Tobacco 101
Part One, Lesson 2
Introduction to Tobacco 101
Welcome to TTAC's Tobacco 101! Tobacco 101 is a self-guided tutorial that provides the information and resources necessary to understand why tobacco use is considered the #1 preventable cause of death in the US, as well as the evidence-based and promising strategies that can reduce tobacco’s toll. You can benefit from this course whether you are new to tobacco control and need an introduction to key topics, or are an experienced professional looking to refresh and update your knowledge.

Tobacco 101 was revised in the spring of 2013 to contain the latest information, resources, and tools available. The user-friendly self-guided format allows you to complete the tutorial at your own pace and explore the various external resources and tools as needed. Tobacco 101 is organized into two parts comprised of four lessons each. Optional review questions are offered at the end of each lesson to allow you to check your understanding of the content, try some of the resources, and reflect on how the information applies to your role in tobacco control.

You can start at the beginning and read through the course from beginning to end or simply select those sections that are of greatest interest.

Part 1: Introduction to Prevention and Control of Tobacco Use
• Lesson 1: The Evolution of Tobacco Control
• Lesson 2: Tobacco Use in the United States
• Lesson 3: Impact of Tobacco Use
• Lesson 4: Factors that Determine Tobacco Use

Part 2: Reducing the Problem of Tobacco Use
• Lesson 1: Credible Tobacco Control Resources and Key Partners
• Lesson 2: Tobacco Control Models
• Lesson 3: Effective Tobacco Control Policies
• Lesson 4: Strategies for Success

TTAC also provides tailored, on-site Tobacco 101 trainings for organizations who want to include it in conferences and workshops. To learn more, visit our website www.tacenters.emory.edu or contact us at tacenters@emory.edu.
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**PART 1:**
INTRODUCTION TO PREVENTION AND CONTROL OF TOBACCO USE

**LESSON TWO**

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Lesson Two Learning Objectives

In Lesson Two, we will discuss the trends in tobacco use among adults, young people, and other specific populations in the United States. At the end of the lesson you should be able to:

1. **Explain why examining tobacco use data is important.** Local and national data are vital to understanding the problem of tobacco use and which solutions work best.

2. **Describe trends in tobacco use in the United States.** Our nation’s tobacco use prevalence has declined during the last 20 years. However, the current prevalence estimate of slightly below 20% is still extremely detrimental to our society.

3. **Use credible data sources to find information on the prevalence and effects of tobacco use.** Knowing where to find reliable data is important. We count on national, state, and local organizations to supply us with up-to-date data.
Definitions of Key Terms

Before beginning this lesson, let’s take a moment to define a few key words:

- **Current User**: A person who has used the tobacco product(s) in question at least once within 30 days of being surveyed. This includes daily users, as well as occasional users.

- **Prevalence**: The proportion of current users in a given population:

  \[
  \text{Prevalence} = \frac{\text{Number of current users}}{\text{Total number in population studied}}
  \]

- **Tobacco Smoking Prevalence**: includes data on smoking cigarettes, cigars, pipes, and any other smoked tobacco products. It does not include data on the use of smokeless products like spit tobacco and snuff.

In Lesson Two, we’ll be talking about prevalence and the trends in tobacco use by adults, young people, and other specific populations in the United States.
Why Tracking Tobacco Use is Important

This lesson will describe several trends in tobacco use, and will include data collected using reliable methods. It is important to understand health data and its quality, as it is the foundation and driver of health planning and decision making. Stakeholders, elected officials and the media often turn to state tobacco programs as a source of information about adult and youth tobacco use which makes it imperative that the data provided to them is accurate and reliable.

Knowing prevalence data also improves your ability to better understand the need for and impact of tobacco control. This is largely because the prevalence of tobacco smoking among adults is an important measure of the health and economic effects of tobacco use. It serves as a baseline measure for evaluating the effectiveness of tobacco control programs over time and is an important and challenging first step in planning for the needs of your community.

Tobacco use data are useful because they:

- Help to accurately describe the tobacco use problem.
- Inform how program resources should be targeted to address the problem.
- Can be used to educate communities and stakeholders about tobacco use and the importance of prevention and cessation efforts.
- Help evaluate program strategies and overall program effects. In turn, program evaluation contributes to the research leading to best practices for tobacco control programs.
Smoking Prevalence in the United States

CDC data from 2010 show that **45.3 million** adults in the United States are current smokers, making the smoking prevalence rate **19.3%**. The national prevalence rate dropped below 20% in 2009, which was a major milestone in tobacco control. Cigarette smoking is slightly more common among men - an estimated 21.5% of adult men smoke, compared to 17.3% of women.

As you can see from the map below, prevalence rates vary significantly between states. The states with the most smokers are in the Midwest and Southeast regions. West Virginia (26.8%) and Kentucky (24.8%) have the highest rates, while Utah (9.1%) and California (12.1%) have the lowest. We will discuss some of the factors that determine those differences later lessons.

**Prevalence Rates by State**
Smoking Prevalence Varies by Education Level

Trends in Cigarette Smoking Among Adults aged ≥25 Years, by Years of Education
United States, 1970-2006

<table>
<thead>
<tr>
<th>Education Level</th>
<th>% Current Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>GED diploma</td>
<td>45.2%</td>
</tr>
<tr>
<td>9-11 years of education</td>
<td>33.8%</td>
</tr>
<tr>
<td>High school diploma</td>
<td>23.8%</td>
</tr>
<tr>
<td>Undergraduate college degree</td>
<td>9.9%</td>
</tr>
<tr>
<td>Postgraduate college degree</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

The charts above show that smoking prevalence differs considerably by education level. Generally, as years of education increase, prevalence rates decrease. In other words, smoking prevalence is lower among adults with more education, and higher among adults with lower levels of education. The top chart shows that the disparities have remained for over forty years, even though smoking prevalence has declined in all groups over time.

Note: The low prevalence of smokers with less than eight years of education may be attributable to individuals who emigrated as adults from countries where smoking rates are low. Few adults born in the US have less than an eighth grade education.
Smoking Prevalence Varies by Race and Ethnicity

Trends in Cigarette Smoking Among Adults aged ≥18 Years, by Race/Ethnicity
United States, 1978-2006

Percentage of adults who were current smokers in 2010, by race/ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>% Current Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indians/Alaska Natives</td>
<td>31.4%</td>
</tr>
<tr>
<td>Whites</td>
<td>21.0%</td>
</tr>
<tr>
<td>Blacks</td>
<td>20.6%</td>
</tr>
<tr>
<td>Hispanics</td>
<td>12.5%</td>
</tr>
<tr>
<td>Asians</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

The charts above show that some racial or ethnic groups tend to have a higher prevalence of tobacco use than others do. While smoking prevalence has declined over time in all racial and ethnic groups, disparities clearly exist. In particular, American Indians and Alaska Natives have nearly double the prevalence of smoking compared to the lowest groups. Future success at reducing tobacco use will be facilitated by better understanding of specific needs of those populations with the highest prevalence of tobacco use.
Smoking Prevalence Varies by Age

This graph shows that the percentage of current smoking adults (men and women) is fairly consistent across adult age groups, with the exception of those over age 65. The prevalence rate is much lower for those aged 65 years or older (9.5%). This is believed to be because many smokers have died by this age or have been motivated by serious health problems to quit.
Smoking Prevalence Varies by Poverty Status

This chart demonstrates the higher tobacco prevalence for people at lower income levels ("below" the poverty line) compared to those with a higher income ("at/above" the poverty line). Estimates from 2010 show this gap has widened even further, with 28.9% of adults living below the poverty level smoking compared to 18.3% who live at or above poverty.

People below the poverty level tend to be less educated and are often targeted heavily by the tobacco industry marketing campaigns. Because those living below the poverty line are often more exposed to tobacco advertising tactics, they are more likely to begin to smoke. This will be discussed further in Lesson 4.
Smoking Prevalence in the LGBT Community

Available current data show that the LGBT population smokes at rates nearly 50% to 200% higher than the rest of the population. Gay, bisexual, and transgender men are 2.0 to 2.5 times more likely to smoke than heterosexual men. Lesbian, bisexual and transgender women are 1.5 to 2.0 times more likely to smoke than heterosexual women. Among youth, bisexual boys and girls have some of the highest smoking rates when compared with both their heterosexual and homosexual peers.

Currently, most state and national health surveys do not collect information on sexual orientation and gender identity. More data will need to be captured to be able to more accurately describe the use of tobacco among the LGBT community.

For Further Information...about smoking in the LGBT community, take a look at:

- Smoking Out a Deadly Threat: Tobacco Use in the LGBT Community

- LGBT People and Tobacco Fact Sheet
Smoking Prevalence among Pregnant Women

Prevalence of smoking before pregnancy, during pregnancy, and after delivery by year --- Pregnancy Risk Assessment Monitoring System (PRAMS), United States, 16 sites, 2000--2005

Women of reproductive age (18-44 years) who smoke are at greater risk of adverse pregnancy outcomes and adverse health consequences for themselves. The chart above shows estimated smoking prevalence among women before, during, and after pregnancy from 2000 to 2005. In 2005, approximately 14% of women giving birth reported smoking at some point during pregnancy.

Pregnancy is an opportune time to encourage women to quit smoking for their lifetime. This graph shows that about a third of women quit smoking during pregnancy, but that nearly 40% relapse within four months following delivery. Researchers also found that the women who were more likely to relapse to smoking after delivery were younger and had a lower annual income.

For Further Information... about smoking among pregnant women, check out:

- Smoking Prevalence Among Women of Reproductive Age --- United States, 2006
  [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5731a2.htm#tab1](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5731a2.htm#tab1)

- Tobacco Use and Pregnancy
Youth Smoking Prevalence

Trends in Current Cigarette Smoking by High School Students and Adults, United States 1965-2012

Tobacco use is also a problem among youth. This graph shows a sharp decline in cigarette smoking among high school students from 36.4% in 1997 to 21.9% in 2003. Since then, the trend has slowed but is still continuing to go down. The 2011 Youth Risk Behavior Surveillance Survey reports a current cigarette smoking prevalence of 18.1% among high school students.

If teen smoking prevalence continues this rate of decline, the United States could achieve the Healthy People 2020 objective of reducing current smoking rates among high school students to 16%.

Remember that current smoking for youth is defined as having smoked on one or more days of the 30 days preceding the survey.
Tobacco Use Among Youth and Young Adults

The 2012 Surgeon General’s Report Preventing Tobacco Use Among Youth and Young Adults states that tobacco use is a pediatric epidemic around the world, as well as in the United States. Here are some facts about teen tobacco use in the United States:

1. One in four high school seniors and one in three young adults are current smokers.
2. Each day in the US over 3,800 youth under 18 start smoking.
3. About 1 in 8 high school males are current smokeless tobacco users.
4. Nearly one of three high school seniors has tried a cigar.
5. The majority of high school males who currently use tobacco use more than one product.
6. Tobacco use is higher among low socioeconomic status youth.
7. After years of steady progress, declines in the use of tobacco by youth and young adults has slowed for cigarette smoking and stalled for smokeless tobacco use.
8. Most adult smokers – about 80% - started smoking before they were 18 years old.

For Further Information...about tobacco use among youth and young adults, check out:

- Youth and Tobacco Use Fact Sheet from the CDC: [http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm)
Tobacco Data Sources

The tobacco data presented in reports, fact sheets, websites, and other resources are collected through the use of health surveys. Some of the surveys commonly used to collect state, national, and global are:

**Youth Tobacco Survey (YTS)**
The CDC began the YTS to help states design, implement, and evaluate comprehensive tobacco control programs. The school-based data measure contains components of CDC’s best practices for tobacco control programs and assesses the prevalence of smoking among adolescents and teenagers as well as smoking behavior.

**Global Adult Tobacco Survey (GATS)**
The Global Adult Tobacco Survey (GATS), launched in February 2007, is designed to produce national and sub-national estimates on tobacco use, exposure to second hand smoke, quit attempts among adults across countries, and indirectly measure the impact of tobacco control and prevention initiatives using a standard protocol.

**State Tobacco Activities Tracking and Evaluation (STATE) System**
The STATE System is an electronic data warehouse containing up-to-date and historical state data on tobacco use prevention and control. The STATE System allows researchers to build reports for behaviors, demographics, economics, environment, funding, health consequences, costs and policy proposals.

**Behavioral Risk Factor Surveillance System (BRFSS)**
BRFSS is a state-based system of health surveys that collects information on health risk behaviors, including smoking. For many states, BRFSS is the only source of timely, accurate data on health-related behaviors.
Finding Data about Your State

We have focused mainly on national level tobacco use data so far, but state level data is equally important in tobacco control efforts. Each year, the CDC publishes state highlights on the effects of tobacco use and includes a breakdown of prevalence data by race/ethnicity, education level, and age. These highlights also show how each state compares to other states and the national average on key prevalence and policy measures.

Click here to access an interactive map that allows you to view highlights for each state. You can also download a full report of these highlights, Tobacco Control State Highlights 2010.
Tobacco Use in the United States

Lesson Two explained why tobacco use data is examined, and how it is used. The lesson illustrated some of the trends in tobacco use in the United States, showing us that even though tobacco use has declined over time, there is still work to be done, particularly in reducing tobacco use in certain populations. This lesson also provided information about the surveys that give us information about tobacco use, and where to find information about tobacco use in your state.

In the next lesson we will discuss the effects of tobacco use, including effects on the body, from both direct tobacco use and secondhand smoke. The lesson will also discuss the effects of tobacco use on the US economy, productivity, and the healthcare system.
Lesson Two Check for Understanding

1. True or false: The equation used to calculate the prevalence of smokers is:
   \[
   \text{Prevalence} = \frac{\text{Number of current smokers}}{\text{Total number in population studied}}
   \]
   a. True
   b. False

2. Which of the following trends has been observed in tobacco prevalence data:
   a. As education level decreases, smoking prevalence increases
   b. Men smoke at a higher rate than women
   c. As income decreases, smoking prevalence increases
   d. American Indians have the highest smoking rates across racial/ethnic populations
   e. All of the above trends have been observed in tobacco prevalence data

3. Think about it: Go to the Highlights by State website. Click on your state to bring up the state highlights, and then write down the answers the following questions. In your state:
   a. What is the overall adult smoking prevalence?
   b. Which racial or ethnic group has the highest smoking prevalence? The lowest?
   c. What percentage of youth 12-17 smoke in your state? How does your state rank?

4. Which of the following statements is NOT a reason why examining tobacco data is important?
   a. It helps to accurately describe the tobacco use problem.
   b. It informs how program resources should be targeted to address the problem.
   c. It is a federal legal requirement.
   d. It is used to educate communities and stakeholders about tobacco use and the importance of prevention and cessation efforts.
   e. It is used to evaluate program strategies and overall program effects.

5. Think about it: From reading about the current trends in tobacco use, what do you think needs to be a focus of current tobacco control efforts?
Lesson Two Check for Understanding Answer Key

1. True or false: The equation used to calculate the prevalence of smokers is:

\[
\text{Prevalence} = \frac{\text{Number of current smokers}}{\text{Total number in population studied}}
\]

   a. True
   b. False

Correct Answer: True. “Need to review? Go back to the “Definitions of Key Terms” page.”

2. Which of the following trends has been observed in tobacco prevalence data:
   a. As education level decreases, smoking prevalence increases
   b. Men smoke at a higher rate than women
   c. As income decreases, smoking prevalence increases
   d. American Indians have the highest smoking rates across racial/ethnic populations
   e. All of the above trends have been observed in tobacco prevalence data

Correct Answer: e. “Need to review? Go back to the “Smoking Prevalence” pages.”

3. Think about it: Go to the Highlights by State website. Click on your state to bring up the state highlights, and then write down the answers the following questions. In your state:
   a. What is the overall adult smoking prevalence?
   b. Which racial or ethnic group has the highest smoking prevalence? The lowest?
   c. What percentage of youth 12-17 smoke in your state? How does your state rank?

Correct Answer: Answers will vary.

4. Which of the following statements is NOT a reason why examining tobacco data is important?
   a. It helps to accurately describe the tobacco use problem.
   b. It informs how program resources should be targeted to address the problem.
   c. It is a federal legal requirement.
   d. It is used to educate communities and stakeholders about tobacco use and the importance of prevention and cessation efforts.
   e. It is used to evaluate program strategies and overall program effects.

Correct Answer: c. “Need to review? Go back to the “Why Tracking Tobacco Use is Important” page.”

5. Think about it: From reading about the current trends in tobacco use, what do you think needs to be a focus of current tobacco control efforts?

Correct Answer: Answers will vary.
Lesson Two Sources

Resources Used

2. Slide 4: Vital Signs: Current Cigarette Smoking Among Adults Aged ≥18 Years - United States, 2005-2010. Available: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6035a5.htm?s_cid=mm6035a5_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6035a5.htm?s_cid=mm6035a5_w)

Images Used