American Indian/Alaskan Native Tobacco Use Among Youth and Young Adults

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The findings and conclusions are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention
Disclosure

• The presenter has no financial relationship to this program.
Objectives

At the end of this presentation, participants will be able to:

1. Understand trends in cigarette smoking among American Indian/Alaska Native (AI/AN) youth and young adults compared with white youth and young adults.

2. Identify key indicators helpful for tobacco interventions among youth and young adults in AI/AN communities.

3. Recognize differences in AI/AN youth and young adult smoking prevalence across U.S regions.
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Presentation Overview

• Purpose: To describe recent trends in AI/AN cigarette smoking among youth and young adults

• Identify key indicators helpful for interventions in AI/AN communities
Major Points

• AI/AN youth and young adult cigarette smoking prevalence is higher than for white youth and young adults

• AI/AN youth and young adult prevalence varies across U.S regions

• Two fundamental shifts occurred in youth and young adult smoking behaviors over the past 20 years
Historic Trends

• Historically, AI/AN adult cigarette smoking prevalence was higher than for all other racial/ethnic groups

• Smoking among youth (all races) peaked in the early 1990’s
The percentage of American Indian/Alaska Natives (AI/AN) who smoke cigarettes is higher than for whites*

* 1985 – 2010 Behavioral Risk Factor Surveillance System, results from published studies, selected states, BRFSS data pooled over years indicated
Trends in prevalence (%) of past 30-day smoking among young people over time, by grade level; Monitoring the Future (MTF) 1975–2010

A. 8th, 10th, and 12th grades, 1975–2010
Measures of Youth and Young Adult Cigarette Smoking

- Smoked cigarettes on 1+ days in the past 30 days
- Smoked 100+ cigarettes lifetime
- Smoked 1st cigarette in the last year
- 1st smoked daily for at least 30 days, in the last year
National Survey on Drug Use and Health (NSDUH)

- Nationally representative survey
- Household survey of randomly selected households
- Large numbers of completes; very accurate responses due to private interview protocol
- Best national surveillance system for estimating drug use and correlates
- Combined 2002 to 2013 surveys
- Youth: aged 12-17
- Young Adult: aged 18-25
NSDUH Questions: Current Smoking and Uptake of Smoking

• Current Smoking
  – During the past 30 days, that is since [DATEFILL], on how many days did you smoke part or all of a cigarette?

• Uptake (aka Progression to Established Smoking)
  – Have you smoked at least 100 cigarettes in your entire life?
Prevalence of past 30 day cigarette smoking; youth and young adults
Source: NSDUH 2002-2013

Age 12-14

Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Percent</th>
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<tbody>
<tr>
<td>White</td>
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<tr>
<td>Black</td>
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<tr>
<td>AI/AN</td>
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<tr>
<td>Pac Isl</td>
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<tr>
<td>Asian</td>
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<tr>
<td>Mult Race</td>
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Prevalence of past 30 day cigarette smoking; youth and young adults

Source: NSDUH 2002-2013

Age 15-17

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<td>White</td>
<td>20</td>
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<tr>
<td>Black</td>
<td>10</td>
</tr>
<tr>
<td>AI/AN</td>
<td>40</td>
</tr>
<tr>
<td>Pac Isl</td>
<td>10</td>
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<tr>
<td>Asian</td>
<td>5</td>
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<td>Mult Race</td>
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Prevalence of past 30 day cigarette smoking; youth and young adults
Source: NSDUH 2002-2013

Age 18-21

Percent

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<th>AI/AN</th>
<th>Pac Isl Race</th>
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<tbody>
<tr>
<td>Percent</td>
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<td>20</td>
<td>50</td>
<td>30</td>
<td>20</td>
<td>40</td>
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Prevalence of past 30 day cigarette smoking; youth and young adults

Source: NSDUH 2002-2013

Age 18-25

Percent

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<th>AI/AN</th>
<th>Pac Isl</th>
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<tr>
<td>Percent</td>
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<td>40</td>
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Prevalence of past 30 day cigarette smoking; youth and young adults
Source: NSDUH 2002-2013
Stages of Smoking Initiation Among Children and Adolescents (Flay, 1993)

Preparatory Stage
Formation of attitudes and beliefs about smoking

Trying Stage
Smokes first few cigarettes

Experimental Stage
Smokes often but not at regular intervals

Regular Use
Smokes at least weekly in variety of situations and personal interactions

Addiction
Develops physiological need for nicotine
Prevalence of smoked 100+ cigarettes youth and young adults
Source: NSDUH 2002-2013
NSDUH Questions: 
Initiation of Cigarette Use

• Initiation of Cigarette Use
  – How old were you the first time you smoked part or all of a cigarette?
  – Did you first smoke part or all of a cigarette in [CURRENT YEAR - 1] or [CURRENT YEAR]?

• Initiation of Daily Cigarette Use
  – Has there ever been a period in your life when you smoked cigarettes every day for at least 30 days?
  – How old were you when you first started smoking cigarettes every day?
  – Did you first smoke cigarettes every day in [CURRENT YEAR - 1] or [CURRENT YEAR]?
Incidence of 1st smoked a cigarette youth and young adults
Source: NSDUH 2002-2013

- AI/AN
- White

Age at Survey:
- 12-14
- 15-17
- 18-21
- 22-25

Percent
Incidence of 1st smoked a cigarette AI/AN youth and young adults
Source: NSDUH 2002-2013

Age at Survey

Percent

<table>
<thead>
<tr>
<th>Age at Survey</th>
<th>Males</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-14</td>
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<td>15-17</td>
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<tr>
<td>18-21</td>
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<tr>
<td>22-25</td>
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</table>
Incidence of 1st smoked a cigarette
AI/AN youth and young adults
Source: NSDUH 2002-2013

[Bar chart showing the incidence of 1st smoked a cigarette among AI/AN youth and young adults by age group (12-14, 15-17, 18-21, 22-25) and gender (Male, Female) for the years 2002-2013.]
Incidence of 1st smoked cigarettes daily youth and young adults
Source: NSDUH 2002-2013
Incidence of 1st smoked cigarettes daily
AI/AN youth and young adults
Source: NSDUH 2002-2013

Age at Survey

Percent

AI/AN Only

Male
Female

12-14
15-17
18-21
22-25
Incidence of 1st smoked cigarettes daily
AI/AN youth and young adults
Source: NSDUH 2002-2013
Correlates of Cigarette Smoking

• Past 30 day cigar use

• Past 30 day marijuana use

• Get a real kick out of doing dangerous things

• Family income
Prevalence of past 30 day cigarette smoking and past 30 day marijuana use; AI/AN youth aged 12-17 years
Source: NSDUH 2002-2013
Prevalence of past 30 day cigarette smoking; AI/AN youth aged 12-17 years

Source: NSDUH 2002-2013

Get a Kick Out of Doing Dangerous Things

- Never
- Seldom
- Sometimes
- Always

Boys
Girls

Percent
Prevalence of past 30 day cigarette smoking; AI/AN youth aged 12-17 years
Source: NSDUH 2002-2013

![Bar chart showing the prevalence of past 30 day cigarette smoking among AI/AN youth aged 12-17 years by family income and gender.](chart.png)
BRFSS Methods – Young Adults 18-24

- Combined 2000 – 2010 BRFSS surveys in 34 states

- Included only respondents in CHSDA counties
BRFSS Questions

• Current Smoking
  – 1. Have you smoked at least 100 cigarettes in your entire life?
  – 2. Do you now smoke cigarettes every day, some days, or not at all?

• Current Smokers – answered “yes” to both items
• Former Smokers – answered “yes” to #1 and “no” to #2
Prevalence of current cigarette smoking AI/AN young adults aged 18-24 years

Source: BRFSS 2000-2010

![Bar chart showing the prevalence of current cigarette smoking among AI/AN young adults by gender and region.

- **Northern Plains**: Male (50%) and Female (40%
- **Alaska**: Male (60%) and Female (50%
- **Southern Plains**: Male (45%) and Female (35%
- **Southwest**: Male (30%) and Female (25%
- **Pacific Coast**: Male (65%) and Female (55%

Legend: Blue = Male, Red = Female]
Summary

• Looked at four measures of cigarette smoking:
  – Past 30 day
  – Smoked 100 cigarettes lifetime
  – 1st smoked a cigarette in year preceding survey
  – 1st smoked cigarettes daily in year preceding survey
• AI/AN had higher smoking prevalences and higher initiation rates than whites
• We found an increase in smoking uptake among AI/AN women
• There has been a shift in initiation from younger adolescents to older adolescents and young adults
Making Adolescent Experimenters into Established Smokers — A Challenge for the Tobacco Industry

...Before proceeding too far in the direction of design of dosage forms for nicotine, it may be well to consider another aspect of our business; that is, the factors which induce a pre-smoker or non-smoker to become a habituated smoker. Paradoxically, the things which keep a confirmed smoker habituated and “satisfied,” i.e., nicotine and secondary physical and manipulative gratifications, are unknown and/or largely unexplained to the non-smoker. He does not start smoking to obtain undefined physiological gratifications or reliefs, and certainly he does not start to smoke to satisfy a non-existent craving for nicotine.

Source: Teague Claude E, Jr., RJR. “Research planning memorandum of the tobacco business and the crucial role of nicotine therein.” April 14, 1972. Tobacco Documents, Bates no.: 500915683/5691
Conclusions

• The shift in initiation of cigarette use to older ages presents opportunities and challenges
• Interventions need to be culturally tailored to native people
• The most effective data on smoking rates are those collected in local communities
• Smoking uptake is driven by environmental factors; need to address these factors to reduce uptake rates
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