

New study: State policies that regulate alcohol/drug use during pregnancy cause worse birth outcomes, increase public health costs

State-level alcohol/drug pregnancy policies lead to increased low birthweight and preterm births, costing millions of dollars per year

San Francisco, Calif.—A new study finds that several state-level policies targeting alcohol and drug use during pregnancy lead to greater numbers of low birthweight (LBW) and preterm births (PTB), resulting in hundreds of millions of dollars more in public health spending each year.

The study—a collaboration between the [Alcohol Research Group \(ARG\)](#) a program of the Public Health Institute, and [Advancing New Standards in Reproductive Health \(ANSIRH\)](#), a reproductive health research group based at the University of California, San Francisco (UCSF)—demonstrates that policymakers' current attempts to reduce alcohol and drug use during pregnancy actually contribute to worse public health outcomes.

Researchers found that, of the eight types of policies in effect across 43 states regulating alcohol use during pregnancy, four of them were significantly related to increases in LBW and PTB: mandatory warning signs in places where alcohol is sold, giving pregnant women priority for substance use disorder treatment, limits on criminal prosecutions related to alcohol use during pregnancy, and defining substance use during pregnancy as child abuse/neglect. All of these policies, with the exception of the mandatory warning signs policy, apply to drug use during pregnancy as well. The researchers used 44 years of birth certificate data and estimates of the public health cost of an LBW or PTB birth in the first year of life to quantify the economic burden and health outcomes that each of these policies cause. In 2015 alone:

- Mandatory warning signs policies caused about 7,400 more LBW and 7,000 more PTB births than expected, increasing public health expenses in states with this policy by about \$152,000,000 and \$325,700,000 respectively.
- States that define substance use during pregnancy as child abuse/neglect experienced an excess of about 12,400 PTB and 6,000 LBW births, leading to about \$582,700,000 and \$122,300,000 in added public health spending respectively.
- Policies that prioritized pregnant women for substance use disorder treatment caused an excess of about 7,300 LBW and 9,800 PTB births, costing about an additional \$150,000,000 and \$460,500,000 respectively.
- Among the four policies associated with these negative outcomes, the effects of policies limiting criminal prosecution were the smallest. They caused an excess of about 2,000 LBW and 4,000 PTB births, which cost about an additional \$421,800,000 and \$188,100,000 respectively.

“Our research shows that harms from substance use during pregnancy come not only from the substance use itself, but also from the policies that legislators have implemented in response,”

Sarah Roberts, DrPH, Associate Professor at ANSIRH and senior author of the study, said. “The harmful effects of policies that coerce, stigmatize or punish pregnant women using alcohol or drugs align with previous research showing that these women may avoid prenatal care because they fear being reported to Child Protective Services (CPS). Other policies were inspired by advocacy around the War on Drugs rather than traditional public health-based policymaking. Before expanding any of these policies to new substances or adopting existing policies in new states, policymakers should be mindful of their harmful consequences, as demonstrated by our research.”

“As policymakers address alcohol use during pregnancy and confront our nation’s mounting opioid crisis, it is crucial that they consider the potential adverse impacts of specific policies they develop in response to these challenges and the reasons why these policies may be harmful,” **Meenakshi Sabina Subbaraman, PhD, Biostatistician and Co-Director Of Statistical And Data Services at ARG and co-author of the study**, said. “Our findings reinforce the importance of conducting rigorous research on the impact of current state-level policies targeting alcohol and drug use during pregnancy, rather than assuming that the policies currently in place will have their intended effects. This type of research can also help identify new policy approaches that are based in public health evidence and will not result in the damage caused by the policies we studied.”

The researchers lay out various additional explanations for why these specific policies led to worse birth outcomes and increased public spending. For example, in addition to their potential stigmatizing effects, the mandatory warning signs and child abuse/neglect policies were also the most widespread among states as of 2015, allowing their effects to take hold among a larger segment of the population. The authors also note that policies that limit criminal prosecutions related to alcohol or drug use during pregnancy focus primarily on limiting use of medical test results in these prosecutions, meaning that states with this policy might actually have more such prosecutions overall, although this paper did not explore that possibility.

The study, published today in PLOS One, is the latest collaboration between ARG and ANSIRH on research studying the prevalence and effects of alcohol/drug and pregnancy policies. In addition to a prior paper examining the [likelihood of worse birth outcomes](#) in states with these policies, previous studies co-authored by ARG and ANSIRH researchers have also found that current policies that seek to reduce alcohol use during pregnancy are [likely ineffective](#) and that the effects of such policies may [vary among different racial groups](#). Dr. Roberts has also authored papers showing that pregnant women who use drugs [often avoid prenatal care](#) due to fear of being reported to Child Protective Services and that states with more punitive laws on alcohol use during pregnancy also have [more laws limiting reproductive rights](#).

For their analysis, the researchers used Vital Statistics System birth certificate data for 155,446,714 singleton live births between 1972–2015, acquired from the CDC’s National Center for Health Statistics. They combined this data with alcohol and pregnancy policy data obtained from the National Institute on Alcohol Abuse and Alcoholism’s [Alcohol Policy Information System](#). Hospital costs estimates for additional costs due to LBW or PTB in the first year of life come from two primary sources: the Healthcare Cost and Utilization Project, which shows that costs for LBW and very LBW (<1500 g) births average \$20,600 and \$52,300 respectively, and a study of private health insurance claims data, which found that care in the first year of life for a PTB infant costs \$47,100 per infant, with an alternate algorithm suggesting as much as \$78,000. The researchers used the most conservative of the published cost estimates in all analyses.

To request a copy of the study, "Costs associated with policies regarding alcohol use during pregnancy: Results from 1972-2015 Vital Statistics," interview the study authors, or learn more about ANSIRH, please contact Elliot Levy at elliott.levy@berlinrosen.com or 202-800-7409.

#

UC San Francisco (UCSF) is a leading university dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and excellence in patient care. It includes top-ranked graduate schools of dentistry, medicine, nursing and pharmacy; a graduate division with nationally renowned programs in basic, biomedical, translational and population sciences; and a preeminent biomedical research enterprise. It also includes UCSF Health, which comprises top-ranked hospitals, UCSF Medical Center and UCSF Benioff Children's Hospitals in San Francisco and Oakland – and other partner and affiliated hospitals and healthcare providers throughout the Bay Area. Please visit www.ucsf.edu/news.

Advancing New Standards in Reproductive Health (ANSIRH), based at the University of California, San Francisco, conducts rigorous scientific research on complex issues related to reproductive health in the United States and internationally. ANSIRH provides much-needed evidence for active policy debates and legal battles around reproductive health issues. Please visit www.ansirh.org.

For sixty years, the Alcohol Research Group (ARG) has been actively engaged in critically-needed alcohol- and other drug-related public health research. We study drinking and other drug use and how these and other factors such as gender, race/ethnicity, sexual identity, socioeconomic disparities, and environmental differences affect health. ARG is also home to the NIAAA-funded National Alcohol Research Center and training program. Please visit www.arg.org.

ARG is a program of the Public Health Institute, an independent nonprofit organization, dedicated to promoting health, well-being and quality of life for people throughout California, across the nation and around the world. Please visit www.phi.org.

Research reported in this publication was supported by the National Institute on Alcohol Abuse And Alcoholism of the National Institutes of Health under Award Number R01AA023267. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.