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Decline in the Birth Prevalence of Fetal Alcohol Syndrome in Alaska

Background

Population-based estimates of fetal alcohol syndrome (FAS) birth prevalence are higher for Alaska than other states using similar and consistent surveillance methodology.¹ Trend analysis is critical to evaluating FAS prevention programs but is problematic because diagnostic and surveillance factors that affect FAS case determination are often inconsistent. The objective of this study was to evaluate overall and population-specific FAS birth prevalence trends in Alaska.

Methods

During 2009, medical record abstractions were completed for all potential FAS cases reported to the Alaska Birth Defects Registry (ABDR) for children who were at least 6 years of age (birth years 1996-2002). Data from these abstractions was linked to birth certificates and the linked file was used to determine FAS prevalence estimates. Confirmed FAS cases met the following criteria: matched an Alaska birth certificate; were reported to the ABDR before age 6 years; and had at least one complete medical chart abstraction.

Results

During 1996-2002, Alaska experienced a 32% decrease in FAS birth prevalence from 19.9 to 13.5 per 10,000 live births ($p=0.05$) (Figure 1). Decline in the overall FAS prevalence was limited entirely to Alaska Native children who experienced a 49% decline from 63.1 to 32.4 per 10,000 live births ($p=.003$). The prevalence among non-Native children increased 64% from 3.7 to 6.1 per 10,000 live births ($p=.18$). The prevalence ratio of Alaska Native to non-Native infants fell from 17 (95% confidence interval [CI]: 8 to 36) in 1996-1998 to 5 (95% CI: 7 to 16) in 2000-2002.

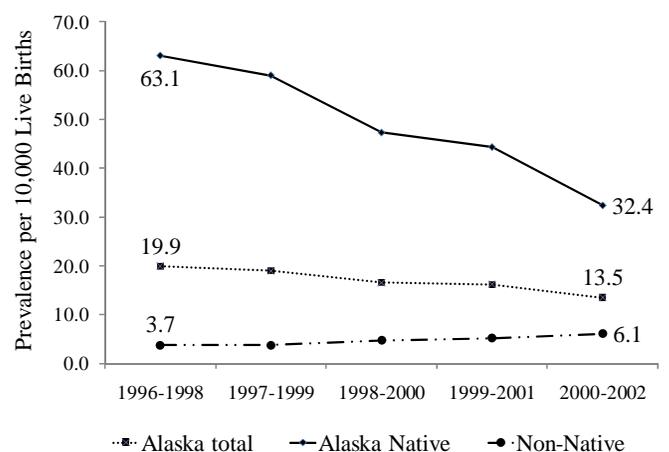
Discussion

In Alaska, FAS prevalence fell because of a reduction in risk among Alaska Native infants. Despite these improvements, population-specific FAS rates remain higher for Alaska Native children, although some of this increased risk may result from ascertainment bias. The observed decline occurred in association with a number of prevention activities²: development and sustainability of a network of community-based FASD Diagnostic Teams; development of university-level FASD curricula and statewide training programs for educators and providers; a statewide multi-media public awareness campaign; and increased substance use screening in primary care settings. The temporal association of declining FAS prevalence with these prevention activities suggests that these interventions played a role. It is unclear why FAS prevalence has not declined among non-Native children.

Recommendations

1. Health care providers should familiarize themselves with signs of alcohol abuse and provide patient education and appropriate referrals for pregnant and other women of childbearing age.³
2. Health care providers should familiarize themselves with the clinical presentation of FAS and provide appropriate interventions to affected children. Providers should evaluate children for FAS using standardized diagnostic criteria or refer patients to FAS diagnostic teams.⁴
3. All health care providers should comply with the state's requirements for conditions reportable to public health.⁵
4. Specialists should record diagnostic information in the child's medical record; including specific information on facial dysmorphism, growth delay and central nervous system development.

Figure 1. FAS prevalence by three-year moving averages, Alaska Birth Defects Registry, birth years 1996-1998 to 2000-2002.



References

1. CDC. Fetal Alcohol Syndrome --- Alaska, Arizona, Colorado, and New York, 1995-1997. *MMWR* 2002;51(20):433-5. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5120a2.htm>
2. Casto, D. Alaska's FAS Initiative Project. Alaska Division of Behavioral Health. Department of Health and Social Services. Personal communication. February, 2010.
3. AAP. Policy Statement. FAS and Alcohol-Related Neurodevelopmental Disorders. Available at: <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;106/2/358>
4. ADHSS. Diagnosing FAS. Available at: <http://www.faslink.org/diagnose.htm>
5. Section of Epidemiology, Division of Public Health, Department of Health and Social Services, State of Alaska. Conditions Reportable to Public Health. Available at: <http://www.epi.alaska.gov/pubs/conditions/crWhat.htm>