholism, clinical and experimental research*, 44(8), 1675–1685.

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