

***The Impact of Cigarette Smoking Among
American Indians & Alaska Natives***

**Northern Plain Tobacco Prevention
& Cessation Symposium
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Objectives

- ◆ **Describe history of tobacco use among American Indians and Alaska Natives (AIANs)**
- ◆ **Describe the prevalence of cigarette smoking among AIANs**
- ◆ **Describe the impact of cigarette smoking on AIAN communities.**

Tobacco Use Among American Indians & Alaska Natives

- ◆ Tobacco was cultivated by American Indians prior to European contact (*Nicotiana rustica*)
- ◆ Other species cultivated in different regions of the US
- ◆ Introduced to European in 1600s

Tobacco Use Among American Indians & Alaska Natives

Role of Ceremonial Tobacco

- ◆ **Used for prayer and healing**
- ◆ **Used as an offering**
- ◆ **Presented as a sign of respect**
- ◆ **Plays significant role in creation stories**

Tobacco Use Among American Indians & Alaska Natives

Role of Commercial Tobacco

- ◆ Ceremonial use
- ◆ Casual use
- ◆ Profitable Enterprises
(e.g., smoke shops)
- ◆ Tobacco-sponsored events
(e.g., Pow-wow, rodeo)
- ◆ Native images for promotion



Tobacco Use Among American Indians & Alaska Natives

Role of Commercial Tobacco



Health Effects of Smoking

- ◆ **Coronary Heart Disease**
- ◆ **Peripheral Vascular Disease**
- ◆ **COPD**
- ◆ **Respiratory Symptoms**
- ◆ **Aortic Aneurysm**
- ◆ **Stroke**
- ◆ **Early menopause**
- ◆ **Duodenal & Gastric Ulcers**
- ◆ **Impotence**
- ◆ **Skin Aging**
- ◆ **Degeneration of vision**
- ◆ **Low birth weight babies**
- ◆ **Diabetes?**

Health Effects of Environmental Tobacco Smoke Exposure

◆ Developmental Effects

- Fetal growth, SIDS

◆ Respiratory Effects

- Lower respiratory tract infections, Asthma induction and exacerbation, chronic respiratory problems, middle ear infections, decreased pulmonary function.

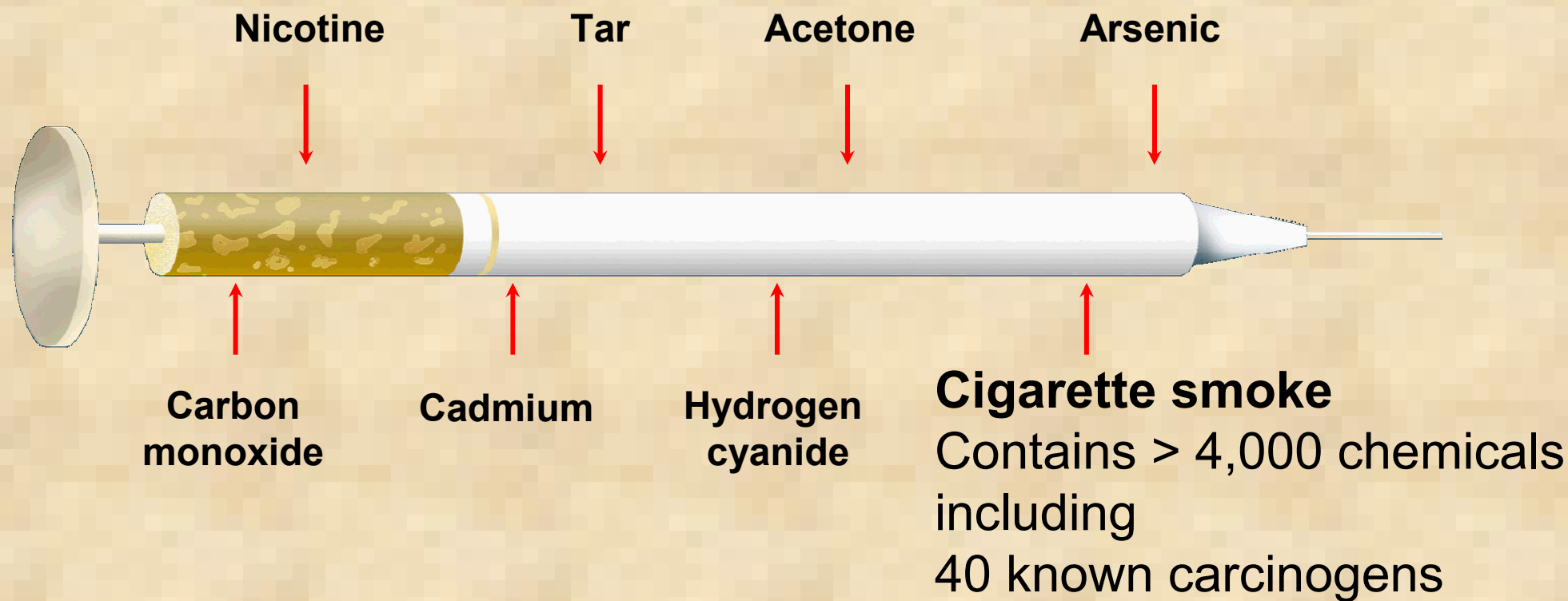
◆ Carcinogenic Effects

- Lung and Nasal Sinus Cancers, ? Cervical Cancer

◆ Cardiovascular Effects

- Heart disease mortality, acute CHD morbidity

Components of Cigarette Smoke

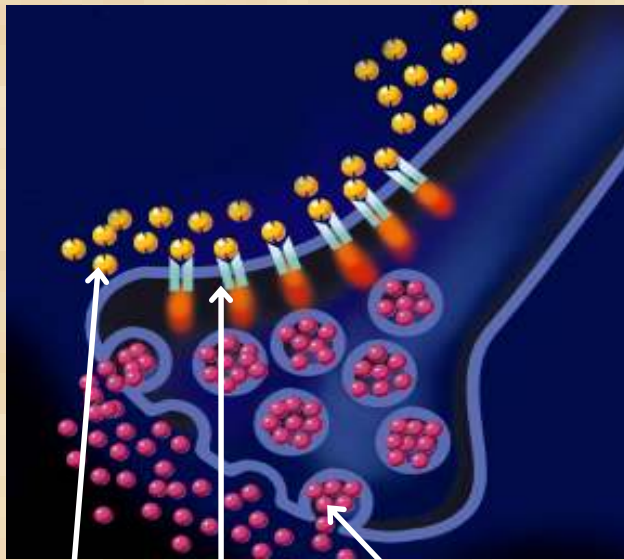


1. Shiffman S, et al. *Annual Review of Public Health* 1998; 19:335–358.

Commercial tobacco smokes contain toxic and harmful compounds

- ◆ **Cadmium (car batteries)**
- ◆ **Ammonia (cleaning products)**
- ◆ **Styrene (insulation)**
- ◆ **Vinyl Chloride (garbage bags)**
- ◆ **Benzene (rubber cement)**
- ◆ **Acetone (nail polish remover)**

Nicotine's Action in the Brain



Nicotine

Nicotinic
receptor
sites

Neuro-
transmitters
released

- Nicotine binds to nicotinic receptors which stimulate the release of neurotransmitters, such as dopamine and noradrenaline.^{1,2}
- Repeated doses of nicotine from smoking can cause the number of nicotinic receptors to increase by up to 300%, compared with non-smokers.²

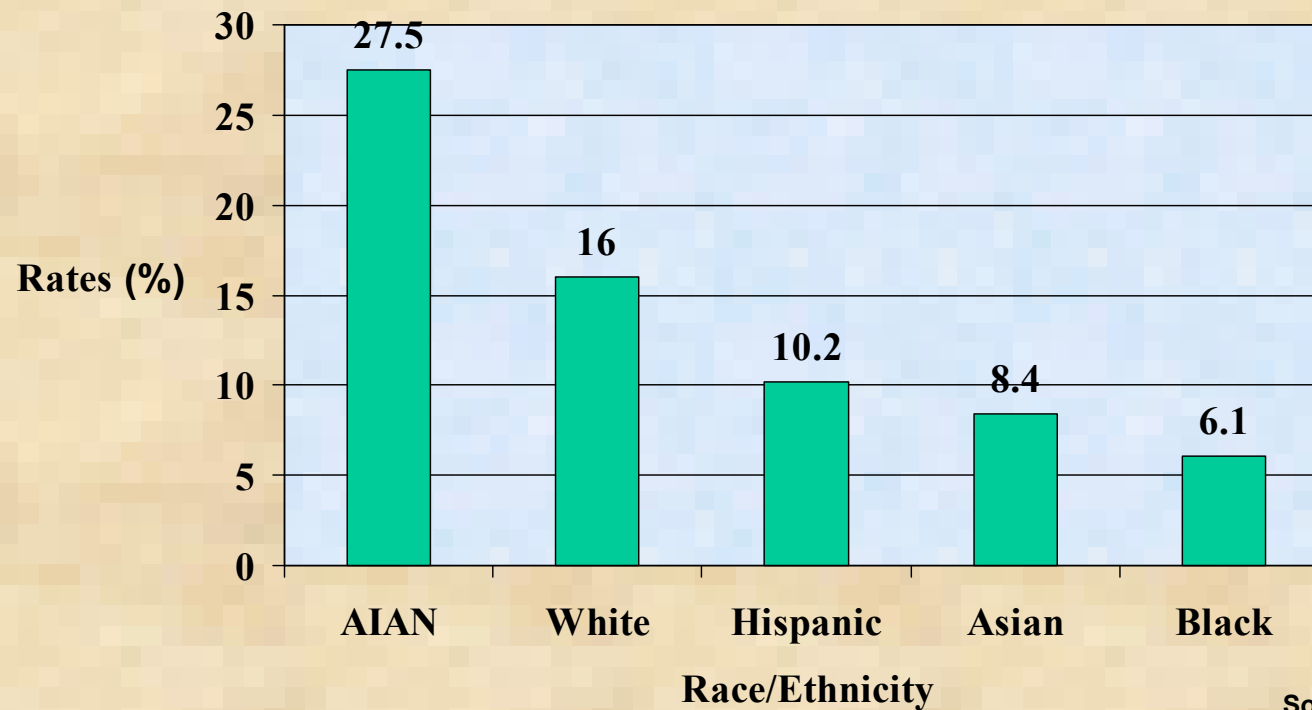
Nicotine's Action in the Brain

- ◆ **The euphoria (high) one gets from nicotine is 10 times stronger than cocaine or heroine.**
- ◆ **Addiction is so strong it can only take three cigarettes to become addicted.**
- ◆ **Adults who begin smoking as teenagers have a very difficult time quitting.**

Cigarette Smoking Among American Indians and Alaska Natives

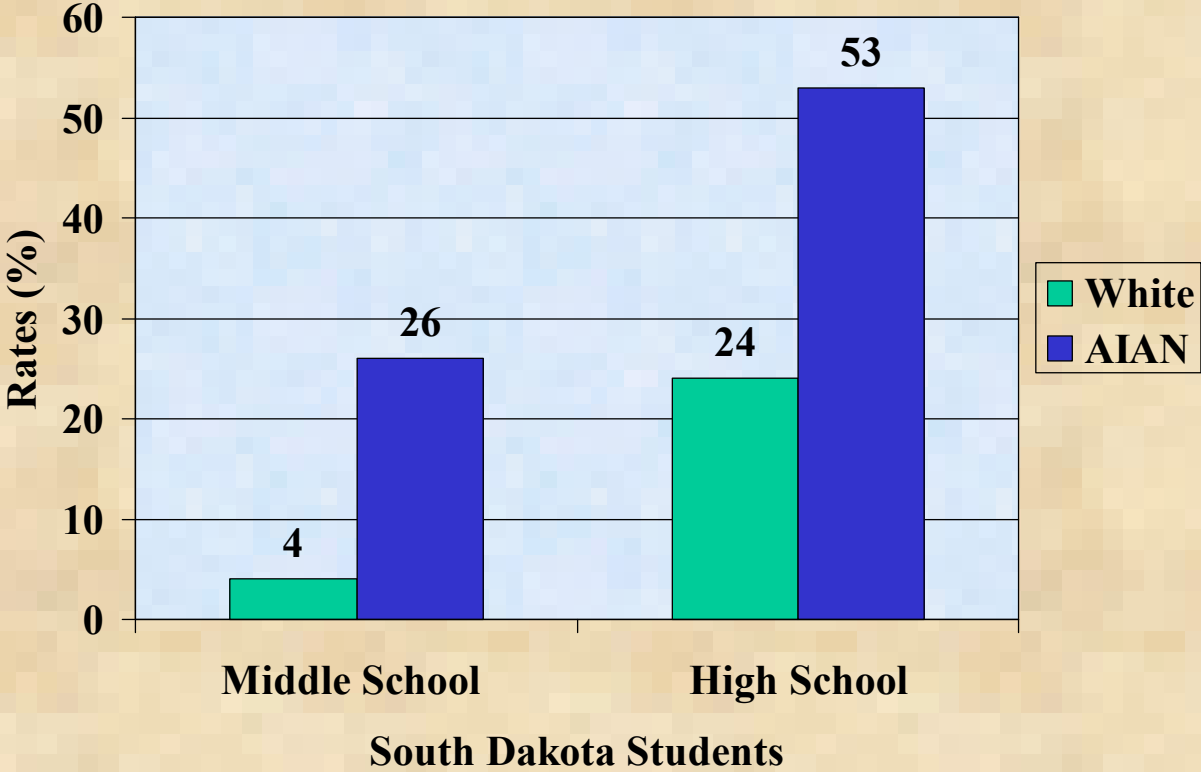
- ◆ **Smoking patterns among AIANs**
 - **AIANs have highest prevalence compared to the general population.**
 - **AIAN adolescents have highest rates compared to the general population**
 - **Rates vary by tribes and area.**
 - **Daily cigarette consumption lower than general population (10 vs. 21 cigs/day).**

Smoking Rates among US Youth Aged 12 to 17, by Race/Ethnicity: 2000



Source: Cigarette Use Among American Indian/Alaska Native Youth. The National Household Survey on Drug Abuse. SAMSA Jan 25, 2005

South Dakota Youth Current Smoking Rates: 2003

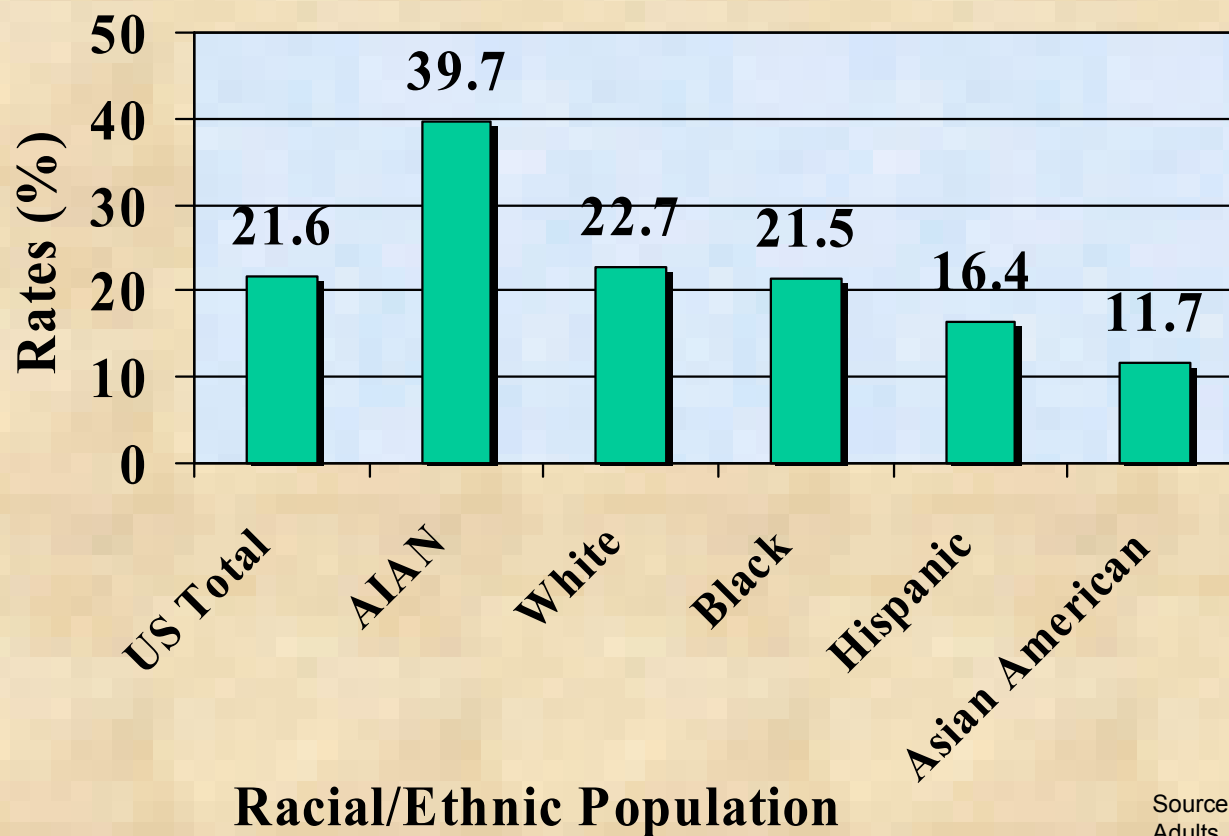


Source: South Dakota Youth Tobacco Survey 2003
South Dakota Dept. of Health Tobacco Control
Program.

Cigarette Smoking among Our Youth

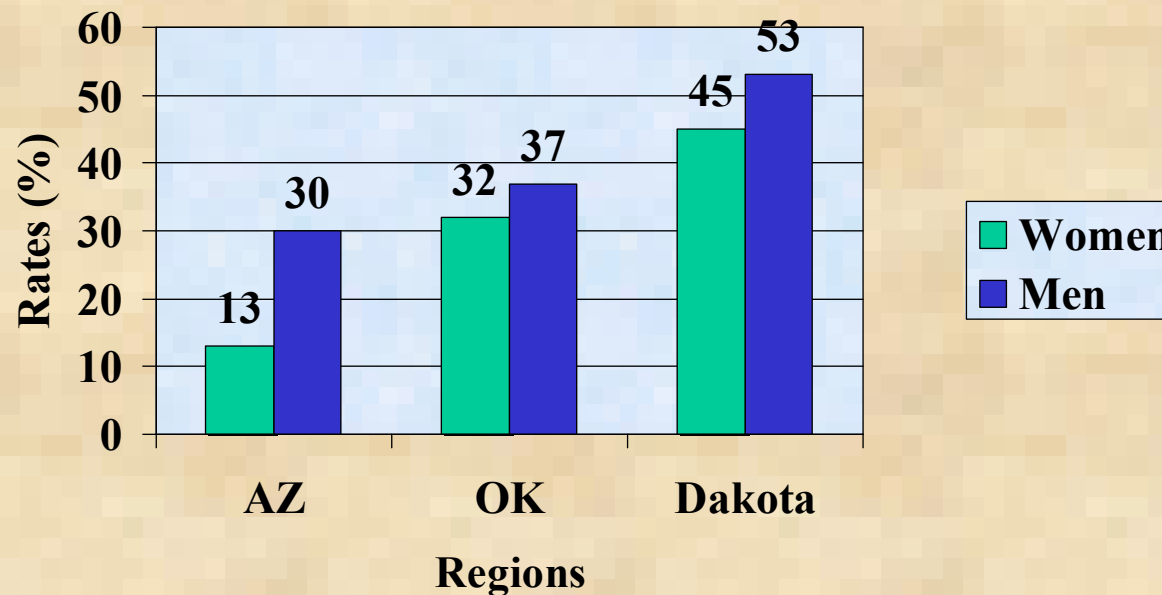
- ◆ **100% of children above the age of 10 are aware that smoking kills!**
- ◆ **“The fact that smoking is bad for you makes cigarettes a good teen product. It allows a teenager to say, 'I'm in control of my life.’”**
- ◆ **With a cigarette in hand, youth explains all the ailments caused by tobacco.**

Smoking Rates among U.S. Adult Population, Race/Ethnicity:2003



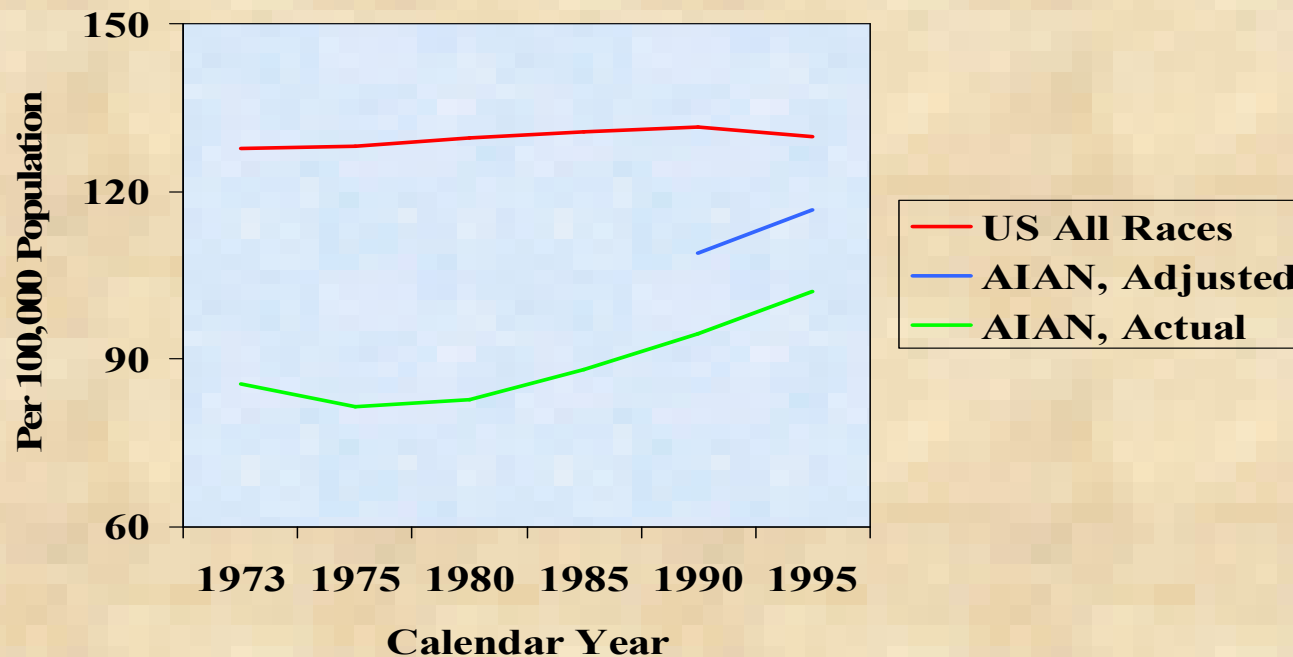
Source: CDC Cigarette Smoking Among Adults, 2003. MMWR, 2005, 54 (20).

Smoking Rates among American Indians and Alaska Natives: The Strong Heart Study



Source: Welty TK, Lee ET, Yeh J, et al. Cardiovascular disease risk factors among American Indians. The Strong Heart Study. *Am J Epidemiol.* Aug 1 1995;142(3):269-287.

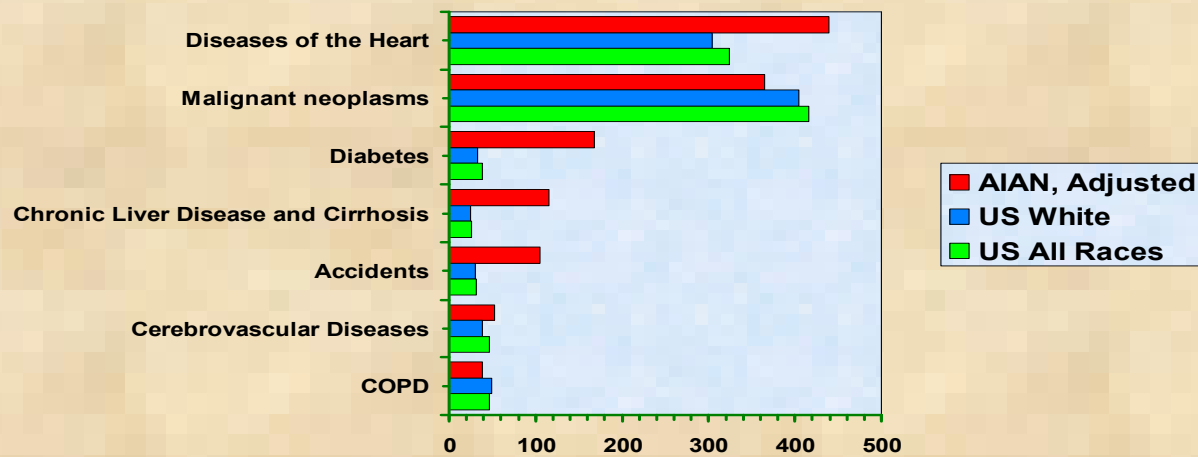
Age-Adjusted Malignant Neoplasm Death Rates



Source: Indian Health Service: Trends in Indian Health, 1998-1999

Adjusted –specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates

Death Rates, Leading Causes: Ages 55 to 64 Years



Deaths per 100,000 Population

Source: Indian Health Service: Trends in Indian Health, 1998-1999

Adjusted –specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates

Accidents includes motor and other accidents.

State of South Dakota: Health Impact and Cost Related to Smoking

◆ Deaths in South Dakota From Smoking

- Adults who die each year in South Dakota from their own smoking: **1,000**
- Annual deaths in state from others' smoking (2nd hand smoke & pregnancy smoking): **90 to 170**
- South Dakota kids who have lost at least one parent to a smoking-caused death: **900**
- Children alive today who ultimately die from smoking: **20,000** (given current smoking levels)

State of South Dakota: Health Impact and Cost Related to Smoking

◆ Tobacco-related Monetary Cost

- Annual health care expenditures in South Dakota directly caused by tobacco use: **\$214 million**
- Total South Dakota Medicaid program payments to tobacco use: **\$45 million**
- Smoking-caused productivity losses in South Dakota: **\$189 million**

Indian Health and Smoking

- ◆ **Annual budget of Indian Health Service: \$3 billion**
 - **How much of that is being spent on smoking-related diseases among AIAN families?**
 - **How much is spent on Commercial Tobacco Prevention among our AIAN youth?**
 - **How much is spent on Smoking Cessation programs in Indian country?**

Steps to Take To Make A Difference

◆ Individual

- **If smoker, seek help with quitting when ready to quit; if not ready to quit begin to think about quitting.**
- **If nonsmoker, encourage family members to quit, enforce non smoking policy in home; get involve with community to enforce smoking policies**

Steps to Take To Make A Difference

◆ Community and Tribal Leaders

- **Evaluate current smoking policies of tribes and communities.**
 - Are these policies helping those who want to quit?
 - Are these policies encouraging youth not to smoke?
- **Encourage tribal leaders to make a stand against commercial tobacco**

Steps to Take To Make A Difference

◆ Indian Health Service

- **Implement PHS Best Practice Guidelines: 5 As: Ask; Assess; Advice; Assist; Arrange.**
- **Appropriate more funds to prevention**
- **Appropriate more funds to cessation programs**
 - Does your local I.H.S have cessation programs?
 - Do they offer Nicotine Replacement Therapy to their patients?

Steps to Take To Make A Difference

◆ State

- **Appropriate more tobacco settlement funds to AIAN communities for prevention and cessation**
 - Current American Indian campaign against commercial tobacco is a step in the right direction
 - Evaluate the current Quit Line. How many AI are using this service? Do we need to think about another way to reach those who want to quit?

We Can Make A Difference

◆ Black Hills Center for American Indian

➤ Involve with the Tobacco-Free Rapid City Coalition

- Set up Tobacco information booths at LNI, Black Hills Pow-Wow, Great American Smoke Out Day on College Campus

➤ Tobacco-related Research Projects

- Smoking Cessation Intervention using Motivation Interviewing in a Lakota community
- Smoking Prevention Project among Rapid City Youth

We Can Make A Difference

- **Practice What We Preach: Be smoke free if you are going to talk with others about quitting!**
- **Use current smoking information to leverage funding for your community.**
 - **Many funding sources available for your community**
 - **Many resources (e.g. professionals both Native and non-Native who are currently working in this area) available**

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