

Alaska

Addressing Smokeless Tobacco Use and Adverse Pregnancy Outcomes among Alaska Native Women

Public Health Problem

- Tobacco use among Alaska Natives is among the highest in the U.S.
- Smoking tobacco during pregnancy is associated with placental abruption, placenta previa, preterm birth, and fetal growth restriction
- Smoking is responsible for up to 10% of preterm births and 30% of low weight births
- Smokeless tobacco use prevalence in some areas of Alaska exceeds 60% among pregnant women. A homemade mixture of tobacco and ash is commonly used. Addition of ash to the tobacco raises the amount of free-base nicotine in the product, resulting in higher levels of nicotine exposure.

Initiative Goal

To develop public health messages for pregnant Alaska Native tobacco users; and to educate medical providers in Alaska about smokeless tobacco health risks.

Collaboration and Partnerships to Address a Public Health Problem

For this initiative, CDC's Division of Reproductive Health collaborated with the Alaska Native Tribal Health Consortium (ANTHC), a non-profit health organization owned and managed by Alaska Native tribal governments and their regional health organizations. ANTHC's provides statewide Native health services by working closely with tribes, Native American organizations, and municipalities.

Little is known about the potential adverse effects of maternal smokeless tobacco use on pregnancy outcomes. In response to concerns expressed by local providers in western Alaska about the high prevalence of smokeless tobacco use in pregnant women and the possibility of serious adverse health consequences of the practice, we are conducting a case-cohort study examining Alaska Native women from western Alaska who delivered infants in the past nine years. The study looks at the relationship between smokeless tobacco use and adverse pregnancy outcomes including abruption, preterm birth, preeclampsia, and gestational hypertension. Approximately 850 cases were identified and tobacco exposure in these women will be compared with exposure in a randomly selected cohort of 500 women delivering during the same period.

Successful Impact

- This study will help to establish whether maternal smokeless tobacco use is associated with adverse pregnancy outcomes.
- Local collaborators and CDC investigators are addressing one of the major public health priorities in the region by increasing understanding of the health effects of a locally used smokeless tobacco product on pregnant women and their offspring.
- Outreach efforts included presentations at local health centers for healthcare providers and board members on the health effects of smokeless tobacco (including Grand Rounds) and on the status of this research project.
- Local technical capacity of personnel in Western Alaska to carry out research and evidence-based program initiatives has been enhanced.

Delaware

Reducing Infant Mortality in Delaware: Use of CDC's Division of Reproductive Health Tools to Address Infant Mortality

Public Health Problem

In 2005, Delaware documented the following health outcomes:

- A large racial disparity existed between black infant mortality rates (17/1,000 live births) and white infant mortality rates (6.8/1,000 live births)
- 19% of infant deaths were attributed to the leading cause of infant mortality - short gestation and low birth weight
- 74% of infant deaths in Delaware occurred among neonates

Initiative Goal

Reduce infant mortality in Delaware through collaborative research, program implementation, and evaluation.

Multidisciplinary Public Health Professionals Combat Infant Mortality

The Delaware Infant Mortality Initiative is composed of a consortium of public health professionals including neonatalists, maternal-fetal medicine specialists, registered nurses, internists, hospital administrators, non-profit organization directors, federally qualified health care center directors, state legislators, concerned citizens, researchers, and staff at the Delaware Division of Public Health. The Infant Mortality Initiative, which began in late 2005, is fully endorsed and supported as a Governor's Initiative and receives state funds.

The Initiative funded the Pregnancy Risk Assessment Monitoring System (PRAMS) to collect information on women prior to, during, and after pregnancy in order to better understand their experiences. The Initiative successfully initiated the Fetal Infant Mortality Review (FMIR) Program to better understand the medical and psychosocial causes of infant and fetal deaths in Delaware and established a Registry for Improved Birth Outcomes to learn more from women in the state who experienced one or more premature deliveries, low birth weight deliveries, or infant deaths.

Successful Impact

- Since the Initiative started, more than 1,500 pregnant women (10% of live births in the state/year) have received supplemental care.
- Of the women participating in the prenatal intervention program, only three experienced an infant death. This is 67% less than expected among the targeted population (vital records data.)
- As a result of information collected from these monitoring systems and registries, key focus areas were created for the Delaware statewide education campaign in order to improve birth outcomes and reduce infant mortality: weight management during pregnancy, smoking during pregnancy, increasing inter-pregnancy intervals, managing chronic disease during pregnancy, and understanding the signs and symptoms of preterm labor.
- To-date, over 4,000 women have participated in the preconception program. Of those participants, 86% report an inter-pregnancy interval \geq 18 months.

South Carolina

Campaign Contributes to a Decrease in Teen Pregnancy

Public Health Problem

South Carolina has documented the following for its state:

- 17th highest teen pregnancy rate in the United States
- 8th highest teen pregnancy rate and 12th highest birth rate among 15–17 year olds in the United States
- Each teen birth costs state taxpayers almost \$22,000 per year

Initiative Goal

To increase the capacity of multiple organizations throughout South Carolina to use science-based approaches and programs to prevent teen pregnancy and promote adolescent reproductive health, including abstinence, and sexually transmitted diseases (STD)/HIV prevention.

South Carolina Campaign Collaboration Builds State and Local Capacity

The South Carolina Campaign to Prevent Teen Pregnancy (SC Campaign) was funded in 2002 and 2005 through a cooperative agreement with CDC's Division of Reproductive Health, 4 Title X regional training organizations and 9 state teen pregnancy prevention organizations to prevent adolescent pregnancy through the use of education, training, technical assistance, public awareness and research. To achieve this mission, the SC Campaign works with public, private, school and community based organizations in each of the state's 46 counties to improve the use of science-based approaches to teen pregnancy prevention. The SC Campaign has implemented a statewide system of educational programs and technical assistance targeting direct service providers in over 60 teen pregnancy and STD/HIV prevention organizations, leading to successful implementation of science-based programs in many of these organizations.

Successful Impact

- Recent data show the number of teen pregnancies of all race and age groups in South Carolina has decreased.
- In 2005, the SC Department of Health and Environmental Control reported 9,147 girls ages 10-19 became pregnant. This represents a decrease of 4.1% (396 pregnancies) from 2004.
- Teen pregnancy rates are the lowest they have ever been in the state and represent a 29% decrease since 1994.
- Reductions in teen pregnancy rates in South Carolina throughout the 1990s saved the state more than \$56 million in 2004 alone.

Utah

Successful Tobacco Cessation Services for Women on Medicaid: MCH Linkage Project collaborates with the Utah Department of Health

Public Health Problem

- 54% of pregnant smokers in Utah are also on Medicaid.
- Smoking rates of women on Medicaid during pregnancy were higher than those found in the rest of the Utah population.
- Pregnant women on Medicaid are eligible for all types of nicotine replacement therapies and counseling, but are not utilizing their benefits.

Initiative Goal

Address women smoking during pregnancy by developing, initiating and evaluating a collaborative smoking cessation intervention between the Utah Department of Health and Medicaid.

Collaboration is Key to Solving a Public Health Problem

Since 2006, CDC's Division of Reproductive Health, and the National Association of Chronic Disease Director's Women's Health Council have been working to link maternal child health (MCH), chronic disease, and health promotion programs. Utah's Tobacco Prevention and Control Program (TPCP) was interested in developing an intervention to target women who smoked during pregnancy, but did not have adequate funding. Using data from the Pregnancy Risk Assessment and Monitoring Survey (PRAMS), the TPCP was able to establish the need for improved tobacco cessation services by highlighting the public health problems outlined above. PRAMS data were instrumental in developing a collaborative response with Medicaid.

Successful Impact

- To date, intervention has reached 827 women. Fifty percent reported wanting to quit, 16.7% quit and 38.2% reduced their use of tobacco.
- Medicaid paid \$185,000 in matching funds to help support the intervention.
- PRAMS data used by Utah's Bureau of Health Promotion program has enhanced the health services utilized by women, thereby improving the health of pregnant women.

Sudden, Unexplained Infant Death (SUID) Initiative Improves Investigation and Reporting of SUID

Public Health Problem

Each year in the U.S. more than 4,500 infants die suddenly of no obvious cause. Sudden Infant Death Syndrome (SIDS) is the leading cause of deaths among infants aged 1-12 months and the causes for SIDS death are unknown. At a national level, SIDS rates are highest among American Indian and Alaskan native and Non-Hispanic African American infants.

Initiative Goals

The goals of the initiative are to standardize the data collected at the death scene investigation and to improve the classification and reporting of cause of death on the death certificate. With improved data and classification of these deaths, CDC and other researchers can better monitor trends in the SUID at the local, regional and state levels. They can also identify new risk factors associated with SIDS and other SUID and develop and evaluate strategies and interventions to prevent SUID.

SUID Initiative Provides New Tools and Resources

CDC has contributed to the development of the SUID Initiative through collaborative partnerships with other federal and non-federal agencies and organizations representing medical examiners, coroners, death scene investigators, emergency medical personnel, law enforcement officials, forensic nurses, SIDS researchers, infant death review experts, and parents who have experienced the death of an infant. A steering committee and a team of national experts assisted CDC in developing a standardized reporting form (SUIDI Reporting Form). Guidelines for the investigation of SUID deaths were also created. They include a comprehensive training curriculum and materials for infant death scene investigations, which highlights infant growth and development, interviewing and investigative skills, scene re-creation using a doll, and instructions for completing a death certificate. SUID investigation tools and training materials include the SUIDI Reporting Form and Additional Investigative Forms, guidelines for Infant Death Investigation, training text, curriculum guide, training DVD, pocket guide, and web-based training (forthcoming). Prior to this initiative, no national training materials on how to investigate an infant death scene were available.

Successful Impact

- The SUID Reporting Form and SUID tools and resources have been disseminated nationally through trainings to 10,000 participants.
- The National Association of Medical Examiners, International Association of Coroners and Medical Examiners, American Board of Medico legal Death Investigators, the National Sheriff's Association, and the international Association of Chiefs of Police have all endorsed the SUIDI training materials including the SUIDI reporting form and guidelines.
- Tennessee has used the training materials to train over 871 Law Enforcement, 1136 EMS, and 983 Fire personnel.
- The Indiana Council on Infant Health and Survival recommends usage of the CDC protocols and eight-page reporting form for investigations of sudden, unexplained infant death.
- Washington State developed plastic coated message cards emphasizing multi-jurisdictional protocols when investigating a sudden infant death. The card reminds investigators of the procedures to use at the scene.