

Agency: University of Alaska**Project Title:****Project Type: Other**

UAA Institute for Circumpolar Health Studies - Proposed Pilot Test and Formative Evaluation of Methods to Prevent FASD

State Funding Requested: \$400,000
Future Funding May Be Requested

House District: Statewide (1-40)**Brief Project Description:**

Proposed pilot test and formative evaluation of methods to prevent FASD

Funding Plan:

Total Project Cost:	\$400,000
Funding Already Secured:	(\$0)
FY2015 State Funding Request:	<u>(\$400,000)</u>
Project Deficit:	\$0

*Funding Details:**Never funded, new project.***Detailed Project Description and Justification:**

The Institute for Circumpolar Health Studies at the University of Alaska Anchorage proposes to conduct a rigorous pilot study and evaluation of a community -based intervention for women of child bearing age who consume alcoholic beverages. The intervention will consist of key prevention messages designed to educate Alaska women who drink and may become pregnant about the risk of fetal harm associated with alcohol consumption during pregnancy. The intervention is particularly innovative in that some of these messages will be printed on, and associated with, pregnancy test dispensers in bars and restaurants that serve alcohol. This formative evaluation will produce valid results to document the feasibility and utility of interventions intended to promote public awareness of the risk of fetal harm associated with alcohol consumption during pregnancy.

The specific aims of this study are to:

1. Place and maintain one of two types of interventions in women's restrooms of establishments serving alcohol in randomly-selected matched population centers.
2. Collect survey and interview data on FAS/D knowledge, attitudes, and practices from recipients of both interventions.
3. Evaluate the feasibility and utility of interventions involving pregnancy test dispensers in Alaska for promoting public awareness of the risk of FAS/D and reducing drinking during pregnancy.

Project Timeline:

See project back up documents for detailed project time line and budget.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Institute for Circumpolar Health Studies

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No



**Proposed Pilot Test and Formative Evaluation of
Methods to Prevent FASD**

Objective:

We propose to conduct a rigorous pilot study and evaluation of a community-based intervention for women of child bearing age who consume alcoholic beverages. The intervention will consist of key prevention messages designed to educate Alaska women who drink and may become pregnant about the risk of fetal harm associated with alcohol consumption during pregnancy. The intervention is particularly innovative in that some of these messages will be printed on, and associated with, pregnancy test dispensers in bars and restaurants that serve alcohol. This formative evaluation will produce valid results to document the feasibility and utility of interventions intended to promote public awareness of the risk of fetal harm associated with alcohol consumption during pregnancy.

Background:

Alcohol use during pregnancy is a leading preventable cause of birth defects and developmental disabilities. Fetal alcohol syndrome (FAS) and other fetal alcohol spectrum disorders (FASD) can lead to lifelong neurodevelopmental defects and disabilities. Alaska has the highest incidence rate of FAS among U.S. states that track these data (AK DHSS 2010). This may be due to high rates of alcohol use among women in Alaska. According to the Behavioral Risk Factor Surveillance System (BRFSS); a state-based telephone survey of health-related behaviors, 50.7 % of Alaska women 18-44 years of age report drinking alcohol in the 30 days prior to completing the survey, and 18.6% report binge drinking, or drinking four or more drinks on any one occasion in that time (CDC 2010).

The Alaska Department of Health and Social Services recommends (and prevailing wisdom suggests) that women stop drinking alcohol prior to trying to conceive, and continue to abstain from alcohol consumption throughout their pregnancy. There is evidence to suggest that alcohol use is unacceptably high among pregnant women in Alaska. A subsample from the Alaska Pregnancy Risk Assessment Monitoring System, which includes all live births to Alaska residents, found that 9% of pregnant women in Alaska had used alcohol during their pregnancy, and 2.5% were regular alcohol users (Perham-Hester and Gessner, 1997). A more recent study of pregnant Alaska Native and American Indian women found that 43% reported using alcohol, and 20% reported binge drinking in the first or second trimester (Khan et al, 2013). BRFSS statistics suggest that a lower percentage of women nationwide use alcohol (7.6%), or binge drink (1.4%) while pregnant (CDC 2012).

One reason for high rates of alcohol use among pregnant women in Alaska may be that some women are using alcohol prior to becoming aware of their pregnancy status. In 2008, 47% of all pregnancies in Alaska (7,000) were unintended (Kost, 2013). A large proportion of unintended pregnancies nationwide occur in economically - disadvantaged women. In 2006, the rate of unintended pregnancy among women with incomes lower than the

federal poverty level (FPL) was five times that of women earning 200% FPL (Kost, 2013). For these women, the costs of purchasing pregnancy test kits may be prohibitive.

An initiative launched by Healthy Brains for Children, a non-governmental organization dedicated to preventing prenatal exposure to alcohol, has recently sought to promote public awareness of FAS/D by placing pregnancy test kit dispensers in the women's restrooms of establishments that serve alcohol. The utility and feasibility of this strategy in Alaska has not been evaluated. It is hypothesized that linking health education messages with pregnancy test kits in establishments that serve alcohol will promote awareness of the risk of fetal harm associated with alcohol consumption, and promote abstinence if pregnancy is possible, in women who see them.

Specific Aims:

The specific aims of this study are to:

1. Place and maintain one of two types of interventions in women's restrooms of establishments serving alcohol in randomly-selected matched population centers.
2. Collect survey and interview data on FAS/D knowledge, attitudes, and practices from recipients of both interventions.
3. Evaluate the feasibility and utility of interventions involving pregnancy test dispensers in Alaska for promoting public awareness of the risk of FAS/D and reducing drinking during pregnancy.

Study Design:

We propose to implement a stratified, mixed-method, matched-site design. We will place FAS/D prevention messages on two types of interventions in women's restrooms of establishments serving alcohol in matched population centers across Alaska. The first (or Experimental Intervention) will have these messages on pregnancy test dispensers, and the second (or Control Intervention) will have them on framed posters. We identified six sites matched for populations of women 20-44 years of age, number of bars, and linkages to bush communities:

- Anchorage 1/Anchorage 2
- Fairbanks/Juneau
- Kotzebue/Nome

Each dispenser/poster will provide a discrete toll-free number, web address, and QR code; not shared with another intervention, which will allow users to link to an electronic survey of knowledge, attitudes, and practices related to FAS/D. These surveys will be developed in collaboration with Dr. Christina Chambers of the University of California, San Diego (U.Cal.), and Dr. John Clapp at Ohio State University. The surveys will use open-source materials from U. Cal., and will be completed via text messaging or the web using cell phones. Participants will provide baseline and 6-month post-surveys to assess long-term utility of the interventions. All survey recipients will receive a \$15 gift certificate to iTunes (or an equivalent electronic incentive) for participation.

We will also conduct semi-structured interviews with a stratified, randomly selected subsample of participants and bar staff in each study site. We will ask bar patrons the survey questions in an open-ended manner to confirm survey responses and assess the potential for incentive bias. We will ask bar staff to assess intervention feasibility. These interview guides will be developed in collaboration with Jody Allen Crowe, Director, Healthy Brains for Children, who has experience with the placement and maintenance of dispensers.

We propose to recruit and convene an expert advisory panel of women and clinical specialists (such as OBs, CNMs, and counselors). The expert advisory panel will assist in refining the final study design, linked marketing strategy, and final results and conclusions.

Special Considerations:

The intervention will provide information for regional peer-counseling services available 24-7, for the woman facing a positive test result, in a bar, after drinking. We will work with existing programs and services to identify the most appropriate regional services.

Pregnancy test dispensers may be paired with dispensers of contraceptives. Consider the woman who knows that she is not pregnant currently, is not using birth control, and is drinking.

We will ensure that pregnancy test kits include information that a pregnancy test conducted within one week after a missed period can be misleading. This message needs to appear on the test kit sleeve when it is taken from the dispenser, along with a suggestion to retest later.

Intervention should be linked to a larger social marketing strategy that describes the risk of FAS/D and promotes the presence of test kits in some bars/restaurants. We do not budget for such a campaign, and plan to work with existing programs to identify the most appropriate marketing strategy.

Budget:

Materials- \$48,175 in FY 2015 and \$28,175 in FY 2016 = \$76,350

- Pregnancy Test Dispensers (Year 1)
 - 20 dispensers with tailored FASD prevention messages at \$1,000 apiece: \$20,000.
 - Dispensers will be developed by the same company who has developed similar kits for Jody Crowe but messages tailored to the meet the needs of our populations.
- Pregnancy Test Kits (Years 1 and 2)
 - 5,000 tests for distribution in 20 dispensers over 12 months at \$10.31 per test: \$51,550.
 - Stocking costs for dispensers at \$20 monthly: \$4,800.

- The First Response Early Result Pregnancy Test was used for this projection as it detects hCG at concentrations as low as 6.5 mIU/ml. That's almost certainly sensitive enough to detect any pregnancy soon after implantation.

Personnel - \$105,000 in Year FY 2015 and \$125,000 in FY 2016 = \$230,000

- Dr. David Driscoll (Principal Investigator (PI)): \$38,000 in FY 2015 and \$48,000 in FY 2016 = \$86,000
- Dr. Richard Windsor (Co-PI): \$26,000 in FY 2015 and \$26,000 in FY 2016 = \$52,000
- Dr. Janet Johnston (Biostatistician): \$19,000 in FY 2015 and \$19,000 in FY 2016 = \$38,000
- Ms. Sarah Shimer (Research Associate): \$20,000 in FY 2015 and \$30,000 in FY 2016 = \$50,000
- Advisory Panel Members (10 members at \$200 per meeting for 2 annual meetings): \$4,000

Other Direct Costs – \$58,245 in FY 2015 and \$58,245 in FY 2016 = \$116,490

- Travel to study sites for two project staff once annually: \$3,600 in FY 2015 and \$3,600 in FY 2016: \$7,200
- Incentives of \$15 at baseline for 4,286 women (the number required to ensure sufficient statistical power for all survey items) and at follow-up for 3,000 women (assuming 70% response rate) or 7,286 total surveys: \$54,645 in FY 2015 and \$54,645 in FY 2016 = \$109,290.

Total:

\$211,420 in FY 2015 and \$211,420 in FY 2016 = \$422,840

Citations:

AK DHSS (2010) *FASD Fact Sheet*. http://dhss.alaska.gov/dbh/fas/Documents/state/FAS_fs_021810.pdf, accessed February 18, 2013.

CDC (2010) *State-specific Alcohol Consumption Rates for 2010*. http://www.cdc.gov/ncbddd/fasd/monitor_table.html, accessed February 18, 2014.

CDC (2012) *Alcohol use and binge drinking among women of childbearing age – US 2006-2010*. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6128a4.htm>, accessed February 18, 2014.

Khan, Burhan, Renee Robinson, Julia Smith, and Denise Dillard (2013) *Prenatal alcohol exposure among Alaska Native/American Indian infants*. *Int J Circumpolar Health* 2013, 72: 20973

Kost, K. *Unintended Pregnancy Rates at the State Level: Estimates for 2002, 2004, 2006, and 2008*. <http://www.guttmacher.org/pubs/stateup08.pdf>, accessed February 18, 2013

Perham-Hester, KA and B.D. Gessner (1997) *Correlates of drinking during the third trimester of pregnancy in Alaska*. *Matern Child Health* 1(3): 165-72.