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Prenatal Smokeless Tobacco and Iq'mik Use in Alaska

Background

Smokeless (spit) tobacco, or chew, can cause cancer and non-cancerous oral conditions and lead to nicotine addiction and dependence (1). Smokeless tobacco use among Alaskan adults has remained relatively constant at 5% during the last decade with Alaska Native people reporting current chew use more than twice as often as non-Native Alaskans (2). Alaska Native women have high prenatal chew use rates (3,4) and commonly report use of iq'mik, a smokeless tobacco consisting of fungus, willow, or driftwood ash mixed with commercial tobacco (4-6).

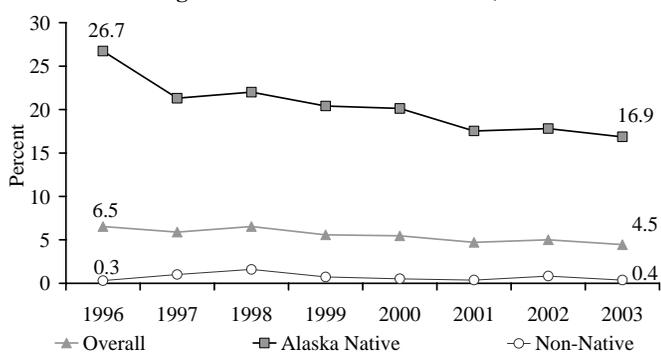
Methods

The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based, randomized surveillance system that surveys approximately 18% of mothers delivering a live-born infant in Alaska each year. Before 2004, PRAMS asked women only if they used prenatal smokeless tobacco. Starting with 2004 births, the survey also asked women if they used "a mixture of ash and tobacco, sometimes known as iq'mik or blackbull" during their most recent pregnancy, if they mixed the ash and tobacco in their mouth, and how many Copenhagen-sized cans they used in an average week.

Results

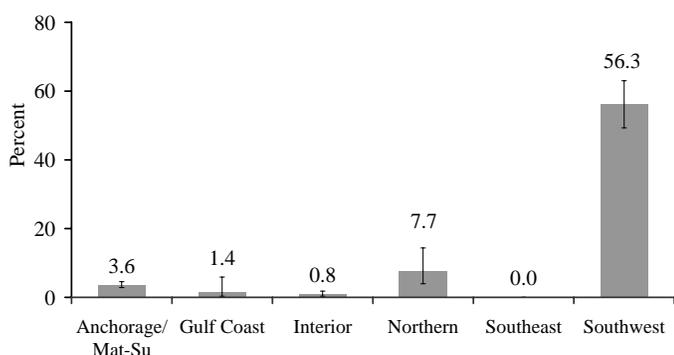
During 1996–2003, 20.2% of Alaska Native and 0.7% of non-Native Alaskan women reported prenatal smokeless tobacco use (RR, 27.6; 95% CI, 20.1 to 37.8). Alaska Native women experienced a 37% decrease in use (trend analysis, $p < 0.00001$) (Figure 1).

Figure 1. Percent Reporting Prenatal Smokeless Tobacco Use by Birth Year and Birth Certificate Report of Maternal Race Among Women Delivering a Live-Born Infant — Alaska, 1996–2003



During 2004–2005, 4.1% of all Alaskan women surveyed reported prenatal iq'mik and 2.7% reported spit tobacco use. Compared to women from other regions, women from Southwest Alaska reported prenatal use of iq'mik or spit tobacco over seven times more frequently than the region with the next highest reported use (Figure 2).

Figure 2. Percent Reporting Prenatal Iq'mik or Commercial Smokeless Tobacco Use by Region Among Women Delivering a Live-Born Infant — Alaska, 2004–2005



(Contributed by Kathy Perham-Hester, MCH Epidemiology Unit, Section of Women's, Children's, and Family Health)

During 2004, the prevalence of prenatal iq'mik or spit tobacco use among Alaska Native and non-Native women was 16.6% and 1.2%, respectively (RR, 14.2; 95% CI, 5.9 to 33.9). Among Alaska Native women, iq'mik or spit use increased to 20.8% during 2005 ($p=0.07$). During 2004–2005, compared to other age groups, teens (7.9%) and women age 35+ years (6.5%) had the highest prevalences of prenatal iq'mik or spit tobacco use. Among iq'mik users and spit users, respectively, 54.4% and 39.2% reported prenatal use of <1 can during an average week (range: 0–5 cans of iq'mik, and 0–7 cans of spit tobacco).

Discussion

Though Alaska Native women account for about 25% of Alaska's births (7), they account for nearly 90% of the prenatal iq'mik or spit tobacco users. Mothers resident in Southwest Alaska have a particularly high use rate. The historical and cultural basis for this concentration of use among this group of Alaskan women is not known. Although chew tobacco may contribute to nicotine addiction and adverse effects on the fetus, Alaska Native women report few perceived health effects, which may contribute to continued use (8). The increase in prenatal chew use among Alaska Native women from 2004 to 2005 and the higher prevalence among teenage mothers represent worrisome findings that require ongoing monitoring.

Recommendations

1. Tobacco prevention and cessation programs should target Alaska Native women of childbearing age who reside in Southwest Alaska. These efforts can be guided by the evidence-based model for comprehensive tobacco control programs developed by the CDC at www.cdc.gov/tobacco/.
2. Health care and public health professionals working with this population should emphasize the dangers associated with prenatal iq'mik and other smokeless tobacco use and should familiarize themselves with the following currently available resources:
 - Free tobacco cessation help is available through the Alaska Tobacco Quit Line: 888-842-QUIT (7848).
 - The Alaska Tobacco Prevention and Control Program has statewide resources: www.hss.state.ak.us/dph/chronic/tobacco
 - The Yukon-Kuskokwim and Bristol Bay Area Health Corporations have nicotine dependence treatment programs with resources: www.ykhc.org/708.cfm; www.bbahc.org/tobacco.html
 - The American Cancer Society gives tips on how to quit chew use http://www.cancer.org/docroot/PED/content/PED_10_13X_Quitting_Smokeless_Tobacco.asp?sitearea=&level
 - The Oregon Research Institute's website on tobacco cessation directed at smokeless tobacco users is www.chewfree.com/

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