

REDUCING ALCOHOL USE DURING PREGNANCY SAVES LIVES



Infants exposed to alcohol before birth can have serious life-long problems. WIC is in an excellent position to screen pregnant women for alcohol use during pregnancy and help women change their drinking behaviors. In collaboration with UCLA, the largest local agency WIC program in the country designed and conducted a randomized study of a brief intervention program to reduce prenatal alcohol use among WIC participants. Results documented that brief intervention conducted in the WIC setting led to significant reductions in prenatal alcohol use, with subsequent positive health outcomes for infants.¹ Dissemination of brief intervention techniques is underway in California and a few WIC programs across the country, and should be adopted nationally.

Background

Exposure to alcohol before birth can cause fetal alcohol spectrum disorder, a continuum of serious birth defects that can mean substantial, life-long impairments in cognitive, social, and emotional development.² The disorder occurs in nearly one in every 100 live births.³ Its occurrence and effects are completely preventable if a woman does not drink alcohol during pregnancy. Even low levels of alcohol consumption in pregnancy have been shown to be associated with negative developmental outcomes in children.^{4,5,6} Both the CDC and the US Surgeon General recommend that

women drink no alcohol at all if pregnant or planning to become pregnant.⁷

Low-income women, whose children are most at risk for negative health outcomes, are less likely to receive appropriate counseling regarding alcohol use in pregnancy.^{8,9} The Supplemental Nutrition Program for Women, Infants and Children (WIC) serves more than 9 million low-income participants each month, including more than half of all infants born in the United States.¹⁰ Given its reach into a high-risk population during this critical period of the life cycle, WIC can play a major role in reducing alcohol consumption during pregnancy. Along with food and nutrition education, WIC agencies are mandated by federal law to provide individual screening for drug and alcohol use and to make referrals to substance abuse treatment programs when needed.¹¹ The challenge with such screening and referral is that only heavy users of alcohol qualify for substance abuse treatment programs, yet lower levels of alcohol use can also be harmful to the developing fetus. Until now, WIC screening has often led to recognition of prenatal alcohol use—with no accompanying intervention tools available.

Brief Intervention Is an Effective Approach to Limit Drinking During Pregnancy

Brief intervention, consisting of short counseling sessions that can be delivered by non-specialized staff, is a low-cost way to help pregnant women understand



the dangers of drinking during pregnancy and set goals for reducing their drinking. The technique has been validated as effective in a number of alcohol-related studies.^{12,13} In order to assess this approach in a community setting, researchers at the largest WIC agency in the country (PHFE WIC), in partnership with researchers from UCLA, designed a brief intervention program called the CARE Project to be a logical extension of the standard individual nutrition education that women enrolled in WIC receive. They then conducted a randomized controlled study at twelve WIC sites in which pregnant women were provided with either assessment only or both assessment and brief intervention for prenatal alcohol use. The goal was to determine whether assessment alone was sufficient to reduce prenatal alcohol use, and whether brief intervention techniques would be effective in the WIC setting to reduce prenatal alcohol use further.

The assessment consisted of a questionnaire that asked pregnant WIC participants during initial enrollment how frequently and in what amounts they drank during their current pregnancy. WIC nutritionists at all twelve study sites were trained to conduct the assessment; nutritionists at six intervention sites were also trained to use a brief intervention workbook with women who acknowledged prenatal alcohol use. Using the workbook, the nutritionist begins with education about the risks of alcohol use during pregnancy, helps the mother identify situations in which she drinks and ways to reduce drinking in those



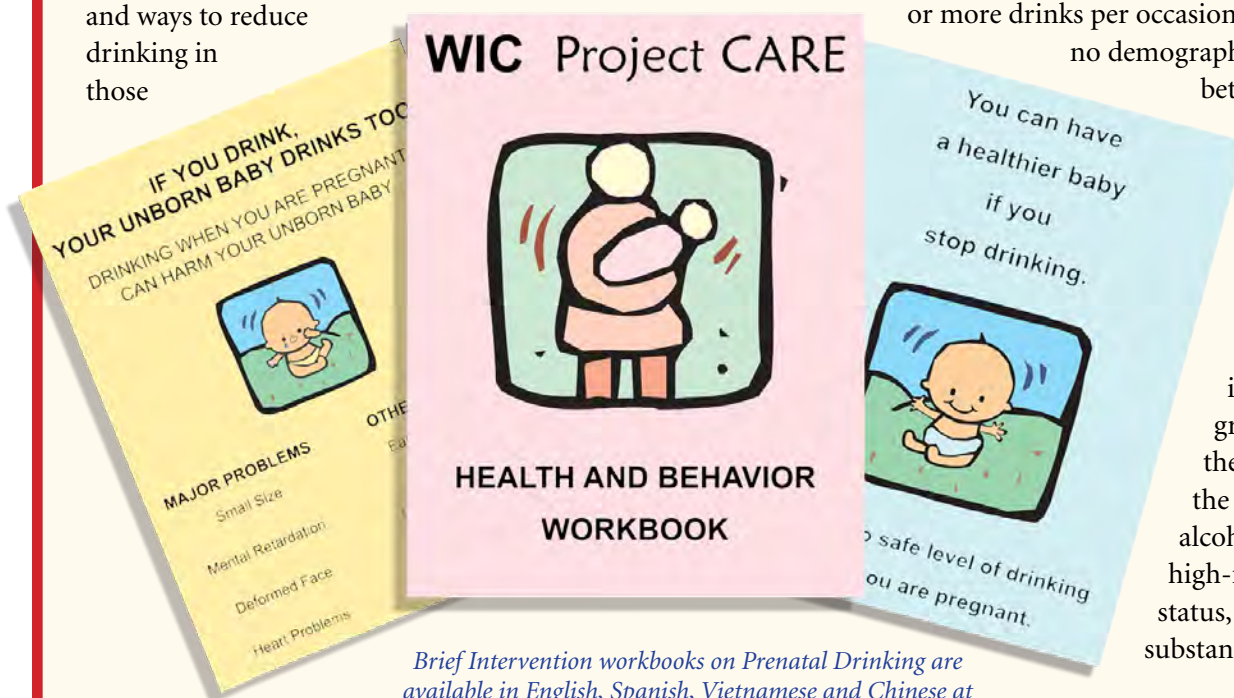
situations, then helps her set a goal to abstain from drinking or cut down her alcohol use. All study participants—in both the assessment-only and brief intervention conditions—were followed throughout pregnancy.

WIC Intervention Lowered Drinking Rates and Improved Birth Outcomes

Over a period of nearly three years, 4,084 women were screened on intake for current use of alcohol. Of those, 345 were currently drinking (about 8%), of which 255 continued in the study. Those women were followed from their enrollment in WIC through the birth of their baby. Upon enrollment in the study, 54 percent of the study participants drank a maximum of one drink per occasion, 21 percent drank no more than two

drinks, and 25 percent reported drinking three or more drinks per occasion. There were no demographic differences between the 138

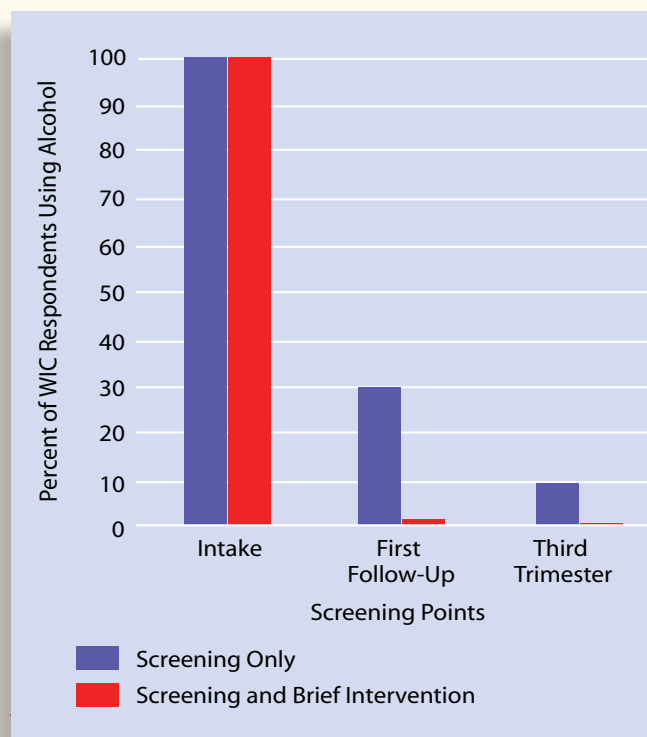
women in the assessment-only group and the 117 women in the brief intervention group, nor were there differences in the initial levels of alcohol consumption, high-risk drinking status, or use of other substances.



Brief Intervention workbooks on Prenatal Drinking are available in English, Spanish, Vietnamese and Chinese at www.phfewic.org/Projects/Care.aspx.

The findings from the study were dramatic. Although women in both the assessment-only and brief intervention groups reduced their drinking, women in the brief intervention group were five times more likely to be abstinent from alcohol use by their third trimester of pregnancy (Fig. 1).

Fig. 1. With Attention to Drinking During Pregnancy, Women Curtailed Alcohol Intake, Particularly Those in the Brief Intervention Group



Of 255 women enrolled in the study who were drinking alcohol at intake, the great majority reduced their drinking. Screening alone significantly reduced alcohol use, and nearly all the women in the brief intervention group stopped drinking altogether during their pregnancy.

In addition, babies born to women who received brief intervention counseling had significantly better outcomes than babies of women who received only assessment—in birth weight, birth length (for infants of heavier drinkers), and survival:

- Babies in the intervention group weighed, on average, 180.5 grams more at birth than those in the assessment-only group.
- Among mothers who had consumed more than two drinks per drinking occasion on intake, babies in the intervention group were significantly longer than those of mothers in the assessment-only group.
- In the brief intervention group, there was a lower rate of fetal death due to miscarriage or stillbirth, with

one miscarriage (an infant mortality rate of 0.9%) in that group. In the assessment-only group there were two miscarriages and two stillborns (a mortality rate of 2.9%).

Extrapolating study data, the fetal mortality rate in the brief intervention group would be estimated at 9 in 1,000, compared with 29 in 1,000 for the assessment-only group. A rate of 29 in 1,000 is a significantly higher rate than would be predicted in the general population of low-income women, showing just how dangerous prenatal exposure to alcohol is for the fetus.

Babies of mothers in the brief intervention group had:

- *Higher birthweights*
- *Longer lengths at birth*
- *Lower risk of fetal mortality*

WIC Staff Can Help Prevent Drinking During Pregnancy



This study shows that women who use alcohol during pregnancy will cease or reduce their drinking with simple screening and brief intervention counseling provided by WIC staff. The striking results of this study demonstrate that, when

given appropriate training and tools, non-medical professionals can successfully intervene to prevent alcohol-related consequences for infants. WIC’s adult participants—predominantly minority, low-income women—often do not have health insurance or access to comprehensive, high-quality prenatal care. For these vulnerable mothers, screening and counseling for alcohol use is a critical prenatal intervention.

In light of these study findings, PHFE WIC staff have trained other WIC agencies throughout California to utilize the brief intervention workbook with pregnant WIC clients. Through a contract with the FASD Center for Excellence, they also trained WIC and Healthy Start staff in six other states to use the brief intervention materials. Evaluation of these expansion efforts are underway, and staff trained in the techniques report feeling prepared to help their pregnant clients address their drinking. These low-cost, well-tested materials can serve as models for state and nationwide prevention of fetal alcohol spectrum disorder in community-based organizations serving pregnant women.

ACTION RECOMMENDATIONS TO PREVENT FETAL ALCOHOL EXPOSURE AMONG WIC MOTHERS

- 1 Congress should continue to fully fund screening and referrals for alcohol and drug use as a core WIC Nutrition Services and Administration (NSA) function.
- 2 State and local WIC providers should standardize prenatal questionnaires to include an evidence-based screening tool for alcohol use, and they should use brief intervention techniques to counsel and refer pregnant women who report using alcohol.
- 3 State and local WIC providers should include alcohol and substance use prevention messages to WIC families between pregnancies to minimize alcohol use in the first trimester.
- 4 Congress and USDA should continue to support large- and small-scale evaluations of WIC alcohol and drug interventions in order to capture and highlight what works and help WIC practitioners adopt best practices quickly and easily.
- 5 California WIC should work proactively with early child companion programs such as SNAP-Ed, First Five, and the Child and Adult Care Food Program to plan and coordinate alcohol education initiatives and to share materials across sectors.



WIC Is Prevention at Work

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) helps families with three main services: checks for buying healthy supplemental foods from WIC-authorized vendors, nutrition education and breastfeeding support, and help finding healthcare and other community services. Participants must meet income guidelines and be pregnant women, new mothers, infants, or children under age five. WIC operates in all 50 states plus tribal organizations and territories. In Federal Fiscal Year 2010, the program served 9.2 million participants, including more than half of all infants born in the United States. WIC is funded through the U.S. Department of Agriculture through annual allocations.

In California, WIC is a program of the California Department of Public Health, which contracts with 84 local agencies—both local governments and nonprofit community organizations—that operate WIC centers in 650 locations. California is the nation's largest WIC program. About 1.45 million participants receive services each month. Most WIC families are employed, with incomes at or below 185 percent of the poverty level (currently \$40,793 for a family of four); more than half are enrolled in Medicaid, the Supplemental Nutrition Assistance Program (SNAP or CalFresh), or Temporary Assistance for Needy Families (TANF).

Notes

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