Monitoring Changing
TOBACCO USE BEHAVIORS IN MARYLAND

A Report on the fiscal year 2001 and 2003 Maryland Tobacco Surveys

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Maryland Department of Health and Mental Hygiene

Cigarette Restitution Fund's
Tobacco Use Prevention and Cessation Program

September 2003

Maryland Department of Health and Mental Hygiene

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Maryland Tobacco Use Prevention and Cessation Program

A Cigarette Restitution Fund Program

On the Internet at: http://www.fha.state.md/crfp/html/stats.cfm

September 2003

STATE OF MARYLAND

DHMH

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Each year in Maryland, more of our citizen's die prematurely as a result of their use of tobacco than from AIDS, accidents (including car accidents), alcohol, homicides, illegal drugs, suicides, and fires combined. The burden that tobacco places on Maryland's health care system totals an estimated $1.5 billion annually and is growing. Federal and state expenditures to pay for the burden that tobacco use is placing on the nation, costs each Maryland household an estimated $552 in additional income tax each year. The only way to reduce the burden of tobacco use is to reduce the use of tobacco.

The Department of Health and Mental Hygiene is spearheading Maryland's efforts to reduce tobacco use in the state. Our vision is to reduce tobacco use by 50% from what it was in 2000. This goal is achievable, particularly when one considers that over 50% of Marylanders who smoke (under-age youth as well as adults) want to stop using tobacco. The challenges are in trying to assist our citizens to overcome an addiction to nicotine and in helping our youth to resist peer pressure and the lure of tobacco industry advertising promoting their respective tobacco products.

This report represents the Department's first opportunity to assess how tobacco use has changed since the fall of 2000 when we conducted our baseline tobacco surveys. I am pleased to report that Maryland has made substantial progress towards its goal. Tobacco use has declined by 14% in just two years among underage Maryland youth and by over 9% among Maryland adults.

As good as that news is, much more needs to be done before we have achieved our goal. Over 80,000 underage Maryland youth still use tobacco together with 780,000 adults. Until the number of Marylander's whose health is placed at risk by tobacco use is significantly reduced, we must continue our work on this important public health issue.

Very Truly Yours,

Nelson J. Sabatini
Secretary

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Introduction

Introduction

The Centers for Disease Control and Prevention estimates that tobacco use in Maryland is responsible for the premature deaths of over 6,800 Marylanders every year. This means that more Marylanders are dying before their time from tobacco use, than from AIDS, accidents (including car accidents), alcohol, homicides, illegal drugs, suicides, and fires combined. In fact, Maryland loses more of its citizens each year to tobacco use than it lost to combat in World War II, Korea, and Vietnam combined.

Given the magnitude of the human toll that tobacco use is exacting each year on Maryland, it is not surprising that the economic toll of tobacco use is also quite large. The cost of treating disease caused by tobacco use in Maryland is estimated to be $1.5 billion annually and is growing. Productivity losses are estimated to cost the Maryland economy an additional $1.5 billion annually. Together, federal and state expenditures to pay for medical care made necessary by tobacco use is costing each Maryland household an estimated $552 in additional income tax each year. No estimate is available for the added cost to Maryland business.

It is clear that the only way to reduce the human and economic burden of tobacco use on Marylanders is to reduce the use of tobacco. Maryland's participation in the Master Settlement Agreement with the tobacco industry in the fall of 1998 created a non-tax revenue stream for Maryland in excess of $4 billion over the next 25 years. In turn, this created the opportunity to use a portion of the settlement payments from the tobacco industry to reduce the number of Marylanders dying from tobacco use, reduce the tax burden that disease caused by tobacco use is costing the Maryland economy, reduce employer's tobacco-related health and productivity costs, and improve the health and well-being of a significant proportion of the population. The long-term goal of Maryland's tobacco use prevention and cessation efforts is to reduce tobacco use by 50% from what is was in 2000.

In Fiscal 2001, in response to legislation adopted during the 2000 legislative session, Maryland began implementing a new comprehensive tobacco use prevention and cessation program modeled on the "best practices" for such programs as identified by the Centers for Disease Control and Prevention (CDC). Maryland's tobacco program is focused on local development of tobacco use prevention and cessation strategies tailored to local needs, while still operating within the CDC best practices framework, which includes critical statewide initiatives that support the work of these local programs.

Two of these supporting statewide initiatives are the Maryland Youth and Adult Tobacco Surveys. First administered in the fall of 2000, and then again most recently in the fall of 2002, they not only provide valuable information about tobacco use behaviors at the state and local level, they also provide data that allows the Department to monitor progress towards achieving program goals, assess the effectiveness of existing efforts, and suggest avenues for enhancing existing program performance.

This report focuses on the changes in tobacco use behavior by under-age youth and adults in Maryland from the fall of 2000 through the fall of 2002. Between the fall of 2000 and the fall of 2002, the cost of tobacco has increased due to increased excise taxes, as well as tobacco industry price increases. Maryland's tobacco use prevention and cessation program was implemented at the state and local level, and various public policy initiatives to reduce tobacco use were debated at the state and local levels. During this time, the tobacco industry continued to market its products. All of these events can influence tobacco use; however, this report does not attempt to identify particular reasons for the changes in tobacco use behaviors that are reported.

Nonetheless, the Department can report a statistically significant decline in tobacco use since the baseline tobacco surveys were conducted. Among under-age youth (less than 18 years old) tobacco use declined from 21.4% (±1.2%) in the fall of 2000 to 18.4% (±1.0%) in the fall of 2002. This change is based on surveys of over 55,000 Maryland public middle and high school youth in 2000, and in excess of 66,000 youth in 2002. Among Maryland adults age 18 or older, we can report that tobacco use declined from 21.8% (±0.9%) in the fall of 2000 to 19.8% (±1.0%) in the fall of 2002. Changes in adult tobacco use are based on telephone surveys of approximately 15,000 adults statewide in each year.

Over 80,000 Maryland youth under the age of eighteen, and another 780,000 Maryland adults currently use at least some form of tobacco. Over half of these individuals report that they would like to stop using tobacco. While over half want to quit, other youth and adults start using tobacco. Preventing the initiation of tobacco use and helping those who already use tobacco to quit is a difficult process. Quitting is made extremely difficult because of the addictive qualities of the nicotine that is found in all tobacco products. The addictive qualities of tobacco also make tobacco use prevention extremely difficult. Unless youth can be convinced not to experiment with regular smoking, they can quickly become addicted to tobacco use and then join the ranks of the hundreds of thousands of Marylander's who wish that they could stop.

In this report we present data on tobacco use behaviors of under-age Maryland youth and adults, and how they have changed sine the fall of 2000 when the first baseline surveys were conducted. The focus is on measures that provide an indication not only of the extent of tobacco use, but also on underlying behaviors that can lead to continued tobacco use. In all cases, data for both the 2000 and the 2002 surveys are presented so that changes can be readily examined. Although the main body of this report applies to the State of Maryland as a whole, local data is also presented. A subsequent report, focused on local data, will be published in the near future.

Timeline for the
Maryland Cigarette Restitution Fund
Tobacco Use Prevention and Cessation Program

1998 – An Opportunity to Improve the Public Health (FY 1999)

In late 1998, the State of Maryland joined with 45 other states (four states had previously entered separate settlement agreements) in what is now known as the "Master Settlement Agreement." This agreement settled the individual states' civil lawsuits that they had filed against the tobacco industry to recover what the states' had spent over the years on medical care (primarily from Medicaid) made necessary as a result of their resident's use of tobacco products. While providing Maryland with a revenue stream worth what is estimated as in excess of $4 billion over the next 25 years, the settlement also prevents Maryland from ever suing to recover current or future Medicaid expenses made necessary as a result of its residents use of tobacco products.

1999 – Public Support for Reducing Tobacco Use by 50% (FY 2000)

In 1999, a series of public hearings were held across Maryland on how the State should use the funds it would receive from the Master Settlement Agreement to reduce the devastating toll that cancer and other tobacco related diseases was exacting from Maryland residents and its economy. After hearing testimony from public health experts, physicians, researchers, non-profit agencies, and the general public, the Task Force to End Smoking in Maryland outlined a plan for a tobacco use prevention and cessation program. The plan: (1) was modeled on the "best practices" identified by the Centers for Disease Control and Prevention for such programs; and (2) set a goal for reducing tobacco use in Maryland by 50%. Although an ambitious goal, it is an appropriate goal, given that over 50% of current youth and adult cigarette smokers report that they wish that they were not smokers.

2000 – Maryland General Assembly Takes Action (FY 2000)

Recognizing that governmental, business, and private tobacco-related health care costs in Maryland (estimated at $1.5 billion annually) would only continue to rise unless tobacco use declined, and that tobacco use was responsible for the premature deaths of over 6,800 Maryland residents each year, the Maryland General Assembly in the Spring of 2000 passed legislation which created a new comprehensive Tobacco Use Prevention and Cessation Program (Program). Funded with a portion of the revenue from the tobacco settlement, the new Program adopted many of the Task Force recommendations and established a statutory program that implemented the "best practices" identified by the Centers for Disease Control and Prevention for comprehensive tobacco use prevention and cessation programs. An integral part of the new Program was the requirement that baseline measures of tobacco use be made before the program interventions were implemented, and the progress towards program goals and objectives be measured at least every other year by repeating the baseline surveys. This component of the Program provided a mechanism for program accountability that is not otherwise available.

2000 – Baseline Youth and Adult Tobacco Surveys (FY 2001)

The first step in the new Program (fall 2000) was to conduct comprehensive surveys of the extent of tobacco use both statewide and in each county and Baltimore City. Maryland youth attending public middle schools and high schools (grades 6-12) were surveyed regarding their tobacco use, as were Maryland adults. Youth were surveyed using the Maryland Youth Tobacco Survey (MYTS) and adults with the Maryland Adult Tobacco Survey (MATS). From these surveys, estimates of the extent of tobacco use (baseline rates) were developed for every county and Baltimore City. Implementation of the new Program began thereafter, with the first full program year being fiscal 2002 (July 1, 2001 through June 30, 2002).

2001 – Reporting on the Results of the Baseline Tobacco Surveys (FY 2002)

In September of 2001 the Department reported on its findings from the baseline tobacco surveys. Overall, it was estimated that 21.4% (±1.25%) of under-age youth (less than eighteen years old) had used one or more tobacco products during the 30 days prior to the survey, as had 21.8% (±0.95%) of Maryland adults. Applying Maryland's goal of reducing tobacco use by 50% to these results produced an aggregate target for under-age tobacco use of 10.7% and a 10.9% target for aggregate adult tobacco use.

2002 – Replicating the Baseline Youth and Adult Tobacco Surveys (FY 2003)

In accordance with the program legislation, the next comprehensive surveys of tobacco use were conducted in the fall of 2002. With this report, the Department can provide data on the extent of change that has occurred in Maryland during the short time since program implementation began. The fall 2002 Maryland Youth Tobacco Survey (MYTS) was a paper and pencil survey administered to over 66,000 students in the same schools as were surveyed in 2000, using the same survey methodology as was used in 2000. The fall 2002 Maryland Adult Tobacco Survey (MATS) was a computer-assisted telephone survey of over 15,000 adult residents in each county and Baltimore City, using the same survey methodology as was used in the fall of 2000. A more detailed discussion of the methodologies employed in these surveys can be found in Appendix 13 (MYTS) and Appendix 14 (MATS).

2003 – Reporting on Changes in Tobacco Use Behaviors (FY 2004)

Key tobacco use behaviors are presented to highlight what is happening in Maryland relative to tobacco use. The main body of the report presents additional important information. For example, rather than merely reporting on tobacco use by middle school or high school, data is provided for each grade, 6-12 in recognition that prevention curricula is most often delivered in specific grades, and not to all students in a middle or high school. Similarly, adult tobacco use is also presented by level of highest educational attainment given that tobacco use varies considerably depending upon the level of education. This additional information allows for a more targeted focus on specific groups and/or age groupings that are of particular relevance to program planners and policy makers. Definitions of terms used in this report are set forth in Appendix 15. A discussion of the statistical analysis and methods used to test for statistical significance is set forth in Appendix 16.

2004 – Mandated Replication of Baseline Tobacco Surveys (FY 2005)

During the 2003 session of the Maryland General Assembly, the requirement for replicating the baseline tobacco surveys every other year was reaffirmed, while the requirement that some form of tobacco study be conducted annually was removed from the Program legislation (a series of pilot surveys was conducted in the Spring of 2001 in fulfillment of this requirement and results are available from the Department's Website). Under the legislation as amended, the Department will be replicating the baseline tobacco surveys of Maryland youth and adults in the fall of every even calendar year (odd fiscal years) and reporting the results of those surveys by the following September (odd calendar year, even fiscal year).

Overview

AN OVERVIEW OF CHANGES IN THE CURRENT USE OF TOBACCO

Maryland 2000 v. 2002

Definitions

Current use of a tobacco product refers to any use during the 30 days preceding the survey.
Minority describes only those individuals that identified themselves as African-American, Asian, Hispanic, or Native American.
Statistically significant means the observed change in the relevant measure is unlikely to be the result of chance or a statistical artifact.

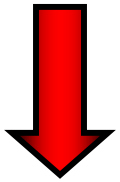
Symbols

A solid red arrow indicates a statistically significant decline in some measures, with the specific measure in **bold**.

A solid black arrow pointing up indicates a statistically significant increase in some measures, with the specific measure in **bold**.

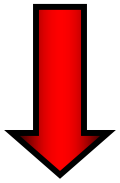
⇔ An outline arrow with two heads indicates that the change in the measure is not statistically significant.

CHANGES IN UNDER-AGE TOBACCO USE IN MARYLAND: 2000 V. 2002



Current Use of Tobacco
-14% All Under-age Youth

Under-age Youth. Tobacco use by Maryland youth who were less than eighteen years old attending public middle and high schools declined from 21.4% in the fall of 2000 to 18.4% in the fall of 2002. This decline of 3 percentage points represents a 14% reduction in tobacco use from the baseline rate and is statistically significant.



Current Cigarette Smoking
-30.6% in Middle School
-23.5% in High School

Under-age Middle School Youth. Cigarette smoking by underage Maryland youth attending public middle schools declined from 7.2% in the fall of 2000 to 5.0% in the fall of 2002.This decline of 2.2 percentage points represents a 30.6% reduction in cigarette smoking and is statistically significant.

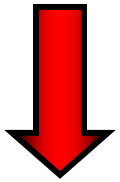
Under-age High School Youth. Cigarette smoking by underage youth attending public high schools declined from 23.0% in the fall of 2000 to 17.6% in the fall of 2002. This decline of 5.4 percentage points represents a 23.5% reduction in cigarette smoking and is statistically significant.

Current Use of Smokeless Tobacco
-4.8% in Middle School
+2.1% in High School

Under-age Middle School Youth. The use of smokeless tobacco by underage Maryland youth attending public middle schools declined from 2.1% in the fall of 2000 to 2.0% in the fall of 2002. This decline of 0.1 percentage points represents a 4.8% reduction in the use of smokeless tobacco from the baseline rate. However, the apparent reduction is not statistically significant.

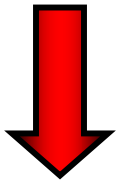
Under-age High School Youth. The use of smokeless tobacco by underage Maryland youth attending public high schools increased from 4.7% in the fall of 2000 to 4.8% in the fall of 2002. This increase of 0.1 percentage points represents a 2.1% increase in the use of smokeless tobacco from the baseline rate. However, the apparent increase is not statistically significant.

CHANGES IN ADULT TOBACCO USE IN MARYLAND: 2000 V. 2002



Current Use of Tobacco Products
-9.2%

Tobacco use by Maryland adults' age eighteen years old and older declined from 21.8% in the fall of 2000 to 19.8% in the fall of 2002. This decline of 2.0 percentage points represents a 9.2% reduction in tobacco use from the baseline rate and is statistically significant.



Current Cigarette Smoking
-12.0%

Cigarette smoking by Maryland adults declined from 17.5% in the fall of 2000 to 15.4% in the fall of 2002.This decline of 2.1 percentage points represents a 12.0% reduction in cigarette smoking from the baseline rate and is statistically significant.

Current Cigar Smoking
+1.7%

Cigar smoking by Maryland adults increased from 5.8% in the fall of 2000 to 5.9% in the fall of 2002. This increase of 0.1 percentage points represents a 1.7% increase in cigar smoking from the baseline rate. However, the apparent increase is not statistically significant.

Current Use of Smokeless Tobacco
-9.1%

The use of smokeless tobacco by Maryland adults declined from 1.1% in the fall of 2000 to 1.0% in the fall of 2002. This decline of 0.1 percentage points represents a 9.1% reduction in the use of smokeless tobacco from the baseline rate. However, the apparent decrease is not statistically significant.

CHANGES IN TOBACCO USE BY MINORITIES IN MARYLAND: 2000 V. 2002

Current Use of Tobacco Products

-10.6% Minority Youth

- 7.3% Minority Adults

Under-age Minority Youth. The use of tobacco products by minority youth attending Maryland public middle and high schools declined from 18.8% in the fall of 2000 to 16.8% in the fall of 2002. This decline of 2.0 percentage points represents a 10.6% reduction in the use of tobacco and is statistically significant.

Minority Adults. The use of tobacco products by minority adults declined from 20.6% in the fall of 2000 to 19.1% in the fall of 2002. This decline of 1.5 percentage points represents a 7.3% reduction in the use of tobacco from the baseline rate. However, this decrease is not statistically significant.

Current Cigarette Smoking

-23.1% Minority Middle School

-21.9% Minority High School

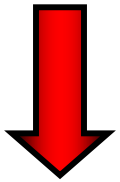
-10.3% Minority Adults

Middle School Under-age Minority Youth. Cigarette smoking by under-age minority Maryland youth attending public middle school declined from 6.5% in the fall of 2000 to 5.0% in the fall of 2002.This decline of 1.5 percentage points in cigarette smoking from the baseline rate; however, this change is not statistically significant.

High School Under-age Minority Youth. Cigarette smoking by under-age minority Maryland youth attending public high school declined from 16.0% in the fall of 2000 to 12.5% in the fall of 2002. This decline of 3.5 percentage points represents a 21.9% reduction in cigarette smoking from the baseline rate and is statistically significant.

Minority Adults. Cigarette smoking by minority Maryland adults age 18 or older declined from 18.5% in the fall of 2000 to 16.6% in the fall of 2002. This decline of 1.9 percentage points represents a 10.3% reduction in cigarette smoking from the baseline rate. However, the apparent decrease is not statistically significant.

CHANGES IN TOBACCO USE BY FEMALES IN MARYLAND: 2000 V. 2002

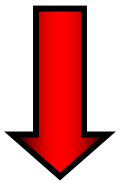


Current Cigarette Smoking
-31.9% Middle School
-23.5% High School
-13.4% Adults

Under-age Middle School Females. Cigarette smoking by underage females attending Maryland public middle schools declined from 7.2% in the fall of 2000 to 4.9% in the fall of 2002. This decline of 2.3 percentage points represents a 31.9% decrease in cigarette smoking from the baseline rate and is statistically significant.

Under-age High School Females. Cigarette smoking by underage females attending Maryland public high schools declined from 23.4% in the fall of 2000 to 17.9% in the fall of 2002. This decline of 5.5 percentage points represents a 23.5% decrease in cigarette smoking from the baseline rate and is statistically significant.

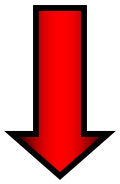
Adult Females. Cigarette smoking by adult females age 18 or older declined from 15.7% in the fall of 2000 to 13.6% in the fall of 2002. This decline of 2.1 percentage points represents a 13.4% decrease in cigarette smoking from the baseline rate and is statistically significant.



Current Tobacco Use by Pregnant Women
-13.0%

Tobacco Use During Pregnancy. Tobacco use by women during their pregnancy is noted on Maryland certificates of birth. According to birth certificate data reported by the Department of Vital Statistics, tobacco use during pregnancy declined from 9.2% during calendar 2000 to 8.0% during calendar 2002. This decline of 1.2 percentage points was observed with respect to data from all birth certificates issued to Maryland residents and is not an estimate derived from a sample of those certificates. This represents a 13.0% decrease in tobacco use from the baseline rate.

CHANGES IN INITIATION AND CESSATION IN MARYLAND: 2000 V. 2002



Initiation of Tobacco Use
-18.9% All Under-age Youth
-18.6% Minority Under-age Youth
-16.2% Adults
+1.8% Minority Adults

Under-age Youth. The percentage of under-age youth who started using tobacco in the two years preceding the survey decreased from 25.4% in 200 to 20.6% in 2002. This decline of 4.8 percentage points represents an 18.9% reduction in the initiation of tobacco use from the baseline rate and is statistically significant.

Under-age Minority Youth. The percentage of under-age minority youth who started using tobacco in the two years preceding the survey decreased from 22.0% in 2000 to 17.9% in 2002. This decline of 4.1 percentage points represents an 18.6% reduction in the initiation of tobacco use from the baseline rate and is statistically significant.

Adults. The percentage of adults who started using tobacco in the two years preceding the survey decreased from 18.5% in 2000 to 15.5% in 2002. Initiation by minority adults increased from 33.1% in 200 to 32.5% in 2002. Neither change is statistically significant.

Quitting Tobacco Use
+2.0% Adults
-14.6% Minority Adults

Adults. The percentage of adults who stopped smoking in the 12 months preceding the survey increased from 9.9% in 2000 to 10.1% in 2002. This increase of 0.2 percentage points represents an increase in the cessation rate of 2.0% from the baseline rate. However, this apparent increase is not statistically significant.

Minority Adults. The percentage of minority adults who stopped smoking in the 12 months preceding the survey decreased from 8.9% in 2000 to 7.6% in 2002. This decrease of 1.3 percentage points represents a reduction in the cessation rate of 14.6% from the baseline rate. However, this apparent decrease is not statistically significant.

EXECUTIVE SUMMARY

Executive Summary

Public Health and Tobacco

Cigarette smoking, or the use of other tobacco products, was portrayed for decades by the tobacco industry as a lifestyle choice made by consumers. Attempts by public health officials to highlight the health risks that tobacco use carried with it, especially after the landmark Surgeon General's Report of 1964, were dismissed or attacked by the tobacco industry. Tobacco use in 2003 exists in a very different public health, social, economic, and political context than it did back in the mid-twentieth century.

Today, many in the tobacco industry publicly acknowledge that the nicotine found in tobacco products is in fact addictive and that tobacco use is the cause of serious disease. For example, on its' Website Phillip Morris states that:

> "*We agree with the overwhelming medical and scientific consensus that cigarette smoking is addictive. It can be very difficult to quit smoking, but this should not deter smokers who want to quit from trying to do so.*"
>
> *and*
>
> *"We agree with the overwhelming medical and scientific consensus that cigarette smoking causes lung cancer, heart disease, emphysema and other serious diseases in smokers. Smokers are far more likely to develop serious diseases, like lung cancer, than non-smokers. There is no "safe" cigarette."*
>
> (Found at http://www.philipmorrisusa.com/health_issues)

The truth is that tobacco holds a very unique position in the U.S. economy and in its health care system. It is the only product legally marketed in the U.S. without a prescription that when used as intended, will cause a significant percentage of its users to become addicted to the product *and* result in the premature death of as many as one-third of those users.

Tobacco's Toll in Maryland

No one can dispute that the decision to start smoking is certainly made in the absence of any addiction to nicotine. However, that decision is most often made by youth while still less than eighteen years old, before they are even old enough to have tobacco products be legally sold to them. Once in the grips of their addiction to nicotine, it is very difficult to break free. Over 50% of current Maryland adult smokers say that they want to quit smoking, but have been unsuccessful in their attempts. The result is that they continue to smoke and use tobacco products, continue to place their health at risk, and continue to represent a significant economic burden on the economy as their health care costs must be paid by employers, government, and taxpayers. The implications for the public health and economy of Maryland are significant.

The Centers for Disease Control and Prevention conservatively estimates that tobacco use in Maryland is responsible for the premature deaths of over 6,800 Marylanders every year. This means that more Marylanders are dying from tobacco use than from AIDS, accidents (including car accidents), alcohol, homicides, illegal drugs, suicides, and fires combined. In fact, Maryland loses more of its citizens each year to tobacco use than it lost to combat in World War II, Korea, and Vietnam combined. Each year Maryland loses more of its citizens to tobacco use than all those lost to terrorism on September 11, 2001.

The cost of treating disease caused by tobacco use in Maryland is estimated to be $1.5 billion annually and is growing. Productivity losses are estimated to cost the Maryland economy an additional $1.5 billion annually. Together, federal and state expenditures to pay for medical care made necessary by tobacco use is costing each Maryland household an estimated $552 in additional income tax each year. No estimate is available for the added cost to Maryland business.

Monitoring Changing Tobacco Use Behaviors

It is clear that the only way to reduce the human and economic burden of tobacco use on Marylanders is to reduce the use of tobacco. After extensive public hearings and the passage of landmark legislation creating a new comprehensive Tobacco Use Prevention and Cessation Program (Program) modeled on the "best practices" for such programs identified by the Centers for Disease Control and Prevention (CDC), Maryland established a long-term goal of reducing tobacco use in the state by 50% from what it is was in the fall of 2000.

Maryland began its efforts to reduce tobacco use by 50% by first establishing a baseline for tobacco use behaviors through two surveys. The Maryland Youth Tobacco Survey (MYTS) was administered to a sample of over 55,000 students attending public middle and high schools. The Maryland Adult Tobacco Survey (MATS) was a telephone survey that that had a sample of over 15,000 Maryland adults. Estimates of tobacco use for youth and adults, statewide and in each county and Baltimore City were developed from those surveys. By statute, tobacco surveys are to be conducted thereafter biennially to ensure that the Department can monitor progress towards achieving program goals, assess the effectiveness of existing efforts, and suggest avenues for enhancing existing program performance.

Focus: Changes in Primary Tobacco Use Behaviors

This summary focuses on the changes in primary tobacco use behaviors of under-age youth and adults in Maryland from the fall of 2000 through the fall of 2002. Between the fall of 2000 (baseline surveys) and the fall of 2002 (follow-up surveys), a number of very significant changes had occurred relative to tobacco statewide. First, the Department had implemented a comprehensive tobacco use prevention and cessation program at the state and local level. This program included local efforts directed at school-based prevention programs, community wide prevention programs, enforcement of laws prohibiting the sale of tobacco products to youth under the age of eighteen, and cessation programs. At the state level, a media campaign was implemented statewide, an effort to reach out to minority communities to promote involvement in the local programs, and a legal resource center was created in support of local government as they sought to undertake new policies relative to tobacco use in their communities. Second, the excise tax on tobacco products was increased by the General Assembly, bringing the total excise tax on a pack of cigarettes to $1.00 per pack. Third, a number of communities sought to create new policies relative to tobacco use that reflected local concerns about tobacco use.

All of these events and programs can be expected to exert some influence on tobacco use. It is the purpose of this report, as set forth by statute, to report on the changes in tobacco use behaviors that have occurred, and not on why those changes have occurred. An independent evaluation of programmatic impact is separately provided for and is currently due to the General Assembly in November of 2004. Nonetheless, the changes in tobacco use behaviors that have occurred since program implementation began are significant and are encouraging. Despite this progress, a great deal more work remains to be done. Over 80,000 Maryland youth under the age of eighteen, and another 780,000 Maryland adults use at least some form of tobacco. Over half of these individuals report that they would like to stop using tobacco.

Tobacco Use by Under-age Youth has Declined

Current tobacco use, that is any use within the 30 days preceding the survey, by Maryland youth less than eighteen years old, was substantially lower in the fall of 2002 than it was during the baseline Maryland Youth Tobacco Survey (MYTS) in the fall of 2000. The largest decline was in cigarette smoking, although the use of tobacco products overall also declined significantly. Under-age youth have been one of the Tobacco Use Prevention and Cessation Program's primary target populations since program implementation began in late fiscal year 2001. However, it should be noted that only one full school year (the 2001-2002 school year) of program activity occurred between the baseline surveys and the fall 2002 surveys.

- Under-age use of any tobacco product. The current use of any tobacco product by under-age youth declined 14% from the baseline rate. The statewide estimate of tobacco use declined 3.0 percentage points, from 21.4% in the fall of 2000 to 18.4% in the fall of 2002. This change in the estimate of current tobacco use is statistically significant.

- Under-age cigarette smoking. Current cigarette smoking by under-age middle school students declined 30.6% from the baseline rate and current cigarette smoking by under-age high school students declined 23.5% from the baseline rate. The statewide estimate of cigarette smoking by under-age middle school students declined 2.2 percentage points, from 7.2% in the fall of 2000 to 5.0% in the fall of 2002. Cigarette smoking by under-age high school students declined 5.4 percentage points, from 23.0% in the fall of 2000 to 17.6% in the fall of 2002. Both of these changes in the estimates of current cigarette smoking are statistically significant. Declines in under-age cigarette smoking occurred in grades 8 through 12.

- Under-age use of smokeless tobacco. The current use of smokeless tobacco products remains comparable to that of the baseline rate. The statewide estimate of the use of smokeless tobacco by under-age middle school students declined by 0.1 percentage points, from 2.1% in the fall of 2000 to 2.0% in the fall of 2002. This change is not statistically significant. The statewide estimate of the use of smokeless tobacco by under-age high school students increased by 0.1 percentage points, from 4.7% in the fall of 2000 to 4.8% in the fall of 2002. This change is not statistically significant.

Tobacco Use by Adults by Adults has Declined

Current tobacco use by Maryland adults age eighteen and older was significantly lower in the fall of 2002 than it was in the fall of 2000 when the baseline Maryland Adult Tobacco Survey (MATS) was conducted. As with under-age youth, the largest declines were seen in current cigarette smoking, although the current use of tobacco products generally also saw a significant decline. The largest declines in cigarette smoking were among those adults whose highest education attainment was less than a high school diploma.

Young adults, ages 18-24 are a primary target population for the Program's prevention efforts, while adults age 25 and older are generally targeted for tobacco use cessation. Cigarette smoking is inversely related to income and educational attainment. For that reason the Program has identified adults with lower socio-economic status as a target population for its efforts. This population is also the least likely to have private health insurance and more likely to rely on state or federal health insurance programs such as Medicaid or Medicare to bear the burden of paying for health care costs arising from their tobacco-related disease.

- Adult use of any tobacco product. The current use of any tobacco product by adults declined 9.2% from the baseline rate. The statewide estimate of tobacco use declined 2.0 percentage points, from 21.8% in the fall of 2000 to 19.8% in the fall of 2002. This change is statistically significant.

- Adult cigarette smoking. Current cigarette smoking by adults declined 12.0% from the baseline rate. The estimate of cigarette smoking by adults declined 2.1 percentage points, from 17.5% in the fall of 2000 to 15.4% in the fall of 2002. Among adults whose highest educational attainment did not include a high school diploma, current cigarette smoking declined 29.9% from the baseline rate. The estimate of current cigarette smoking by this population declined 10.3 percentage points, from 34.4% in the fall of 2000 to 24.1% in the fall of 2002. Both of these changes are statistically significant.

- Adult cigar smoking and use of smokeless tobacco. Current cigar smoking and the use of smokeless tobacco remain comparable to that of the baseline rate. The statewide estimate of current adult cigar smoking increased 0.1 percentage points, from 5.8% in the fall of 2000 to 5.9% in the fall of 2002. This change is not statistically significant. The statewide estimate of current adults smokeless tobacco use declined 0.1 percentage points, from 1.1% in the fall of 2000 to 1.0% in the fall of 2002. This change is not statistically significant.

Tobacco Use by Some Minority Populations has Declined

Overall, current tobacco use by minority populations in Maryland was lower in the fall of 2002 than it was in the fall of 2000, and the decline was statistically significant for some populations. Among minority under-age youth, the biggest decline was in current cigarette smoking. Among minority adults, tobacco use generally as well as cigarette smoking remained at rates comparable to those of 2000. Current cigarette smoking among under-age girls, adult women, and pregnant females declined significantly.

- Under-age cigarette smoking by minority youth. Current cigarette smoking by under-age minority middle school students declined 23.1% from the baseline rate. The statewide estimate of current cigarette smoking by under-age minority middle school students declined 1.5 percentage points, from 6.5% in the fall of 2000 to 5.0% in the fall of 2002. The statewide estimate of current cigarette smoking by under-age minority high school students declined 3.5 percentage points, from 16.0% in the fall of 2000 to 12.5% in the fall of 2002. Both of these changes are statistically significant.

- Cigarette smoking by minority adults. Current cigarette smoking by minority adults remained comparable to the baseline rate. The statewide estimate of current cigarette smoking by minority adults declined 1.9 percentage points, from 18.5% in the fall of 2000 to 16.6% in the fall of 2002. This change is not statistically significant.

- Cigarette smoking by Females. Current cigarette smoking by females has declined by 31.9% among under-age middle school girls, by 23.5% among under-age high school girls, and by 13.4% among adult women. The statewide estimate of cigarette smoking by under-age middle school girls declined 2.3 percentage points, from 7.2% in the fall of 2000 to 4.9% in the fall of 2002. The estimate of cigarette smoking by under-age high school girls declined 5.5 percentage points, from 23.4% in the fall of 2000 to 17.9% in the fall of 2002. The estimate of cigarette smoking by adult women declined 2.1 percentage points, from 15.7% in the fall of 2000 to 13.6% in the fall of 2002. All of these changes are statistically significant.

- Tobacco use by pregnant women. Tobacco use by women during pregnancy, as reported on birth certificates of Maryland residents, declined 13% from the baseline rate. The Vital Statistics Administration reports that during calendar year 2000, 9.2% of Maryland women who gave birth reported having used tobacco during their pregnancy. In calendar 2002, this number decreased by 1.2 percentage points to 8.0%.

Under-age Youth Access to Tobacco Products Remains High

In Maryland, retailers must be licensed in order to sell tobacco products, and are prohibited by law from selling those tobacco products to persons less than eighteen years old. Nonetheless, retail outlets continue to be a significant source of cigarettes for under-age youth, particularly those who are frequent smokers (smoked on 20 or more days during the 30 days preceding the survey). The good news is that these frequent under-age youth smokers were not able to rely directly on retail outlets as the usual source of their cigarettes in the fall of 2002 as much as they had reported in the baseline survey. However, gas stations and convenience stores are still the primary sources of cigarettes for over 66% of under-age youth frequent smokers.

Although Maryland law prohibits retailers from selling tobacco products to under-age youth, it does *not* require them to ask for proof-of-age through photo identification. The survey data strongly suggests that retailers are not able to accurately judge prospective purchasers ages in the absence of some proof of age. Under-age youth were found to be three times more likely refused the sale of cigarettes when asked for age than when they were not asked for proof.

- Retail outlets are the usual source of cigarettes for frequent under-age smokers. Under-age youth cigarette smokers who smoke 20 or more days each month rely on tobacco retailers as their primary source of cigarettes, either through a direct purchase (32.8% in 2002) or by giving someone else money to make the purchase for them (35% in 2002) for a total of almost 68% of these youth. The good news is that this is down from the fall of 2000 when 36.7% purchased directly and 33.5% gave someone else money to buy indirectly.

- Gas stations and convenience stores are primary retail outlets. Gas stations are by far the biggest retail source of cigarettes for under-age frequent smokers. In the fall of 2002, 45.3% purchased cigarettes from a gas station and 21.2% from a convenience store during the past 30 days. While purchases through the internet remained relatively low, they did increase significantly, from 2.7% in the fall of 2000 to 4.8% in the fall of 2002.

- Asking for proof of age reduces sales to under-age youth. In both the baseline and 2002 surveys, under-age youth were approximately three times more likely to be refused the sale of cigarettes if they were asked for proof of age (65.8% refused in 2002) as compared to youth who were not asked for proof of age (21.8% refused in 2002).

Exposure to Second Hand Smoke Remains High

Exposure of under-age Maryland youth to second hand smoke has declined 9% from the baseline rate. Despite this decline, a high proportion of under-age youth are still being subjected to second hand smoke. The greatest risk of exposure is for youth who live with smokers (over 73% of these youth report being exposed to second hand smoke in the past week). Rates of exposure to second hand smoke in the workplace remained comparable to baseline rates. However, the risk of exposure is not evenly distributed among the workforce. Adults without a high school diploma or the lowest annual incomes, and those who work in restaurants, bars, and taverns report the highest exposures to second hand smoke.

- Under-age youth exposure to second hand smoke. Under-age youth who reported having been exposed to second hand smoke during the week preceding the survey decreased significantly, from 60.9% in the fall of 2000 to 55.4% in the fall of 2002 for all youth, and 46.9% and 42.3% respectively for minority under-age youth.

- Living with smoker(s) and exposure to second hand smoke. Over 43% of under-age Maryland youth who do not live with someone who smokes report having been exposed to second hand smoke during the past week as compared to over 73% of under-age youth living with a smoker. As high as these figures are, they nonetheless represent a decline from 2000 when almost 48% and 79% respectively reported exposure to second hand smoke.

- Under-age youth living with smoker are twice as likely to become smokers. In addition to the health risks that are created by exposing youth to second hand smoke, survey data for both 2000 and 2002 shows that under-age youth who live with a smoker are twice as likely to be smokers themselves than are youth residing in a non-smoking household.

- Exposure to second hand smoke in the workplace. Overall, rates of exposure to second hand smoke in the workplace remained comparable from 2000 to 2002 (24.9% and 22.8% respectively). When considering socioeconomic status, the highest rate of exposure was to adults without a high school education (35.6% in 2002) as compared to college-educated adults who had the lowest rate of exposure (15.5%). When considering place of employment, the highest rate of exposure was to adults employed in bars/taverns (97.8%) as compared to those adults employed in schools and universities who had the lowest rate of exposure (12.8%).

Fewer Under-age Youth are Starting to Smoke

The number and proportion of under-age youth who initiated tobacco use during the two years since the baseline surveys is down significantly from the baseline numbers of 2000. The declines are across the board, for males, females, and minority youth. This held true not only statewide, but in 14 of Maryland's 24 major political subdivisions.

- Fewer under-age youth are starting to smoke. In the baseline survey, 25.4% of under-age youth reported that they had first started to use tobacco sometime during the two years preceding the survey. This represented 104,728 new under-age tobacco users. In the follow-up survey in the fall of 2002, this proportion had dropped to 20.6%, representing 90,815 new tobacco users. Clearly progress is being made, but a great deal of work remains to be done with an average of over 45,000 new under-age tobacco users each year (almost 125 every day).

- Minority youth an increasing proportion of new under-age smokers. Although new tobacco use is down among minority youth as well as youth overall, the proportion of new tobacco users that are members of a minority population may be increasing. In the baseline survey, 37.8% of new under-age tobacco users were minorities as compared to 41.9% if the fall of 2002.

More Adult Smokers Want to Quit Smoking

The proportion of Maryland adult smokers who want to quit smoking in the near future increased significantly compared to the baseline survey. There has not been a statistically significant increase in the success rate of smokers who try to quit. The proportion of adults who successfully quit smoking in the 12 months previous to the fall 2002 survey is comparable to the number who quit smoking in the 12 months that preceded the baseline survey.

- More adult smokers want to quit in next 30 days. In the baseline survey, 31.4% of current adult smokers stated that they wanted to quit smoking in the next 30 days, increasing to37.9% in 2002.

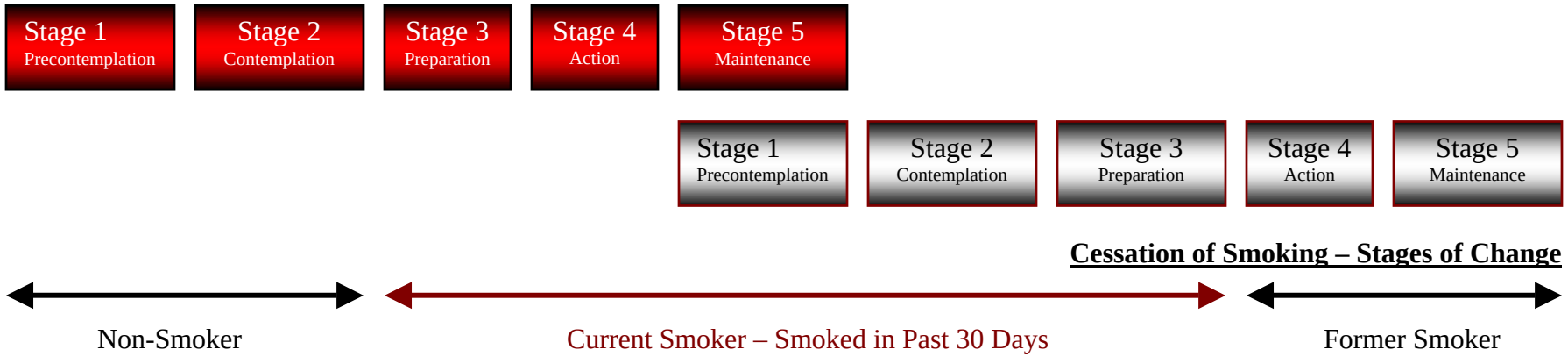
- A comparable number of adult smokers succeeded in quitting. In the fall of 2000, 9.9% of former smokers reported that they had quit during the past year. In the fall of 2002, a comparable 10.1% reported that they had quit during the preceding year.

Stages of Change
For a Healthier Maryland

Stages of Change for a Healthier Maryland
Monitoring Changing Tobacco Use Behaviors

Most people do not become addicted to tobacco (nicotine) overnight. Similarly, it is a rare person who can overcome an established addiction and dependency to tobacco overnight. Researchers have demonstrated that in changing their tobacco use behaviors, people go through five "Stages of Change" on the way to developing their dependence to tobacco, and through a complementary five stages of change in breaking free from that dependence.[1] The five stages of change are: (1) Precontemplation – not thinking of changing current behavior; (2) Contemplation – considering a change in current behavior; (3) Preparation – taking some steps towards changing current behavior; (4) Action – actively moving towards a changed behavior; and (5) Maintenance – maintaining the changed behavior.

Initiation of Smoking – Stages of Change



[1] DiClemente, C.C. and Prochaska, J.O. (1998). Toward a comprehensive, transtheoretical model of change. In W.R. Miller & N. Heather (eds.), Treating Addictive Behaviors (2nd ed., 3-24). New York: Plenum.

To complicate matters, in changing their tobacco use behaviors, people may not progress linearly through those five stages. For those trying to break free from their dependence on tobacco, the process of behavior change may include multiple attempts to quit, cycling through several of the stages each time. Similarly, research suggests that it may take two or three years to progress from trying a few puffs on a cigarette to becoming a regular user, but as with quitting, there are considerable differences in how individuals progress through these stages.[2] The goal of Maryland's tobacco use prevention and cessation programs is to move more of the population from the middle of the continuum to either end of the continuum (non-smokers and former smokers).

Altogether, the comprehensive model incorporates 10 stages of change (5 each for initiation and cessation) that can be used to monitor changes in the tobacco use behaviors of target populations. It is important to note, for example, that the population of "smokers" actually encompasses at least five distinct stages of behavior. The Stages of Change model has been shown to be a more sensitive measure of behavioral change than the more traditional "prevalence" measures. Populations at different stages of change may respond differently to programs designed to either prevent initiation or encourage cessation. Similarly, smoking populations in different jurisdictions may be more highly concentrated in different stages, suggesting the need for each jurisdiction to take a different approach to their respective "smoking" population.

Measures for Stages of Change – Full Implementation FY 2005

The Department is currently working to identify, test, and refine measures for each Stage of Change and will be reporting these results in later reports. A draft set of Stages of Change measures were initially developed from data collected during the baseline tobacco surveys and are now in the process of being tested, refined, and validated using the survey data from the fall of 2002. These measures for the Stages of Change in tobacco use will be a powerful analytic tool that can be used by local and state tobacco use prevention and cessation programs to tailor their efforts to the needs of specific populations within a jurisdiction and across multiple jurisdictions. These measures will be provided to local jurisdictions as they develop their program plans for Fiscal Year 2005.

While work continues on testing and refining the Stages of Change measures, the Department has identified a number of measures (in addition to the standard prevalence measures) that can provide some insight into population movement across the Stages of Change for both the initiation and cessation of tobacco use. For example, a reduction in exposure to cigarette smoking (i.e., living with a smoker) is related to both a decreased risk of initiation as well as an increase in attempts to quit. Although these variables for the most part do not include information on intent to change behaviors (critical to the Stages of Change model), they nonetheless are

[2] U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health, Preventing Tobacco Use Among Young People: A Report of the Surgeon General, 1994, pp. 124-126.

an integral part of that model in that they are measures of behaviors that when coupled with measures of intent, complete the measures for the Stages of Change in Tobacco Use.

The following long-term measures of behavioral change are the traditional measure of tobacco prevalence. The intermediate measures of behavior change presented are consistent with the Stages of Change measures being developed, and present additional information on factors that underlie current and future behavioral change.

LONG-TERM MEASURES OF BEHAVIORIAL CHANGE

Measures of the Prevalence of Tobacco Use

To many observers, the bottom line is estimating how many Marylanders currently use tobacco products. The Centers for Disease Control and Prevention (CDC) defines "current" use for youth attending middle or high schools as any use during the 30 days preceding the survey. With respect to adult cigarette smoking, the CDC defines current use as including those persons who have smoked at least 5 packs of cigarettes in their lifetime (100+ cigarettes) and who smoked a cigarette any time during the 30 days preceding the survey. Measures of the current use of tobacco products overall, and for selected tobacco products, are presented in this report, comparing data from the baseline surveys to that of the fall 2002 surveys. As noted previously, this measure encompasses at least five of the Stages of Change in Tobacco Use (Stages 3-5 of Initiation and Stages 1-3 of Cessation).

Measures of Cessation of Tobacco Use

A corollary to estimates of current tobacco use is an estimate of the proportion of the population that are now former smokers (i.e., used to be a current smoker but did not smoke during the 30 days preceding the survey) and quit smoking within a specified period prior to the survey. To many observers, the bottom line is estimating how many Marylanders currently use tobacco products. Data on the number and proportion of Maryland smokers who have recently quit is included in this report. As noted previously, this measure encompasses two of the Stages of Change in Tobacco Use (Stages 4-5 of Cessation).

INTERMEDIATE MEASURES OF BEHAVIORIAL CHANGE

Intermediate Measures Relating to the Initiation of Tobacco Use

It is the rare youth (or adult) that transitions from a non-smoker to a committed frequent smoker in one day. Youth who are considering adopting smoking first have to experiment with cigarette smoking, taking a few puffs, and then progressing to smoking a whole cigarette, and so on. This progression in changing behavior encompasses four of the Stages of Change in Tobacco Use (Stages 2-5 of Initiation). For this report, the Department has identified three variables that can provide some measure of the progression in the initiation of tobacco use behaviors. In this report we examine: (1) the proportion of youth who have ever smoked a whole cigarette; (2) the proportion of the population that has ever smoked 100 or more cigarettes in their lifetime; and (3) the proportion of the population that reports they smoked on 20 or more days during the 30 days preceding the survey.

A great many youth report taking a few puffs on a cigarette at some point. However, having smoked a whole cigarette is an indicator of a more serious potential for moving forward through the stages of initiation towards the action stage. Similarly, once an individual has smoked as many as 5 packs of cigarettes, the likelihood for movement through the stages of initiation towards the maintenance stage is greatly increased. If an individual is smoking as frequently as 20 or more days each month, this is a good indicator that he or she has adopted tobacco use and has regularized its use.

Intermediate Measures Relating to the Cessation of Tobacco Use

Just as very few people become a regular smoker overnight, very few individuals are able to stop using tobacco overnight. Long characterized by the tobacco industry as a lifestyle choice, continued tobacco use is now recognized (even by the tobacco industry publicly) to also involve an addiction to nicotine. Unfortunately, many people still believe that continued tobacco use is a matter of choice, even as in excess of 50% of current smokers state that they want to quit and have not been able to.

With regard to cessation, in addition to looking at the prevalence of quitting tobacco use, the Department also examined (1) past attempts to quit and (2) desire to quit in the future. Past quit attempts are an indicator of the individual through the stages of change, and intent to quit in the future is an indicator of future movement to the action and potentially the maintenance stages.

Intermediate Measures Under-age Initiation of Tobacco Use	Intermediate Measures Cessation of Tobacco Use
Proportion of population that has ever smoked a whole cigarette	Proportion of population of ever smokers now former smokers
Proportion of population that has ever smoked 100+ cigarettes	Proportion of smoking population that recently quit
Proportion of population currently smoking 20+ days a month	Proportion of current smokers that have tried to quit in past
Proportion of Under-age Youth Residing with Smokers	Proportion of current smokers that want to quit in the future

USE OF TOBACCO PRODUCTS

TOBACCO USE – BY UNDER-AGE MARYLAND YOUTH

Percentage of Maryland under-age youth (<18) who used one or more tobacco products in the past 30 days

Figure 1

Current Tobacco Use among Under-age (<18) Youth

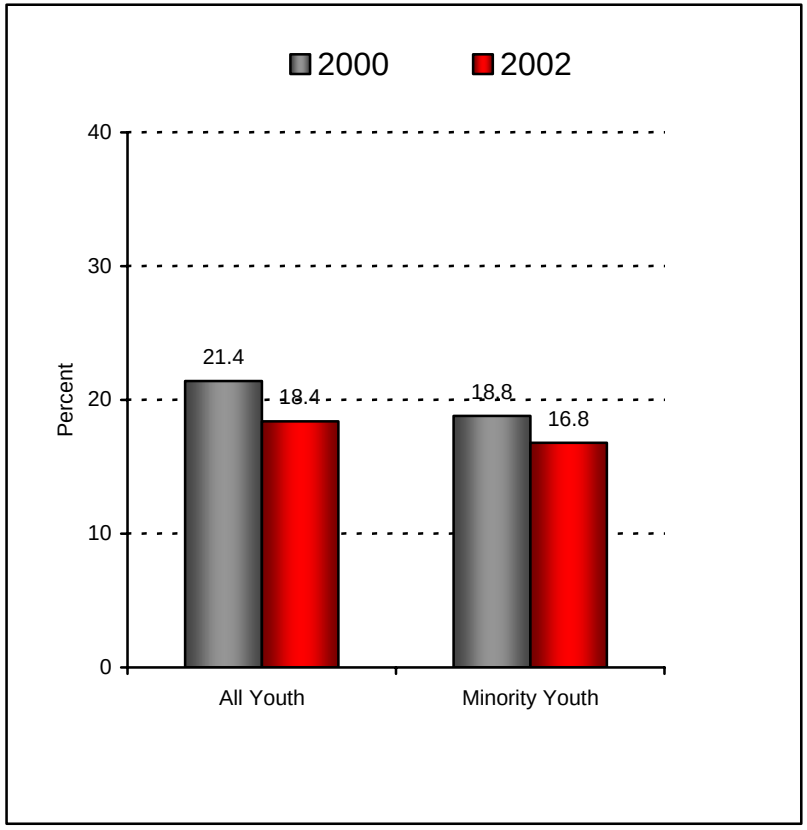
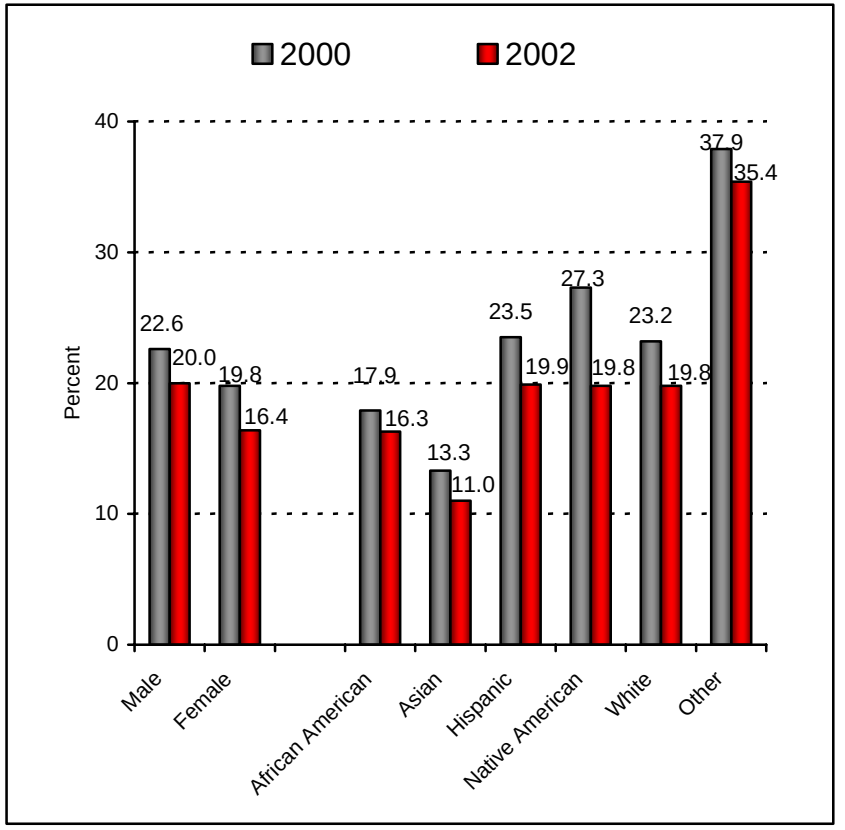


Figure 2

Current Tobacco Use among Under-age (<18) Youth by GENDER and RACE/ETHNICITY



Defined: Tobacco Products and Current Use

As defined by statute in Maryland, tobacco products include *any* product that contains tobacco. They include: (1) cigarettes; (2) cigars (including cigarillos and little cigars); (3) smokeless tobacco (chewing tobacco, snuff, or dip); (4) bidis (small brown cigarettes from India made of tobacco and wrapped in a leaf tied with a thread); and (5) kreteks (clove cigarettes). A discussion of "statistical significance" can be found in Appendix 15, and definitions of terms used in Appendix 16. The prevalence rates for current use of various tobacco products in 2002 among under-age youth, statewide and for each jurisdiction can be found in Appendix 11.

Under-age Youth Generally

- There was a statistically significant decline in current tobacco use—that is, the use of one or more tobacco products in the past 30 days—by Maryland under-age youth attending public middle and high schools, from 21.4% in 2000 to 18.4% in 2002. This 3.0 percentage point decrease in overall tobacco use represents a 14% decline from the baseline rate of under-age tobacco use.

Under-age Minority Youth

- There was a statistically significant decline in current tobacco use among Maryland under-age minority youth attending public middle and high schools, from 18.8% in 2000 to 16.8% in 2002. Minority youth include all youth who identified themselves as African-American, Asian, Hispanic, or Native American.

- There was a significant decrease in current tobacco use among Native American under-age youth, from 27.3% in 2000 to 19.8% in 2002. However, while the rates of current tobacco use among other under-age minority youth also declined, these decreases are not statistically significant, so their rates of current tobacco use in 2002 are deemed to be comparable to those of 2000.

Under-age Youth by Gender

- The rates of current tobacco use among under-age female youth decreased significantly from 19.8% in 2000 to 16.4% in 2002. However, while rates of current tobacco use among under-age male youth also declined, from 22.6% in 2000 to 20.0% in 2002, these decreases are not statistically significant so their rates of current tobacco use are deemed to be comparable to those of 2000.

TOBACCO USE – BY MARYLAND ADULTS

Percentage of Maryland adults (18+) who used one or more tobacco products in the past 30 days

Figure 3

Current Tobacco Use among Adults

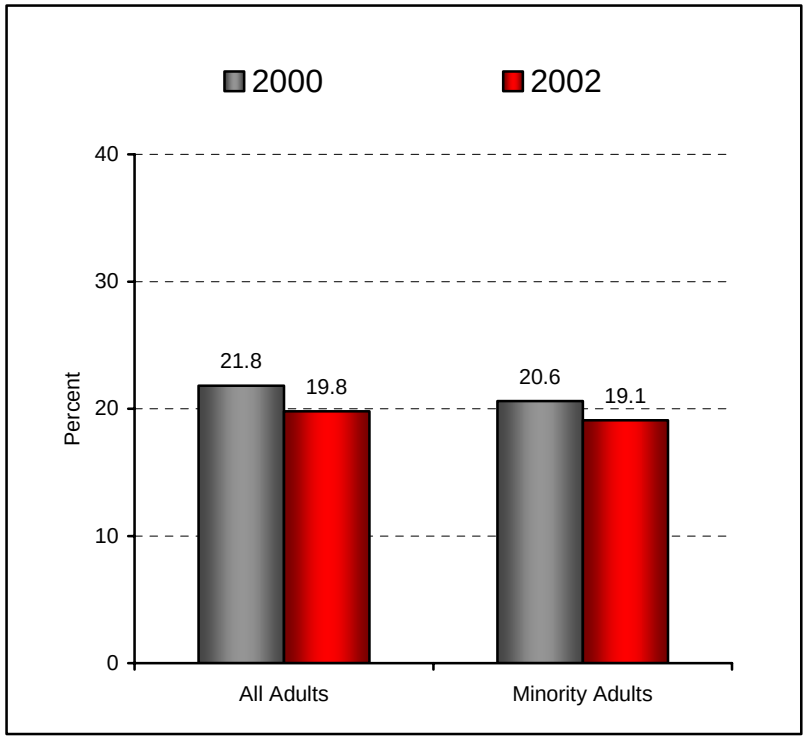
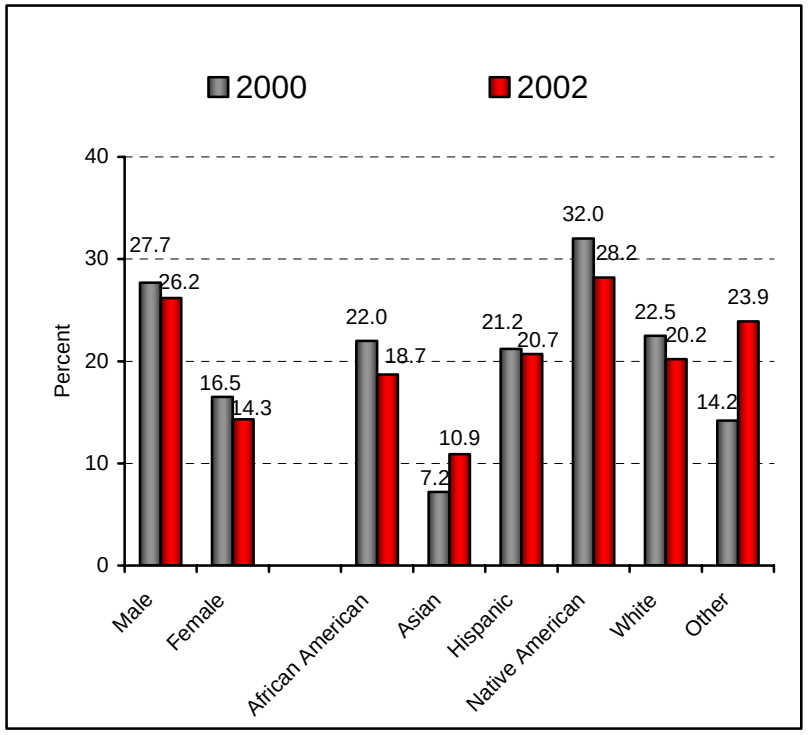


Figure 4

Current Tobacco Use among Adults by GENDER and RACE/ETHNICITY



Adults Generally

- Current use of tobacco products by Maryland adults (ages 18 and older) declined from 21.8% in 2000 to 19.8% in 2002. This 2.0 percentage point decrease in overall tobacco use represents a 9.2% decline from the baseline rate of adult tobacco use and is statistically significant.

Minority Adults

- Overall, while the rate of current tobacco use among Maryland minority adults as a group declined from 20.6% in 2000 to 19.1% in 2002, this decrease was not statistically significant so the rate of minority adult tobacco use in 2002 is deemed comparable to that of 2000.

- Current tobacco use declined among: African Americans, from 22.0% in 2000 to 18.7% in 2002; Hispanics, from 21.2% in 2000 to 20.7% in 2002; and Native Americans, 32.0% in 2000 to 28.2% in 2002. However, none of these decreases was found to be statistically significant so rates of current tobacco use among these groups are deemed comparable to those reported at baseline.

- There was an apparent increase in current tobacco use by Asians and all other remaining non-White groups. However, these increases are not statistically significant and current tobacco use in 2002 by these groups is deemed comparable to that of 2000. Further, the apparent increase may be the result of increased participation by members of these groups in the Maryland Adult Tobacco Survey in 2002 rather than an actual increase in tobacco use.

Adults by Gender *(All Races/Ethnicities)*

- Among adult females, there was a statistically significant decline in the current use of tobacco, from 16.5% in 2000 to 14.3% in 2002.

- Among adult males, current tobacco use remained comparable from 2000 (27.7%) to 2002 (26.2%).

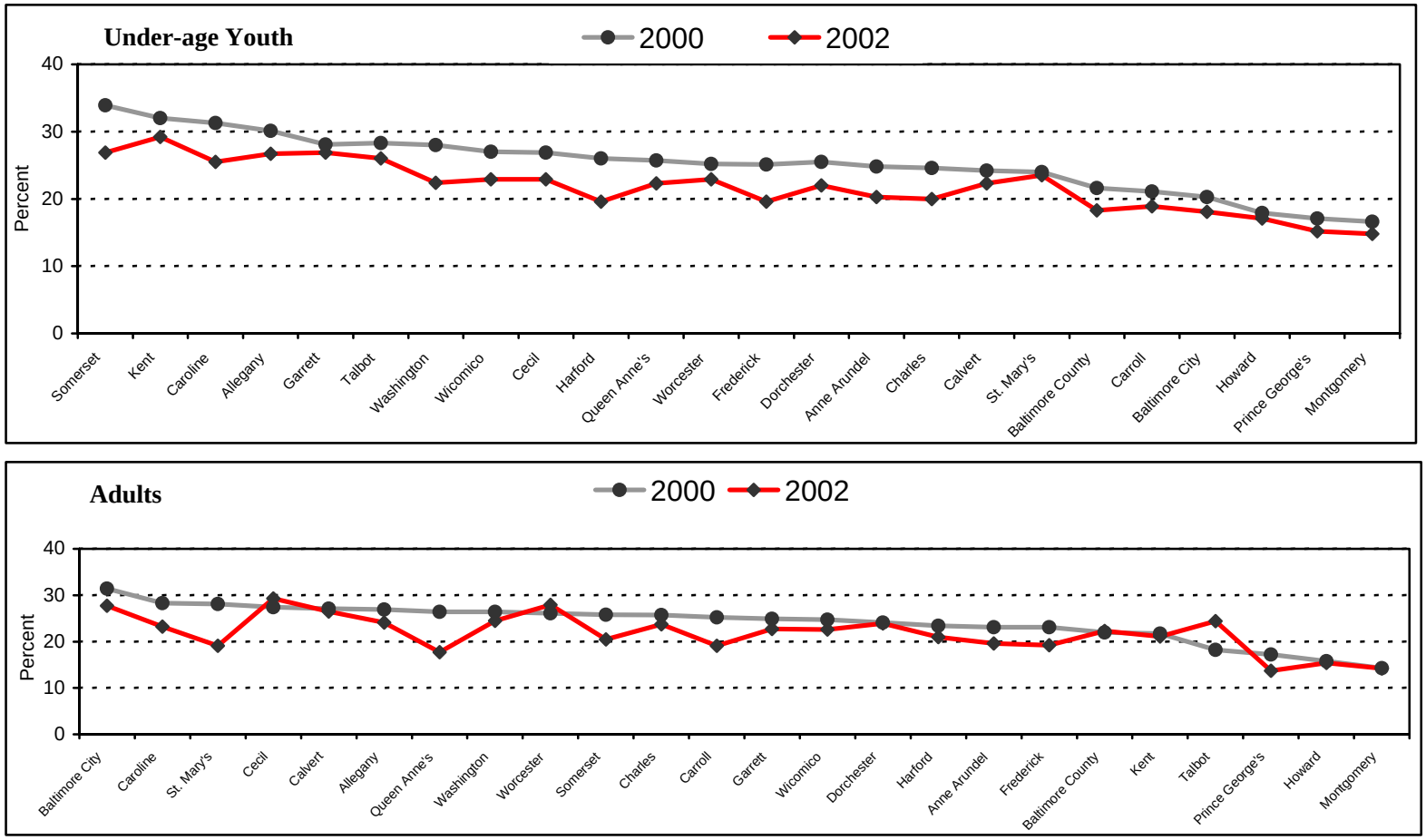
TOBACCO USE – BY JURISDICTION

Percentage of under-age youth (<18) and adults (18+) who used one or more tobacco products in the past 30 days by Maryland jurisdiction

Figure 5

Variation in Current Tobacco Use among Under-age (<18) Youth and Adults by JURISDICTION

(Sorted Highest to Lowest, Current Tobacco Use in 2000)



Under-age Youth

- From 2000 to 2002, four Maryland jurisdictions had a statistically significant decline in the percentage of under-age youth who currently use tobacco (see Appendix 1):
    - **Caroline County** decreased from 31.3% 25.5%
    - **Frederick County** decreased from 25.1% to 19.6%
    - **Harford County** decreased from 26.0% to 19.6%
    - **Washington County** decreased from 28.0% to 22.4%

- From 2000 to 2002, two Maryland jurisdictions had a significant decline in the percentage of under-age, minority youth who currently use tobacco (see Appendix 2):
    - **Charles County** decreased from 21.8% to 16.6%
    - **Wicomico County** decreased from 29.0% to 21.3%

Adults

- From 2000 to 2002, two Maryland jurisdictions had a statistically significant decline in the percentage of adults who currently use tobacco (see Appendix 1):
    - **Queen Anne's County** decreased from 26.4% to 17.7%
    - **St. Mary's County** decreased from 28.1% to 19.1%

- St. Mary's County also saw a significant decline in the percentage of minority adults who currently use tobacco from 31.9% in 2000 to 10.1% in 2002 (see Appendix 2).

- Although there were apparent increases in tobacco use among adults in Cecil, Talbot, and Worcester Counties from 2000 to 2002, these increases were not found to be statistically significant so rates of tobacco use among adults in these counties are deemed comparable to the baseline rates.

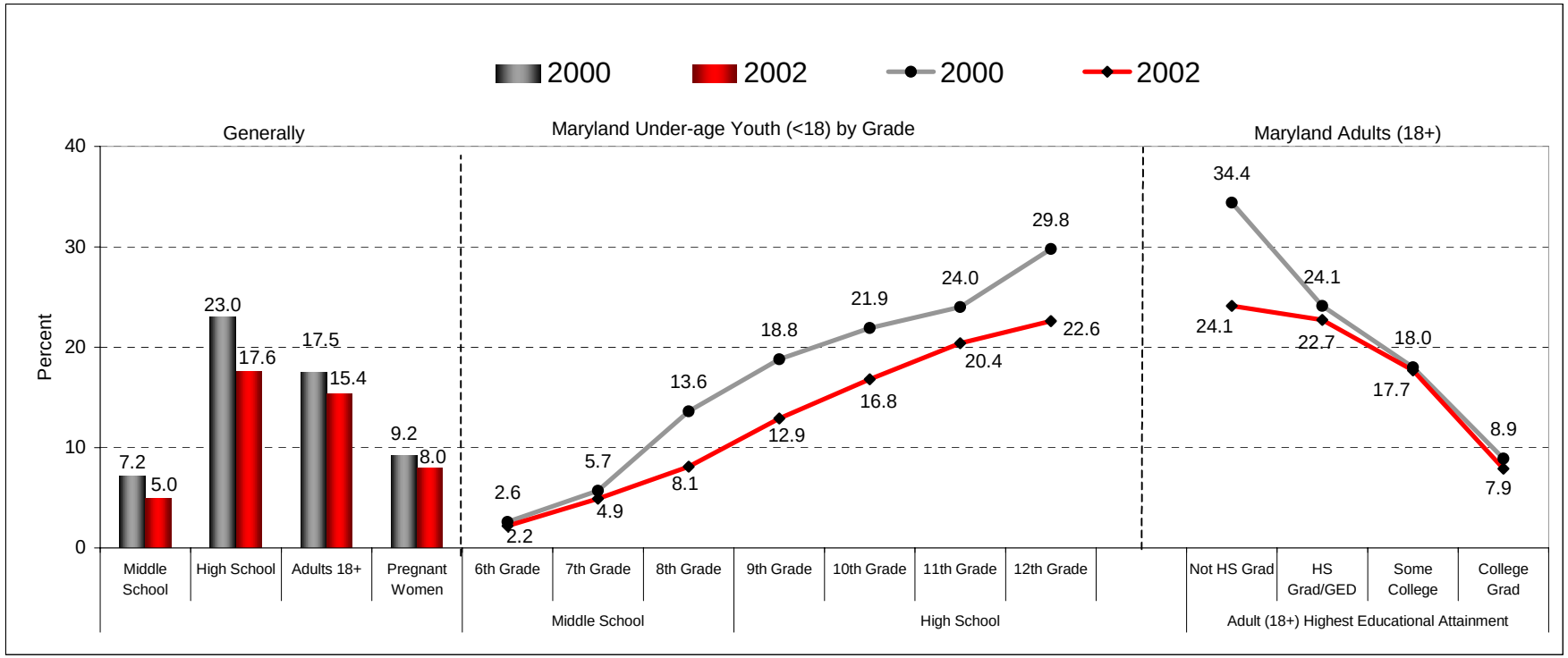
CIGARETTE SMOKING

CIGARETTE SMOKING – BY UNDER-AGE YOUTH AND ADULTS

Percentage of under-age youth (<18) attending Maryland public middle and high schools, and adults (18+), who smoked a cigarette in the past 30 days

Figure 6

Current Cigarette Smoking by Under-age (<18) Youth and Adults



Under-age Youth

- There was a statistically significant decline in current cigarette smoking by Maryland under-age youth. In middle school, cigarette smoking declined from 7.2% in 2000 to 5.0% in 2002. In high school, cigarette smoking declined from 23.0% in 2000 to 17.6% in 2002. These changes represent a decline in cigarette smoking from the baseline rate of approximately 30% and 23%, respectively.

- In Figure 6, the statistically significant decline in current cigarette smoking in grades 8 through 12 is readily seen. Current smoking by under-age 12th grade youth declined from 29.8% in 2000 down to 22.6% in 2002. With fewer high school seniors smoking cigarettes as they move into adulthood, there is a greater potential for them to remain tobacco-free as adults.

- Three jurisdictions—Charles, Frederick, and Harford Counties—had statistically significant declines in current cigarette smoking among under-age middle school students (see Appendices 3a and 3b).

- Twelve jurisdictions—Anne Arundel, Caroline, Cecil, Charles, Dorchester, Frederick, Harford, Montgomery, Somerset, Talbot, Wicomico, and Washington Counties—had statistically significant declines in current cigarette smoking among under-age high school students (see Appendices 3a and 3b).

Adults

- There was a statistically significant decline in current cigarette smoking by Maryland adults between 2000 and 2002. The biggest decline in cigarette smoking among Maryland adults was among those who had never graduated from high school. Current smoking in this population declined significantly from 34.4% in 2000 to 24.1% in 2002.

- As can be seen from Figure 6, cigarette smoking rates and high educational attainment are inversely related; that is, as education increases, the rates of cigarette smoking decrease. Generally, low educational attainment can be used as a proxy for income level, suggesting that the greatest reductions in cigarette smoking have been among the lower income populations in Maryland.

- Four jurisdictions—Anne Arundel, Carroll, Queen Anne's, and St. Mary's Counties—had a statistically significant decrease in the percentage of adults who currently smoke cigarettes (see Appendix 6).

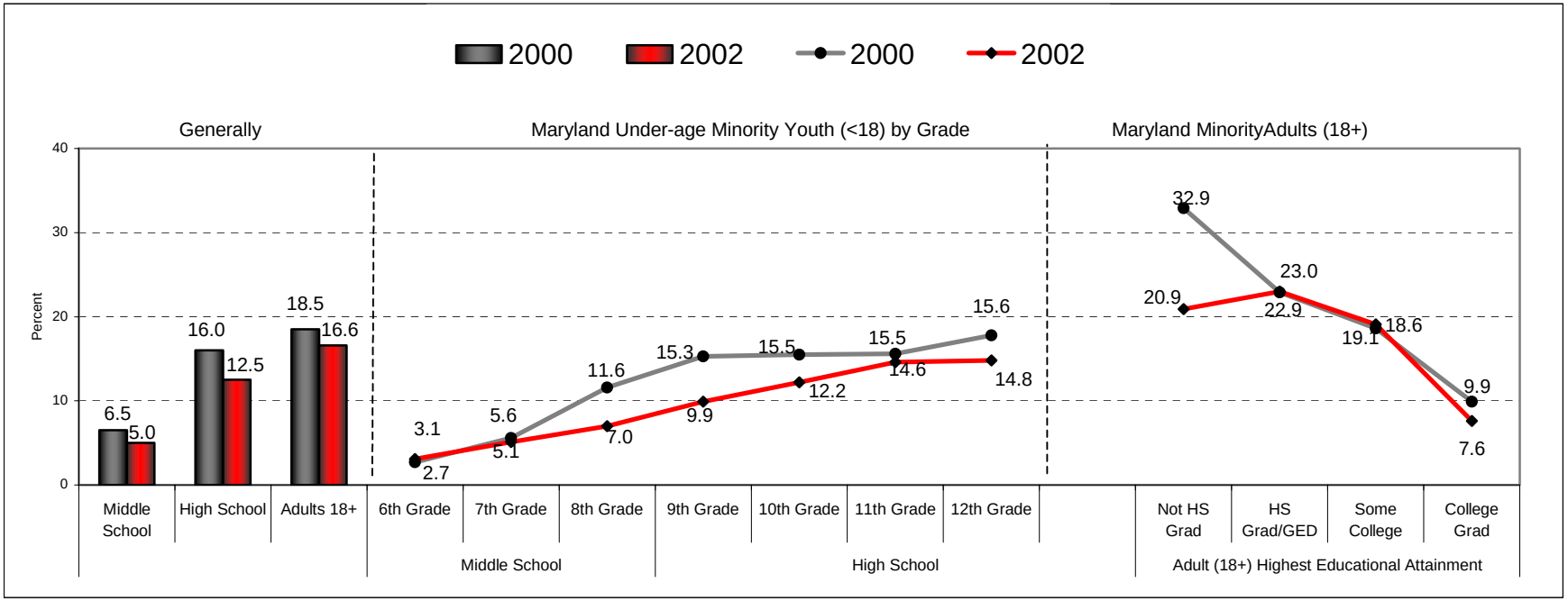
- Data provided by the Vital Statistics Administration indicate that 9.2% of Maryland women who had a live birth in 2000 reported having smoked cigarettes at some time during their pregnancy. In 2002, 8.0% of women who had a live birth reported having smoked cigarettes during pregnancy (see Appendix 1).

CIGARETTE SMOKING – BY MINORITY UNDER-AGE YOUTH AND ADULTS

Percentage of under-age minority youth attending public middle and high schools, and minority adults (18+), who smoked a cigarette in the past 30 days

Figure 7

Current Cigarette Smoking by Under-age (<18) Minority Youth and Minority Adults



Under-age Minority Youth

- Among under-age minority students in middle school, the prevalence of cigarette smoking remained comparable, 6.5% in 2000 and 5.0% in 2002. The apparent decline in cigarette smoking is not statistically significant.

- Among under-age minority students in high school, the decrease in current cigarette smoking was statistically significant. Cigarette smoking declined from 16.0% of the under-age minority students to 12.5%. This represents a decline of almost 22% from the baseline rate for current cigarette smoking among minority youth.

- As seen in Figure 7, the largest decreases in cigarette smoking were among minority students in 8th grade (11.6% to 7.0%) and 9th grade (15.3% to 9.8%). The decrease in cigarette smoking in these grades was statistically significant.

- One jurisdiction—Wicomico County—had a statistically significant decline in current cigarette smoking among under-age, minority middle school students from 16.8% in 2000 to 7.6% in 2002 (see Appendices 3a and 3b).

- Six jurisdictions—Anne Arundel, Carroll, Charles, Kent, Somerset, and Wicomico Counties—had statistically significant declines in current cigarette smoking among under-age, minority high school students (see Appendices 3a and 3b).

Minority Adults

- Among minority adults, cigarette smoking declined from 18.5% in 2000 to 16.6% in 2002. However, this decline was not found to be statistically significant so rates of cigarette use among minority adults in 2002 are deemed comparable to those reported at baseline in 2000.

- Despite the apparent large decline in cigarette smoking by minority adults with less than a high school education, no statistically significant change in cigarette smoking among minority adults was found to have occurred at any of the educational milestones.

- Two jurisdictions—Calvert and St. Mary's Counties—had a statistically significant decrease in the percentage of minority adults who currently smoke cigarettes (see Appendix 6).

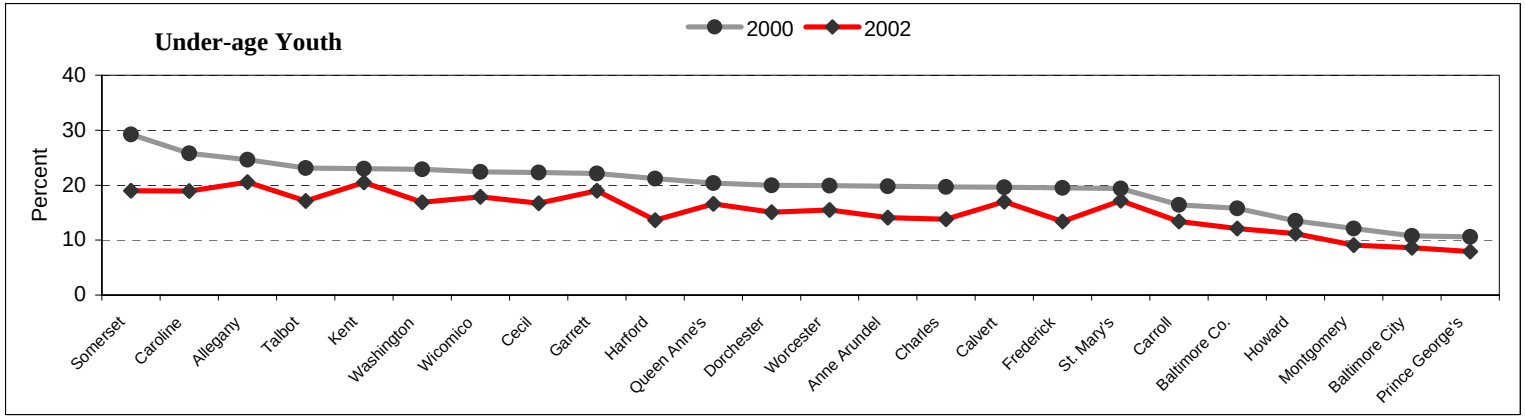
CURRENT CIGARETTE SMOKING – BY JURISDICTION

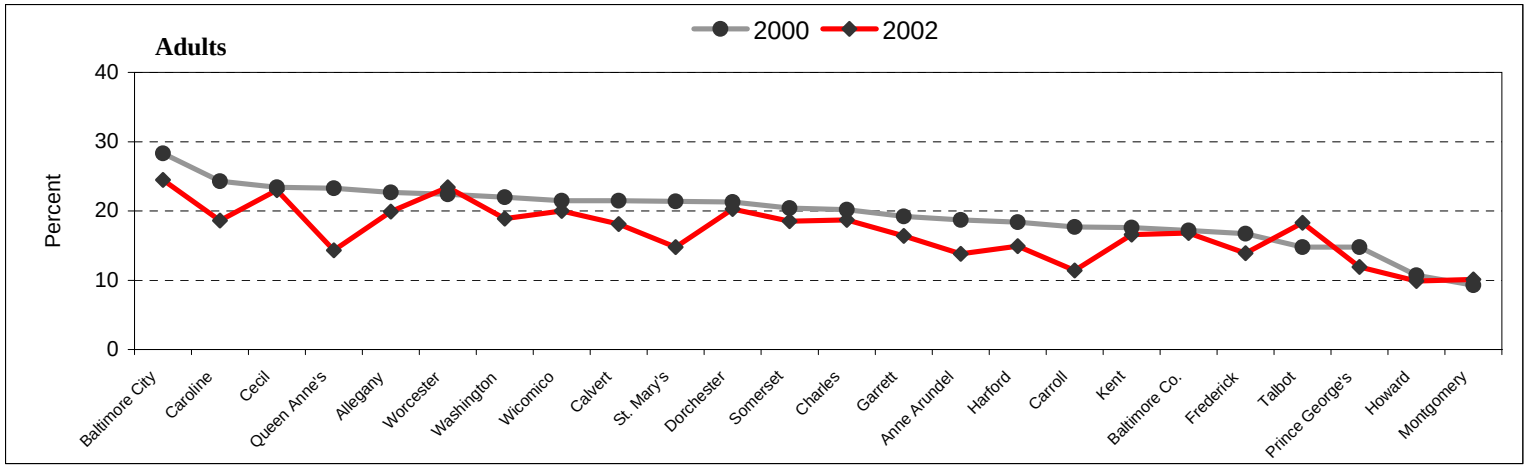
Percentage of under-age youth (<18) and adults (18+) who smoked cigarettes in the past 30 days by Maryland jurisdiction

Figure 8

Variation in Cigarette Smoking among Under-age (<18) Youth and Adults By JURISDICTION

(Sorted Highest to Lowest, Current Tobacco Use in 2000)





Maryland Under-age Youth (*see Appendix 11a and 11b*)

- In 10 jurisdictions, there was a statistically significant decline in cigarette smoking among under-age youth from 2000 to 2002:
    - **Anne Arundel County** decreased from 19.8% to 14.1%
    - **Caroline County** decreased from 25.8% to 18.9%
    - **Cecil County** decreased from 22.3% to 16.7%
    - **Charles County** decreased from 19.7% to 13.8%
    - **Dorchester County** decreased from 20.0% to 15.1%
    - **Frederick County** decreased from 19.5% to 13.4%
    - **Harford County** decreased from 21.2% to 13.6%
    - **Somerset County** decreased from 29.2% to 19.0%
    - **Talbot County** decreased from 23.1% to 17.1%
    - **Washington County** decreased from 22.9% to 16.9%

Maryland Adults (*see Appendix 6*)

- In 4 jurisdictions, there was a statistically significant decline in current cigarette smoking among adults from 2000 to 2002:
    - **Anne Arundel County** decreased from 18.7% to 13.8%
    - **Carroll County** decreased from 17.7% to 11.4%
    - **Queen Anne's** County decreased from 23.3% to 14.3%
    - **St. Mary's County** decreased from 21.4% to 14.8%
- In Talbot County, the apparent increase in cigarette smoking from 14.8% in 2000 to 18.3% in 2002 was not a statistically significant change.

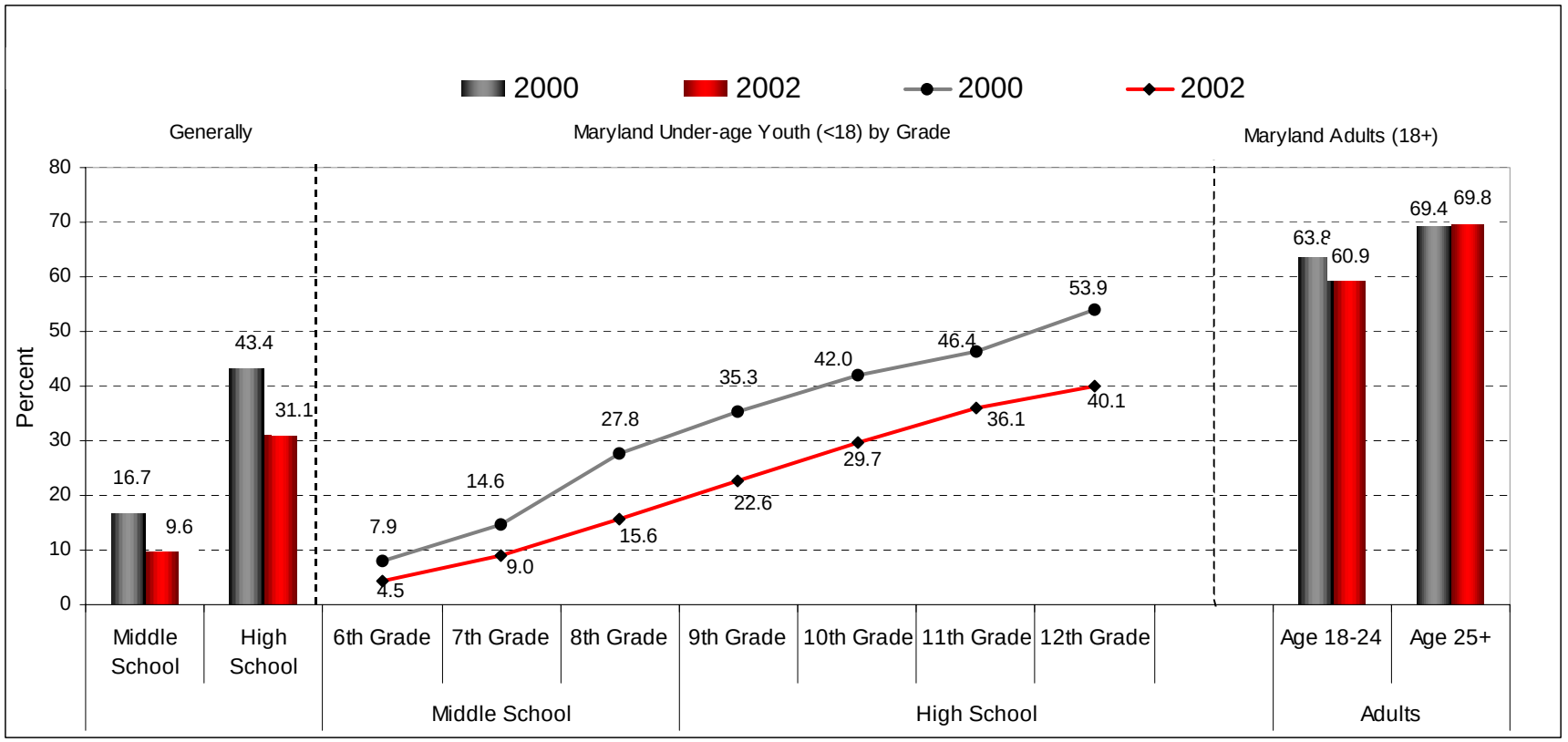
INITIATION OF TOBACCO USE

EVER SMOKED A WHOLE CIGARETTE – UNDER-AGE YOUTH AND ADULTS

Percentage of under-age youth attending Maryland public middle and high schools, and adults (18+), who ever smoked a whole cigarette

Figure 9

Ever Smoked a Whole Cigarette by Under-age (<18) Youth and Adults



Under-age Youth

- There was a statistically significant decline in the percentage of Maryland under-age youth attending public middle and high schools that have ever smoked a whole cigarette between 2000 and 2002.

- In middle school, the proportion of under-age youth that have ever smoked a whole cigarette declined from 16.7% of the under-age students to 9.6%. This represents a decline of over 42% from the baseline 2000 rate for having smoking a whole cigarette and is statistically significant.

- In high school, the proportion of under-age youth that have ever smoked a whole cigarette declined from 43.4% of the under-age students to 31.1%. This represents a decline of 28% from the baseline 2000 rate for smoking a whole cigarette and is statistically significant.

- Figure 9 graphically depicts the decline by grade, and the statistically significant declines in grades 6 through 12 are readily seen.

- In addition to reducing the proportion of youth in each grade who have ever smoked a whole cigarette, long-term success in achieving significant reductions in smoking for high school seniors will also require that the rate of increase by grade also be reduced. In 2000, an additional 6.6% of under-age youth smoked a whole cigarette on average at every additional grade. In 2002, the rate of increase had declined to an average of 5.1% each grade.

Adults

- The percentage of adults who have ever smoked a whole cigarette has remained comparable within each age group from 2000 to 2002.

- The vast majority of adults who have ever tried smoking a cigarette report that their first use of cigarettes occurred prior to age eighteen and virtually all adults who will ever smoke have smoked their first whole cigarette before age 25.

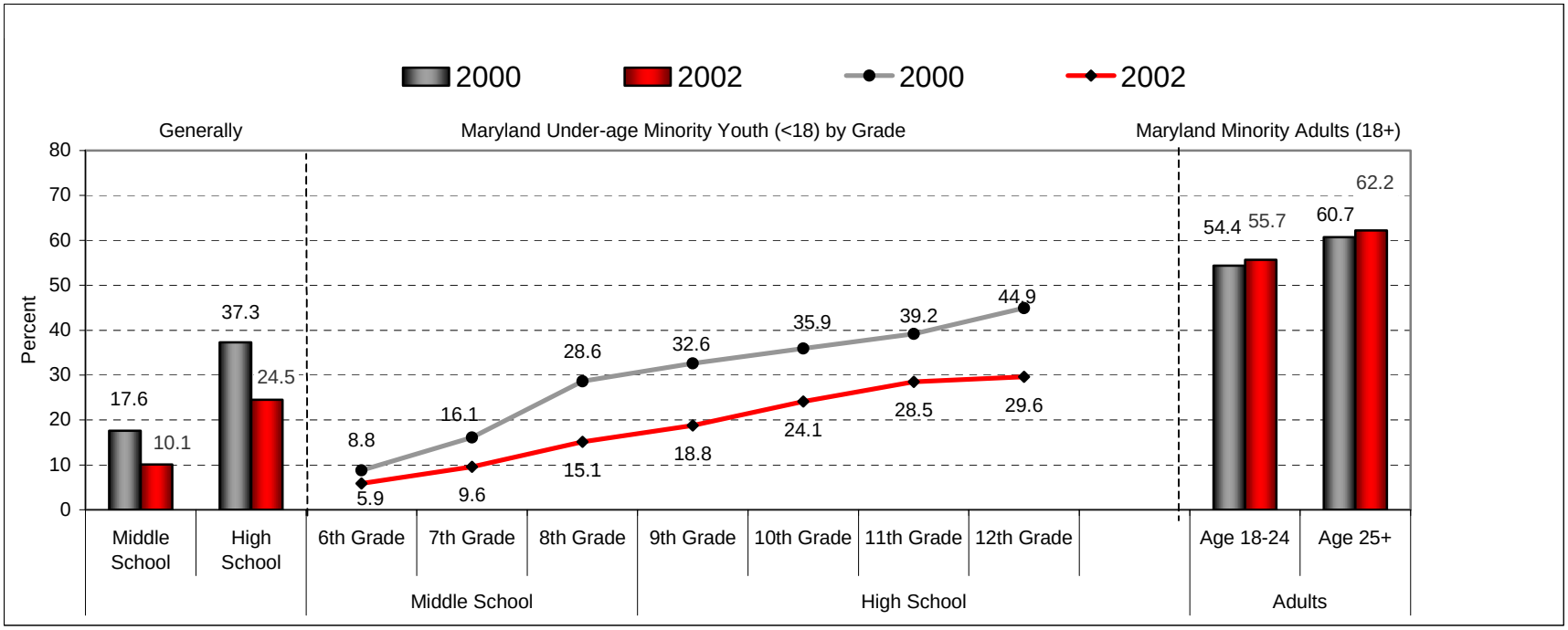
- Over time, as current under-age youth become adults, some decline in the proportion of adults who have ever smoked a whole cigarette can be expected, with the first changes visible in the 18-24 year old age group.

EVER SMOKED A WHOLE CIGARETTE – MINORITY UNDER-AGE YOUTH AND ADULTS

Percentage of under-age minority youth attending Maryland public middle and high schools, and minority adults (18+), who ever smoked a whole cigarette

Figure 10

Ever Smoked a Whole Cigarette by Under-age (<18) Minority Youth and Minority Adults



Under-age Minority Youth

- There was a statistically significant decline between 2000 and 2002 in the percentage of Maryland under-age minority youth attending public middle and high schools that had ever smoked a whole cigarette.

- In middle school, smoking a whole cigarette declined from 17.6% of the under-age minority students to 10.1%. This represents a decline of over 42% from the baseline rate for smoking a whole cigarette and is statistically significant.

- In high school, smoking a whole cigarette declined from 37.3% of the under-age students to 24.5%. This represents a decline of 34% from the baseline rate for smoking a whole cigarette and is statistically significant.

- With the exception of 6th grade, there were statistically significant declines in the percentage of under-age minority youth who had smoked a whole cigarette at each grade level from 2000 to 2002. Specifically, significant decreases occurred among:

    - 7th grade students (16.1% to 9.6%)
    - 8th grade students (28.6% to 15.1%)
    - 9th grade students (32.6% to 18.8%)
    - 10th grade students (35.9% to 24.1%)
    - 11th grade students (39.2% to 28.5%)
    - 12th grade students (44.9% to 29.6%)

Minority Adults

- The vast majority of minority adults that ever tried cigarette smoking, like the general adult population, first tried smoking while still under-age.

- The percentage of minority adults who had ever smoked a whole cigarette remained comparable within each age group from 2000 to 2002.

EVER AN ESTABLISHED SMOKER – BY UNDER-AGE YOUTH AND ADULTS

Percentage of Maryland under-age youth (<18) and adults (18+) who smoked at least 5 packs of cigarettes (100+ cigarettes) in their lifetime

Figure 11

Have Smoked 100+ Cigarettes in Lifetime
Under-age (<18) Youth and Adults
by GRADE and AGE

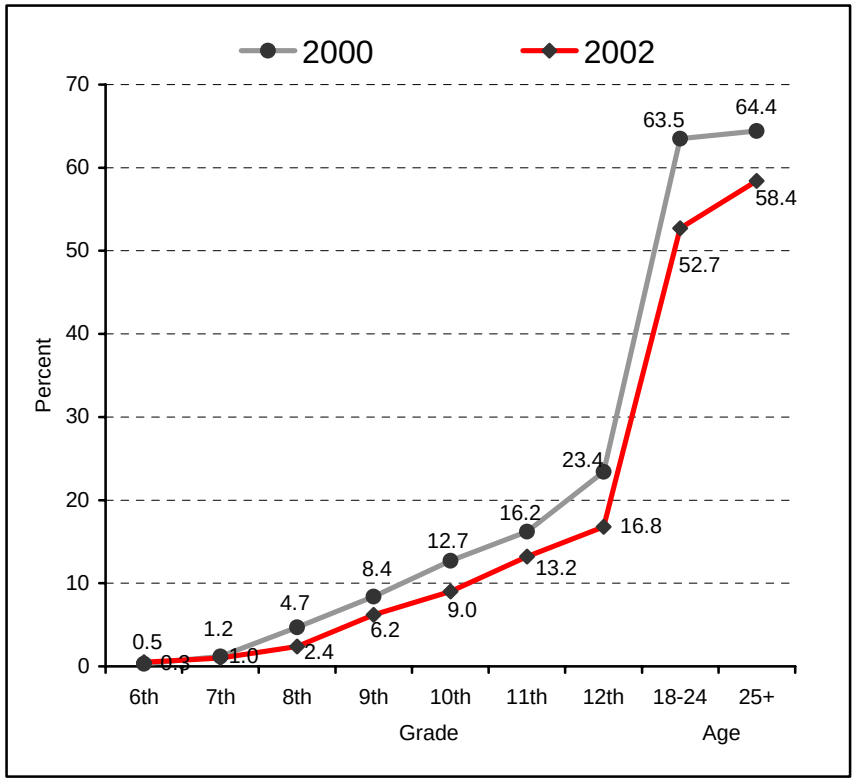
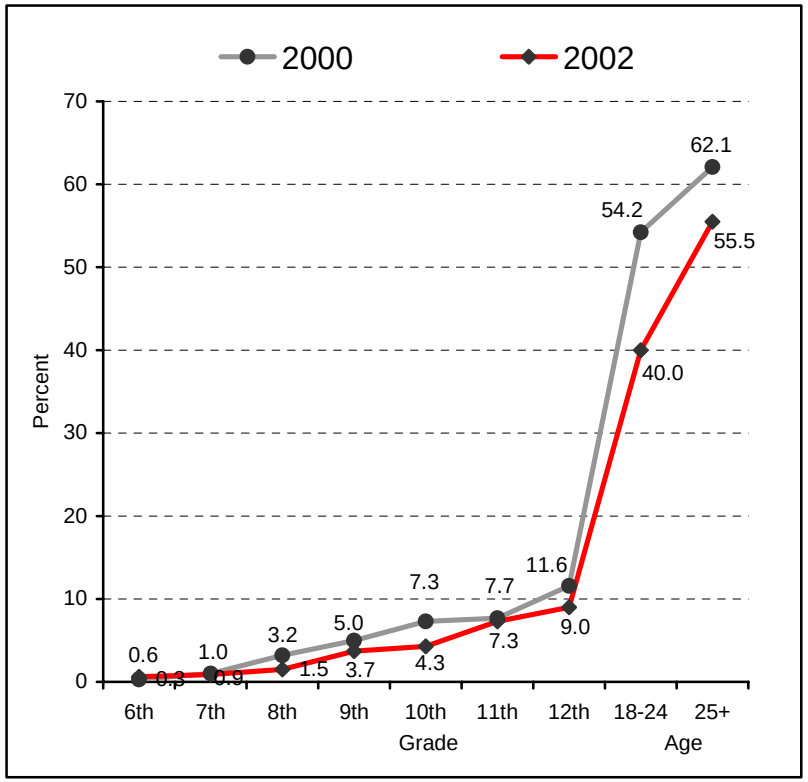


Figure 12

Have Smoked 100+ Cigarettes in Lifetime
Minority Under-age Youth (<18) and Minority Adults
by GRADE and AGE



Under-age Youth

- As school grade increases, so does the percentage of youth who become "established" smokers—that is, they have smoked 100 or more cigarettes (5 packs) in their lifetime. For example, in 2002 less than 1% of 6th grade students reported they had smoked 100+ cigarettes in their lifetime; however, by 12th grade, nearly 17% of the students had smoked 100+ cigarettes. Further, by early adulthood (18-24 years old), over one-half of adults report that they had at some time become established smokers.

- From 2000 to 2002, there was a significant decline in the percentage of under-age students who smoked 100+ cigarettes in their lifetime. Specifically, there were significant decreases among:

  - 8th grade students (4.7% to 2.4%)
  - 9th grade students (8.4% to 6.2%)
  - 10th grade students (12.7% to 9.0%)
  - 11th grade students (16.2% to 13.2%)
  - 12th grade students (23.4% to 16.8%)

- From 2000 to 2002, there was a significant decrease in the percentage of under-age minority youth in 10th grade (7.3% to 4.3%, respectively) that had ever smoked 100+ cigarettes in their lifetime.

Adults

- From 2000 to 2002, there were significant declines in the percentage of adults ages 18 to 24 (63.5% to 52.7%, respectively) and 25 and over (64.4% to 58.4%, respectively) who had smoked 100+ cigarettes in their lifetime.

- The percentage of minority adults ages 25 and over who have smoked 100+ cigarettes decreased significantly, from 62.1% in 2000 to 55.5% in 2002.

FREQUENCY OF CIGARETTE SMOKING- BY UNDER-AGE YOUTH

Percentage of Maryland under-age youth (<18) who smoke frequently (20+ days in the past 30 days) and infrequently (<20 days in the past 30 days) and have smoked at least 5 packs of cigarettes (100+ cigarettes) in their lifetime

Figure 13

Frequent and Infrequent Cigarette Smoking Among All Current Under-age (<18) Youth Smokers

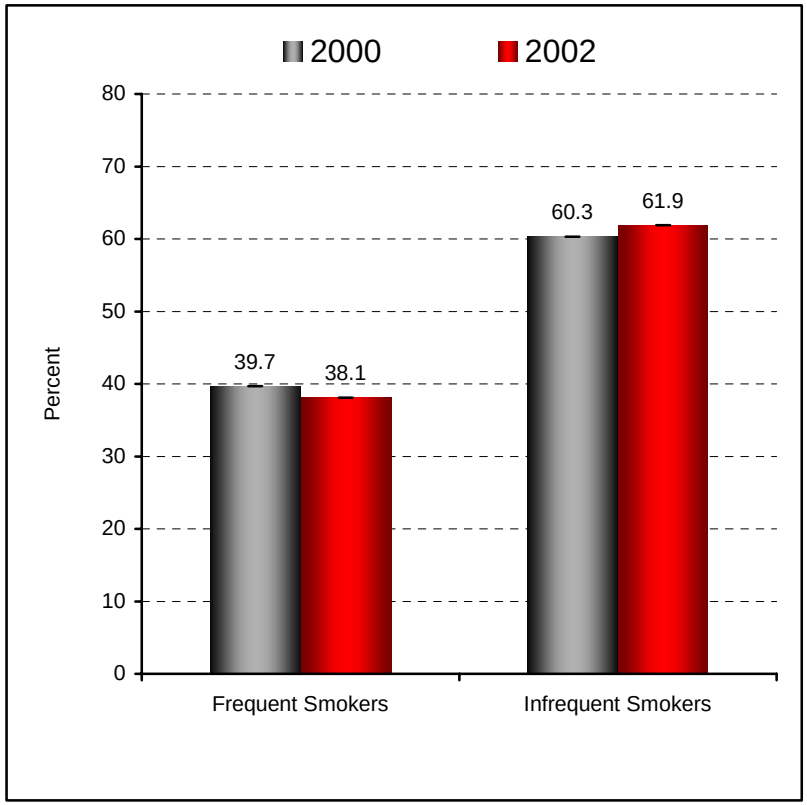
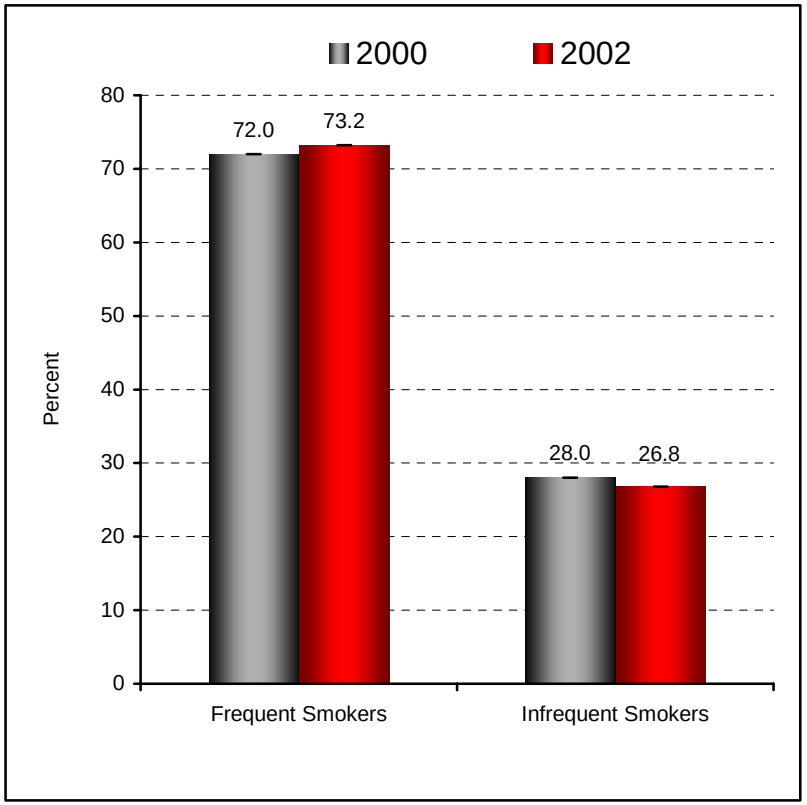


Figure 14

Frequent and Infrequent Cigarette Smoking Among Established Current Under-age (<18) Youth Smokers



All Current Under-age Youth Cigarette Smokers

- As seen in Figure 13, slightly more than one-third of all under-age youth who currently smoke cigarettes, smoke frequently (20+ of the past 30 days), and nearly two-thirds smoke infrequently (<20 days of the past 30 days).

- Although cigarette smoking has declined, among the remaining smokers, there has been no significant change in the percentage of youth who smoke frequently or infrequently from 2000 to 2002.

Current Under-age Youth Established Cigarette Smokers

- As seen in Figure 14 (2002), over 73% of under-age youth that have smoked 100+ cigarettes in their lifetime (Established Smokers), smoke at least 20 days each month. Only 26.8% of under-age youth who are established smokers smoke on fewer than 20 days each month.

- Among under-age youth who have smoked at least 100+ cigarettes in their lifetime, there was no significant change in the percentage of youth who smoke frequently or infrequently from 2000 to 2002.

- While the proportion of youth who currently smoke cigarettes has declined significantly (see previous Figures), it is apparent that among under-age youth who have decided to smoke, there has been little change in the relative proportion of established and infrequent smokers among the under-age youth who do smoke.

The 100+ Cigarette Threshold and the Likelihood of Becoming a Frequent Smoker

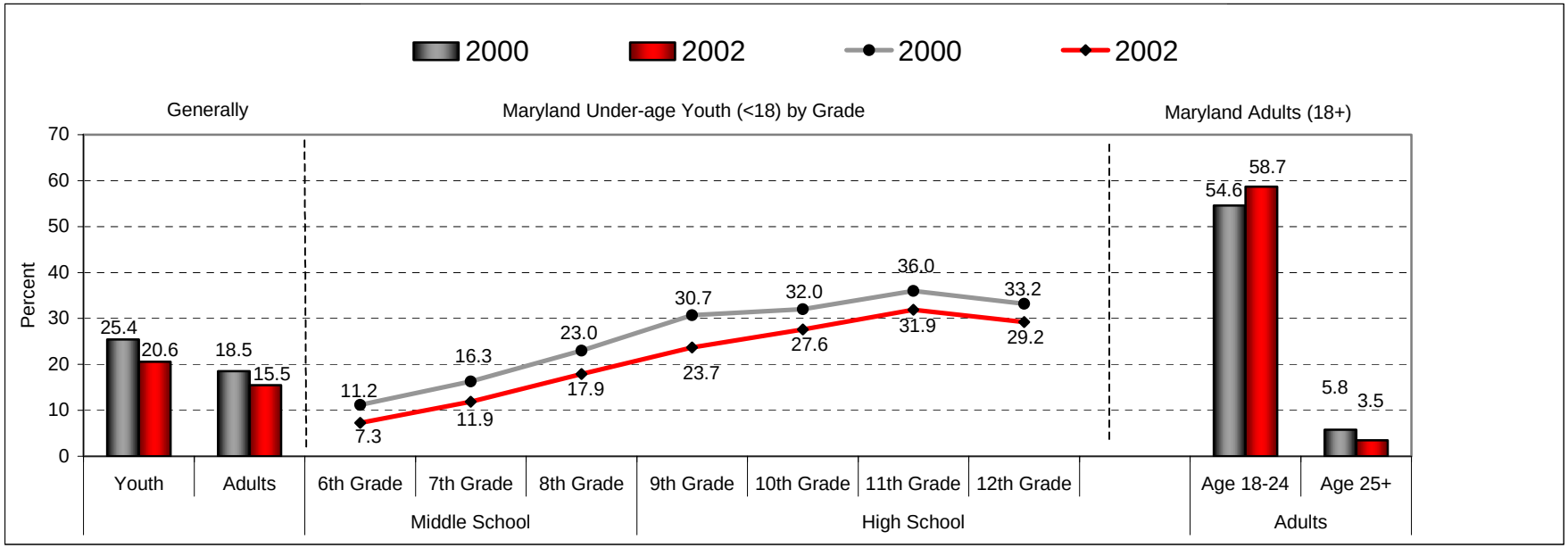
- Youth who have smoked 100+ cigarettes in their lifetime are 2.5 times more likely to become frequent smokers than to become infrequent smokers.

NEW TOBACCO USERS – UNDER-AGE YOUTH AND ADULTS

Percentage of under-age youth (<18) and adults (18+) who initiated that use in the past two years

Figure 15

Under-age (<18) Youth and Adults Who Have Initiated Tobacco Use in the Past Two Years by GRADE/AGE



Under-age Youth

- There was a statistically significant decline in the percentage of under-age youth who initiated tobacco use in the past two years, from 25.4% in 2000 to 20.6% in 2002.

- From 2000 to 2002, across all grade levels, at both the middle and high school levels, there was a significant decline in the percentage of under-age youth who started using tobacco in the past two years. Specifically, statistically significant decreases occurred among:
    - 6^{th} grade students (11.2% to 7.3%);
    - 7^{th} grade students (16.3% to 11.9%);
    - 8^{th} grade students (23.0% to 17.9%);
    - 9^{th} grade students (30.7% to 23.7%);
    - 10^{th} grade students (32.0% to 27.6%);
    - 11^{th} grade students (36.0% to 31.9%);
    - 12^{th} grade students (33.2% to 29.2%).

- Over half of all Maryland Counties, and the City of Baltimore, experienced a significant decline in the percentage of under-age youth who initiated tobacco use in the past two years (see Appendix 9A).

- From 2000 to 2002, there were significant declines in the percentage of under-age males (26.1% to 21.1%, respectively) and females (24.6% to 20.1%, respectively) who initiated tobacco use in the past two years (see Appendix 9A).

- Significant decreases in the initiation of tobacco use in the past two years among under-age males occurred in Allegany, Anne Arundel, Carroll, Cecil, Charles, Frederick, Harford, Queen Anne's, St. Mary's, and Talbot Counties (see Appendix 9A).

- The City of Baltimore and Calvert, Dorchester, Frederick, and Harford Counties experienced significant declines in the initiation of tobacco use in the past two years among under-age females (see Appendix 9A).

Adults

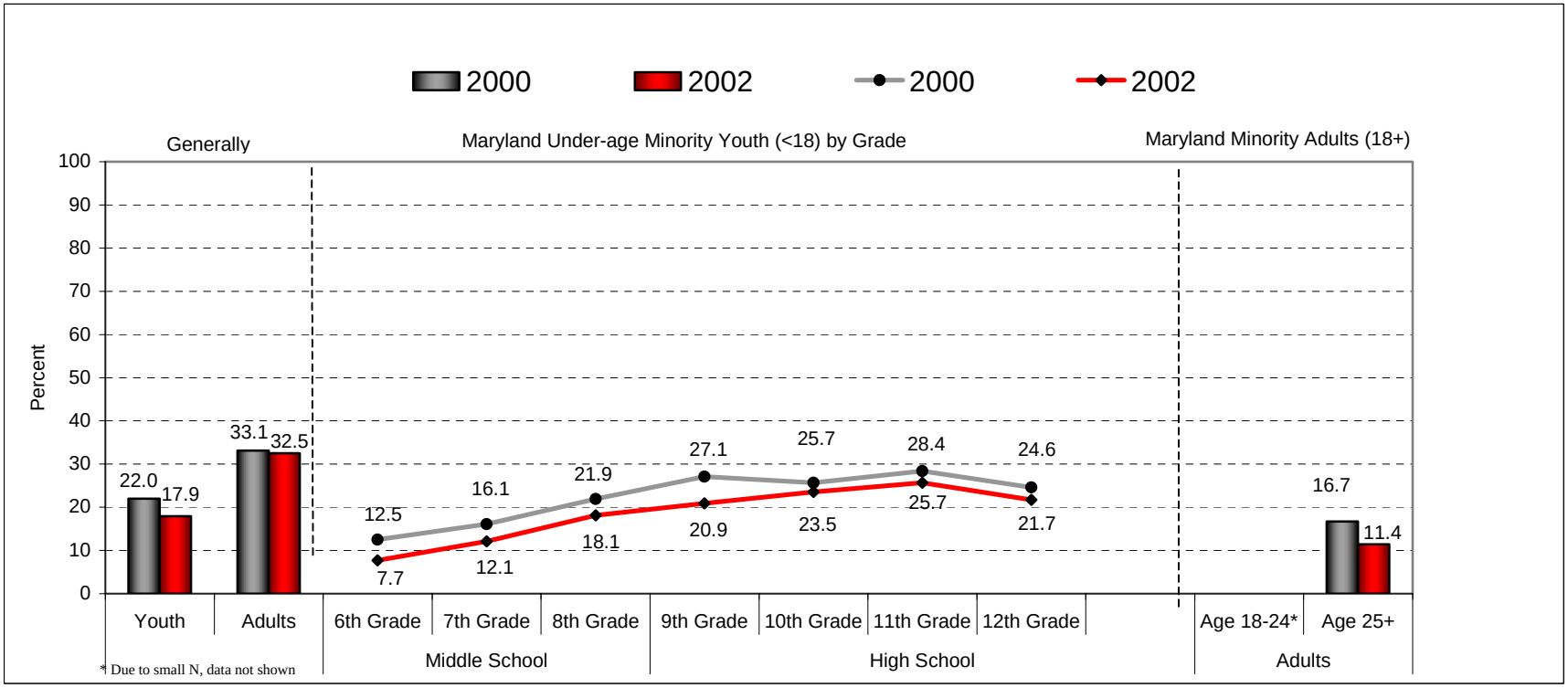
- Although there was an apparent decrease in the percentage of adults statewide that initiated tobacco use in the past two years, this change was not found to be significant and, therefore, rates of tobacco use initiation among all adults are deemed comparable to those reported at baseline.

NEW TOBACCO USERS – MINORITY UNDER-AGE YOUTH AND MINORITY ADULTS

Percentage of minority under-age youth (<18) and adults (18+) who initiated that use in the past two years

Figure 16

Under-age (<18) Minority Youth and Minority Adults Who Have Initiated Tobacco Use in the Past Two Years by GRADE/AGE



Maryland Under-age Minority Youth

- There was a statistically significant decline in the percentage of under-age minority youth who initiated tobacco use in the past two years, from 22.0% in 2000 to 17.9% in 2002. Specifically, there were statistically significant decreases among:
    - 6^{th} grade students (12.5% to 7.7%);
    - 7^{th} grade students (16.1% to 12.1%); and
    - 9^{th} grade students (27.1% to 20.9%).
- Comparing Figure 15 and 16, it is apparent that rates of initiation for minority and the general population of under-age youth are comparable in grades 6 through 8. Thereafter, initiation rates among under-age minority youth are consistently lower than for the general population of under-age youth. This is consistent with the findings (see Figure 1) of lower current tobacco use among under-age minority students.
- There was also a statistically significant decrease in the initiation of tobacco use among under-age minority youth in Anne Arundel, Charles, Dorchester, Kent, and Wicomico Counties, and the City of Baltimore (see Appendix 9A).

Maryland Minority Adults

- From 2000 to 2002, no statistically significant changes occurred in the percentage of minority adults who initiated tobacco use in the past two years. Data for the 18-24 year old age group cannot be presented because of the low number of survey adult minority survey respondents who indicated that they had initiated tobacco use in the relevant time period.
- Comparing Figure 15 and 16, it is apparent that minority adults in Maryland are more than three times as likely to initiate tobacco use as an adult age 25 or older than are adults generally (3.5% general population vs. 11.4% in minority population in 2002). This suggests that prevention programs targeting minority populations may need to target adult groups that are older than those attempting to reach the general population.

UNDER-AGE ACCESS TO TOBACCO PRODUCTS

SOURCES OF CIGARETTES FOR THE UNDER-AGE FREQUENT AND INFREQUENT SMOKER

The usual sources for the acquisition of cigarettes for under-age (<18) frequent and infrequent smokers

Figure 17

Usual Source of Cigarettes for Under-age (<18)
Frequent Smokers

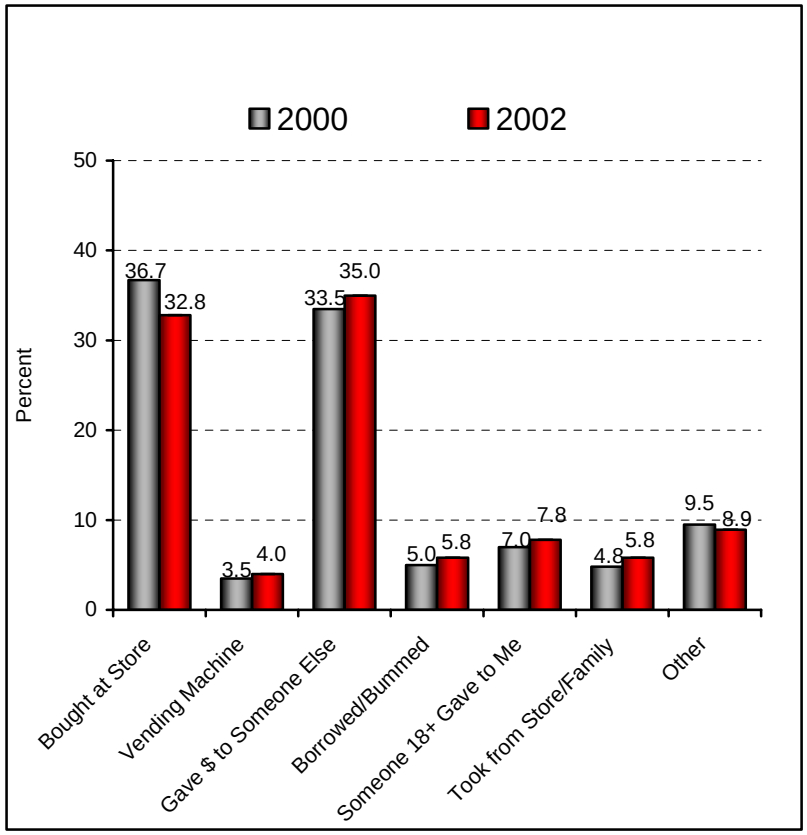
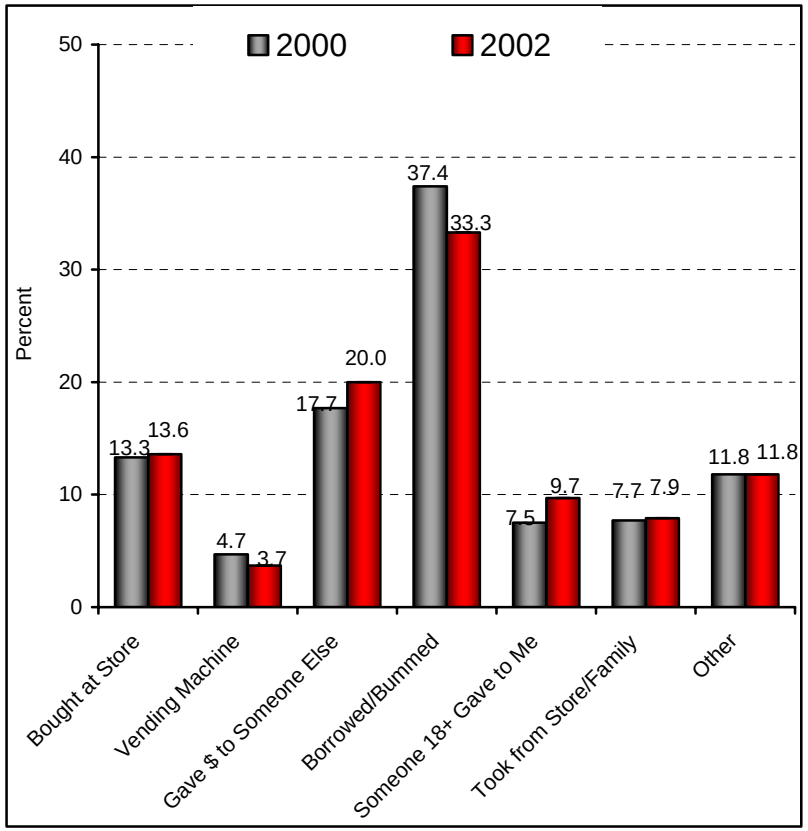


Figure 18

Usual Source of Cigarettes for Under-age (<18)
Infrequent Smokers



Sources of Cigarettes for Under-age Smokers

- As the frequency of smoking increases as does the number of cigarettes being smoked. This fact has a direct impact on strategies under-age youth may adopt to gain access to cigarettes since it is illegal for cigarettes to be sold to them.

- In Figures 17 and 18 the differing strategies are readily apparent. Under-age youth who are frequent smokers primarily rely on retail outlets for their cigarettes, either purchasing them directly or indirectly by giving someone else the money to buy them. Those who smoke only infrequently primarily rely on borrowing cigarettes, with giving others money to purchase cigarettes a distant second.

Frequent Under-age Smokers

- There was a statistically significant decline in the percentage of under-age frequent smokers who purchased their cigarettes from a store in the past 30 days, from 36.7% in 2000 to 32.8% in 2002.

- Under-age frequent smokers are more likely than under-age infrequent smokers to acquire their cigarettes by purchasing them from a store (32.8% and 13.6%, respectively in 2002) or giving someone else money to purchase the cigarettes for them (35.0% and 20.0%, respectively). These differences are statistically significant.

Infrequent Under-age Smokers

- Among under-age infrequent smokers, there was a statistically significant decrease in the percentage that acquired cigarettes by borrowing (or bumming) them from someone else in the past 30 days, from 37.4% in 2000 to 33.3% in 2002. However, there was a statistically significant increase in the percentage of under-age infrequent smokers who usually acquired their cigarettes from someone 18 years of age or older, from 7.5% in 2000 to 9.7% in 2002.

- Looking at 2002 data, under-age infrequent smokers are more likely than under-age frequent smokers to acquire their cigarettes by borrowing (or bumming) them from someone (33.3% and 5.8%, respectively in 2002), taking them from a store or family member (7.9% and 5.8%, respectively in 2002), or by some other means (11.8% and 8.9%, respectively in 2002).

ABILITY OF UNDER-AGE SMOKERS TO PURCHASE CIGARETTES

Percentage of under-age (<18) Frequent smokers who purchased cigarettes AND the percentage of under-age (<18) smokers refused sale of cigarettes

Figure 19

Retail Sources of Cigarettes for Under-age (<18) Frequent Smokers

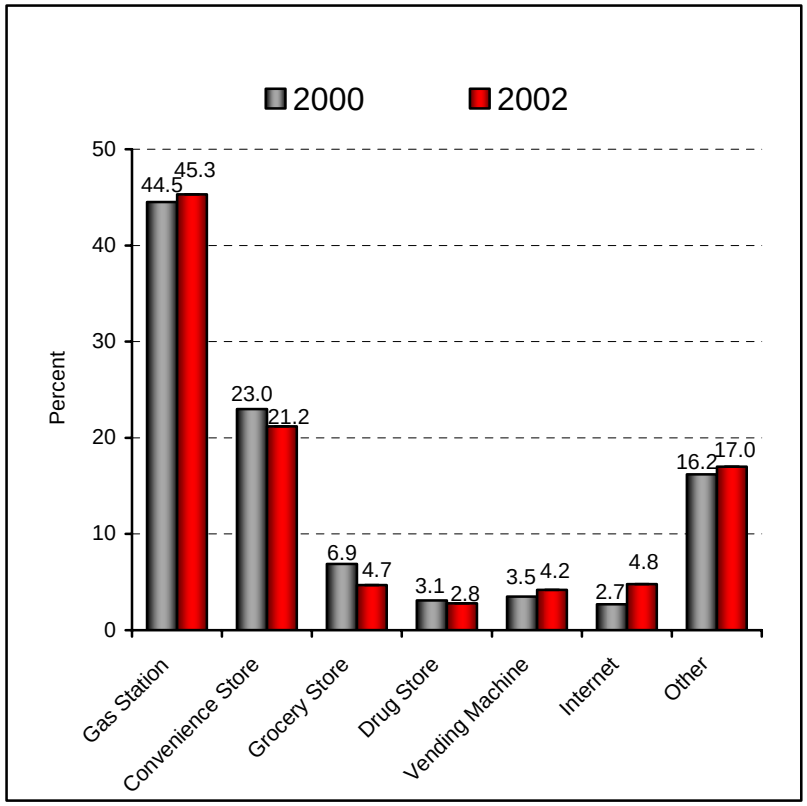
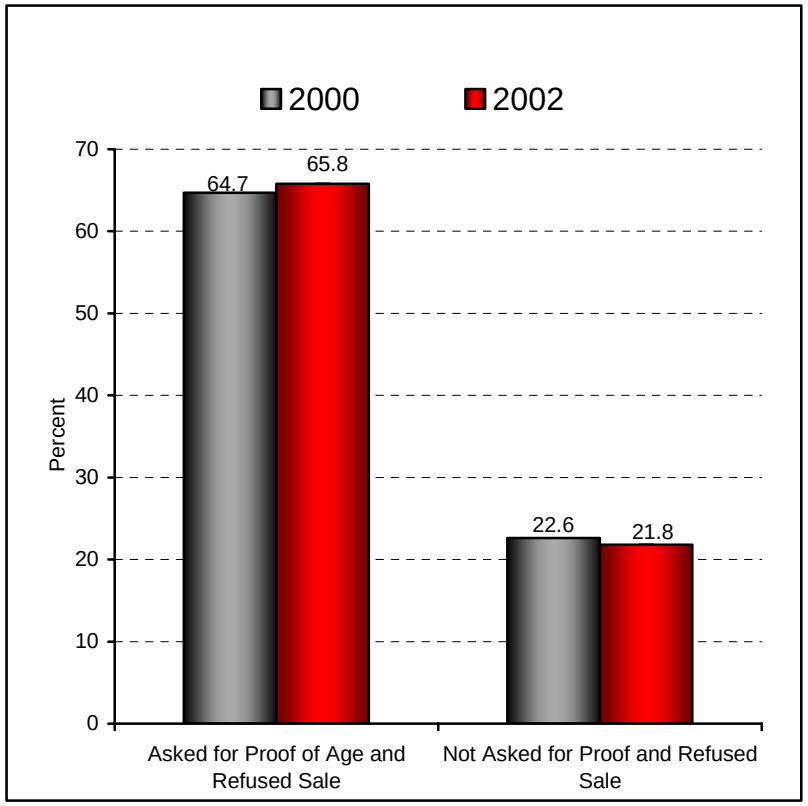


Figure 20

Impact of Asking for Proof-of-Age on Sale of Cigarettes to Under-age (<18) Smokers



Retail Sources of Cigarettes for Under-age Frequent Smokers

- It is illegal to sell tobacco products, including cigarettes to youth under the age of eighteen in Maryland.

- However, when under-age youth who are frequent smokers look to purchase cigarettes, gas stations were identified by 45.3% (2002) of these youth as the place from which they had purchased their last pack of cigarettes. Convenience stores were identified by 21.2% (2002) of these youth as their source of the last pack of cigarettes purchased. Together, gas stations and convenience stores supplied 66.5% of these youth with their last purchased cigarettes.

- Since the 2000 baseline survey, there was a statistically significant decline (6.9% to 4.7%) in the proportion of these youth who purchased their last pack of cigarettes from a grocery store. At the same time, there was a statistically significant increase (2.7% to 4.8%) in the proportion of these youth who purchased their last pack of cigarettes over the Internet.

Asking for Proof of Age and Refusing to Sell Cigarettes to Under-age Youth

- Although Maryland law prohibits the sale of cigarettes and other tobacco products to youth under the age of eighteen, it does not require that retailers ask for proof of age in connection with sales. Many retailers apparently rely on the appearance of the prospective purchaser in gauging whether they are old enough to legally purchase cigarettes.

- The survey data strongly suggests that merely relying on the apparent age of the purchaser is not an effective strategy for complying with the law prohibiting the sale of tobacco to under-age youth. As shown in Figure 20, under-age youth are three times more likely to be refused the sale of cigarettes if they are asked for proof of age than they are if not asked for proof of age.

- From 2000 to 2002, there was no statistically significant change in the percentage of under-age youth who were asked to show proof of age when they were trying to buy cigarettes from a retail outlet.

- Similarly, there was no statistically significant change in the percentage of under-age youth who were refused in their attempt to purchase cigarettes.

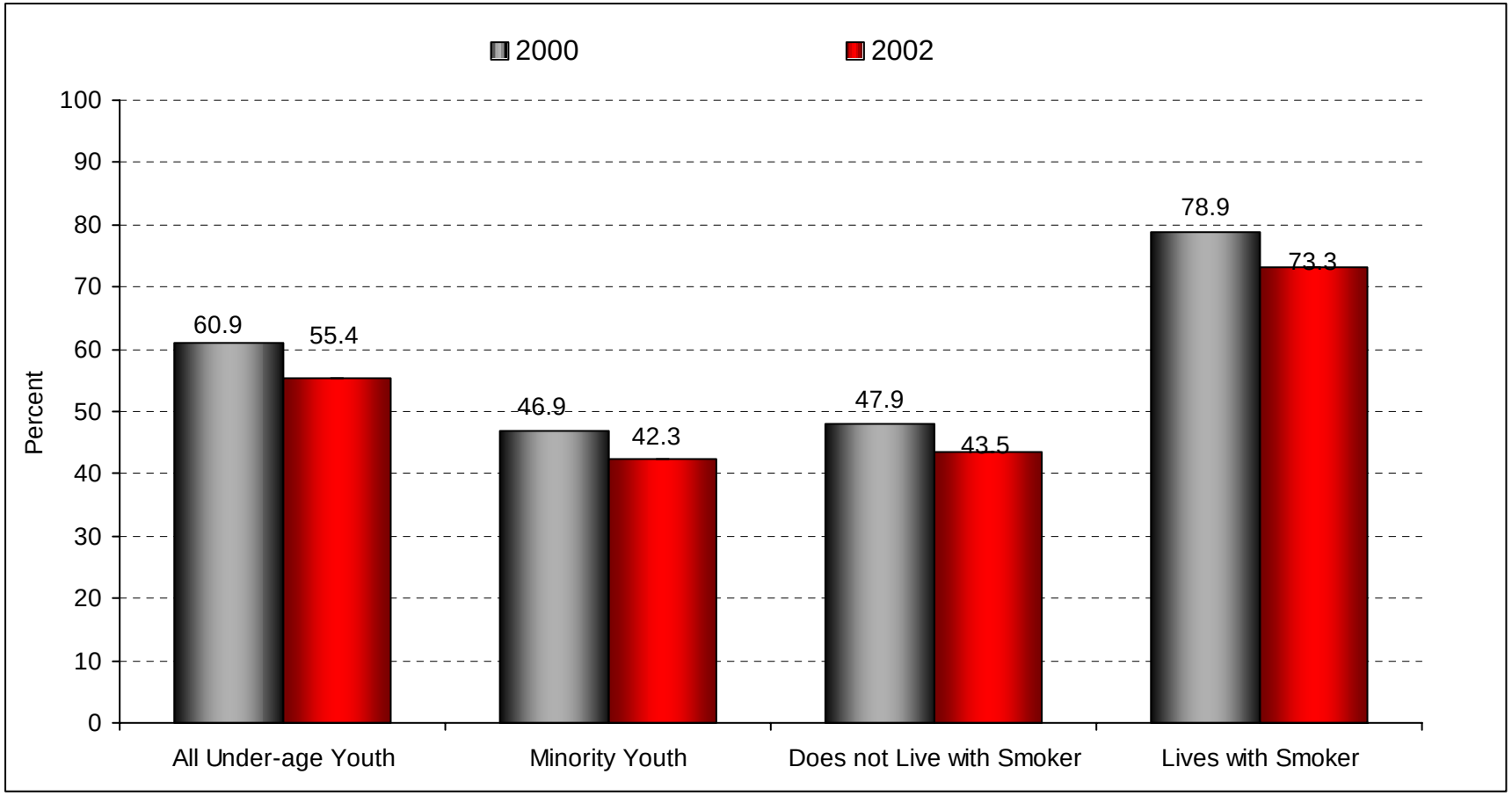
EXPOSURE TO SECOND HAND SMOKE

UNDER-AGE YOUTH WHO ARE EXPOSED TO SECOND-HAND SMOKE

Percentage of Maryland under-age youth (<18) who indicated they are exposed to second-hand smoke

Figure 21

Under-age Youth Exposure to Second-hand Smoke



Under-age Youth

- Exposure of under-age Maryland youth to second-hand smoke has declined 9% from the baseline (2000) rate. In the fall of 2000, 60.9% of under-age youth reported being exposed to second hand smoke in the past week. By the fall of 2002, the percentage reporting exposure to second-hand smoke during the previous week had declined to 55.4%. This change is statistically significant.

- Notwithstanding this decline, exposure to second hand smoke remains a significant risk to the health of over 55% of Maryland's under-age youth.

- The likelihood that under-age youth will be exposed to second hand smoke increases dramatically when an adult member of the household smokes. Over 73% of under-age youth who live with an adult smoker report having been exposed to second hand smoke during the past week as compared to 43.5% of those who do not live with a smoker.

- Progress in decreasing exposure to second hand smoke is being made in both smoking and non-smoking households.

    - The percentage of under-age youth who are exposed to second-hand smoke because they live with a smoker decreased significantly, from 78.9% in 2000, to 73.3% in 2002.

    - The percent of underage youth who are exposed to second-hand smoke, but who do not live with a smoker, decreased significantly, from 47.9% in 2000, to 43.5% in 2002.

Minority Under-age Youth

- Minority under-age youth reported the lowest rates of exposure to second hand smoke, in both 2000 and in 2002.

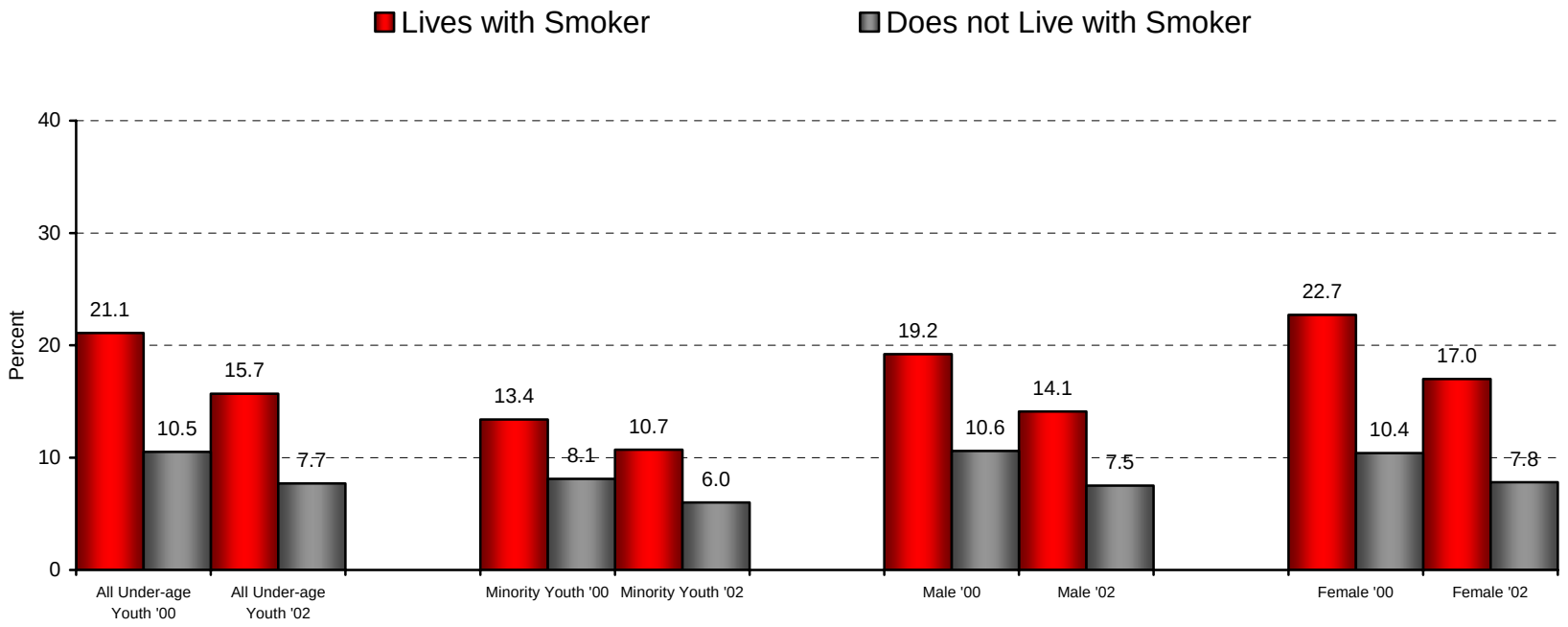
- This lower rate of exposure to second hand smoke declined significantly between 2000 and 2002. In the fall of 2000, 46.9% of minority under-age youth reported being exposed to second hand smoke during the past week. By the fall of 2002, the proportion reporting exposure to second hand smoke had declined to 42.3%. This decrease of 4.6 percentage points represents a 9.8% decrease in exposure from the baseline rate and is statistically significant.

LIKELIHOOD OF UNDER-AGE YOUTH BECOMING A CIGARETTE SMOKER WHEN LIVING WITH AN ADULT WHO SMOKES VS. NON-SMOKING HOUSEHOLD

Percentage of under-age youth (<18) who live with an adult smoker (18+) and are current under-age smokers, versus the percentage of under-age youth who do not live with an adult smoker and are current under-age smokers

Figure 22

Likelihood of Becoming an Under-age Smoker if Youth Live with an Adult who Smokes, Versus the Likelihood of Becoming an Under-age Smoker if Youth do not Live with an Adult who Smokes by RACE/ETHNICITY and GENDER



Under-age Youth

- In 2002, of the under-age youth who live with an adult who smokes, 15.7% are current smokers themselves. In contrast, of the under-age youth who do not live with an adult who smokes, 7.7% are current smokers.

- There was a significant decline in the percentage of youth who are likely to become under-age smokers as a result of living with a smoker. Youth at-risk for becoming under-age smokers because they live with an adult who smokes decreased significantly, from 21.1% in 2000 to 15.7% in 2002. Under-age youth are more than twice as likely to become smokers if they live with an adult who smokes than if they do not live with an adult who smokes.

    - The percentage of male youth who are at risk of becoming under-age smokers because they live with an adult who smokes decreased significantly, from 19.2% in 2000 to 14.1% in 2002. Under-age male youth are 1.9 times more likely to become smokers if they live with an adult who smokes.

    - The percentage of female youth who are at risk of becoming under-age smokers because they live with an adult who smokes decreased significantly, from 22.7% in 2000 to 17.0% in 2002. Under-age female youth are at more risk than any other group of becoming smokers if they live with an adult who smokes. The likelihood of female under-age youth becoming smokers if they live with an adult who smokes is 2.2 times greater than if they do not live with an adult who smokes.

Minority Under-age Youth

- The percentage of minority youth who are risk of becoming under-age smokers because they live with an adult who smokes decreased significantly, from 13.4% in 2000 to 10.7% in 2002. Under-age minority youth are 1.8 times more likely to become smokers if they live with an adult who smokes.

- The percentage of minority youth who are at risk of becoming under-age smokers, but who do not live with an adult who smokes, decreased significantly, from 8.1% in 2000 to 6.0% in 2002.

PROPORTION OF UNDER-AGE YOUTH LIVING WITH ADULT SMOKERS

Percentage of adult (18+) current smokers who have minor children in the household, and under-age youth (<18) who live with a smoker

Figure 23

Smoking Households with Minor Children in the Household

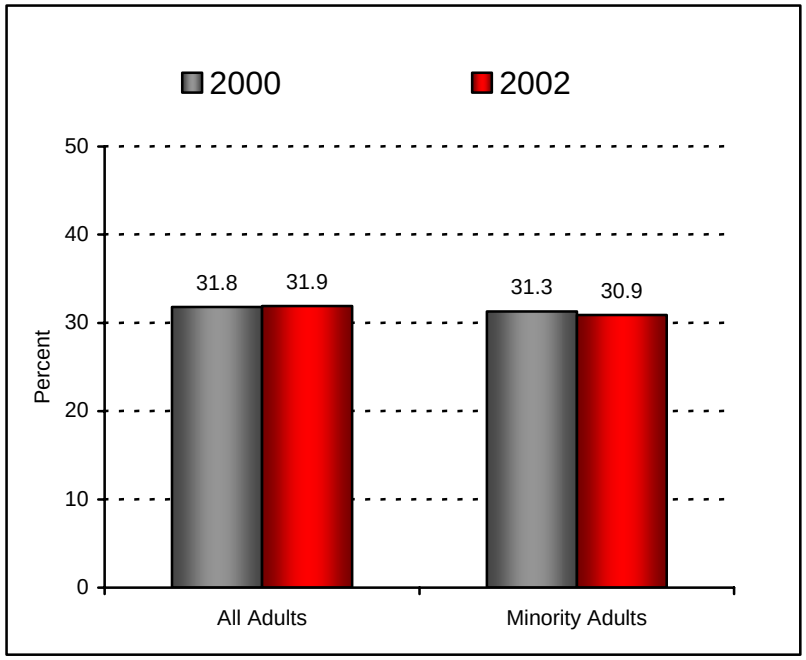
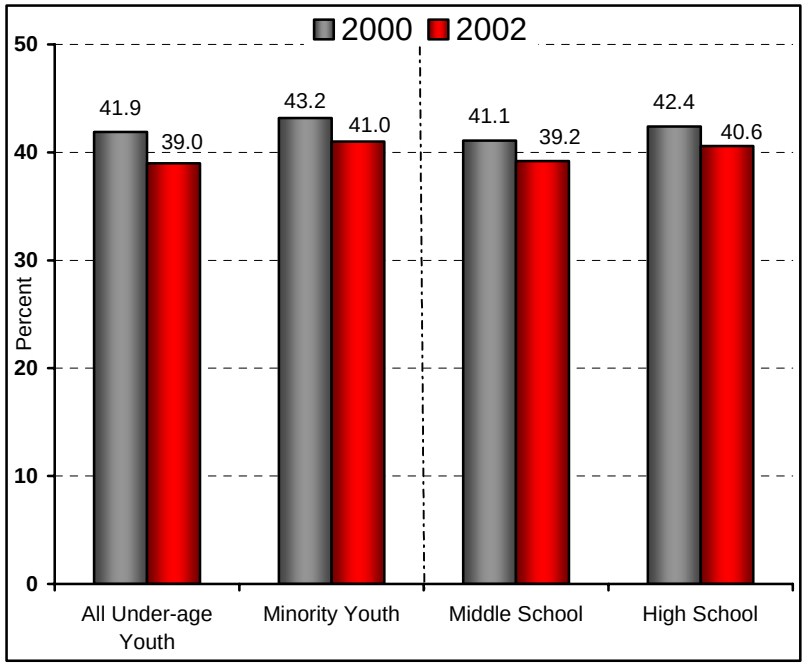


Figure 24

Under-age Youth who Live in a Smoking Household



Under-age Youth

- The overwhelming majority of under-age youth believe that second-hand smoke is harmful to their health (approximately 88% of all under-age youth and 85% of minority under-age youth - data not shown).

- Almost 40% of all Maryland under-age youth live with an adult who smokes, and almost 75% of these youth report having been exposed to second-hand smoke during the past week.

- The percentages of all under-age youth and under-age middle school, high school, and minority youth who live with an adult who smokes have remained relatively stable from 2000 to 2002.

Adults

- Although over 90% of adults agree that exposure to second-hand smoke harms children (data not shown), 31.9% of all current adult smokers and 30.9% of current minority adult smokers live with under-age children. The data in Figure 21 suggests that their smoking significantly increases the likelihood that their children will be exposed to second-hand smoke.

- The percentages of all adults and minority adults who indicated they were current smokers and who lived with minor children in the household remained stable between 2000 and 2002.

EMPLOYED ADULTS' EXPOSURE TO SECOND-HAND SMOKE

Percentage of adults (18+) who indicated they were exposed to second-hand smoke in the workplace
By GENDER, RACE/ETHNICITY, EDUCATION and INCOME

Figure 25

Employed Adults' Exposure to Second-hand Smoke at Work by GENDER and RACE/ETHNICITY

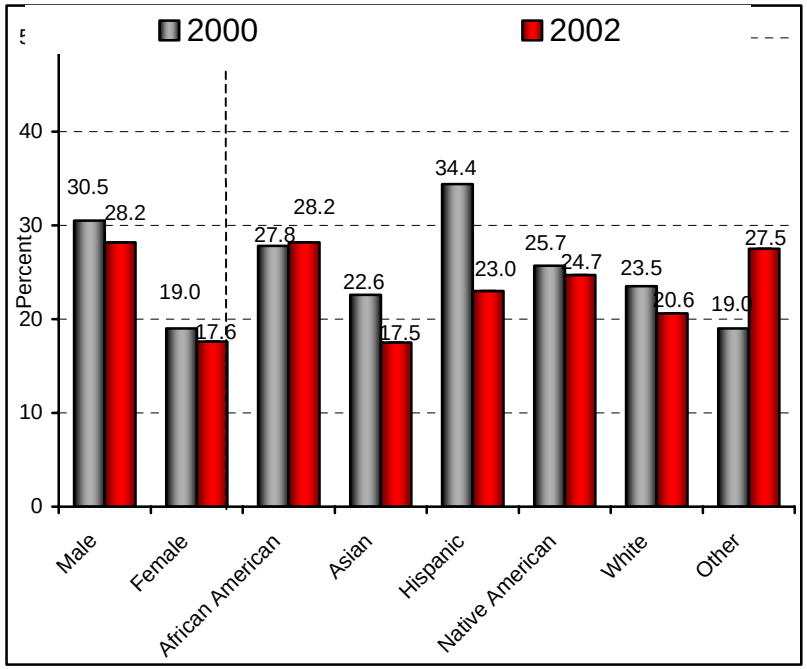
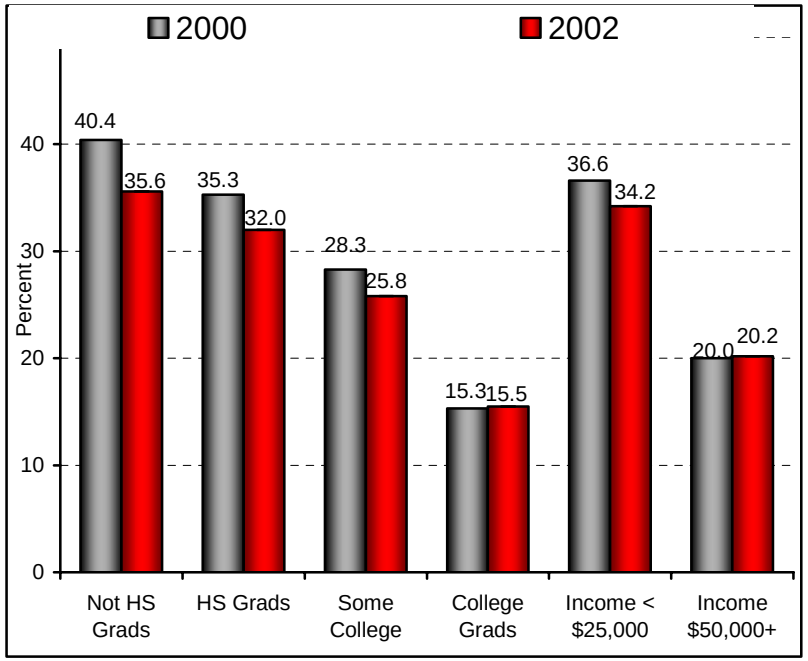


Figure 26

Employed Adults' Exposure to Second-hand Smoke at Work by EDUCATION and INCOME.



Employed Adults – by Gender and Race or Ethnicity

- Overall adult exposure to second hand smoke in the workplace remained comparable between 2000 and 2002 (24.9% and 22.8% respectively – data not shown). Similarly, as seen in Figure 25, there has been little change in exposure to second hand smoke at work by gender. However, in both 2000 and 2002, a higher percentage of men (30.5% and 28.2%) than women (19.0% and 17.6%) were exposed to second-hand smoke in the workplace.

- In 2002, 28.2% of African Americans surveyed reported they were exposed to second-hand smoke at work, slightly more than any other ethnic group. In 2002, Asians were least likely to report being exposed to second-hand smoke in the workplace (17.5%).

- There was a statistically significant decrease in the percentage of Whites who reported exposure to second-hand smoke at work, from 23.5% in 2000 to 20.6% in 2002. Although there was a decline in the percentage of Hispanic employed adults who reported exposure to second-hand smoke in the workplace, this decrease was not found to be statistically significant.

- Similarly, although there was an apparent increase in the percentage of other racial/ethnic adults who reported exposure to second-hand smoke in the workplace, this increase was not found to be statistically significant and, thus, the rates reported in 2002 are comparable to those reported at baseline.

Employed Adults – by Education and Income

- As shown in Figure 26, the likelihood of being exposed to second-hand smoke in the workplaces increases as the education level of the worker declines. This difference by level of education is statistically significant.

- Similarly, the percentage of employed adults exposed to second-hand smoke is higher among those adults earning less than $25,000 than for those earning $50,000 or more. Specifically, in 2002, over 30% of employed adults earning less than $25,000 reported being exposed to second-hand smoke, compared to 20% of employed adults earning $50,000 or more. This difference by income level is statistically significant.

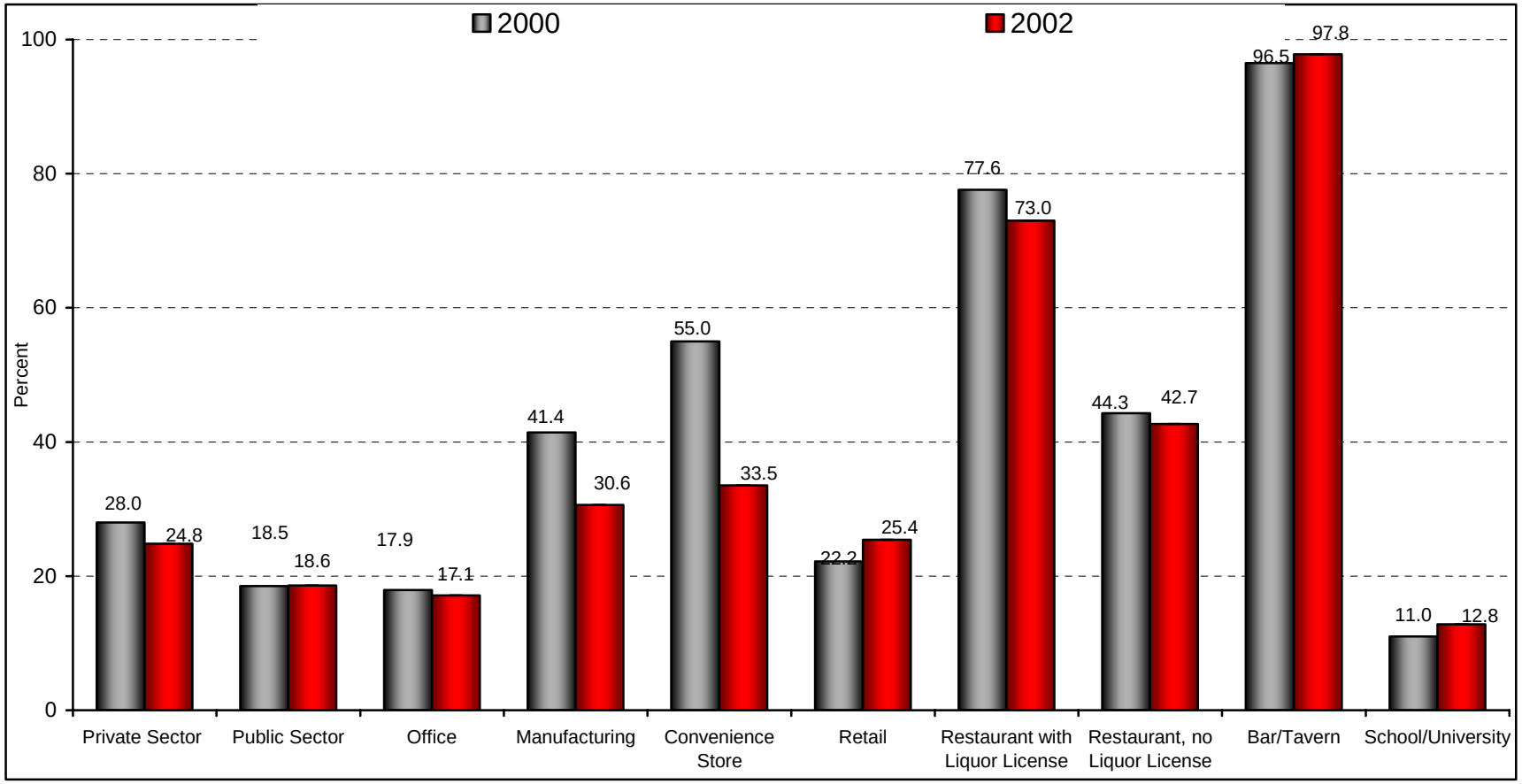
- The changes between 2000 and 2002 in the exposure to second-hand smoke at work by employed adults, regardless of salary level or level of education were not found to be statistically significant.

EMPLOYED ADULTS' EXPOSURE TO SECOND-HAND SMOKE – BY WORK SETTING

Percentage of employed adults' (18+) exposure to second-hand smoke at work by EMPLOYMENT TYPE and SETTING

Figure 27

Employed Adults' Exposure to Second-hand Smoke at Work by EMPLOYMENT TYPE and SETTING



Employed Adults

- There was a significant decline in the percentage of adults employed in the private sector who reported exposure to second-hand smoke in the workplace, from 28.0% in 2000 to 24.8% in 2002.

- In both 2000 and 2002, a higher percentage of adults working in the private sector were exposed to second-hand smoke than adults working in the public sector.

- There was a significant decline in the percentage of adults who work in the field of manufacturing who reported exposure to second-hand smoke, from 41.4% in 2000 to 30.6% in 2002.

- Although there was an apparent decline in the percentage of adults working in a convenience store who were exposed to second-hand smoke in the workplace, this decrease was not found to be significant and, therefore, the rates of exposure to second-hand smoke among adults working in a convenience store are deemed to comparable to those reported at baseline.

- Exposure to second-hand smoke was significantly higher for those adults who worked in a restaurant with a liquor license, and in a bar or tavern, than for those adults working in a restaurant with no liquor license.

    - In 2002, of the adults who indicated they worked in a bar or tavern, over 97% said they were exposed to second-hand smoke in the workplace (97.8%). Bars and taverns are not subject to statewide restrictions on indoor smoking.

    - In 2002, of the adults who indicated they worked in a restaurant with a liquor license, 73% indicated they were exposed to second-hand smoke in the workplace. Statewide restrictions on indoor smoking for these establishments are more stringent than those that apply to bars, but less stringent that those that govern restaurants without a liquor license.

    - In contrast, of the adults who reported they worked in a restaurant without a liquor license, 42.7% indicated that they were exposed to second-hand smoke in the workplace in 2002. These restaurants have more indoor smoking restrictions under Maryland law than do those with a liquor license.

- Of the adults who indicated they were exposed to second-hand smoke at work, adults working in an office, or at a school or university, reported the least amount of exposure.

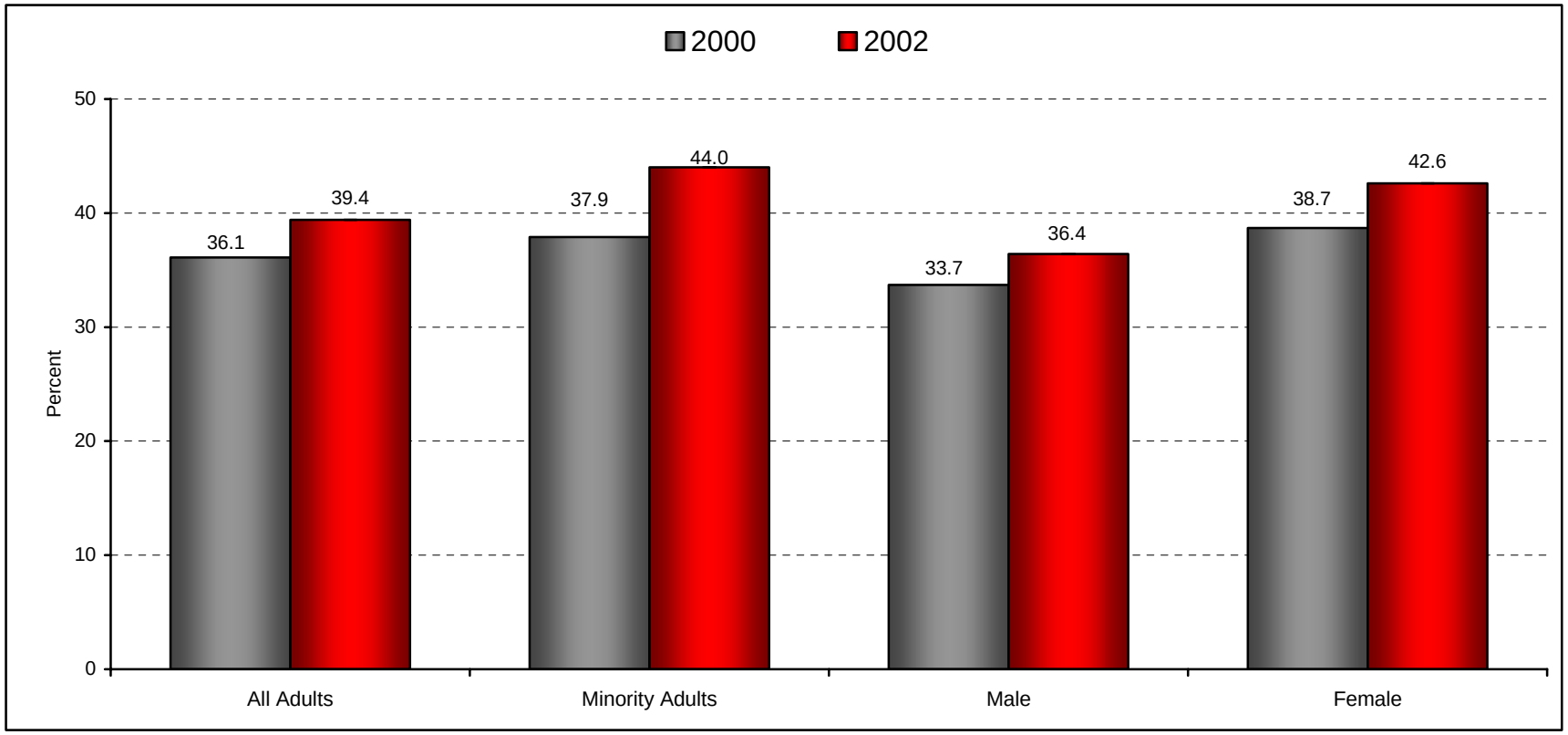
QUITTING TOBACCO USE

ATTEMPTS TO QUIT SMOKING – BY CURRENT ADULT SMOKERS

Percentage of Maryland adults (18+) who have attempted to quit smoking in the past 12 months

Figure 28

Current Maryland Adult Smokers who have made a Serious Attempt to Quit Smoking in the Past 12 Months



Adults

- Although this figure suggests that attempts by Maryland adult smokers to quit have increased since the baseline survey, these changes are not yet large enough to be deemed statistically significant. This is true also for attempts to quit by minority adults, males, or females to quit smoking from 2000 to 2002.

- The vast majority of Marylander's who have already quit have been smoke-free for five or more years (72.8% in 2002). This is most likely reflective of the cumulative impact of attempts to quit smoking over the adult lifespan.

- In addition to those who have been smoke-free for at least five years, others have quit smoking more recently (no changes found to be statistically significant):

o	1 to 5 years	16.7% to 16.4%	(2000/2002)
o	7 to 12 months	3.5% to 4.0%	(2000/2002)
o	1to 6 months	4.1% to 5.2%	(2000/2002)
o	Less than 30 days	2.1% to 1.6%	(2000/2002)

Minority Adults

- Minority adults report similar data (no changes found to be statistically significant):

o	5 or more years	68.3% to 64.6%	(2000/2002)
o	1 to 5 years	19.4% to 20.0%	(2000/2002)
o	7 to 12 months	5.7% to 6.5%	(2000/2002)
o	1 to 6 months	3.9% to 6.7%	(2000/2002)
o	Less than 30 days	2.7% to 2.2%	(2000/2002)

FUTURE PLANS TO QUIT SMOKING CIGARETTES – BY ADULT SMOKERS

Percentage of current Maryland adult (18+) smokers and minority adult (18+) smokers who plan to quit smoking cigarettes in the future

Figure 29

Current Maryland Adult Smokers Who Have Plans to Quit Smoking in the Future

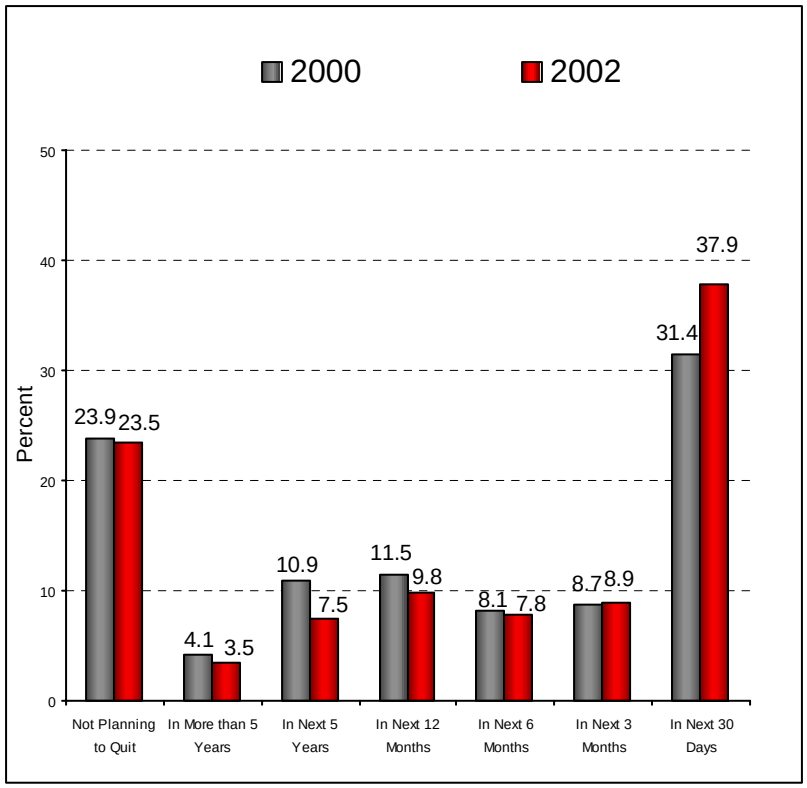
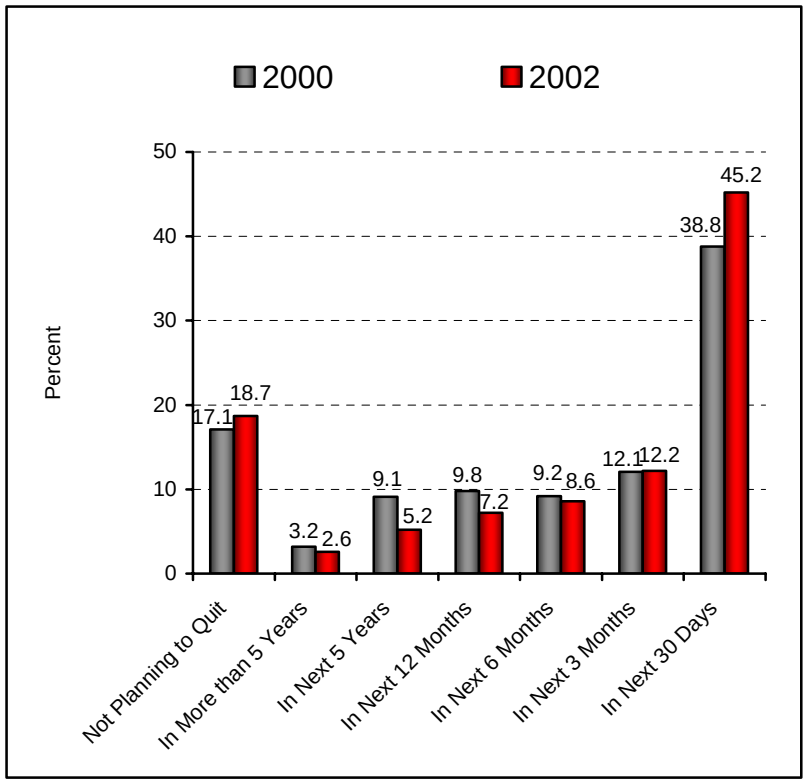


Figure 30

Current Maryland Minority Adult Smokers Who Have Plans to Quit Smoking in the Future



Adults

- Since the fall of 2000 there has been a significant increase in the percentage of adult smokers who say that they plan to quit smoking soon (within the next 30 days), up 6.5 percentage points, from 31.4% in 2000 to 37.9% in 2002. This is a 20.7% increase from the baseline rate of current smokers that want to quit soon.

- There were no statistically significant increases or decreases in the percentage of adult smokers who do not plan to quit smoking nor were there any statistically significant changes in the percentage of adult smokers who plan to quit smoking in more than five years, within 12 months, within six months, or within three months.

- There was a statistically significant decline in the percentage of adult smokers who plan to quit smoking within five years, from 10.9% in 2000 to 7.5% in 2002. Whether this reflects a move towards wanting to quit sooner rather than later is unknown at this time.

Minority Adults

- No statistically significant differences emerged from 2000 to 2002 in the future plans of current minority adult smokers to quit smoking cigarettes.

- Although there was an apparent decrease in the percentage of current minority adult smokers who plan to quit smoking within the next five years, this decline was not found to be statistically significant and, therefore, the 2002 rates are deemed comparable to those reported at baseline.

- Similarly, although there was an apparent increase in the percentage of minority adults who plan to quit smoking within the next 30 days, this increase was not found to be statistically significant and, accordingly, the 2002 rates are deemed comparable to those reported at baseline.

SUCCEEDING IN QUITTING SMOKING

Percentage of under-age youth (<18) and adults who tried to quit smoking in the past 12 months but are still current smokers (i.e. have smoked a cigarette in the past 30 days) and those who may want to quit smoking in the future even if they haven't tried to quit before

Figure 31

Success Rate of Under-age Youth who Tried to Quit Smoking in the Past 12 Months

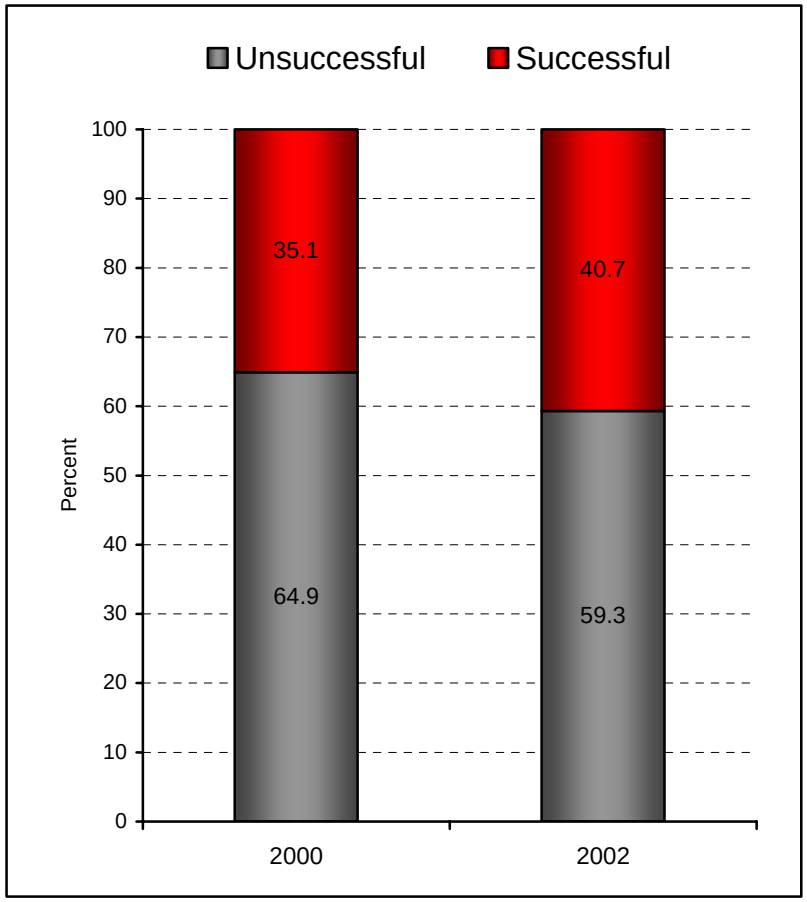
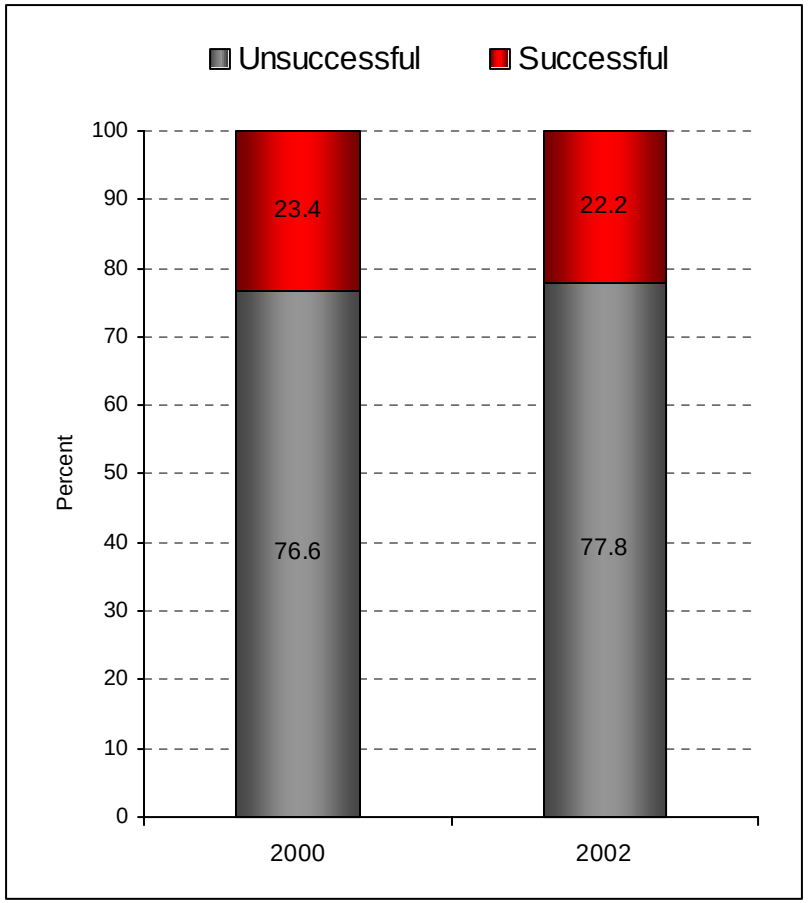


Figure 32

Success Rate of Adults who Tried to Quit Smoking in the Past 12 Months



Under-age Youth

- From 2000 to 2002, there was a statistically significant increase in the percentage of students who were successful in their attempts to quit smoking (35.1% to 40.7%). This represents an improvement of approximately 16% from the baseline success rate.

- In 2000, 30.7% of youth who had previously tried to stop smoking indicated that they no longer wanted to quit. However, in 2002, that percentage dropped to 24.9% (not shown in figures). This decrease was found to be statistically significant.

Adults

- In both 2000 and 2002, less than one-fourth of adults successfully quit smoking.

- From 2000 to 2002, there were no significant changes in the percentage of adults who were successful in their attempts to quit smoking (23.4% to 22.2%).

APPENDICES

Appendix 1. Prevalence of Tobacco Use Among Under-age Youth, Adults, and Pregnant Women, Statewide and by Jurisdiction, 2000 v. 2002

	Jurisdiction	Youth			Adults			Pregnant Women*	
		N	%	CI	N	%	CI	N	%
2000	Statewide	87,963	21.4	±1.2	842,495	21.8	±0.9	6,842	9.2
	Allegany	1,688	30.1	±3.8	14,791	26.9	±4.3	133	16.8
	Anne Arundel	9,349	24.8	±4.6	82,594	23.1	±3.0	754	11.1
	Baltimore City	8,961	20.3	±3.1	147,567	31.4	±3.4	1,435	14.9
	Baltimore Co.	11,445	21.6	±4.1	123,439	22.0	±2.8	904	9.6
	Calvert	1,932	24.2	±2.7	14,135	27.1	±4.0	145	14.2
	Caroline	870	31.3	±4.0	6,097	28.3	±3.8	69	17.0
	Carroll	3,014	21.1	±3.4	27,878	25.2	±4.2	211	11.1
	Cecil	2,016	26.9	±3.7	16,475	27.4	±4.6	265	23.3
	Charles	2,957	24.6	±3.2	21,638	25.7	±4.3	232	13.3
	Dorchester	663	25.5	±3.3	5,433	24.1	±4.2	61	18.6
	Frederick	4,535	25.1	±3.2	32,021	23.1	±3.9	351	12.1
	Garrett	669	28.1	±3.8	5,291	24.9	±4.2	56	16.8
	Harford	5,071	26.0	±3.4	36,857	23.4	±4.2	386	13.1
	Howard	3,970	17.9	±3.6	28,181	15.8	±2.6	119	3.3
	Kent	463	32.0	±4.0	3,251	21.7	±3.9	43	21.2
	Montgomery	10,604	16.6	±4.3	92,525	14.3	±2.4	327	2.5
	Prince George's	10,459	17.1	±3.3	99,878	17.2	±2.7	447	3.6
	Queen Anne's	896	25.7	±3.8	8,011	26.4	±4.3	78	15.6
	Somerset	504	33.9	±4.2	4,978	25.8	±4.2	57	20.9
	St. Mary's	1,776	24.0	±2.9	17,496	28.1	±4.4	158	13.0
	Talbot	633	28.3	±3.3	4,788	18.2	±3.9	53	14.4
	Washington	2,770	28.0	±3.6	25,768	26.4	±4.4	305	19.1
	Wicomico	1,817	27.0	±3.4	14,578	24.7	±4.4	169	14.4
	Worcester	901	25.2	±3.6	8,825	26.1	±4.5	84	16.9
2002	Statewide	***80,831***	***18.4***	***±1.0***	***780,164***	***19.8***	***±1.0***	**5,877**	**8.0**
	Allegany	1,468	26.7	±3.8	14,336	24.1	±4.5	157	22.1
	Anne Arundel	8,030	20.3	±3.4	71,786	19.6	±3.0	656	9.7
	Baltimore City	8,321	18.1	±2.5	135,812	27.7	±3.5	1,254	13.9
	Baltimore Co.	10,268	18.3	±3.9	128,299	22.3	±2.9	791	8.8
	Calvert	1,979	22.3	±3.7	13,918	26.5	±4.5	129	12.7
	Caroline	***747***	***25.5***	***±2.3***	5,064	23.2	±4.6	58	15.1
	Carroll	2,842	18.9	±3.4	20,807	19.1	±4.0	213	11.2
	Cecil	1,840	22.9	±2.8	18,215	29.3	±4.7	211	18.2
	Charles	*2,572*	*20.0*	*±2.5*	20,349	23.7	±4.3	195	11.1
	Dorchester	587	22.0	±2.7	5,612	23.9	±4.7	51	16.6
	Frederick	***3,866***	***19.6***	***±3.1***	27,188	19.2	±4.0	276	9.2
	Garrett	639	26.9	±3.9	5,065	22.7	±4.4	51	17.0
	Harford	***4,056***	***19.6***	***±2.5***	33,097	21.0	±4.0	360	12.4
	Howard	4,139	17.1	±3.5	27,403	15.4	±3.0	117	3.3
	Kent	424	29.2	±3.9	3,211	21.1	±5.3	26	16.6
	Montgomery	10,560	14.8	±2.7	92,273	14.2	±2.7	168	1.3
	Prince George's	10,097	15.2	±2.4	80,497	13.7	±2.7	316	2.5
	Queen Anne's	833	22.3	±2.2	***5,354***	***17.7***	***±3.8***	54	10.2
	Somerset	390	26.9	±4.3	4,134	20.5	±4.4	44	17.0
	St. Mary's	1,841	23.5	±3.2	***11,865***	***19.1***	***±3.7***	165	12.3
	Talbot	606	26.0	±3.1	6,467	24.4	±6.6	34	10.2
	Washington	***2,321***	***22.4***	***±2.6***	24,715	24.5	±4.4	306	18.1
	Wicomico	1,554	22.9	±3.4	14,369	22.6	±4.3	175	15.1
	Worcester	849	22.9	±3.1	10,329	27.9	±4.8	70	15.4

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

* Data provided by Vital Statistics Administration, Maryland Department of Health and Mental Hygiene. Data collected from State of Maryland Certificates of Live Birth, full years in 2000 and 2002, includes live births by Maryland residents in Maryland, the District of Columbia, and other states.

Appendix 2. Prevalence of Any Tobacco Use by Minority Under-age Youth and Minority Adults, Statewide and by Jurisdiction, 2000 v. 2002

	Jurisdiction	Youth			Adults		
		N	%	CI	N	%	CI
2000	Statewide	33,913	18.8	±1.4	282,310	20.6	±1.8
	Allegany	154	30.8	±7.3	966	24.4	±15.7
	Anne Arundel	2,254	24.8	±5.5	15,336	23.6	±7.4
	Baltimore City	7,450	19.3	±3.0	102,288	33.2	±4.5
	Baltimore Co.	3,388	18.5	±3.6	27,981	17.8	±5.4
	Calvert	433	24.7	±4.4	3,261	34.2	±11.1
	Caroline	205	29.6	±5.7	767	22.6	±9.9
	Carroll	463	34.8	±7.7	§	§	§
	Cecil	274	29.2	±6.5	2,369	32.5	±15.6
	Charles	913	21.8	±3.2	5,731	21.8	±7.9
	Dorchester	262	25.1	±4.1	1,378	22.7	±8.2
	Frederick	839	26.3	±4.2	3,848	20.7	±11.4
	Garrett	59	42.1	±13.1	§	§	§
	Harford	1,143	25.0	±4.5	5,881	23.6	±11.6
	Howard	940	15.7	±3.8	6,761	14.8	±5.6
	Kent	145	31.5	±5.0	501	20.7	±10.8
	Montgomery	4,507	15.9	±3.4	28,446	12.4	±4.3
	Prince George's	8,126	15.7	±3.2	60,537	15.3	±3.3
	Queen Anne's	170	32.3	±6.2	1,232	28.1	±11.6
	Somerset	202	30.6	±4.4	1,747	25.7	±7.6
	St. Mary's	483	22.6	±4.0	2,822	31.9	±12.4
	Talbot	146	24.0	±4.3	1,156	23.3	±10.9
	Washington	446	29.4	±6.6	3,422	27.4	±13.5
	Wicomico	673	29.0	±4.5	3,054	20.6	±7.6
	Worcester	238	23.0	±4.5	1,119	22.0	±10.9
2002	Statewide	***35,514***	***16.8***	***±1.1***	**280,844**	**19.1**	**±1.9**
	Allegany	186	33.7	±7.7	1,742	27.0	±16.9
	Anne Arundel	2,044	18.6	±4.7	15,986	20.9	±7.8
	Baltimore City	6,757	16.7	±2.4	97,813	29.7	±4.6
	Baltimore Co.	3,575	15.0	±3.6	34,073	22.6	±6.1
	Calvert	527	27.0	±6.7	1,520	15.2	±9.5
	Caroline	184	24.2	±4.6	1,239	21.2	±10.2
	Carroll	466	26.9	±6.1	458	6.5	±7.7
	Cecil	287	25.4	±6.4	2,876	48.2	±18.1
	Charles	***954***	***16.6***	***±2.9***	5,459	18.5	±6.8
	Dorchester	236	21.0	±3.3	939	13.4	±7.8
	Frederick	955	26.1	±5.4	2,702	14.1	±9.2
	Garrett	49	35.9	±11.4	§	§	§
	Harford	1,184	22.4	±3.8	3,967	18.3	±10.9
	Howard	1,466	17.7	±3.5	6,484	14.0	±5.7
	Kent	133	27.8	±5.2	706	21.4	±16.7
	Montgomery	5,755	14.9	±2.3	33,167	14.1	±5.4
	Prince George's	8,236	14.4	±2.2	54,821	12.3	±3.2
	Queen Anne's	172	29.9	±4.8	604	16.1	±13.6
	Somerset	190	26.7	±5.0	1,870	20.6	±7.2
	St. Mary's	583	25.8	±5.3	***1,305***	***10.1***	***±6.9***
	Talbot	170	25.5	±4.6	2,430	39.6	±21.4
	Washington	464	28.3	±4.5	4,330	31.1	±17.6
	Wicomico	*599*	*21.3*	*±3.9*	4,104	23.4	±9.4
	Worcester	339	29.9	±5.9	1,918	25.2	±13.0

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 3a. Current Cigarette Smoking by Under-age Youth in Middle School and High School, Statewide and by Jurisdiction, Gender, and Minority Status, 2000

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
Middle School	Statewide	13,134	7.2	±0.9	6,679	7.2	±1.2	6,319	7.2	±1.1	5,221	6.5	±1.3
	Allegany	228	9.9	±2.9	135	11.3	±3.9	94	8.5	±3.2	40	15.3	±7.3
	Anne Arundel	1,556	9.4	±3.1	667	7.7	±3.0	873	11.1	±4.3	343	9.4	±4.6
	Baltimore City	1,818	9.0	±3.0	945	9.2	±4.7	874	8.9	±3.9	1,304	7.7	±2.9
	Baltimore Co.	1,536	6.5	±3.3	574	4.9	±3.3	955	8.2	±3.9	321	3.8	±1.8
	Calvert	337	9.6	±3.4	137	7.2	±3.3	199	12.2	±5.0	97	11.8	±6.6
	Caroline	165	13.5	±3.9	96	15.4	±4.4	69	11.7	±6.3	46	13.9	±6.0
	Carroll	302	4.9	±2.8	168	5.2	±2.9	134	4.5	±3.2	71	11.2	±9.9
	Cecil	389	11.3	±2.9	191	11.1	±3.2	197	11.6	±4.2	63	13.6	±6.4
	Charles	478	9.3	±2.8	259	9.7	±3.3	219	8.9	±4.2	166	8.7	±3.6
	Dorchester	122	11.1	±2.9	58	10.2	±3.7	60	11.6	±4.0	54	12.0	±4.6
	Frederick	699	8.8	±2.3	370	9.1	±2.2	314	8.2	±3.1	191	12.4	±5.7
	Garrett	101	9.5	±3.4	51	9.4	±5.7	49	9.5	±4.4	13	18.4	±9.8
	Harford	874	10.0	±2.6	334	7.5	±2.6	540	12.7	±3.9	187	9.1	±4.4
	Howard	407	4.1	±1.1	253	4.9	±2.0	154	3.2	±1.4	97	3.6	±1.6
	Kent	50	8.0	±2.6	31	10.3	±3.8	18	5.7	±3.3	19	9.3	±3.7
	Montgomery	1,065	3.7	±1.5	558	3.8	±2.5	450	3.3	±2.1	566	4.4	±1.7
	Prince George's	1,363	5.1	±3.0	925	6.9	±4.9	411	3.1	±1.0	1,136	5.0	±3.4
	Queen Anne's	152	9.6	±3.6	91	10.8	±4.5	62	8.3	±3.7	35	15.3	±7.9
	Somerset	113	17.5	±4.3	68	21.1	±5.1	41	13.1	±6.9	48	16.0	±6.1
	St. Mary's	235	7.5	±2.5	140	8.6	±3.1	91	6.1	±2.8	92	9.3	±4.2
	Talbot	91	9.3	±4.1	50	10.0	±4.4	40	8.7	±4.9	31	11.0	±6.2
	Washington	559	12.6	±3.9	301	13.2	±4.5	258	12.0	±4.8	83	10.9	±7.4
	Wicomico	360	12.0	±3.7	184	11.3	±4.1	173	12.9	±4.7	183	16.8	±5.4
	Worcester	133	9.0	±3.2	93	12.2	±4.4	40	5.7	±2.9	32	8.1	±4.1
High School	Statewide	48,674	23.0	±0.9	23,551	22.4	±1.2	24,702	23.4	±1.3	14,204	16.0	±1.3
	Allegany	1,091	35.6	±3.7	505	33.2	±4.4	575	37.7	±4.5	78	37.0	±10.1
	Anne Arundel	5,647	28.5	±3.2	2,863	28.6	±4.2	2,769	28.4	±3.7	1,152	23.8	±5.1
	Baltimore City	2,605	12.5	±2.9	1,316	13.1	±4.5	1,278	12.0	±4.1	2,063	11.2	±2.8
	Baltimore Co.	6,510	23.7	±3.0	2,932	21.5	±3.1	3,501	25.6	±4.5	1,445	16.2	±2.7
	Calvert	1,164	28.3	±3.6	557	27.3	±4.3	604	29.2	±4.3	196	23.2	±5.2
	Caroline	527	36.0	±5.0	274	36.3	±6.0	249	35.5	±5.9	96	30.0	±7.8
	Carroll	1,960	25.9	±3.7	975	25.6	±3.9	963	26.2	±4.8	275	42.8	±9.0
	Cecil	1,224	32.3	±4.1	562	29.4	±5.8	656	35.3	±4.5	156	36.6	±8.9
	Charles	1,797	28.0	±4.0	923	28.9	±5.0	860	26.9	±4.4	457	22.5	±4.1
	Dorchester	373	27.2	±3.2	168	24.9	±4.6	194	28.5	±4.0	119	23.3	±5.3
	Frederick	2,697	28.5	±3.4	1,227	25.8	±3.7	1,448	31.3	±4.2	417	29.3	±5.8
	Garrett	413	32.8	±3.8	228	34.4	±4.9	184	31.1	±4.9	24	41.6	±15.1
	Harford	3,058	31.0	±3.1	1,504	30.5	±3.9	1,533	31.3	±4.2	555	25.7	±4.7
	Howard	2,506	21.5	±3.0	1,310	22.5	±4.2	1,176	20.4	±3.4	540	18.0	±4.6
	Kent	267	35.3	±5.5	115	32.2	±6.6	152	38.2	±6.9	88	41.3	±7.7
	Montgomery	6,389	19.4	±2.5	3,101	18.8	±3.9	3,217	19.6	±4.4	2,222	15.4	±2.9
	Prince George's	4,816	15.3	±3.0	2,155	14.1	±3.4	2,577	16.0	±3.6	3,202	12.1	±3.0
	Queen Anne's	531	30.1	±3.1	268	29.5	±4.2	261	30.9	±4.5	85	33.5	±6.9
	Somerset	302	38.9	±8.0	157	42.5	±8.0	142	35.1	±10.3	117	37.2	±7.8
	St. Mary's	1,129	29.0	±3.8	596	31.1	±5.1	524	26.8	±3.9	201	20.4	±4.7
	Talbot	403	34.5	±3.8	223	36.1	±4.6	177	32.5	±5.1	61	22.2	±5.0
	Washington	1,624	31.9	±3.1	758	29.6	±3.7	862	34.3	±4.3	205	31.4	±6.5
	Wicomico	1,090	31.3	±3.9	512	30.1	±5.0	572	32.4	±5.1	332	29.6	±4.6
	Worcester	550	28.0	±3.9	320	31.1	±4.8	229	24.6	±5.2	118	20.5	±5.9

§ Indicates unweighted N less than 30.

Appendix 3b. **Current Cigarette Smoking by Under-age Youth in Middle School and High School, Statewide and by Jurisdiction, Gender, and Minority Status, 2002**

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
Middle School	Statewide	***10,110***	***5.0***	***±0.4***	***5,233***	***5.1***	***±0.6***	***4,798***	***4.9***	***±0.6***	***5,136***	***5.0***	***±0.6***
	Allegany	195	8.0	±2.1	89	6.9	±2.6	105	9.2	±3.0	363	11.1	±6.4
	Anne Arundel	1,055	5.8	±3.8	465	5.0	±2.3	568	6.4	±2.5	262	5.1	±1.7
	Baltimore City	1,524	7.0	±1.7	896	8.1	±3.1	628	5.9	±1.5	1,301	6.6	±1.8
	Baltimore Co.	1,121	4.4	±1.8	536	4.1	±1.8	585	4.7	±2.2	539	4.4	±2.1
	Calvert	238	5.9	±2.3	139	6.5	±2.7	***99***	***5.1***	***±2.8***	72	7.1	±3.9
	Caroline	141	10.1	±2.4	73	10.2	±2.8	68	10.2	±3.1	44	11.3	±3.9
	Carroll	208	3.0	±1.6	86	2.4	±1.5	108	3.3	±2.3	66	7.4	±5.2
	Cecil	359	9.4	±2.6	151	7.6	±2.7	205	11.4	±3.5	37	5.9	±3.7
	Charles	303	5.3	±3.2	*123*	*4.3*	*±1.8*	180	6.2	±2.3	138	5.2	±2.1
	Dorchester	99	7.9	±2.3	51	7.9	±3.0	47	7.8	±2.6	50	8.9	±2.6
	Frederick	*366*	*4.1*	*±1.5*	***208***	***4.6***	***±1.9***	***148***	***3.3***	***±2.0***	119	6.5	±3.4
	Garrett	119	10.5	±3.6	68	11.3	±4.0	51	9.6	±4.2	11	15.3	±11.3
	Harford	***508***	***5.3***	***±1.7***	237	4.8	±1.8	***271***	***5.8***	***±2.3***	166	6.3	±2.3
	Howard	371	3.3	±1.2	178	3.1	±1.2	193	3.6	±1.0	187	4.5	±2.2
	Kent	83	12.3	±4.8	37	11.3	±5.4	46	13.2	±5.7	22	9.7	±4.6
	Montgomery	981	3.0	±1.1	635	3.8	±1.7	346	2.2	±0.9	710	3.7	±1.7
	Prince George's	1098	3.5	±1.3	541	3.4	±0.9	536	3.5	±2.1	909	3.4	±1.4
	Queen Anne's	***91***	***5.1***	***±1.7***	***46***	***5.0***	***±1.8***	44	5.3	±2.4	23	8.2	±3.2
	Somerset	88	13.4	±4.5	54	17.0	±5.6	31	9.4	±4.9	39	11.3	±5.3
	St. Mary's	285	8.1	±2.0	154	8.6	±2.7	127	7.3	±2.7	100	9.0	±3.4
	Talbot	72	6.9	±2.5	42	7.5	±3.0	30	6.1	±2.5	27	7.3	±3.9
	Washington	408	8.6	±2.6	221	9.1	±3.2	183	7.8	±2.9	137	14.4	±5.3
	Wicomico	299	9.9	±3.0	147	9.4	±3.5	153	10.5	±4.1	***109***	***7.6***	***±2.5***
	Worcester	100	6.2	±1.3	***53***	***6.6***	***±2.1***	46	5.7	±1.8	33	6.5	±2.1
High School	Statewide	***41,822***	***17.6***	***±0.7***	***20,113***	***17.1***	***± 0.9***	***21,121***	***17.9***	***±0.9***	***13,884***	***12.5***	***±0.8***
	Allegany	937	30.6	±4.6	405	26.8	±5.4	525	34.2	±5.7	95	40.3	±12.5
	Anne Arundel	***4,533***	***21.2***	***±2.2***	***2,131***	***19.9***	***±2.9***	***2,378***	***22.5***	***±2.8***	***875***	***14.7***	***±2.7***
	Baltimore City	2,430	10.1	±1.8	1,235	11.0	±2.7	1,152	9.1	±2.5	1,647	7.8	±1.8
	Baltimore Co.	***5,694***	***18.6***	***±3.1***	2,655	17.5	±3.6	2,973	19.6	±3.6	1,315	11.0	±3.7
	Calvert	1,267	26.4	±5.3	657	27.6	±6.3	610	25.3	±6.2	290	30.4	±8.8
	Caroline	***413***	***26.8***	***±3.3***	***198***	***25.7***	***±4.7***	207	27.7	±3.9	76	20.6	±6.0
	Carroll	1,816	22.1	±3.9	860	21.1	±4.4	916	22.7	±5.0	***223***	***25.7***	***±6.6***
	Cecil	***988***	***23.3***	***±3.5***	***403***	***19.7***	***±4.4***	***581***	***26.8***	***±4.4***	150	29.5	±8.8
	Charles	***1,469***	***20.7***	***±2.9***	728	20.7	±4.6	728	20.6	±3.3	***401***	***13.0***	***±3.5***
	Dorchester	306	21.6	±3.4	136	20.1	±4.6	167	23.0	±4.1	102	17.9	±4.7
	Frederick	***2,283***	***21.3***	***±2.9***	1,066	19.9	±3.5	***1,194***	***22.6***	***±3.6***	473	24.9	±6.6
	Garrett	331	26.6	±3.8	175	27.5	±5.1	156	25.9	±4.9	27	43.7	±15.6
	Harford	***2,303***	***20.8***	***±2.8***	***1,064***	***19.2***	***±2.9***	***1,216***	***22.2***	***±3.7***	542	20.0	±4.5
	Howard	2,331	17.8	±2.2	1,128	17.0	±2.7	1,130	17.7	±2.8	690	15.5	±2.7
	Kent	215	27.5	±3.9	115	29.1	±4.7	***97***	***25.4***	***±5.4***	***64***	***25.7***	***±4.9***
	Montgomery	***5,493***	***14.1***	***±1.9***	2,836	14.4	±1.8	***2,583***	***13.7***	***±2.4***	2,683	13.1	±1.8
	Prince George's	***4,172***	***11.8***	***±1.4***	2,011	11.6	±1.9	2,033	11.5	±2.1	3,121	10.1	±1.3
	Queen Anne's	531	27.1	±2.9	263	26.3	±4.4	260	27.7	±3.6	91	29.2	±6.4
	Somerset	***187***	***23.7***	***±4.6***	***101***	***26.8***	***±6.1***	82	20.3	±5.6	70	19.3	±5.7
	St. Mary's	1,060	24.6	±4.1	***433***	***20.5***	***±5.1***	623	29.0	±6.2	249	20.9	±6.3
	Talbot	***327***	***25.4***	***±3.2***	***170***	***25.7***	***±3.9***	153	24.9	±4.5	77	24.4	±5.1
	Washington	***1,345***	***24.0***	***±3.1***	***617***	***22.2***	***±3.8***	***717***	***25.8***	***±4.3***	172	24.1	±6.2
	Wicomico	914	24.4	±4.1	477	25.2	±4.6	***418***	***23.0***	***±5.3***	***279***	***20.2***	***±5.5***
	Worcester	475	22.8	±4.4	248	22.8	±5.1	219	22.3	±6.1	170	26.3	±7.2

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 4a. **Current Cigar Use by Under-age Youth in Middle School and High School, Statewide and by Jurisdiction, Gender, and Minority Status, 2000**

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
Middle School	Statewide	8,460	4.6	±0.7	5,313	5.6	±1.0	3,064	3.4	±0.6	4,186	5.2	±1.1
	Allegany	88	3.7	±1.5	62	5.1	±2.4	26	2.3	±1.5	15	5.5	±3.8
	Anne Arundel	945	5.6	±2.4	568	6.5	±3.3	361	4.5	±1.9	332	9.0	±4.9
	Baltimore City	1,434	7.2	±2.6	738	7.4	±4.4	696	6.9	±2.2	1,094	6.6	±2.7
	Baltimore Co.	975	4.1	±2.2	579	4.8	±3.1	396	3.4	±2.1	349	4.1	±1.7
	Calvert	172	4.7	±1.8	121	6.3	±3.3	49	2.9	±1.6	54	6.5	±3.7
	Caroline	83	6.7	±2.2	68	10.6	±2.9	15	2.6	±2.1	25	7.2	±4.5
	Carroll	136	2.2	±1.2	95	2.9	±2.0	41	1.4	±1.2	38	5.9	±5.1
	Cecil	168	4.8	±1.4	121	6.8	±2.3	46	2.7	±1.4	37	7.7	±5.0
	Charles	257	4.9	±1.9	157	5.8	±2.3	94	3.8	±2.6	76	3.9	±1.8
	Dorchester	69	6.0	±2.1	35	6.0	±2.6	30	5.5	±2.7	35	7.4	±3.5
	Frederick	442	5.4	±2.0	284	6.7	±2.4	143	3.6	±2.2	145	8.8	±3.9
	Garrett	56	5.2	±2.5	37	6.7	±4.4	19	3.6	±2.1	8	10.2	±11.8
	Harford	424	4.8	±1.6	247	5.3	±2.3	177	4.1	±1.9	137	6.5	±3.4
	Howard	255	2.5	±1.3	157	3.0	±2.3	99	2.0	±0.7	87	3.1	±2.0
	Kent	31	4.8	±2.1	17	5.5	±3.1	13	3.9	±2.4	13	6.1	±3.8
	Montgomery	740	2.5	±0.8	395	2.6	±1.0	307	2.2	±1.2	322	2.5	±1.8
	Prince George's	1,289	4.7	±2.5	1,000	7.2	±3.5	289	2.2	±1.4	1,090	4.7	±2.6
	Queen Anne's	87	5.3	±2.2	56	6.6	±3.1	30	3.9	±2.2	28	11.2	±6.7
	Somerset	72	10.8	±3.9	47	14.4	±4.7	23	7.0	±5.3	37	11.7	±5.3
	St. Mary's	149	4.6	±1.4	109	6.4	±2.1	40	2.6	±1.6	52	5.0	±2.6
	Talbot	56	5.7	±2.9	30	6.0	±3.4	24	5.1	±3.2	25	8.6	±5.6
	Washington	269	5.9	±2.0	201	8.6	±3.1	68	3.1	±1.9	51	6.7	±4.3
	Wicomico	192	6.3	±2.1	128	7.8	±3.0	64	4.6	±2.5	111	10.0	±3.8
	Worcester	70	4.6	±1.9	60	7.5	±3.1	10	1.3	±1.2	24	5.9	±3.6
High School	Statewide	26,809	12.5	±0.7	17,735	16.7	±1.0	8,814	8.2	±0.8	10,370	11.5	±1.1
	Allegany	423	13.4	±1.9	303	19.4	±3.2	114	7.3	±1.9	45	21.3	±8.3
	Anne Arundel	3,001	15.0	±2.1	2,008	19.8	±3.1	993	10.0	±2.2	832	17.0	±4.4
	Baltimore City	2,204	10.4	±2.3	1,404	13.8	±3.9	790	7.3	±2.6	1,958	10.5	±2.5
	Baltimore Co.	3,675	13.2	±2.5	2,558	18.7	±2.5	1,065	7.6	±3.0	1,109	12.2	±2.8
	Calvert	614	14.5	±2.6	410	19.3	±3.4	198	9.4	±2.5	148	16.7	±4.6
	Caroline	279	18.6	±3.7	193	25.3	±5.6	79	11.0	±3.0	66	19.9	±6.4
	Carroll	940	12.1	±2.8	738	18.7	±4.5	183	4.9	±1.7	161	24.9	±7.8
	Cecil	511	13.2	±2.7	338	17.5	±4.3	170	8.9	±2.5	64	14.7	±6.4
	Charles	958	14.8	±2.8	663	20.8	±4.0	280	8.6	±2.7	308	15.1	±3.9
	Dorchester	203	14.4	±2.8	124	18.1	±4.4	72	10.4	±3.2	81	15.0	±4.5
	Frederick	1,332	13.8	±2.0	928	19.2	±3.0	387	8.2	±1.8	276	19.1	±5.4
	Garrett	157	12.3	±2.7	119	17.7	±3.8	38	6.3	±2.4	11	19.9	±13.0
	Harford	1,729	17.2	±2.2	1,133	22.7	±3.3	569	11.3	±2.4	405	18.1	±3.9
	Howard	1,370	11.5	±1.7	950	15.9	±2.9	390	6.6	±1.7	325	10.4	±3.3
	Kent	146	18.7	±3.2	103	27.8	±5.1	43	10.6	±3.7	49	21.2	±6.5
	Montgomery	3,367	10.1	±1.9	2,126	12.8	±2.0	1,197	7.2	±2.8	1,375	9.5	±2.5
	Prince George's	3,080	9.7	±2.1	1,657	10.8	±3.7	1,423	8.6	±2.0	2,346	8.8	±2.2
	Queen Anne's	255	14.2	±2.2	192	20.6	±3.4	59	6.9	±2.2	54	20.4	±6.5
	Somerset	138	17.8	±5.1	99	26.8	±7.2	38	9.4	±3.9	44	14.1	±5.1
	St. Mary's	579	14.4	±2.3	406	20.5	±3.5	167	8.2	±2.6	192	18.4	±4.8
	Talbot	220	18.3	±2.8	154	24.2	±4.2	64	11.4	±4.0	41	14.2	±4.8
	Washington	698	13.5	±1.9	497	19.0	±3.0	201	7.8	±1.8	156	22.6	±6.4
	Wicomico	643	18.2	±2.5	418	24.1	±4.2	219	12.3	±3.0	223	19.6	±3.8
	Worcester	286	14.5	±3.1	212	20.4	±4.4	74	7.9	±2.7	96	16.3	±4.9

§ Indicates unweighted N less than 30.

Appendix 4b. Current Cigar Use by Under-age Youth in Middle School and High School, Statewide and by Jurisdiction, Gender, and Minority Status, 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
Middle School	Statewide	***6,821***	***3.4***	***± 0.4***	***3,935***	***3.8***	***± 0.5***	***2,747***	***2.8***	***± 0.5***	***3,876***	***3.8***	***± 0.6***
	Allegany	82	3.4	± 1.3	58	4.5	± 2.2	21	1.9	± 1.2	28	9.0	± 4.7
	Anne Arundel	677	3.7	± 1.4	430	4.7	± 2.3	225	2.5	± 1.5	258	5.1	± 3.8
	Baltimore City	1,183	5.4	± 1.6	753	6.8	± 2.2	***397***	***3.7***	***± 1.3***	857	4.4	± 1.4
	Baltimore Co.	875	3.4	± 1.4	327	2.5	± 1.0	521	4.2	± 1.8	483	4.0	± 2.2
	Calvert	114	2.8	± 1.5	78	3.7	± 2.0	36	1.9	± 1.5	51	5.1	± 2.9
	Caroline	70	5.1	± 1.5	***45***	***6.2***	***± 1.9***	24	3.6	± 1.7	30	7.6	± 3.1
	Carroll	125	1.8	± 1.3	70	2.0	± 2.1	48	1.5	± 1.5	39	4.5	± 3.3
	Cecil	168	4.4	± 1.7	94	4.7	± 2.0	69	3.8	± 2.2	33	5.4	± 3.5
	Charles	***155***	***2.7***	***± 0.9***	***90***	***3.1***	***± 1.4***	65	2.3	± 1.0	58	2.2	± 1.2
	Dorchester	56	4.5	± 1.9	28	4.3	± 2.3	28	4.7	± 2.3	31	5.7	± 2.4
	Frederick	***180***	***2.0***	***± 1.0***	***120***	***2.7***	***± 1.5***	***60***	***1.3***	***± 1.0***	***53***	***3.0***	***± 2.4***
	Garrett	56	5.0	± 2.1	40	6.6	± 2.9	17	3.2	± 2.2	3	4.4	± 5.8
	Harford	362	3.8	± 1.4	208	4.2	± 1.6	154	3.3	± 1.8	110	4.2	± 3.1
	Howard	223	2.0	± 0.5	116	2.0	± 0.5	106	2.0	± 0.7	110	2.9	± 0.7
	Kent	44	6.6	± 2.8	30	9.2	± 4.7	14	4.1	± 2.6	8	3.5	± 3.2
	Montgomery	863	2.7	± 0.7	591	3.6	± 1.1	272	1.7	± 1.0	634	3.5	± 1.2
	Prince George's	844	2.7	± 1.2	***379***	***2.4***	***± 1.4***	425	2.8	± 1.9	725	2.7	± 1.3
	Queen Anne's	63	3.5	± 1.1	43	4.7	± 1.6	19	2.3	± 1.2	20	7.8	± 3.6
	Somerset	60	9.2	± 3.1	37	11.5	± 4.3	23	7.0	± 3.3	39	11.3	± 4.2
	St. Mary's	165	4.7	± 1.6	113	6.3	± 2.3	48	2.8	± 1.7	91	8.5	± 3.6
	Talbot	56	5.4	± 2.1	36	6.6	± 2.7	20	4.1	± 2.2	18	5.2	± 3.6
	Washington	***161***	***3.4***	***± 1.3***	***95***	***3.9***	***± 1.8***	66	2.8	± 1.5	66	7.2	± 3.7
	Wicomico	156	5.2	± 2.0	102	6.5	± 3.1	54	3.7	± 2.3	97	6.8	± 2.8
	Worcester	81	5.0	± 1.3	49	6.0	± 2.0	***32***	***4.0***	***± 1.4***	31	6.4	± 2.8
High School	Statewide	***24,800***	***10.4***	***± 0.5***	***15,753***	***13.4***	***± 0.8***	***8,558***	***7.2***	***± 0.6***	***10,298***	***9.3***	***± 0.7***
	Allegany	351	11.5	± 2.5	234	15.5	± 3.5	106	6.9	± 2.8	42	17.9	± 9.7
	Anne Arundel	2,768	12.9	± 1.6	1,815	17.0	± 2.3	923	8.7	± 1.7	851	14.3	± 2.9
	Baltimore City	1,980	8.2	± 1.9	1,079	9.6	± 2.7	887	7.0	± 2.1	***1,433***	***6.8***	***± 1.8***
	Baltimore Co.	3,471	11.4	± 1.7	2,139	14.1	± 3.3	1,265	8.3	± 2.0	1,049	8.8	± 2.6
	Calvert	741	15.4	± 3.6	559	23.5	± 6.0	183	7.6	± 3.0	202	21.2	± 7.3
	Caroline	215	14.0	± 2.5	146	18.9	± 3.9	61	8.2	± 2.4	56	15.2	± 4.4
	Carroll	1,044	12.7	± 2.4	697	17.1	± 3.7	***322***	***8.0***	***± 2.4***	204	23.6	± 8.9
	Cecil	407	9.6	± 2.1	254	12.4	± 3.4	149	6.9	± 2.2	80	15.7	± 6.9
	Charles	***744***	***10.5***	***± 2.0***	***459***	***13.1***	***± 3.5***	259	7.3	± 2.7	327	10.6	± 2.9
	Dorchester	191	13.5	± 2.4	121	17.8	± 3.3	65	9.0	± 2.6	79	13.8	± 3.9
	Frederick	1,290	12.0	± 1.7	834	15.5	± 2.6	432	8.2	± 1.8	387	20.4	± 4.5
	Garrett	157	12.6	± 2.8	127	19.9	± 4.5	30	5.0	± 2.3	14	22.8	± 11.9
	Harford	***1,300***	***11.7***	***± 1.9***	***826***	***14.9***	***± 2.6***	465	8.5	± 2.0	384	14.2	± 3.4
	Howard	1,526	11.6	± 1.7	964	14.5	± 2.4	495	7.8	± 2.1	550	12.4	± 2.3
	Kent	114	14.6	± 3.0	77	19.5	± 4.9	33	8.6	± 3.1	37	14.8	± 6.2
	Montgomery	3,289	8.5	± 1.4	2,133	10.8	± 2.0	1,103	5.8	± 1.8	1,544	7.6	± 1.3
	Prince George's	2,940	8.3	± 1.4	1,801	10.4	± 2.0	***1,046***	***5.9***	***± 1.3***	2,316	7.5	± 1.5
	Queen Anne's	220	11.2	± 1.9	155	15.6	± 2.9	61	6.4	± 1.9	54	17.4	± 5.8
	Somerset	91	11.5	± 2.7	***62***	***16.5***	***± 4.0***	26	6.3	± 3.4	39	10.6	± 4.2
	St. Mary's	***438***	***10.2***	***± 2.4***	***255***	***12.0***	***± 4.2***	180	8.4	± 2.7	176	14.9	± 4.9
	Talbot	213	16.6	± 2.5	135	20.6	± 4.1	73	11.9	± 3.5	55	17.6	± 5.1
	Washington	***574***	***10.2***	***± 1.8***	393	14.1	± 3.1	165	5.9	± 2.0	138	19.3	± 6.9
	Wicomico	***421***	***11.2***	***± 2.8***	***291***	***15.4***	***± 3.3***	***119***	***6.6***	***± 3.0***	***137***	***9.9***	***± 3.7***
	Worcester	314	15.1	± 3.2	197	18.0	± 4.4	109	11.1	± 4.4	140	21.7	± 7.7

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 5a. Current Smokeless Tobacco Use by Under-age Youth in Middle School and High School, Statewide and by Jurisdiction, Gender, and Minority Status, 2000

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
Middle School	Statewide	3,913	2.1	±0.4	2,990	3.1	±0.7	891	1.0	±0.3	2,040	2.5	±0.8
	Allegany	79	3.3	±1.5	67	5.5	±2.5	12	1.1	±1.3	9	3.4	±3.3
	Anne Arundel	314	1.9	±1.3	258	2.9	±2.1	56	0.7	±0.5	139	3.7	±3.5
	Baltimore City	767	3.7	±1.7	628	6.1	±3.0	140	1.4	±1.0	609	3.5	±2.0
	Baltimore Co.	342	1.4	±0.9	220	1.8	±1.3	122	1.1	±0.8	99	1.2	±0.6
	Calvert	67	1.8	±0.8	43	2.2	±1.1	24	1.4	±1.0	16	1.9	±1.3
	Caroline	32	2.6	±1.4	22	3.4	±2.1	8	1.3	±1.5	15	4.5	±3.4
	Carroll	63	1.0	±0.6	47	1.4	±0.8	16	0.5	±0.7	29	4.5	±4.4
	Cecil	79	2.2	±1.1	67	3.8	±2.1	11	0.6	±0.7	24	5.0	±3.7
	Charles	161	3.1	±1.3	110	4.0	±2.1	51	2.0	±1.4	33	1.7	±1.3
	Dorchester	26	2.3	±1.4	14	2.4	±1.6	11	1.9	±1.7	12	2.5	±2.2
	Frederick	189	2.3	±1.1	146	3.5	±1.4	43	1.1	±1.6	92	5.5	±2.7
	Garrett	58	5.4	±2.9	53	9.5	±4.9	5	1.0	±1.1	12	15.0	±11.9
	Harford	152	1.7	±0.7	104	2.2	±1.3	48	1.1	±0.9	42	1.9	±2.0
	Howard	179	1.8	±0.9	145	2.8	±1.4	34	0.7	±0.5	40	1.4	±1.0
	Kent	28	4.4	±2.2	21	6.8	±3.7	7	2.2	±1.6	8	3.5	±3.3
	Montgomery	300	1.0	±0.6	201	1.3	±1.0	99	0.7	±0.6	122	0.9	±0.8
	Prince George's	659	2.4	±1.7	516	3.7	±2.9	116	0.9	±0.8	634	2.7	±1.9
	Queen Anne's	44	2.7	±1.1	35	4.1	±1.9	9	1.2	±1.2	1	0.6	±1.1
	Somerset	28	4.2	±2.0	20	6.0	±3.4	7	2.0	±1.6	9	3.0	±2.2
	St. Mary's	61	1.9	±1.1	45	2.7	±1.8	16	1.0	±0.9	21	2.0	±1.7
	Talbot	27	2.7	±1.5	19	3.8	±2.5	7	1.5	±1.5	9	3.0	±2.8
	Washington	197	4.3	±1.9	155	6.6	±2.9	43	1.9	±1.5	42	5.4	±3.8
	Wicomico	25	0.8	±0.7	25	1.5	±1.3	0	0.0	±0.0	16	1.4	±1.3
	Worcester	35	2.3	±1.4	28	3.5	±2.4	7	0.9	±1.1	7	1.7	±1.6
High School	Statewide	10,196	4.7	±0.4	8,015	7.5	±0.7	1,903	1.8	±0.3	3,736	4.1	±0.6
	Allegany	424	13.4	±2.1	384	24.3	±3.5	33	2.1	±1.0	26	12.3	±6.4
	Anne Arundel	992	4.9	±1.3	846	8.3	±2.3	131	1.3	±0.8	364	7.4	±2.9
	Baltimore City	723	3.4	±1.3	628	6.2	±2.4	95	0.9	±0.8	684	3.6	±1.4
	Baltimore Co.	1,015	3.6	±0.9	749	5.4	±1.6	247	1.8	±0.8	376	4.1	±1.5
	Calvert	153	3.6	±1.1	114	5.3	±1.8	36	1.7	±1.1	50	5.5	±2.7
	Caroline	140	9.4	±2.9	116	15.2	±4.6	18	2.5	±1.5	37	10.9	±5.4
	Carroll	385	5.0	±1.4	292	7.4	±2.4	75	2.0	±0.9	72	11.1	±5.2
	Cecil	164	4.2	±1.4	131	6.8	±2.3	33	1.7	±1.0	24	5.5	±3.5
	Charles	295	4.5	±1.3	224	6.8	±1.9	59	1.8	±1.1	107	5.1	±2.2
	Dorchester	85	6.1	±2.2	64	9.5	±3.6	15	2.2	±1.5	30	5.6	±2.9
	Frederick	647	6.7	±1.6	538	11.1	±2.9	90	1.9	±1.1	177	12.0	±3.7
	Garrett	136	10.6	±2.6	125	18.4	±4.4	11	1.9	±1.5	11	17.4	±10.4
	Harford	775	7.6	±1.5	625	12.3	±2.5	128	2.5	±1.1	183	8.1	±2.8
	Howard	843	7.1	±1.9	671	11.2	±3.3	149	2.5	±1.2	193	6.2	±2.6
	Kent	103	13.3	±3.2	88	24.1	±4.5	15	3.7	±3.3	27	12.1	±5.3
	Montgomery	1,535	4.6	±1.4	1,039	6.2	±2.5	422	2.5	±0.9	561	3.8	±1.3
	Prince George's	764	2.4	±1.2	532	3.4	±2.2	190	1.2	±0.8	563	2.1	±1.2
	Queen Anne's	104	5.8	±1.6	97	10.3	±2.8	6	0.7	±0.7	23	8.4	±4.7
	Somerset	50	6.4	±3.2	43	11.5	±5.4	5	1.4	±1.9	15	4.6	±3.2
	St. Mary's	194	4.8	±1.5	151	7.5	±2.6	37	1.8	±1.0	77	7.2	±3.3
	Talbot	63	5.2	±1.6	50	7.8	±2.6	13	2.3	±1.8	13	4.5	±2.6
	Washington	366	7.0	±1.6	317	12.1	±2.7	48	1.9	±0.9	48	6.9	±3.4
	Wicomico	144	4.0	±1.4	111	6.3	±2.5	31	1.7	±1.0	49	4.3	±2.5
	Worcester	96	4.8	±1.8	79	7.5	±2.6	16	1.7	±1.4	28	4.6	±3.0

§ Indicates unweighted N less than 30.

Appendix 5b. Current Smokeless Tobacco Use by Under-age Youth in Middle School and High School, Statewide and by Jurisdiction, Gender, and Minority Status, 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
Middle School	Statewide	3,987	2.0	± 0.3	2,708	2.6	± 0.5	1,186	1.2	± 0.3	2,163	2.1	± 0.5
	Allegany	80	3.3	± 1.2	72	5.6	± 2.1	8	0.7	± 0.8	22	6.9	± 5.3
	Anne Arundel	373	2.0	± 0.8	270	2.9	± 0.8	92	1.0	± 1.1	102	2.0	± 1.2
	Baltimore City	837	3.9	± 1.7	619	5.6	± 2.7	176	1.7	± 1.4	664	3.4	± 1.8
	Baltimore Co.	354	1.4	± 0.7	186	1.4	± 1.0	142	1.1	± 0.8	***250***	***2.1***	***± 0.9***
	Calvert	78	1.9	± 1.0	45	2.1	± 1.2	33	1.7	± 1.2	15	1.5	± 1.3
	Caroline	37	2.6	± 1.1	30	4.1	± 1.9	7	1.1	± 0.8	15	3.8	± 2.2
	Carroll	88	1.3	± 0.9	63	1.8	± 1.6	24	0.7	± 0.8	27	3.1	± 3.0
	Cecil	86	2.3	± 0.9	63	3.2	± 1.5	22	1.2	± 0.8	14	2.3	± 1.9
	Charles	***67***	***1.2***	***± 0.7***	***45***	***1.6***	***± 1.0***	22	0.8	± 0.6	36	1.3	± 1.0
	Dorchester	26	2.0	± 0.9	20	3.1	± 1.5	6	0.9	± 0.9	15	2.7	± 1.4
	Frederick	218	2.4	± 1.2	144	3.2	± 2.2	65	1.5	± 1.0	76	4.3	± 3.0
	Garrett	75	6.6	± 2.2	63	10.5	± 3.6	11	2.2	± 2.1	6	7.5	± 6.9
	Harford	219	2.3	± 0.8	134	2.7	± 1.2	85	1.8	± 1.0	79	3.1	± 1.6
	Howard	152	1.4	± 0.6	84	1.5	± 0.8	***68***	***1.3***	***± 0.7***	72	1.9	± 1.3
	Kent	32	4.8	± 2.5	17	5.1	± 3.2	15	4.5	± 3.1	5	2.1	± 2.3
	Montgomery	384	1.2	± 0.7	273	1.6	± 1.1	111	0.7	± 0.7	284	1.5	± 1.0
	Prince George's	407	1.3	± 0.5	220	1.4	± 0.8	188	1.2	± 0.9	***310***	***1.2***	***± 0.5***
	Queen Anne's	42	2.4	± 0.9	30	3.3	± 1.3	12	1.4	± 0.9	10	3.8	± 2.6
	Somerset	19	2.8	± 2.0	13	4.2	± 3.1	4	1.2	± 1.2	7	2.2	± 1.5
	St. Mary's	109	3.1	± 1.2	78	4.3	± 1.7	28	1.6	± 1.2	40	3.7	± 2.3
	Talbot	40	3.8	± 1.5	30	5.5	± 2.4	9	1.9	± 1.4	14	4.0	± 2.8
	Washington	139	2.9	± 1.3	106	4.4	± 2.2	33	1.4	± 1.0	35	3.7	± 2.4
	Wicomico	***80***	***2.6***	***± 1.2***	***70***	***4.5***	***± 2.3***	10	0.7	± 0.8	45	3.1	± 1.6
	Worcester	42	2.6	± 0.9	30	3.7	± 1.5	12	1.5	± 1.0	19	3.9	± 1.9
High School	Statewide	11,524	4.8	± 0.3	8,419	7.2	± 0.6	***2,710***	***2.3***	***± 0.3***	***5,324***	***4.8***	***± 0.5***
	Allegany	379	12.4	± 3.0	298	19.7	± 5.1	***78***	***5.1***	***± 2.1***	51	21.7	± 10.8
	Anne Arundel	1,126	5.3	± 1.1	806	7.5	± 1.7	***298***	***2.8***	***± 1.2***	363	6.1	± 2.1
	Baltimore City	931	3.9	± 1.1	693	6.2	± 2.0	***214***	***1.7***	***± 0.9***	743	3.5	± 1.0
	Baltimore Co.	1,210	4.0	± 1.0	878	5.8	± 1.8	305	2.0	± 0.6	472	4.0	± 1.4
	Calvert	262	5.5	± 2.2	180	7.5	± 3.8	82	3.4	± 2.1	109	11.4	± 5.7
	Caroline	103	6.7	± 1.9	76	9.9	± 3.0	18	2.4	± 1.4	35	9.4	± 3.9
	Carroll	499	6.1	± 1.6	378	9.2	± 2.3	103	2.5	± 1.2	150	17.3	± 7.2
	Cecil	206	4.8	± 1.5	153	7.4	± 2.2	49	2.3	± 1.2	39	7.6	± 5.2
	Charles	416	5.9	± 2.6	307	8.7	± 4.4	83	2.3	± 1.5	136	4.4	± 2.0
	Dorchester	77	5.5	± 1.8	47	7.0	± 2.5	26	3.5	± 2.0	29	5.1	± 2.8
	Frederick	761	7.1	± 1.4	600	11.2	± 2.5	136	2.6	± 1.0	226	11.9	± 4.2
	Garrett	155	12.5	± 2.8	140	22.0	± 4.7	15	2.5	± 1.6	9	15.2	± 11.8
	Harford	***512***	***4.6***	***± 1.1***	***327***	***5.9***	***± 1.5***	161	2.9	± 1.1	227	8.4	± 3.0
	Howard	820	6.2	± 1.3	618	9.3	± 2.0	155	2.4	± 1.2	329	7.4	± 2.1
	Kent	89	11.4	± 2.6	72	18.2	± 4.4	15	4.0	± 2.4	25	10.0	± 4.9
	Montgomery	1,485	3.8	± 0.8	1,025	5.2	± 1.5	409	2.2	± 0.8	810	4.0	± 1.0
	Prince George's	1,401	4.0	± 1.2	1,026	5.9	± 2.1	300	1.7	± 0.7	1,176	3.8	± 1.3
	Queen Anne's	149	7.6	± 1.9	107	10.7	± 2.8	***36***	***3.8***	***± 1.6***	***56***	***17.9***	***± 5.7***
	Somerset	67	8.5	± 3.6	47	12.3	± 5.6	19	4.7	± 3.2	34	9.4	± 4.6
	St. Mary's	199	4.6	± 2.1	144	6.8	± 3.2	55	2.6	± 1.9	76	6.4	± 5.3
	Talbot	85	6.6	± 1.7	58	8.8	± 2.9	24	4.0	± 1.7	***34***	***10.9***	***± 3.1***
	Washington	322	5.7	± 1.4	251	9.0	± 2.4	54	2.0	± 1.0	67	9.4	± 4.2
	Wicomico	132	3.5	± 1.5	94	5.0	± 2.1	37	2.1	± 1.5	51	3.7	± 2.7
	Worcester	134	6.4	± 2.3	91	8.4	± 3.0	35	3.5	± 2.3	***75***	***11.7***	***± 5.0***

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 6. Current Cigarette Smoking by Adults, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	673,365	17.5	±0.9	355,586	19.5	±1.4	317,780	15.7	±1.1	252,129	18.5	±1.7
	Allegany	12,436	22.7	±4.2	5,986	24.9	±6.8	6,450	20.9	±5.2	966	24.4	±15.7
	Anne Arundel	66,801	18.7	±2.8	32,776	20.1	±4.4	34,025	17.5	±3.5	13,703	21.1	±7.1
	Baltimore City	132,610	28.3	±3.4	65,083	30.5	±5.6	67,528	26.5	±4.1	97,499	31.7	±4.5
	Baltimore Co.	96,777	17.2	±2.6	50,711	18.6	±4.1	46,066	16.0	±3.2	21,837	13.9	±4.8
	Calvert	11,215	21.5	±3.7	5,516	22.1	±5.9	5,699	21.0	±4.7	2,734	28.7	±10.9
	Caroline	5,189	24.3	±3.7	2,844	27.6	±6.1	2,345	21.1	±4.2	715	21.3	±9.8
	Carroll	19,583	17.7	±3.8	10,497	20.6	±6.2	9,086	15.2	±4.6	§	§	§
	Cecil	14,055	23.4	±4.4	6,631	21.4	±6.4	7,424	25.5	±6.1	2,027	27.8	±15.0
	Charles	16,969	20.2	±3.9	9,225	22.3	±6.4	7,744	18.1	±4.6	4,509	17.1	±7.1
	Dorchester	4,761	21.3	±4.1	3,012	30.0	±7.3	1,749	14.2	±4.1	1,289	21.9	±8.2
	Frederick	23,047	16.7	±3.4	10,162	15.1	±4.9	12,886	18.2	±4.8	3,446	18.5	±10.8
	Garrett	4,022	19.2	±3.9	2,467	23.6	±6.5	1,556	14.8	±4.3	§	§	§
	Harford	28,851	18.4	±3.8	16,104	22.5	±6.7	12,747	14.9	±4.2	5,177	20.7	±11.2
	Howard	18,974	10.7	±2.3	11,909	13.1	±3.7	7,065	8.1	±2.4	5,279	11.7	±5.4
	Kent	2,630	17.6	±3.6	1,274	18.7	±5.7	1,357	16.8	±4.7	370	15.3	±9.8
	Montgomery	59,748	9.3	±2.0	35,819	11.5	±3.3	23,929	7.2	±2.3	21,325	9.3	±3.8
	Prince George's	86,135	14.8	±2.6	46,843	17.4	±4.3	39,292	12.6	±3.1	56,699	14.3	±3.2
	Queen Anne's	7,065	23.3	±4.2	3,691	25.4	±6.6	3,374	21.4	±5.1	925	21.1	±10.0
	Somerset	3,936	20.4	±3.7	1,808	19.6	±5.8	2,129	21.1	±4.5	1,309	19.3	±6.4
	St. Mary's	13,328	21.4	±4.0	8,519	27.2	±6.6	4,809	15.6	±4.7	2,507	28.5	±12.2
	Talbot	3,893	14.8	±3.5	2,491	19.1	±5.8	1,402	10.6	±3.7	726	14.6	±8.6
	Washington	21,120	22.0	±4.1	12,090	26.7	±6.8	9,030	17.8	±4.9	3,422	31.0	±14.3
	Wicomico	12,679	21.5	±4.2	6,187	22.3	±6.7	6,492	20.8	±5.3	2,947	20.1	±7.6
	Worcester	7,539	22.4	±4.4	3,942	25.0	±6.9	3,596	20.0	±5.5	1,119	22.0	±10.9
2002	Statewide	***604,990***	***15.4***	***±0.9***	***316,894***	***17.4***	***±1.5***	***288,095***	***13.6***	***±1.1***	**243,536**	**16.6**	**±1.8**
	Allegany	11,760	19.9	±4.3	6,184	21.0	±6.6	5,576	18.8	±5.4	1,260	20.7	±15.3
	Anne Arundel	***50,653***	***13.8***	***±2.7***	26,072	14.7	±4.3	24,581	13.0	±3.2	13,618	17.8	±7.3
	Baltimore City	120,209	24.5	±3.4	62,449	28.2	±5.6	57,759	21.5	±4.0	88,234	26.8	±4.5
	Baltimore Co.	96,404	16.8	±2.7	50,676	19.0	±4.3	45,728	14.8	±3.3	27,989	18.7	±5.8
	Calvert	9,508	18.1	±3.8	5,422	21.3	±6.4	4,086	15.1	±4.3	***775***	***7.8***	***±7.1***
	Caroline	4,040	18.6	±4.1	2,059	21.4	±7.0	1,981	16.4	±5.0	1,239	21.5	±10.3
	Carroll	***12,396***	***11.4***	***±3.0***	6,889	13.2	±5.0	5,507	9.7	±3.5	364	5.2	±6.8
	Cecil	14,280	23.0	±4.3	6,811	22.5	±6.6	7,469	23.5	±5.5	2,876	48.2	±18.1
	Charles	16,037	18.7	±4.0	8,804	22.4	±6.7	7,233	15.6	±4.6	5,098	17.3	±6.7
	Dorchester	4,772	20.3	±4.4	2,836	28.2	±7.7	1,937	14.4	±4.6	869	12.5	±7.6
	Frederick	19,548	13.9	±3.6	13,273	20.2	±6.4	***6,275***	***8.3***	***±3.4***	1,775	9.4	±8.4
	Garrett	3,657	16.4	±3.9	2,003	18.5	±6.6	1,654	14.4	±4.4	§	§	§
	Harford	23,427	14.9	±3.5	12,306	16.2	±5.9	11,120	13.6	±3.8	2,995	13.8	±9.5
	Howard	17,670	9.9	±2.6	9,930	11.8	±4.5	7,739	8.3	±2.8	4,552	9.9	±4.7
	Kent	2,522	16.6	±5.1	1,595	23.4	±9.6	926	11.1	±4.4	606	18.4	±16.9
	Montgomery	65,897	10.1	±2.4	27,015	9.4	±3.7	38,882	10.7	±3.2	26,683	11.3	±5.0
	Prince George's	69,781	11.9	±2.6	38,058	14.1	±4.5	31,722	10.0	±2.9	50,023	11.3	±3.1
	Queen Anne's	***4,334***	***14.3***	***±3.5***	2,399	16.2	±6.0	***1,935***	***12.5***	***±4.0***	447	11.9	±12.2
	Somerset	3,725	18.5	±4.3	1,879	20.1	±6.9	1,845	17.0	±5.4	1,778	19.6	±7.1
	St. Mary's	***9,166***	***14.8***	***±3.4***	4,957	16.8	±5.2	4,208	13.1	±4.4	***1,244***	***9.9***	***±7.0***
	Talbot	4,845	18.3	±5.8	3,048	24.8	±11.0	1,798	12.7	±4.1	1,735	28.3	±20.3
	Washington	19,049	18.9	±4.0	10,582	21.4	±6.4	8,467	16.5	±4.8	3,720	27.2	±16.9
	Wicomico	12,675	20.0	±4.2	6,770	24.0	±6.9	5,904	16.8	±5.0	3,783	21.6	±9.3
	Worcester	8,636	23.4	±4.6	4,874	27.5	±7.6	3,762	19.5	±5.2	1,672	22.0	±12.9

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 7. Current Cigar Smoking by Adults, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	225,452	5.8	±0.5	201,839	11.1	±1.1	23,614	1.2	±0.3	47,768	3.5	±0.8
	Allegany	3,617	6.6	±2.7	3,193	13.2	±5.7	424	1.4	±1.1	160	4.0	±6.0
	Anne Arundel	25,235	7.1	±1.8	21,843	13.4	±3.7	3,392	1.7	±1.1	2,758	4.2	±3.3
	Baltimore City	22,061	4.7	±1.4	18,662	8.7	±2.8	3,400	1.3	±1.0	8,097	2.6	±1.3
	Baltimore Co.	34,275	6.1	±1.7	31,660	11.6	±3.2	2,615	0.9	±0.8	8,042	5.1	±3.0
	Calvert	3,528	6.8	±2.4	3,187	12.7	±4.7	341	1.3	±1.0	1,245	13.0	±8.1
	Caroline	1,261	5.9	±2.0	1,136	11.0	±4.0	125	1.1	±1.0	141	4.1	±4.2
	Carroll	10,740	9.7	±2.8	9,589	18.8	±5.7	1,152	1.9	±1.6	§	§	§
	Cecil	4,453	7.4	±3.0	3,907	12.6	±5.0	546	1.9	±2.4	886	12.1	±12.6
	Charles	5,717	6.8	±2.7	5,165	12.5	±5.3	552	1.3	±1.1	1,219	4.6	±4.4
	Dorchester	1,256	5.6	±2.4	1,036	10.3	±4.9	221	1.8	±1.5	112	1.8	±2.0
	Frederick	11,211	8.1	±2.6	10,563	15.6	±5.0	648	0.9	±0.9	860	4.6	±4.9
	Garrett	1,369	6.4	±2.4	1,347	12.6	±4.7	22	0.2	±0.3	§	§	§
	Harford	14,140	9.0	±3.1	12,891	18.1	±6.2	1,249	1.5	±1.5	2,826	11.3	±9.6
	Howard	11,246	6.3	±1.7	10,280	11.4	±3.2	966	1.1	±0.9	2,569	5.6	±3.7
	Kent	794	5.3	±2.2	748	11.0	±4.7	46	0.6	±0.7	140	5.8	±5.8
	Montgomery	31,980	5.0	±1.5	29,913	9.7	±3.1	2,067	0.6	±0.6	8,572	3.8	±2.7
	Prince George's	23,583	4.1	±1.4	19,682	7.3	±2.9	3,901	1.3	±0.9	7,655	1.9	±1.2
	Queen Anne's	1,311	4.3	±2.1	1,064	7.3	±3.9	247	1.6	±1.6	385	8.8	±8.5
	Somerset	887	4.6	±2.0	660	7.2	±3.8	227	2.3	±1.8	302	4.4	±3.5
	St. Mary's	5,550	9.0	±2.8	5,117	16.5	±5.3	433	1.4	±1.5	272	3.1	±3.1
	Talbot	1,348	5.1	±2.5	1,176	9.0	±4.7	172	1.3	±1.4	565	11.4	±8.9
	Washington	5,791	5.9	±2.6	5,540	12.2	±5.3	251	0.5	±0.6	351	2.8	±4.2
	Wicomico	2,487	4.2	±2.0	2,016	7.3	±4.0	471	1.5	±1.4	569	3.8	±3.2
	Worcester	1,613	4.8	±2.2	1,468	9.3	±4.3	145	0.8	±1.1	§	§	§
2002	Statewide	233,399	5.9	±0.6	207,187	11.4	±1.2	26,213	1.2	±0.3	69,706	4.7	±1.0
	Allegany	3,554	6.0	±2.8	3,434	11.7	±5.4	***120***	***0.4***	***±0.5***	720	11.2	±12.2
	Anne Arundel	26,656	7.3	±2.0	24,446	13.8	±3.9	2,211	1.2	±1.0	3,882	5.1	±4.2
	Baltimore City	30,157	6.2	±2.0	26,024	11.8	±4.2	4,133	1.5	±1.0	***20,400***	***6.2***	***±2.7***
	Baltimore Co.	38,909	6.8	±1.7	35,420	13.4	±3.6	3,489	1.1	±0.8	10,036	6.7	±3.2
	Calvert	5,651	10.8	±3.4	5,359	21.1	±6.3	292	1.1	±1.6	898	9.0	±7.9
	Caroline	1,181	5.4	±2.4	1,161	12.0	±5.6	***20***	***0.2***	***±0.3***	157	2.7	±3.0
	Carroll	9,223	8.5	±3.1	8,522	16.3	±5.7	701	1.2	±1.8	94	1.3	±2.1
	Cecil	4,234	6.8	±2.8	4,110	13.6	±5.6	124	0.4	±0.6	394	6.7	±7.4
	Charles	4,797	5.6	±2.2	4,246	10.8	±4.6	551	1.2	±1.2	627	2.1	±1.9
	Dorchester	978	4.2	±2.1	931	9.3	±4.8	*47*	*0.4*	*±0.4*	157	2.2	±3.1
	Frederick	9,762	6.9	±2.5	8,215	12.4	±4.8	1,546	2.1	±1.8	927	4.8	±4.6
	Garrett	1,260	5.7	±2.3	1,221	11.3	±4.6	39	0.3	±0.5	§	§	§
	Harford	11,158	7.1	±2.7	10,361	13.7	±5.4	796	1.0	±1.0	1,084	5.0	±6.0
	Howard	12,608	7.1	±2.4	10,627	12.6	±4.7	1,981	2.1	±1.5	2,526	5.5	±4.3
	Kent	1,014	6.7	±2.7	977	14.3	±5.9	37	0.5	±0.6	128	3.9	±4.1
	Montgomery	33,825	5.2	±1.7	28,381	9.9	±3.6	***5,444***	***1.5***	***±1.1***	11,556	4.9	±3.4
	Prince George's	19,301	3.3	±1.2	15,879	5.9	±2.4	3,422	1.1	±1.0	13,487	3.0	±1.4
	Queen Anne's	1,011	3.3	±1.6	911	6.2	±3.1	100	0.6	±0.8	94	2.5	±3.2
	Somerset	827	4.1	±2.2	766	8.2	±4.7	***61***	***0.6***	***±0.6***	389	4.3	±4.2
	St. Mary's	***2,986***	***4.8***	***±2.0***	2,867	9.7	±4.1	***119***	***0.4***	***±0.6***	101	0.8	±1.2
	Talbot	1,480	5.6	±2.2	1,480	12.2	±4.9	§	§	§	***62***	***1.0***	***±1.5***
	Washington	7,356	7.3	±2.8	7,017	14.2	±5.5	338	0.7	±0.7	1,221	8.8	±9.2
	Wicomico	2,622	4.1	±1.9	2,311	8.2	±4.0	311	0.9	±1.1	162	0.9	±1.0
	Worcester	2,848	7.7	±2.8	2,520	14.2	±5.5	328	1.7	±1.6	421	5.5	±5.9

§ - Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 8. Current Smokeless Tobacco Use by Adults, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	41541	1.1	±0.2	37256	2.0	±0.4	4285	0.2	±0.1	5853	0.4	±0.2
	Allegany	2003	3.7	±2.3	2003	8.3	±5.2	§	§	§	§	§	§
	Anne Arundel	5225	1.5	±1.0	4473	2.7	±2.0	752	0.4	±0.5	1568	2.4	±2.6
	Baltimore City	2683	0.6	±0.5	1895	0.9	±1.0	788	0.3	±0.4	1145	0.4	±0.4
	Baltimore Co.	3918	0.7	±0.6	3007	1.1	±1.0	911	0.3	±0.4	306	0.2	±0.2
	Calvert	779	1.5	±1.1	735	2.9	±2.2	44	0.2	±0.2	138	1.4	±2.1
	Caroline	405	1.9	±1.3	405	3.9	±2.7	§	§	§	§	§	§
	Carroll	3265	3.0	±1.9	3265	6.4	±4.0	§	§	§	§	§	§
	Cecil	1652	2.7	±1.7	1652	5.3	±3.2	§	§	§	215	2.9	±4.4
	Charles	926	1.1	±1.1	786	1.9	±2.1	140	0.3	±0.5	469	1.8	±2.4
	Dorchester	92	0.4	±0.5	92	0.9	±1.1	§	§	§	§	§	§
	Frederick	3548	2.6	±1.6	3548	5.3	±3.2	§	§	§	§	§	§
	Garrett	1270	6.0	±2.3	1270	11.9	±4.5	§	§	§	108	10.1	±12.1
	Harford	2303	1.5	±1.2	1834	2.6	±2.4	469	0.6	±0.8	235	0.9	±1.4
	Howard	1933	1.1	±0.7	1933	2.1	±1.3	§	§	§	469	1.0	±1.2
	Kent	289	1.9	±1.5	289	4.2	±3.2	§	§	§	42	1.7	±2.6
	Montgomery	2848	0.4	±0.4	2848	0.9	±0.9	§	§	§	§	§	§
	Prince George's	1176	0.2	±0.2	338	0.1	±0.2	837	0.3	±0.3	393	0.1	±0.2
	Queen Anne's	607	2.0	±1.5	542	3.7	±3.0	64	0.4	±0.6	152	3.5	±5.1
	Somerset	387	2.0	±1.6	371	4.0	±3.3	15	0.2	±0.2	241	3.6	±3.8
	St. Mary's	1690	2.7	±1.6	1606	5.2	±3.2	84	0.3	±0.3	312	3.5	±4.1
	Talbot	93	0.4	±0.5	93	0.7	±1.1	§	§	§	§	§	§
	Washington	2566	2.6	±1.9	2566	5.7	±4.0	§	§	§	§	§	§
	Wicomico	1239	2.1	±1.6	1178	4.3	±3.4	61	0.2	±0.3	61	0.4	±0.6
	Worcester	645	1.9	±1.5	526	3.3	±2.8	119	0.7	±1.0	§	§	§
2002	Statewide	40874	1.0	±0.2	39781	2.2	±0.5	1093	0.1	±0.1	5644	0.4	±0.2
	Allegany	2677	4.5	±2.1	2677	9.1	±4.2	§	§	§	***700***	***10.9***	***±10.6***
	Anne Arundel	3797	1.0	±0.7	3797	2.1	±1.4	§	§	§	868	1.1	±1.4
	Baltimore City	2811	0.6	±0.5	2335	1.1	±1.1	476	0.2	±0.3	§	§	§
	Baltimore Co.	4595	0.8	±0.6	4595	1.7	±1.4	§	§	§	§	§	§
	Calvert	574	1.1	±0.8	574	2.3	±1.7	§	§	§	77	0.8	±1.2
	Caroline	583	2.7	±1.7	583	6.1	±3.8	§	§	§	§	§	§
	Carroll	1713	1.6	±1.3	1713	3.3	±2.7	§	§	§	§	§	§
	Cecil	853	1.4	±1.1	853	2.8	±2.2	§	§	§	§	§	§
	Charles	1519	1.8	±1.4	1519	3.9	±3.1	§	§	§	169	0.6	±0.9
	Dorchester	***384***	***1.6***	***±1.6***	384	3.8	±3.6	§	§	§	§	§	§
	Frederick	2434	1.7	±1.2	2434	3.7	±2.7	§	§	§	§	§	§
	Garrett	965	4.3	±2.2	940	8.7	±4.4	26	0.2	±0.3	247	21.9	±20.4
	Harford	2239	1.4	±1.2	2239	3.0	±2.5	§	§	§	486	2.3	±3.4
	Howard	3376	1.9	±1.8	2834	3.4	±3.5	542	0.6	±0.9	866	1.9	±2.3
	Kent	97	0.6	±0.7	97	1.4	±1.6	§	§	§	§	§	§
	Montgomery	2567	0.4	±0.5	2567	0.9	±1.1	§	§	§	§	§	§
	Prince George's	***2669***	***0.5***	***±0.5***	***2669***	***1.0***	***±1.0***	§	§	§	1239	0.3	±0.4
	Queen Anne's	587	1.9	±1.5	587	4.0	±3.0	§	§	§	126	3.4	±4.1
	Somerset	188	0.9	±0.9	188	2.0	±2.0	§	§	§	§	§	§
	St. Mary's	***622***	***1.0***	***±1.0***	622	2.1	±2.0	§	§	§	§	§	§
	Talbot	***675***	***2.6***	***±3.5***	675	5.5	±7.5	§	§	§	614	10.0	±14.2
	Washington	3465	3.4	±2.1	3465	7.0	±4.2	§	§	§	§	§	§
	Wicomico	1310	2.1	±1.7	1260	4.4	±3.8	50	0.1	±0.2	159	0.9	±1.1
	Worcester	175	0.5	±0.6	175	1.0	±1.2	§	§	§	95	1.2	±1.9

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 9a. Initiation of Tobacco Use in the Past 2 Years Among Under-age Youth, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	104728	25.4	±1.2	54595	26.1	±1.3	49597	24.6	±1.4	39538	22.0	±1.3
	Allegany	1991	35.4	±3.2	1075	37.7	±3.8	902	32.9	±3.7	169	33.8	±6.4
	Anne Arundel	11235	29.7	±3.9	5888	30.3	±4.0	5301	29.0	±4.4	2532	27.8	±4.6
	Baltimore City	10562	23.7	±3.1	5138	23.3	±4.3	5390	24.3	±3.9	8391	21.8	±2.5
	Baltimore Co.	13253	24.9	±4.3	7012	26.2	±4.8	6181	23.7	±4.8	3856	21.0	±4.3
	Calvert	2442	30.6	±2.6	1241	30.1	±3.2	1194	31.1	±3.5	466	26.6	±3.6
	Caroline	914	32.8	±2.9	483	33.5	±3.7	421	31.8	±4.5	194	27.9	±5.6
	Carroll	3394	23.8	±2.6	1933	26.3	±3.2	1425	20.8	±2.9	399	30.0	±5.2
	Cecil	2274	30.3	±3.2	1227	32.2	±4.2	1042	28.4	±3.4	325	34.7	±5.3
	Charles	3438	28.5	±2.9	1782	29.0	±3.4	1628	27.8	±3.4	1064	25.4	±3.2
	Dorchester	804	30.7	±3.1	389	29.6	±3.8	403	31.6	±4.0	313	30.0	±4.0
	Frederick	5221	28.9	±2.9	2719	29.4	±3.2	2467	28.2	±3.5	934	29.2	±4.2
	Garrett	761	32.0	±3.5	430	34.5	±4.4	329	29.2	±4.9	45	32.0	±13.1
	Harford	5717	29.3	±3.0	2905	29.1	±3.6	2784	29.4	±3.7	1196	26.1	±4.4
	Howard	5141	23.1	±3.6	2825	24.8	±4.5	2304	21.4	±3.5	1221	20.4	±3.8
	Kent	546	37.7	±3.5	287	41.1	±5.2	256	34.6	±5.0	178	38.6	±4.9
	Montgomery	13652	21.3	±4.1	7126	21.9	±4.2	6461	20.8	±4.5	5759	20.3	±3.2
	Prince George's	12342	20.1	±2.8	6175	20.2	±3.0	6058	19.9	±3.4	9774	18.8	±2.8
	Queen Anne's	1107	31.7	±3.7	646	35.2	±4.4	460	27.9	±4.1	183	34.8	±7.4
	Somerset	506	33.9	±3.7	281	38.4	±6.2	221	29.5	±4.3	196	29.7	±4.5
	St. Mary's	2221	29.9	±2.8	1188	31.4	±3.5	1019	28.3	±3.4	647	30.2	±4.4
	Talbot	728	32.4	±3.3	401	33.7	±4.0	324	31.0	±4.5	171	28.1	±5.1
	Washington	3370	34.0	±3.6	1811	35.8	±3.6	1552	32.0	±4.6	552	36.5	±5.9
	Wicomico	2102	31.1	±3.1	1055	30.3	±3.4	1047	32.4	±4.3	704	30.3	±3.5
	Worcester	1008	28.2	±3.1	580	30.7	±4.3	428	25.5	±3.7	269	26.0	±5.0
2002	Statewide	***90,815***	***20.6***	***± 1.0***	***46,574***	***21.1***	***± 1.0***	***43,567***	***20.1***	***± 1.1***	***38,018***	***17.9***	***± 1.0***
	Allegany	***1,590***	***28.9***	***± 3.0***	***846***	***30.2***	***± 4.1***	732	27.2	± 3.4	168	30.4	± 8.1
	Anne Arundel	***9,088***	***23.0***	***± 3.3***	***4,561***	***22.9***	***± 3.4***	4,457	22.9	± 3.9	***2,208***	***20.0***	***± 3.8***
	Baltimore City	***8,380***	***18.3***	***± 1.9***	4,040	18.2	± 2.7	***4,292***	***18.4***	***± 2.8***	***6,817***	***16.9***	***± 1.9***
	Baltimore Co.	11,903	21.2	± 3.4	6,046	21.3	± 3.4	5,797	21.0	± 3.8	3,865	16.2	± 3.1
	Calvert	***2,182***	***24.6***	***± 3.6***	1,162	25.8	± 4.0	***1,015***	***23.4***	***± 4.0***	497	25.5	± 6.2
	Caroline	845	28.9	± 2.5	446	29.9	± 3.2	388	27.5	± 3.2	220	29.0	± 3.9
	Carroll	2,946	19.6	± 3.0	***1,526***	***20.1***	***± 3.5***	1,395	19.0	± 3.5	***328***	***18.9***	***± 5.1***
	Cecil	***1,982***	***24.6***	***± 2.7***	***1,023***	***25.3***	***± 3.4***	946	23.8	± 3.4	294	26.0	± 5.4
	Charles	***2,975***	***23.1***	***± 2.1***	***1,442***	***22.6***	***± 2.7***	1,495	23.3	± 2.9	***1,117***	***19.4***	***± 2.9***
	Dorchester	***662***	***24.7***	***± 2.8***	322	24.4	± 3.6	***329***	***24.7***	***± 3.1***	***259***	***23.1***	***± 3.5***
	Frederick	***4,316***	***21.9***	***± 2.7***	***2,132***	***21.6***	***± 3.1***	***2,142***	***22.0***	***± 3.2***	903	24.7	± 4.9
	Garrett	673	28.3	± 3.5	401	32.4	± 4.2	271	24.0	± 4.2	39	28.3	± 9.3
	Harford	***4,597***	***22.2***	***± 2.4***	***2,312***	***22.1***	***± 2.6***	***2,264***	***22.3***	***± 2.8***	1,242	23.5	± 3.3
	Howard	4,678	19.3	± 3.6	2,455	19.9	± 3.8	2,178	18.5	± 3.8	1,408	17.0	± 3.6
	Kent	***451***	***31.0***	***± 3.6***	245	33.9	± 4.2	202	27.9	± 4.9	***131***	***27.5***	***± 4.8***
	Montgomery	12,016	16.9	± 3.3	6,603	18.2	± 3.5	5,316	15.4	± 3.4	6,268	16.2	± 3.0
	Prince George's	11,846	17.9	± 2.0	6,034	18.3	± 2.7	5,699	17.3	± 2.5	9,753	17.1	± 1.9
	Queen Anne's	***883***	***23.6***	***± 2.0***	***460***	***23.8***	***± 2.4***	419	23.5	± 2.9	147	25.6	± 4.3
	Somerset	417	28.8	±3.8	219	31.4	± 5.6	195	26.5	± 5.2	192	27.0	± 4.4
	St. Mary's	***1,940***	***24.7***	***± 2.2***	***919***	***23.6***	***± 3.0***	1,013	26.0	± 3.5	552	24.4	± 4.2
	Talbot	***619***	***26.5***	***± 2.7***	328	27.0	± 3.8	286	25.9	± 3.0	146	21.9	± 3.6
	Washington	***2,978***	***28.7***	***± 2.6***	1,641	31.5	± 3.4	1,315	25.7	± 2.9	514	31.3	± 5.2
	Wicomico	1,895	28.0	± 3.8	906	26.2	± 3.7	972	29.2	± 4.7	***645***	***22.9***	***± 4.3***
	Worcester	950	25.6	± 2.9	501	26.4	± 3.2	445	24.9	± 4.3	300	26.5	± 5.8

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 9b. Initiation of Tobacco Use in the Past 2 Years Among Adults, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	49,448	18.5	±3.4	27,688	12.5	±3.4	21,760	47.2	±10.1	19,098	33.1	±10.2
	Allegany	1,045	14.5	±10.4	369	6.1	±6.8	§	§	§	§	§	§
	Anne Arundel	6,876	21.3	±10.7	3,621	13.9	±10.8	§	§	§	§	§	§
	Baltimore City	6,602	24.0	±13.1	3,140	15.3	±13.3	§	§	§	§	§	§
	Baltimore Co.	8,402	19.7	±10.2	4,120	12.6	±10.3	§	§	§	§	§	§
	Calvert	930	17.0	±11.5	681	13.7	±11.6	§	§	§	§	§	§
	Caroline	449	18.9	±10.9	347	16.7	±11.8	§	§	§	§	§	§
	Carroll	2,179	20.5	±16.2	1,767	17.8	±16.9	§	§	§	§	§	§
	Cecil	749	10.4	±9.4	476	7.3	±8.1	§	§	§	§	§	§
	Charles	606	8.8	±10.0	606	9.1	±10.3	§	§	§	§	§	§
	Dorchester	232	12.6	±13.1	§	§	§	§	§	§	§	§	§
	Frederick	638	7.8	±8.7	§	§	§	§	§	§	§	§	§
	Garrett	333	12.0	±10.4	290	11.2	±11.1	§	§	§	§	§	§
	Harford	3,653	25.3	±16.6	2,505	20.6	±18.4	§	§	§	§	§	§
	Howard	2,383	19.9	±12.7	2,174	19.2	±13.1	§	§	§	§	§	§
	Kent	243	17.6	±12.1	70	6.4	±7.9	§	§	§	§	§	§
	Montgomery	2,763	9.2	±9.4	967	3.7	±5.5	§	§	§	§	§	§
	Prince George's	7,608	30.0	±16.5	4,266	22.0	±18.5	§	§	§	§	§	§
	Queen Anne's	349	13.1	±13.0	123	5.6	±8.5	§	§	§	§	§	§
	Somerset	224	14.9	±14.9	157	12.1	±14.2	§	§	§	§	§	§
	St. Mary's	1,085	19.4	±14.2	959	18.8	±15.0	§	§	§	§	§	§
	Talbot	192	8.8	±11.1	192	9.4	±11.8	§	§	§	§	§	§
	Washington	325	4.0	±5.0	213	2.8	±4.3	§	§	§	§	§	§
	Wicomico	1,153	18.3	±11.7	145	3.1	±3.9	§	§	§	§	§	§
	Worcester	§	§	§	§	§	§	§	§	§	§	§	§
2002	Statewide	41,360	15.5	±3.8	19,359	9.1	±2.9	22,001	40.5	±11.6	23,017	32.5	±11.1
	Allegany	946	11.2	±9.1	518	7.0	±7.8	§	§	§	§	§	§
	Anne Arundel	1,844	6.9	±6.5	1,357	5.9	±6.5	§	§	§	§	§	§
	Baltimore City	7,200	19.2	±12.0	2,490	9.8	±11.1	§	§	§	6,583	27.3	±18.5
	Baltimore Co.	3,669	9.0	±7.5	994	3.2	±3.5	§	§	§	§	§	§
	Calvert	1,473	28.4	±16.6	1,080	25.9	±18.9	§	§	§	§	§	§
	Caroline	237	12.9	±12.2	128	8.2	±9.8	§	§	§	§	§	§
	Carroll	***167***	***1.6***	***±2.4***	167	1.7	±2.6	§	§	§	§	§	§
	Cecil	1,113	18.3	±14.8	762	13.3	±13.8	§	§	§	§	§	§
	Charles	548	8.7	±10.5	§	§	§	§	§	§	§	§	§
	Dorchester	347	17.8	±15.7	§	§	§	§	§	§	§	§	§
	Frederick	2,187	17.4	±15.9	2,187	18.7	±17.1	§	§	§	§	§	§
	Garrett	384	13.5	±14.0	320	12.5	±14.1	§	§	§	§	§	§
	Harford	1,028	8.2	±9.8	§	§	§	§	§	§	§	§	§
	Howard	1,296	13.4	±12.6	1,096	13.3	±13.7	§	§	§	§	§	§
	Kent	277	20.7	±18.9	98	8.9	±10.7	§	§	§	§	§	§
	Montgomery	6,220	22.1	±20.9	§	§	§	§	§	§	§	§	§
	Prince George's	8,011	33.8	±18.5	§	§	§	§	§	§	§	§	§
	Queen Anne's	127	4.6	±6.0	§	§	§	§	§	§	§	§	§
	Somerset	351	27.4	±22.2	§	§	§	§	§	§	§	§	§
	St. Mary's	743	16.0	±16.5	§	§	§	§	§	§	§	§	§
	Talbot	§	§	§	§	§	§	§	§	§	§	§	§
	Washington	1,115	10.6	±12.3	113	1.3	±2.0	§	§	§	§	§	§
	Wicomico	1,715	22.7	±15.2	1169	17.7	±16.3	§	§	§	§	§	§
	Worcester	263	8.6	±11.0	200	7.1	±10.5	§	§	§	§	§	§

§ Indicates unweighted N less than 30. *Italics* (2002 data) means change from 2000 was statistically signficant.

Appendix 10a. Under-age Youth who have Stopped Smoking in the Past Year, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	16,304	35.1	±1.9	7,921	37.1	±2.9	8,329	33.4	±2.4	6,629	44.5	±4.0
	Allegany	336	31.2	±4.7	168	33.9	±6.8	169	28.9	±5.8	§	§	§
	Anne Arundel	1,684	31.0	±4.7	896	36.2	±7.5	787	26.7	±5.6	410	37.7	±9.5
	Baltimore City	1,978	45.8	±7.3	1,043	45.8	±11.5	936	45.7	±13.3	1,538	48.8	±9.8
	Baltimore Co.	2,014	34.2	±6.7	982	40.0	±9.9	1,005	29.7	±7.1	667	54.1	±9.6
	Calvert	367	31.2	±4.8	166	32.7	±7.3	201	30.0	±5.7	§	§	§
	Caroline	124	26.0	±6.4	63	25.1	±6.5	62	27.1	±10.2	§	§	§
	Carroll	558	34.2	±6.1	311	41.4	±8.9	233	27.0	±7.2	§	§	§
	Cecil	297	26.2	±5.0	178	33.6	±7.5	119	19.8	±6.2	§	§	§
	Charles	534	33.1	±5.7	275	34.8	±8.3	259	31.7	±7.5	194	43.9	±9.7
	Dorchester	126	36.0	±6.4	§	§	§	69	33.9	±8.6	§	§	§
	Frederick	797	33.1	±4.9	348	33.1	±7.5	442	33.1	±6.5	§	§	§
	Garrett	147	37.6	±7.7	79	39.2	±9.8	69	35.9	±9.0	§	§	§
	Harford	839	30.0	±4.9	401	34.3	±8.1	433	26.6	±6.3	§	§	§
	Howard	815	38.5	±7.6	440	40.9	±9.4	375	36.3	±10.1	194	39.3	±12.1
	Kent	84	36.3	±9.3	44	45.4	±14.1	40	29.8	±9.8	§	§	§
	Montgomery	1,955	36.9	±6.9	830	35.1	±11.2	1,125	38.6	±10.8	987	46.7	±12.1
	Prince George's	1,839	39.1	±7.9	786	36.1	±14.8	1,053	41.6	±8.1	1,639	48.9	±11.2
	Queen Anne's	115	24.8	±5.3	62	26.2	±7.9	53	23.3	±5.9	§	§	§
	Somerset	121	38.7	±7.8	70	41.8	±8.9	51	35.1	±11.3	§	§	§
	St. Mary's	322	32.7	±6.0	148	31.1	±8.3	174	34.8	±7.7	§	§	§
	Talbot	84	26.5	±6.0	§	§	§	44	27.5	±9.1	§	§	§
	Washington	622	36.6	±4.5	279	37.2	±7.4	343	36.2	±5.5	§	§	§
	Wicomico	370	34.3	±5.7	165	32.5	±8.0	205	36.0	±7.0	116	31.0	±8.0
	Worcester	175	35.3	±7.0	92	35.7	±8.8	84	34.9	±9.7	§	§	§
2002	Statewide	***15,406***	***40.7***	***±1.7***	***7,422***	***43.7***	***±2.5***	***7,871***	***38.2***	***±2.2***	6,936	49.2	±2.9
	Allegany	247	30.0	±6.5	135	37.5	±10.6	108	23.6	±7.1	§	§	§
	Anne Arundel	***1,447***	***37.4***	***±5.5***	783	46.0	±8.1	***629***	***29.6***	***±5.7***	§	§	§
	Baltimore City	1,505	50.7	±8.3	689	54.9	±14.7	797	47.7	±10.5	1,258	54.6	±10.4
	Baltimore Co.	1,853	37.3	±5.8	834	40.4	±8.3	1,007	35.0	±6.9	815	52.1	±9.8
	Calvert	361	32.4	±6.1	193	35.4	±12.1	163	28.8	±8.5	§	§	§
	Caroline	120	33.0	±5.2	59	33.0	±8.2	61	33.1	±5.7	§	§	§
	Carroll	429	32.0	±7.8	§	§	§	268	36.5	±9.1	§	§	§
	Cecil	379	35.4	±4.7	157	38.5	±9.7	216	32.9	±5.9	§	§	§
	Charles	471	35.2	±6.9	278	45.2	±10.9	192	26.7	±7.8	153	45.2	±14.1
	Dorchester	104	37.3	±6.2	49	40.2	±9.8	53	34.4	±9.7	41	44.1	±11.3
	Frederick	766	39.7	±5.9	369	44.7	±8.9	393	36.2	±7.3	§	§	§
	Garrett	100	32.3	±6.3	47	30.0	±9.3	53	34.7	±7.9	§	§	§
	Harford	***621***	***35.3***	***±5.5***	273	35.9	±7.0	348	34.7	±8.0	§	§	§
	Howard	675	37.4	±5.7	372	42.4	±8.4	303	33.2	±8.0	218	40.0	±10.6
	Kent	85	37.1	±6.7	43	40.1	±10.3	42	34.8	±9.7	§	§	§
	Montgomery	2,318	46.8	±3.2	1,128	46.2	±6.9	1,190	47.8	±5.7	1,376	52.5	±4.9
	Prince George's	2,216	50.7	±5.6	1,051	53.0	±8.3	1,154	49.0	±8.8	1,874	54.3	±5.7
	Queen Anne's	134	32.5	±5.3	51	26.8	±7.4	83	37.4	±7.8	§	§	§
	Somerset	81	44.2	±8.4	§	§	§	45	49.5	±10.3	§	§	§
	St. Mary's	264	30.6	±5.2	§	§	§	124	27.2	±7.7	§	§	§
	Talbot	90	38.3	±7.2	46	40.3	±9.8	44	36.7	±9.2	§	§	§
	Washington	599	43.7	±5.9	281	44.9	±7.8	315	42.8	±8.2	§	§	§
	Wicomico	362	40.7	±7.8	168	45.1	±11.3	187	37.9	±9.0	§	§	§
	Worcester	178	42.8	±10.4	79	42.7	±13.6	95	41.8	±12.1	§	§	§

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 10b. Adults who have Stopped Smoking in the Past Year, Statewide and by Jurisdiction, Gender, and Minority Status, 2000 v. 2002

	Jurisdiction	All			Male			Female			Minority		
		N	%	CI	N	%	CI	N	%	CI	N	%	CI
2000	Statewide	73,606	9.9	±1.6	39,937	10.1	±2.3	33669	9.6	±2.0	24,728	8.9	±2.9
	Allegany	1,029	7.7	±4.7	522	8.0	±7.3	507	7.3	±6.1	§	§	§
	Anne Arundel	8,979	11.9	±5.0	6,218	16.0	±8.3	2,761	7.5	±5.2	1,046	7.1	±8.5
	Baltimore City	8,539	6.1	±2.8	5,063	7.2	±4.8	3,476	4.9	±2.9	5,125	5.0	±3.2
	Baltimore Co.	17,999	15.7	±5.6	9,609	16.0	±8.1	8,390	15.4	±7.5	6,045	21.7	±13.9
	Calvert	1,154	9.3	±5.2	571	9.4	±8.0	583	9.3	±7.0	§	§	§
	Caroline	465	8.2	±4.7	301	9.6	±6.9	164	6.6	±6.5	§	§	§
	Carroll	2,092	9.7	±6.2	459	4.2	±5.3	1,632	15.2	±10.6	§	§	§
	Cecil	927	6.2	±5.1	522	7.3	±8.1	404	5.2	±5.5	§	§	§
	Charles	857	4.8	±4.7	423	4.4	±5.6	433	5.3	±5.8	§	§	§
	Dorchester	578	10.9	±6.1	255	7.8	±6.4	324	15.6	±12.0	140	9.8	±10.1
	Frederick	2,326	9.2	±6.3	791	7.2	±8.0	1,535	10.6	±9.2	§	§	§
	Garrett	292	6.8	±5.2	212	7.9	±7.8	80	4.9	±5.4	§	§	§
	Harford	2,719	8.6	±6.2	867	5.1	±6.2	1,851	12.7	±10.4	§	§	§
	Howard	2,565	11.9	±6.0	745	5.9	±6.0	1,820	20.5	±11.3	§	§	§
	Kent	484	15.5	±7.9	234	15.5	±12.3	250	15.6	±10.5	§	§	§
	Montgomery	7,299	10.9	6.7	3007	7.7	±7.8	4,292	15.2	±11.5	2,624	11.0	±11.3
	Prince George's	10,499	10.8	±5.8	7,468	13.8	±9.4	2,980	7.1	±5.5	7,527	11.7	±8.0
	Queen Anne's	554	7.3	±4.7	245	6.2	±6.1	309	8.4	±7.4	§	§	§
	Somerset	617	13.6	±6.4	409	18.4	±11.7	208	8.9	±6.1	96	6.8	±8.1
	St. Mary's	1,205	8.3	±4.9	308	3.5	±3.5	897	15.7	±10.8	§	§	§
	Talbot	538	12.2	±7.2	351	12.4	±10.0	187	11.8	±10.0	§	§	§
	Washington	192	.9	±1.2	142	1.2	±1.8	50	0.6	±0.8	§	§	§
	Wicomico	1,408	10.0	±6.1	1,025	14.2	±10.3	383	5.6	±6.1	§	§	§
	Worcester	339	4.3	±3.7	187	4.5	±5.0	152	4.1	±4.6	§		
2002	Statewide	67,716	10.1	±1.8	32,001	9.2	±2.2	35,715	11.0	±3.0	19,897	7.6	±3.2
	Allegany	1,651	12.3	±8.7	296	4.6	±5.6	1,355	19.6	±15.0	§	§	§
	Anne Arundel	4,810	8.7	±4.8	2,786	9.7	±7.9	2,023	7.6	±5.6	529	3.7	±5.7
	Baltimore City	6,470	5.1	±2.7	2,838	4.4	±3.7	3632	5.9	±4.1	5,042	5.4	±3.3
	Baltimore Co.	12,102	11.2	±5.5	4,030	7.4	±5.8	8,072	15.0	±9.2	2,346	7.7	±10.5
	Calvert	442	4.4	±4.4	163	2.9	±4.4	278	6.4	±6.6	§	§	§
	Caroline	265	6.2	±4.5	55	2.6	±3.9	210	9.6	±7.5	§	§	§
	Carroll	3,776	23.4	±13.4	***2,275***	***24.8***	***±16.4***	1,501	21.4	±22.5	§	§	§
	Cecil	2,524	15.0	±7.4	1,862	21.5	±13.0	661	8.1	±6.3	§	§	§
	Charles	1,121	6.5	±5.3	1,023	10.4	±9.2	98	1.3	±2.0	98	1.9	±2.9
	Dorchester	271	5.4	±4.2	***26***	***.9***	***±1.4***	245	11.2	±9.1	§	§	§
	Frederick	2,660	12.0	±8.2	1,615	10.9	±9.8	1,046	14.3	±14.9	§	§	§
	Garrett	408	10.0	±7.2	187	8.6	±9.4	220	11.8	±10.5	§	§	§
	Harford	1,715	6.8	±6.5	1,063	8.0	±9.7	652	5.5	±5.7	§	§	§
	Howard	2,457	12.2	±7.6	1,387	12.3	±11.3	1,070	12.1	±9.9	§	§	§
	Kent	356	12.4	±9.0	202	11.2	±10.6	154	14.3	±15.5	§	§	§
	Montgomery	11,947	15.4	±9.6	3,344	11.0	±10.7	8,603	18.1	±14.1	4,029	13.1	±15.8
	Prince George's	8,599	11.0	±5.5	5,389	12.4	±8.7	3,210	9.2	±6.5	5,242	9.5	±6.5
	Queen Anne's	803	15.6	±8.3	496	17.1	±12.5	307	13.7	±10.8	§	§	§
	Somerset	373	9.1	±6.0	179	8.7	±8.4	194	9.5	±8.7	187	9.5	±9.7
	St. Mary's	1,230	11.8	±8.4	361	6.8	±9.1	869	17.1	±12.9	§	§	§
	Talbot	389	7.4	±5.4	153	4.8	5.3	236	11.6	±9.8	§	§	§
	Washington	1,268	6.2	±6.1	1,056	9.1	±9.7	***212***	***2.5***	***±3.1***	§	§	§
	Wicomico	1,721	12.0	±6.9	1,029	13.2	±11.0	691	10.5	±8.1	§	§	§
	Worcester	361	4.0	±3.3	184	3.6	±4.1	177	4.5	±4.7	§	§	§

§ Indicates unweighted N less than 30. ***Italics*** (2002 data) means change from 2000 was statistically signficant.

Appendix 11a. Prevalence of Cigarette, Smokeless Tobacco, Cigar, Pipe, Bidi, and Kretek Usage Among Under-age Youth, Statewide and by Jurisdiction, 2000

Jurisdiction	Cigarettes			Smokeless Tobacco			Cigars			Pipes			Bidis			Kreteks		
	N	%	CI	N	%	CI	N	%	CI	N	%	CI	N	%	CI	N	%	CI
Statewide	**61,808**	**15.7**	**±1.1**	**14,109**	**3.5**	**±0.3**	**35,268**	**8.8**	**±0.6**	**15,670**	**3.9**	**±0.4**	**21,077**	**5.3**	**±0.5**	**15,285**	**3.8**	**±0.3**
Allegany	1,320	24.6	±3.4	503	9.1	±1.6	511	9.3	±1.5	260	4.7	±1.4	243	4.4	±1.1	181	3.3	±1.0
Anne Arundel	7,203	19.8	±4.0	1,306	3.5	±1.1	3,946	10.7	±2.3	1,620	4.4	±1.1	1,895	5.2	±1.2	1,730	4.7	±1.1
Baltimore City	4,423	10.8	±2.1	1,490	3.6	±1.1	3,638	8.8	±1.8	1,724	4.2	±1.2	2,600	6.5	±2.0	1,830	4.5	±1.4
Baltimore Co.	8,046	15.8	±3.6	1,358	2.6	±0.7	4,650	9.0	±2.4	1,799	3.4	±1.1	2,731	5.3	±1.2	2,103	4.0	±0.9
Calvert	1,502	19.6	±2.7	220	2.8	±0.7	786	10.0	±1.8	286	3.6	±0.9	306	3.9	±0.9	274	3.5	±0.8
Caroline	691	25.8	±3.6	172	6.3	±1.8	362	13.2	±2.3	138	5.0	±1.5	149	5.5	±1.3	162	5.9	±1.5
Carroll	2,263	16.4	±3.0	448	3.2	±0.9	1,076	7.6	±1.9	438	3.1	±0.8	674	4.8	±1.1	469	3.3	±0.8
Cecil	1,613	22.3	±3.4	243	3.3	±0.9	679	9.2	±1.8	248	3.3	±0.9	454	6.2	±1.4	208	2.8	±0.7
Charles	2,276	19.7	±3.0	456	3.9	±0.9	1,215	10.4	±2.0	569	4.8	±1.1	694	6.0	±1.3	544	4.6	±1.1
Dorchester	495	20.0	±2.9	112	4.4	±1.3	272	10.7	±2.0	153	5.9	±1.6	164	6.6	±1.8	133	5.1	±1.4
Frederick	3,397	19.5	±2.8	836	4.7	±1.1	1,774	10.0	±1.5	779	4.3	±1.0	914	5.2	±1.1	808	4.5	±1.1
Garrett	513	22.1	±3.1	194	8.2	±2.0	212	9.0	±2.0	99	4.2	±1.4	124	5.3	±1.5	100	4.2	±1.4
Harford	3,933	21.2	±2.9	927	4.8	±1.1	2,153	11.3	±1.9	894	4.7	±1.1	1,028	5.5	±1.2	808	4.2	±1.0
Howard	2,913	13.5	±3.3	1,021	4.6	±1.4	1,626	7.4	±1.8	798	3.6	±1.2	992	4.6	±1.2	721	3.3	±1.0
Kent	317	23.0	±3.8	132	9.3	±2.1	176	12.4	±2.5	83	5.8	±1.7	92	6.5	±1.9	78	5.5	±1.5
Montgomery	7,455	12.1	±3.4	1,836	2.9	±1.1	4,107	6.6	±1.8	1,853	2.9	±0.7	3,087	5.0	±1.6	2,113	3.4	±0.8
Prince George's	6,178	10.6	±2.5	1,423	2.4	±1.0	4,369	7.4	±1.7	2,487	4.2	±1.5	3,357	5.8	±1.4	1,743	2.9	±1.1
Queen Anne's	683	20.4	±3.3	149	4.3	±1.0	342	10.0	±1.8	148	4.3	±1.1	157	4.6	±1.1	132	3.8	±1.0
Somerset	415	29.2	±4.5	78	5.4	±1.8	210	14.6	±3.4	94	6.4	±2.1	91	6.4	±1.7	82	5.6	±1.9
St. Mary's	1,363	19.4	±2.9	255	3.5	±1.0	729	10.1	±1.6	286	3.9	±1.0	345	4.9	±1.2	234	3.2	±1.0
Talbot	494	23.1	±3.1	90	4.1	±1.1	276	12.6	±2.0	127	5.7	±1.5	120	5.6	±1.3	98	4.5	±1.1
Washington	2,184	22.9	±3.2	563	5.8	±1.3	967	9.9	±1.6	358	3.6	±0.8	427	4.4	±1.1	364	3.7	±0.9
Wicomico	1,450	22.4	±3.1	169	2.5	±0.8	835	12.7	±2.0	267	4.0	±1.1	256	3.9	±1.1	229	3.4	±1.1
Worcester	683	19.9	±3.1	131	3.7	±1.1	356	10.2	±2.1	164	4.7	±1.2	180	5.2	±1.3	143	4.1	±1.2

Appendix 11b. Prevalence of Cigarette, Smokeless Tobacco, Cigar, Pipe, Bidi, and Kretek Usage Among Under-age Youth, Statewide and by Jurisdiction, 2002

Jurisdiction	Cigarettes			Smokeless Tobacco			Cigars			Pipes			Bidis			Kreteks		
	N	%	CI	N	%	CI	N	%	CI	N	%	CI	N	%	CI	N	%	CI
Statewide	**51933**	**11.8**	±0.8	**15511**	**3.5**	±0.3	**31622**	**7.2**	±0.5	**20509**	**4.9**	±0.4	**22554**	**5.4**	±0.4	**18163**	**4.3**	±0.4
Allegany	1132	20.6	±3.5	460	8.4	±2.0	433	7.9	±1.8	238	4.4	±1.2	302	5.6	±1.3	197	3.6	±1.1
Anne Arundel	5588	14.1	±2.9	1499	3.8	±0.9	3445	8.7	±1.9	2100	5.5	±1.0	1989	5.2	±1.0	1803	4.7	±1.0
Baltimore City	3954	8.6	±1.4	1768	3.9	±1.0	3164	6.9	±1.4	2707	6.6	±1.4	3350	8.1	±1.9	2611	6.3	±1.7
Baltimore Co.	6815	12.1	±3.0	1565	2.8	±0.8	4345	7.7	±1.8	2435	4.6	±1.2	2631	4.9	±1.3	2086	3.9	±1.2
Calvert	1505	17.0	±3.3	340	3.8	±1.3	856	9.7	±2.2	551	6.5	±1.9	467	5.5	±1.5	455	5.4	±2.1
Caroline	554	18.9	±1.8	140	4.8	±1.1	285	9.8	±1.4	143	5.0	±1.2	138	4.8	±1.3	117	4.1	±1.0
Carroll	2024	13.4	±2.8	587	3.9	±1.1	1169	7.8	±1.7	688	4.7	±1.3	728	4.9	±1.4	595	4.0	±1.2
Cecil	1347	16.7	±2.5	292	3.6	±0.9	575	7.1	±1.4	327	4.2	±1.3	474	6.0	±1.2	329	4.2	±1.1
Charles	1771	13.8	±2.1	483	3.8	±1.5	900	7.0	±1.2	589	5.0	±1.5	621	5.2	±1.7	548	4.6	±1.6
Dorchester	405	15.1	±2.2	103	3.9	±1.1	247	9.2	±1.6	121	4.8	±1.1	140	5.5	±1.3	117	4.6	±1.3
Frederick	2649	13.4	±2.3	980	5.0	±1.1	1471	7.5	±1.4	952	4.9	±1.1	989	5.1	±1.2	803	4.2	±1.0
Garrett	450	19.0	±3.1	230	9.7	±2.0	214	9.0	±1.9	110	4.8	±1.2	131	5.6	±1.5	107	4.6	±1.2
Harford	2811	13.6	±2.0	732	3.5	±0.7	1661	8.0	±1.3	997	4.9	±1.1	1031	5.1	±1.0	880	4.4	±1.0
Howard	2702	11.2	±2.7	972	4.0	±1.1	1749	7.2	±1.8	1094	4.6	±1.2	1252	5.3	±1.4	1112	4.7	±1.3
Kent	298	20.5	±3.2	121	8.4	±2.0	158	10.9	±2.0	112	8.0	±2.0	116	8.2	±2.3	95	6.8	±2.0
Montgomery	6474	9.1	±2.0	1870	2.6	±0.7	4152	5.8	±1.2	2545	3.7	±0.8	3177	4.6	±0.9	2109	3.1	±0.8
Prince George's	5269	7.9	±1.5	1808	2.7	±0.8	3784	5.7	±1.3	2973	4.8	±1.2	3174	5.0	±1.2	2592	4.2	±1.1
Queen Anne's	622	16.6	±1.9	192	5.1	±1.1	283	7.6	±1.2	194	5.3	±1.2	230	6.3	±1.2	209	5.8	±1.3
Somerset	275	19.0	±3.3	86	5.9	±2.5	152	10.5	±2.3	113	8.3	±2.3	103	7.6	±2.0	99	7.3	±2.3
St. Mary's	1345	17.2	±2.7	309	3.9	±1.4	603	7.7	±1.6	377	5.0	±1.6	420	5.6	±1.5	399	5.3	±1.6
Talbot	399	17.1	±2.3	125	5.4	±1.1	270	11.6	±2.0	155	6.9	±1.8	173	7.7	±1.9	147	6.6	±1.6
Washington	1754	16.9	±2.5	461	4.4	±1.0	735	7.1	±1.2	408	4.0	±0.9	438	4.3	±0.9	348	3.4	±0.9
Wicomico	1214	17.9	±2.9	212	3.1	±0.9	577	8.5	±2.0	350	5.4	±1.7	281	4.3	±1.4	212	3.3	±1.2
Worcester	575	15.5	±2.9	176	4.7	±1.4	395	10.7	±2.1	228	6.4	±1.6	201	5.6	±1.9	193	5.4	±2.3

Appendix 12. % of Maryland Households with Minor Children in which Adults Smoke Cigarettes, Statewide and by Jurisdiction, 2000 v. 2002

	Jurisdiction	Households		
		N	%	CI
2000	Statewide	1,221,028	31.8	±1.1
	Allegany	18,584	33.8	±4.5
	Anne Arundel	122,448	34.3	±3.4
	Baltimore City	192,591	41.3	±3.6
	Baltimore Co.	181,199	32.4	±3.3
	Calvert	20,017	38.7	±4.4
	Caroline	8,682	40.4	±4.1
	Carroll	38,940	35.4	±4.7
	Cecil	22,344	37.6	±5.0
	Charles	29,428	35.0	±4.7
	Dorchester	8,564	38.2	±4.8
	Frederick	45,751	33.3	±4.6
	Garrett	6,191	29.4	±4.5
	Harford	53,774	34.4	±4.7
	Howard	42,564	24.2	±3.1
	Kent	4,764	31.9	±4.5
	Montgomery	138,431	21.5	±2.9
	Prince George's	171,785	29.9	±3.4
	Queen Anne's	11,498	38.0	±4.8
	Somerset	6,701	35.0	±4.6
	St. Mary's	23,703	38.5	±4.7
	Talbot	7,565	28.8	±4.7
	Washington	32,797	34.0	±4.8
	Wicomico	20,822	35.4	±4.9
	Worcester	11,885	35.4	±4.9
2002	Statewide	521,430	31.9	±1.8
	Allegany	7,434	40.3	±9.3
	Anne Arundel	47,214	31.8	±5.4
	Baltimore City	89,794	49.6	±6.5
	Baltimore Co.	79,680	35.1	±5.4
	Calvert	10,673	41.8	±7.3
	Caroline	3,103	34.9	±9.0
	Carroll	16,823	32.7	±7.1
	Cecil	13,240	45.1	±7.7
	Charles	14,684	35.6	±7.2
	Dorchester	3,332	38.9	±10.1
	Frederick	20,506	32.3	±7.1
	Garrett	2,955	36.5	±8.6
	Harford	22,244	30.3	±6.8
	Howard	23,244	27.1	±5.4
	Kent	1,962	38.1	±10.0
	Montgomery	52,278	19.4	±4.7
	Prince George's	66,752	25.5	±5.7
	Queen Anne's	4,143	35.2	±7.5
	Somerset	2,268	37.4	±9.9
	St. Mary's	10,628	38.2	±7.4
	Talbot	3,210	41.3	±10.8
	Washington	12,602	31.2	±8.0
	Wicomico	8,296	34.2	±8.2
	Worcester	4,366	44.9	±10.1

Appendix 13.
Summary of Methodology for the Maryland Youth Tobacco Survey

The purpose of the Maryland Youth Tobacco Survey (MYTS) was to gather attitude, usage, and exposure information regarding tobacco products statewide and within each of Maryland's 24 political jurisdictions (23 counties and Baltimore City). To accomplish this, the MYTS used a paper-and-pencil questionnaire administered following CDC's methodology for the Youth Tobacco Survey (YTS).

Questionnaire Development

The questionnaire was developed by the DHMH, in collaboration with the CDC Office on Smoking and Health, in the fall of 2000. The MYTS included a core set of YTS questions developed by CDC, first implemented by a small number of States as early as 1998, and now adopted by the overwhelming majority of States in conducting their own YTS.

The questionnaire covered eight topics: initiation of cigarette smoking, intensity of current cigarette use, cigarette brand preference and purchasing behavior, use of other tobacco products, tobacco use cessation, exposure to second-hand smoke, social context of tobacco use, and background information of respondents. The questionnaire contained 98 items. The questionnaire was designed to be identical for all 24 of Maryland's political jurisdictions.

Sampling

Sample Design

A separate high school and middle school sample was selected for each of Maryland's 24 political jurisdictions. The objective of the middle school sample was to obtain 95% confidence limits of approximately +/- 5% around key smoking variables. The objective of the high school sample was to obtain 95% confidence limits of approximately +/- 3% around key smoking variables. This produced 48 separate samples, two for each of Maryland's political jurisdictions.

For each sample, the sampling frame consisted of all public schools containing students enrolled in grades 6-8 for the middle schools and grades 9-12 for the high schools. A two-stage cluster sample design was used for each political jurisdiction to produce a representative sample of middle school students in grades 6-8 and high school students in grades 9-12. The sampling program PC-Sample was used to draw both the high school and middle school samples.

Sampling Procedures

School Level - The first-stage sampling frame consisted of all public schools containing any of grades 6-8 for the middle schools and 9-12 for the high schools. Schools were selected with probability proportional to school enrollment size (PPS). The original sample included 316 public schools. Three of the public schools were ineligible due to grade range changes, bringing the final sample to 313 public schools.

Class Level - The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each middle school and high school that participated in the survey. All 2nd period classes in the selected schools were included in the sampling frame.

Student Level – All students in a selected class were eligible to participate in the survey. No student make-ups were conducted.

Data Collection

Recruitment of Sampled Districts and Schools

After the sample was drawn, the Maryland State Department of Education (MSDE) sent letters to the Superintendents of each of the 24 jurisdictions. These letters identified the selected schools and asked each Superintendent to identify a district coordinator to assist in several pre-survey tasks. These included: (1) contacting each of the schools to notify them of their selection; (2) verifying grade range of the selected schools; (3) requesting the name of a contact person at the school; and (4) asking the district coordinator to forward a list of all second period classes for each school to DHMH.

Once the class lists were received and classes were selected, letters were sent by MSDE to each of the principals along with the list of the randomly selected classes. Contact persons were asked to review the list of selected classes and identify possible dates that were convenient for the data collection. This information was faxed back to the contractor by the contact person. Once the fax was received, a specific date for data collection was confirmed with the contact person. Teacher packets containing parent permission forms and other survey materials were mailed to the contact person for distribution to the teachers one to two weeks prior to the date of data collection. All districts in the MYTS agreed to use passive parental permission forms.

Classroom-level Data Collection

The MYTS was administered in each of Maryland's 24 major political jurisdictions between October 8 and November 26, 2002 by 24 specially trained field staff. The data collectors were recruited from a variety of sources including local and state retired teacher's associations, local universities, and job fairs. They completed an intensive training that included lectures, simulations, and group role-plays and discussions. Detailed arrangements and survey schedules were set prior to each school visit.

Weighting

For both the high school and middle school data, a weight variable was calculated for each student record to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non-response. The weight used for estimation is given by:

$$W = W1 * W2 * f1 * f2 * f3 * f4$$

W1 = the inverse of the probability of selecting the school

W2 = the inverse of the probability of selecting the classroom within the school

f1 = a school-level nonresponse adjustment factor calculated by school size category (small, medium, large).

f2= a class adjustment factor calculated by school

f3 = a student-level nonresponse adjustment factor calculated by class

f4 = a post stratification adjustment factor calculated by gender, grade, and race[1]

[1] The post-stratification adjustment for some counties was calculated by gender and grade only due to small race cell sizes.

Use of the Weighted State and County Results

For the state high school and middle school results, all 24 county data sets were aggregated into one data set and sampling weights were used to compute the weighted prevalence estimates. The weighted results can be used to make important inferences concerning tobacco use risk behaviors of all public school students in grades 9 through 12 and 6 through 8, respectively, both statewide and for each political jurisdiction. The table below outlines the MYTS response rates.

MYTS Response Rates

	Student			School			Combined
	Selected	Participated	%	Selected	Participated	%	
Middle	30,412	27,388	89.9%	149	149	100%	89.9%
High	46,251	38,935	84.2%	164	164	100%	84.2%
Total	76,663	66,323	86.5%	313	313	100%	86.5%

Appendix 14.
Summary of Methodology for the Maryland Adult Tobacco Survey

The purpose of the Maryland Adult Tobacco Survey (MATS) was to gather attitude, usage, and exposure information regarding tobacco products statewide and within each of Maryland's 24 political jurisdictions (23 counties and Baltimore City). To accomplish this, the MATS used a survey instrument developed with technical assistance from the Centers for Disease Control and Prevention (CDC) by the Department of Health and Mental Hygiene (DHMH), and administered following CDC's methodology for the Behavioral Risk Factor Surveillance Survey (BRFSS), which requires Computer-Assisted Telephone Interviewing (CATI).

Questionnaire Development and Testing

The questionnaire was developed by the DHMH in the fall of 2000. Items from tobacco questionnaires previously used by other states to collect information on attitudes toward use and exposure to tobacco products were used to develop the MATS. The questionnaire was designed to be administered via telephone, and covered eight topics: initiation of cigarette smoking, intensity of current cigarette use, cigarette brand preference and purchasing behavior, use of other tobacco products, tobacco use cessation, exposure to second-hand smoke, social context of tobacco use, and background information of respondents.

In 2002, the DHMH added questions to the survey while still maintaining the core questionnaire; this permitted comparability to data collected in previous years. The additional questions centered on anti-smoking messages in the media to measure respondents' exposure to, and recall of, such messages. The final version of the questionnaire contained 132 items, but incorporated skip patterns so that respondents could skip questions based on their demographic characteristics, tobacco use, and exposure to tobacco products. The questionnaire was designed to be identical for all 24 of Maryland's political jurisdictions.

To program the MATS questionnaire for administration via CATI, the Computers for Marketing Corporation's (CfMC's) Computer-Assisted Telephone Interviewing (CATI) software package was used. The CfMC questionnaire programming language provided call management and quota controls, inbound calling capabilities, data backup, and monitoring and incidence tracking.

One of the main advantages of this software was the incorporation of most data handling tasks within the interviewing process itself. The programming of the survey instrument automatically controlled skip and fill logic, as well as range-checking for numeric data. The programming logic directed the flow of the questionnaire and prevented an interviewer from entering the right data in the wrong place. On any given screen of the questionnaire, the program only accepted a predetermined range or type of response. These features of CfMC provided ensurance of the validity of the data concurrent with data collection, thus reducing the amount of time required to check the validity of the data after they were collected.

The programming of the CATI system also adhered to BRFSS protocols, such as defined interviewing schedule, number of attempts required, callback procedures, refusal conversion processes, and documenting call history. In all areas, BRFSS protocols were met or exceeded. For example, interviewers made at least 15 attempts per record, and the non-response conversion staff (NCS), who were selected for their experience and performance, called back 100% of all initial refusals.

Sampling

For 2002 – 2003, the Second Annual MATS consisted of a Base survey conducted statewide across all 24 major political subdivisions. The 2002 – 2003 MATS also included a supplemental (Supplement) survey conducted in 16 jurisdictions. The Supplement survey was designed to support more precise estimates for target minorities within these jurisdictions. Although the Base survey can generate valid estimates for each jurisdiction, it could not produce valid estimates for racial and ethnic groups in each jurisdiction. [Note: Because of the statutory requirement that the fall 2002 survey replicate the fall 2000 survey, data from the supplementary survey is not included in this report, but will be made available in subsequent reports].

Telephone interviews were conducted with randomly selected adults from randomly sampled households from all telephone-equipped dwelling units in the target jurisdictions. The survey questions gathered a variety of opinions and information about practices regarding tobacco use, cessation attempts, attitudes toward tobacco use, and exposure to tobacco advertising.

Sampling Frame

The 2002 – 2003 MATS sample was drawn from the total non-institutionalized Maryland adult population residing in DUs. This population excluded adults:

(1) In penal, mental, or other institutions;
(2) Living in other group quarters such as dormitories, barracks, convents, or boarding houses (with 10 or more unrelated residents);
(3) Contacted at their second DU during a stay of less than 30 days;
(4) Living in a DU without a telephone;
(5) Who did not speak English, Spanish, Korean, Vietnamese, or Chinese well enough to be interviewed; and/or
(6) With physical or mental impairments that prevented them from completing an interview (as identified by the interviewer, or by another member of the household).

Base

The Base MATS called for a disproportionate, stratified, statewide, random sample of telephone-equipped Maryland households with a minimum of 15,000 interviews during the interviewing period. The sampling frame for this project was divided into 24 strata corresponding to the 24 political jurisdictions in Maryland, with the target sample sizes shown in Table 1a. With such stratification, independent samples of sufficient size are selected in each jurisdiction, supporting estimation at the jurisdiction level. The goal was to obtain 500 completed interviews from each jurisdiction, supplemented by an additional 500 completed interviews in six of the 24 jurisdictions. These six jurisdictions were Baltimore City, Baltimore, Anne Arundel, Prince George's, Montgomery, and Howard counties.

Independent samples based on telephone exchanges were drawn for each political subdivision. Exchanges not exclusive of one jurisdiction were assigned to the jurisdiction containing the highest percent of the numbers in the exchange. In this way, ORC Macro constructed mutually exclusive sampling frames for the 24 political jurisdictions that efficiently achieved the target number of interviews for each area. To minimize the refusal rate, participants were not screened for study eligibility by jurisdiction. Instead, at the end of the demographic section of the interview, respondents were asked which county they lived in, and then were assigned to the correct political jurisdiction in which they resided. If the respondent stated they did not know, or refused to answer, which jurisdiction they resided in, it was assumed that they resided in their sampled jurisdiction, and the interview was continued.

The sample design for this survey specified a stratified random digit dial (RDD) sample of telephone-equipped households in Maryland. The RDD procedure ensured that the sample represented all Maryland households with telephone numbers assigned since the publication of the current directories, as well as households with deliberately unlisted numbers.

The first step required to generate the stratified RDD samples was to prepare an up-to-date list of all current operating telephone exchanges (three-digit prefixes) in the Maryland area codes. These telephone exchanges, when combined with all four-digit numbers from 0000 to 9999, constituted the set of all possible working Maryland telephone numbers, both residential and non-residential.

This set of all possible telephone numbers was then arranged in ascending order by exchange and suffix, and divided into blocks of 100 numbers each (100-blocks). Cross-reference directories determined which of these blocks contained at least one listed residential number. Blocks with at least one listed residential number are known as 1+ blocks, and blocks without a listed residential number are known as zero blocks. Zero blocks consist of the set of all 100-blocks that may contain residential numbers although they did not contain at least one listed number.

The one-plus blocks were then combined to create the sampling frame from which telephone numbers were sampled. Finally, a random sample of telephone numbers was drawn from the zero-blocks with a much lower sampling rate (1/4th) than that used in the one-plus blocks.

Supplement

The Supplement MATS sample was selected with a stratified random sampling design that over-sampled exchanges with high concentrations of persons in the target minorities. The sample was restricted to 16 jurisdictions, with the target sample sizes shown in Table 1b. The stratified RDD design assured sample coverage for households with telephone numbers assigned since publication of the current directories, as well as for households with deliberately unlisted numbers. The goal was to obtain a minimum of 10,500 interviews including 500 completed interviews from each of the 16 jurisdictions, supplemented by an additional 500 completed interviews in Howard county and 1,000 completed interviews both in Montgomery and Prince George's counties. The Supplement MATS also utilized the telephone block scheme as described above.

The sample was further stratified by the density of the target minorities. Within each target jurisdiction, the high-density strata were over-sampled, i.e., sampled at higher rates than the lower-density strata.

As in the Base sample, an independent sample was drawn for each jurisdiction based on telephone exchanges. Exchanges not exclusive of one jurisdiction were assigned to the jurisdiction containing the highest percent of the numbers. In this way, we constructed mutually exclusive sampling frames for the target jurisdictions that achieved the target number of interviews for each area.

The sample involved over-samples of African Americans in all 16 jurisdictions. In addition, Hispanics were over-sampled in two jurisdictions. The over-sampling was achieved by stratifying the sampling frame of telephone numbers into two density strata:
1) a high-minority stratum, and 2) a low-minority stratum.

Note that the percentage (concentration) minority is simply that for African Americans with the exception of those two counties where this percentage is the aggregate for Hispanics and African Americans.

The stratum cutoffs (or boundaries) were defined within each jurisdiction as a function of the minority distribution in the telephone exchanges listed on the sampling frame. The sample allocation to these two strata, also shown in Table 1b, was developed to control the variance inflating effects (or design effects) of extreme variability in sampling rates, and hence in weights.

Survey Sample

From the sampling frame, a random survey sample of Maryland households was drawn from each of the targeted state jurisdictions. Table 1a presents the number of telephone numbers selected from each of the 24 jurisdictions for the Base Survey Sample. In each jurisdiction, the Base Survey sample was stratified by the density of working residential numbers to allow over-sampling of areas, exchanges, and numbers of higher productivity.

Table 1a. Base Sample Sizes Assigned to Each Jurisdiction

County Name	**Target Sample Sizes**	**Sample Size: Selections**		**Total**
		High Stratum	Low Stratum	
Allegany	500	3608	2236	5844
Anne Arundel	1000	9533	7936	17469
Baltimore	1000	9250	7579	16829
Calvert	500	3912	2036	5948
Caroline	500	3662	1189	4851
Carroll	500	3873	3844	7717
Cecil	500	3877	3244	7121
Charles	500	5343	5920	11263
Dorchester	500	4564	2259	6823
Fredrick	500	4073	2262	6335
Garett	500	3755	3090	6845
Harford	500	4070	4968	9038
Howard	1000	9707	10479	20186
Kent	500	4171	2534	6705
Montgomery	1000	9401	7342	16743
Prince George's	1000	12464	8137	20601
Queen Anne's	500	3530	1440	4970
St. Mary's	500	3434	4591	8025
Somerset	500	5786	4265	10051
Talbot	500	4316	2416	6732
Washington	500	3441	1709	5150
Wicomico	500	3964	2153	6117
Worchester	500	5671	1755	7426
Baltimore City	1000	12514	5424	17938

Table 1b provides the number of telephone numbers selected from each of the 16 jurisdictions included in the Supplement Survey. Within each jurisdiction, this sample was stratified by the density of the target minority groups. In most counties, the high stratum contains those telephone exchanges with high concentrations of African Americans; the low stratum include the other exchanges. In the jurisdictions where the target minority group included Hispanics as well as African Americans, the strata were based on the combined numbers for these two groups. In any case, high-density exchanges were selected with greater probabilities of selection, i.e., the high stratum was over-sampled.

Table 1b. Supplement Sample Sizes Assigned to Each Jurisdiction

County Name	Target Sample Sizes		Total	Sample Size: Selections		Total
	High Stratum	Low Stratum		High Stratum	Low Stratum	
Anne Arundel	325	175	500	2453	1474	3927
Baltimore	375	125	500	2724	986	3710
Caroline	375	125	500	1524	524	2048
Charles	350	150	500	2649	1208	3857
Dorchester	475	25	500	2379	220	2599
Harford	350	150	500	2700	1224	3924
Howard	880	120	1000	7966	1200	9166
Kent	460	40	500	1892	212	2104
Montgomery	1350	150	1500	10656	1243	11899
Prince George's	1425	75	1500	11393	744	12137
St. Mary's	425	75	500	2636	482	3118
Somerset	450	50	500	3684	366	4050
Talbot	460	40	500	2520	234	2754
Wicomico	495	5	500	2530	48	2578
Worchester	325	175	500	2556	1409	3965
Baltimore City	475	25	500	2962	247	3209

Respondent Selection

Within each household contacted, an adult was selected at random for participation in the study. If that adult was unavailable during the survey period, or was unable or unwilling to participate, or did not speak English, Spanish, Korean, Vietnamese, or Chinese well enough to be interviewed, no interview was conducted. If a randomly sampled number yielded a business, an institution, group quarters, or other strictly non-residential space, or if it was an occupant's second residence and his or her stay was less than 30 days, no interview was conducted.

Treatment of No Answers

If a call to a sampled telephone number was not answered, the number was repeatedly called at different times, during daytime and evening hours (9 a.m. to 9 p.m. Monday–Friday; 10 a.m. to 9 p.m. Saturday; 1 p.m. to 9 p.m. on Sundays), on different days of the week, in a pattern designed to maximize the likelihood of contact with a minimum number of calls. At least 15 contact attempts, over a minimum five-day period (typically 15 days), were made to reach a sampled number. Once any contact was made at a residence, as many calls as necessary were made to reach the randomly selected adult (within the permitted time schedule).

Converting Initial Refusals

The BRFSS refusal guidelines require two refusals by a selected respondent to terminate the record from calling. The DHMH modified the refusal protocol for the 2002 – 2003 MATS to reduce the number of complaints from people who were upset by the number of times they were contacted to conduct the survey. The refusal protocol for the 2002 – 2003 MATS required two refusals, by either a non-selected or a selected respondent, to terminate the record from calling. The protocol was also modified to consider hang-ups by adults, before the introductory statement was completely read by the interviewer, as a refusal.

Specially-trained conversion interviewers contacted initial refusals, at least three days later, in an effort to persuade respondents to participate in the survey. ORC Macro's refusal conversion rate for the Base study

was 11.63% (of the 31,158 respondents who initially refused to participate, 3,625 were later persuaded to complete an interview). ORC Macro's refusal conversion rate for the Supplement study was 7.82% (of the 34,920 respondents who initially refused to participate, 2,731 were later persuaded to complete an interview).

The DHMH requested that ORC Macro calculate refusal conversion rates for current, former, and non (never used) tobacco users. However, because the tobacco usage of nonrespondents was unknown, ORC Macro was unable to calculate a refusal conversion rate for these two populations. ORC Macro could calculate the rate of initial refusal; the percent of current tobacco users who refused to do the survey at least one time versus all current tobacco users, and the percent of former and non-tobacco users that refused to do the survey at least one time versus all former and non-tobacco users. The Base refusal rate for current smokers was 24.55% (of the 2,452 current smokers who agreed to do the interview (partially or completely) 602 initially refused). The Supplement refusal rate for current smokers was 20.00% (of the 1,615 current smokers who agreed to do the interview – partially or completely – 323 initially refused). The Base refusal rate for former and non-smokers was 22.78% (of the 13,243 former and non-smokers who agreed to do the interview – partially or completely – 3,018 initially refused). The Supplement refusal rate for former and non-smokers was 18.18% (of the 9,784 former and non-smokers who agreed to do the interview – partially or completely – 1,779 initially refused).

Non-English Interviewing

ORC Macro offered the survey in four non-English languages: Spanish, Korean, Chinese and Vietnamese, though completed surveys were only represented in English, Spanish, and Korean. All records were first attempted in English, and if identified as a non-English speaking household, a Spanish, Vietnamese, Korean, or Chinese-speaking interviewer made subsequent attempts on the record as required.

Data Collection

Data was collected by telephone, following a protocol consistent with protocols implemented in previous years. Experienced, supervised personnel conducted the MATS interviews using Computers for Marketing Corporation's (CfMC's) Computer-Assisted Telephone Interviewing (CATI) software package.

Base

The first date of calling was October 14, 2002; the last date of calling was January 9, 2003. Targets were specified at 1,000 in six jurisdictions, and 500 in 18, for a combined 15,000 interviews. The overall goal of 15,000 was exceeded by 637 interviews. Targets were met in all but five jurisdictions (Anne Arundel, -4; Caroline, -3; Garrett, -3; Howard, -1; and Kent, -12). Interviews averaged 16.13 minutes in length.

Supplement

The first date of calling was November 22, 2002; the last date of calling was February 3, 2003. Targets were specified at 500 in 13 jurisdictions, 1,000 in one jurisdiction, and 1,500 in two, for a combined 10,500 interviews. The overall goal of 10,500 was exceeded by 908 interviews. Targets were met in all but three jurisdictions (Caroline, -92; Charles, -6; and Kent, -47). Interviews averaged 16.21 minutes in length.

Weighting

Survey weights were computed separately for the Base sample and for the Supplement sample with the procedures described next. This chapter then describes the procedures developed for generating weights for the combined sample.

Base

Sampling weights were computed for each selected telephone number as the reciprocal of its probability of selection. For stratum-i within jurisdiction-j, the weight is N(i,j)/n(i,j). Here, N(i,j) is the number of telephone numbers in the stratum (frame), and n(i,j) is the sample size allocated to the stratum.

Table 4a shows the frame numbers and the sample numbers for each stratum by jurisdiction.

Table 4a. Frame Stratum Counts and Sample Sizes in Each Jurisdiction

County Name	**Frame Size**		**Total**	**Sample Size Selections**		**Total**
	High Stratum	Low Stratum		High Stratum	Low Stratum	
Allegany	62900	157100	220000	3608	2236	5844
Anne Arundel	452800	1527200	1980000	9533	7936	17469
Baltimore	712500	2217500	2930000	9250	7579	16829
Calvert	60100	119900	180000	3912	2036	5948
Caroline	22000	28000	50000	3662	1189	4851
Carroll	115500	444500	560000	3873	3844	7717
Cecil	66000	204000	270000	3877	3244	7121
Charles	105200	444800	550000	5343	5920	11263
Dorchester	27400	52600	80000	4564	2259	6823
Fredrick	177500	412500	590000	4073	2262	6335
Garett	26500	83500	110000	3755	3090	6845
Harford	177100	832900	1010000	4070	4968	9038
Howard	234100	925900	1160000	9707	10479	20186
Kent	21000	59000	80000	4171	2534	6705
Montgomery	941500	2578500	3520000	9401	7342	16743
Prince George’s	820500	2149500	2970000	12464	8137	20601
Queen Anne’s	32200	47800	80000	3530	1440	4970
St. Mary’s	66500	333500	400000	3434	4591	8025
Somerset	20800	59200	80000	5786	4265	10051
Talbot	41700	108300	150000	4316	2416	6732
Washington	105500	194500	300000	3441	1709	5150
Wicomico	79100	170900	250000	3964	2153	6117
Worchester	77100	102900	180000	5671	1755	7426
Baltimore City	633200	1076800	1710000	12514	5424	17938

Supplement

Sampling weights were computed for each selected telephone number as the reciprocal of its probability of selection. For stratum-i within jurisdiction-j, the weight is N(i,j)/n(i,j). Here, N(i,j) is the number of telephone numbers in the stratum (frame), and n(i,j) is the sample size allocated to the stratum. Table 4b shows the frame numbers and the sample numbers for each stratum by jurisdiction.

Table 4b. Frame Stratum Counts and Sample Sizes in Each Jurisdiction

County Name	**Frame Size**		**Total**	**Sample Size Selections**		**Total**
	High Stratum	Low Stratum		High Stratum	Low Stratum	
Anne Arundel	69600	371300	440900	2453	1474	3927
Baltimore	173400	524200	697600	2724	986	3710
Caroline	5400	16700	22100	1524	524	2048
Charles	14400	92000	106400	2649	1208	3857
Dorchester	20000	7300	27300	2379	220	2599
Harford	34500	137900	172400	2700	1224	3924
Howard	138200	94900	233100	7966	1200	9166
Kent	12400	6100	18500	1892	212	2104
Montgomery	521300	335100	856400	10656	1243	11899
Prince George's	637200	216200	853400	11393	744	12137
St. Mary's	29000	34900	63900	2636	482	3118
Somerset	11300	9200	20500	3684	366	4050
Talbot	31200	10500	41700	2520	234	2754
Wicomico	70800	5300	76100	2530	48	2578
Worchester	11400	65000	76400	2556	1409	3965
Baltimore City	514500	114300	628800	2962	247	3209

Post-stratification Adjustments

The sampling weights were adjusted so that the sum of the weights match totals that are known for post-stratification cells from the US Census 2000 for a variety of demographic characteristics in each jurisdiction. The post-stratification process started with known totals for cells defined by age, gender, and race/ethnicity within each jurisdiction. In some smaller jurisdictions, some cells did not contain a sufficient number of survey respondents to define (statistically) efficient post-strata. These cells were collapsed on a jurisdiction-by-jurisdiction basis. Typically, we collapsed first across age and gender lines, and preserved separate cells for African Americans and Hispanics.

Weights for the Combined Sample

The premise of combining the two data sets is that the two sample components are independent samples representing the same population. From a variance minimization perspective (e.g., Pedlow and O'Muircheartaigh, 2002)[†], a combined weight may be computed as a linear combination of the two separate weights as follows.

The weighted data file includes the separate weights computed for the two sample components, WTB and WTS, for the Base sample and the Supplement sample. A weight was computed for the

[†] Pedlow, S. and O'Muircheartaigh (2002). Combining Samples vs. Cumulating Cases: A Comparison of Two Weighting Strategies in NLSY97. Presented at the Joint Statistical Meetings, August 2002.

combined sample by combining the weights within each post-stratum cell (i) as follows for each responding student record-j:

WT(j, i) = a(i)*WTB(j) if unit-j is in the Base sample
= {(1-a(i)}*WTS(j) if unit-j is in the Supplement sample

The cell-specific coefficients, a(i), are proportional to the effective sample size, n(i) = n(i)/DEFF(i), for each sample component. The design effect, DEFF(i), is computed for each post-stratum cell (i) and for each sample component (Base and Supplement) as 1+CV**2 where CV is the coefficient of variation of the weights within the cell.

Response Rates

Response rates provide a measure of the interviewing success. There are a variety of response rates that provide comparisons to other surveys, including:

- Council of American Survey Research Organizations (CASRO)[2]
- Upper bound / cooperation
- Crude / lower bound

CASRO Response Rate

Some respondents do not complete the interview for reasons other than refusing to cooperate, such as they cannot be contacted or they are unable to complete the interview in English, Spanish, Korean, Chinese, or Vietnamese. The CASRO response rate calculates the rate at which interviews were produced among all identified, potentially eligible members, plus those households where eligibility could not be determined.

- Base MATS CASRO response rate: 29.20%
- Supplement MATS CASRO response rate: 21.75%

Upper Bound / Cooperation Response Rate

Another measure of successful interviewing practice is the upper bound response rate, also known as the cooperation rate. This rate measures the level of cooperation attained among identified, eligible, and capable respondents.

- Base MATS Upper bound response rate: 37.10%
- Supplement MATS Upper bound response rate: 31.32%

Crude / Lower Bound Response Rate

The crude, or lower bound, response rate is a measure of sample frame efficiency, because it shows the rate at which the total sample produces completed interviews.

- Base MATS Crude/ lower bound response rate: 6.61%
- Supplement MATS Crude/ lower bound response rate: 8.50%

Table 5 presents the Base response rates by political jurisdiction; Table 6 presents the Supplement response rates by political jurisdiction.

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[2] Council of American Survey Research Organizations Web Page, On the Definition of Response Rates, http://www.casro.org/resprates.cfm [Accessed October 8, 2002].

Table 5: Base Response Rates by Political Jurisdiction

Jurisdiction	Complete	Eligible*	CASRO %	UPPER %	LOWER %
Statewide	15,637	54062.79	29.20	37.10	6.61
Allegany	503	1672.49	30.25	37.73	8.60
Anne Arundel	996	4127.25	24.37	33.56	5.68
Baltimore County	1,077	4225.25	25.75	34.54	6.35
Calvert	506	1967.60	25.99	33.98	8.53
Caroline	497	1622.78	30.86	36.17	10.27
Carroll	520	2068.19	25.33	34.19	6.73
Cecil	502	1930.74	26.22	34.86	7.05
Charles	528	2656.13	20.10	27.30	4.70
Dorchester	513	1728.16	29.87	33.88	7.49
Frederick	522	1880.57	27.96	33.92	8.24
Garrett	497	1568.70	32.07	38.08	7.26
Harford	535	1980.68	27.27	34.58	5.92
Howard	999	3380.54	29.70	37.84	4.95
Kent	488	1671.94	29.46	34.73	7.34
Montgomery	1,013	3453.58	29.57	37.74	6.03
Prince George	1,037	3755.64	28.00	36.94	5.06
Queen Anne	568	1429.23	39.92	46.75	11.31
St. Mary	523	1589.42	33.31	41.84	6.51
Somerset	610	1591.62	38.77	44.75	6.07
Talbot	510	1441.08	35.55	43.04	7.62
Washington	590	1407.34	42.15	49.37	11.47
Wicomico	554	1468.38	38.03	45.71	9.08
Worcester	512	1914.80	27.07	40.06	6.93
Baltimore City	1,037	3584.74	29.51	36.60	5.81

Table 6: Supplement Response Rates by Political Jurisdiction

Jurisdiction	Complete	Eligible*	CASRO %	UPPER %	LOWER %
Statewide	11,408	53041.14	21.75	31.32	8.50
Anne Arundel	508	2405.47	21.29	31.01	9.40
Baltimore County	536	2410.07	22.47	33.75	10.53
Caroline	408	1998.28	20.56	29.02	9.09
Charles	494	2678.22	18.62	27.58	8.51
Dorchester	554	2633.82	21.24	30.90	8.72
Harford	524	2525.55	21.01	29.96	9.53
Howard	1082	4240.89	25.69	37.66	7.89
Kent	453	2172.78	20.94	30.86	9.67
Montgomery	1851	6665.27	28.06	36.24	9.99
Prince George's	1592	9631.06	16.80	26.77	6.37
St. Mary	537	2284.60	23.81	34.42	11.10
Somerset	523	2299.47	23.09	30.95	8.01
Talbot	626	2647.25	23.90	30.81	8.24
Wicomico	617	2445.16	25.52	32.20	10.44
Worcester	552	2851.18	19.67	29.10	9.19
Baltimore City	551	3167.66	17.58	28.04	6.22

*Eligible as defined by CASRO Response Rate calculations (completed interviews, refusals, selected respondent not available during survey period, and interviews terminated partially through questionnaire).

Appendix 15.
Statistical Significance

The Maryland Youth Tobacco Survey and the Maryland Adult Tobacco Survey are used to develop an estimate of the prevalence of tobacco use behaviors in Maryland. Like most surveys, not every Maryland resident is surveyed; instead, random samples of residents are asked to participate in the surveys. From the survey data, estimates of the prevalence of tobacco use for the entire population are made. In this case, estimates for public middle school, public high school, and Maryland adults. This larger population for which the estimate is made is sometimes referred to as the "true" population as a way to distinguish it from the "survey" population (i.e., those persons who were actually surveyed).

The specific estimate of the prevalence of a behavior, like cigarette smoking, is called the "point estimate." The point estimate is found in the middle of what is called the "confidence interval" or CI. The Maryland tobacco surveys, like most surveys, use a 95% confidence interval when making estimates. This means that the analysis is based on a 95% probability that the actual prevalence of the behavior (cigarette smoking) among the true population. The smaller the confidence interval, the more precise the estimate is considered to be. Confidence intervals are often expressed as a percentage plus/minus from the point estimate, much like the 'margins of error" commonly mentioned in connection with polls. The width of the confidence interval depends on the sample size, the variation of data values, and other factors.

When comparing two point estimates, such as when examining changes in the prevalence of cigarette smoking over time, data analysts need to determine whether the observed change is "statistically significant." If found to be significant, the analyst is stating that the observed change is not likely the result of variations within the sample on which the estimates are based, but is much more likely the result of real change in the prevalence of the behavior in the true population.

To judge whether the difference between two point estimates is statistically significant, a shortcut data analysts often use is to examine the *overlap* between the two associated 95 percent confidence intervals. This method may provide a quick and easy alternative to standard statistical testing procedures. For example, if the estimate of cigarette smoking in the true population in 2000 was 20% with a confidence interval of plus/minus 2%, then the CI is from 18% to 22%. If in 2002 the estimate for cigarette smoking is 15% with a CI plus/minus 2%, then the CI is from 13% to 17%. There is no overlap in the two CI's so the change from 20% down to 15% is considered to be statistically significant (i.e. a reduction in cigarette smoking in the true population did occur).

Although the shortcut based on CIs usually provides good guidance, and correct conclusions, it is *more conservative* than the accurate testing of significance (Schenker and Gentleman, 2001).[3] In other words, using the CI short-cut for determining statistical significance with regard to the tobacco surveys will fail to detect (real) change that may be detected with the more accurate and traditional method.

The MYTS and MATS 2002 analyses compensated for this conservative approach in detecting whether statistically significant changes are taking place in the political jurisdictions. These tests were performed for a subset of those comparisons where potential significance was suggested. The approach was enhanced by the use of traditional statistical testing (t-tests) that compare the two population parameters.

[3] Schenker, N. and Gentleman, J. (2001). On Judging the Significance of Differences by Examining the Overlap Between Confidence Intervals," The American Statistician, 55, 3, pp. 182-186.

Appendix 16.
Terms Used in This Report

Adult	An adult is defined as any person age eighteen and older. As used in this report, the term adult specifically includes the population that was covered by the Maryland Adult Tobacco Survey (see Appendix 14).
Adult Tobacco Survey	The Maryland Adult Tobacco Survey (MATS) uses a methodology based on the Behavioral Risk Factor Surveillance System (BRFSS) survey developed by the Centers for Disease Control and Prevention. It is intended to provide data on the prevalence of tobacco use by Maryland adults, as well as information regarding their attitudes and knowledge regarding tobacco products (see Appendix 14).
Baseline	Baseline refers to estimates for tobacco use behaviors developed from surveys conducted in the fall of 2000. These were the first comprehensive surveys of youth and adult tobacco behaviors in Maryland and provide the baseline from which progress in reducing tobacco use will be measured.
Confidence Interval	See Appendix 15 for a complete description and discussion.
Current Smoker	Current tobacco use or smoking by under-age youth refers to their use of the relevant tobacco product at any time and to any extent during the 30 days preceding the survey. This is also true of adults, but with the added requirement (for cigarettes) that the adult also have smoked at least 100 cigarettes (5 packs) at some point in their life. These definitions are the same as used by the Centers for Disease Control and Prevention (CDC).
Established Smoker	The term “established smoker” is used to refer to an under-age youth who reports that he or she has smoked at least 100 cigarettes (5 packs) in their lifetime.
Frequent Smoker	The term “frequent smoker” is used to refer to an under-age youth who reports that he or she smoked on 20 or more days of the preceding 30 days.
High School	High school refers to a public school in the State of Maryland that includes on or more of grades 9 through 12. It does not include, for purposes of this report, public schools that are designated as “alternative” nor any public school that is a part of the Juvenile Justice system.
Youth Tobacco Survey	The Maryland Youth Tobacco Survey (MYTS) is modeled on the youth tobacco survey developed by the Centers for Disease Control and Prevention (CDC). It is intended to provide data on the prevalence of tobacco use by middle and high school youth, as well as information regarding their attitudes and knowledge regarding tobacco products (see Appendix 13).
Middle School	Middle school refers to a public school in the state of Maryland that includes one or more of grades 6 through 8. It does not include, for purposes of this report, public schools that are designated as “alternative” nor any public school that is a part of the Juvenile Justice system.
Statistical Significance	See Appendix 15 for a complete description and discussion.

Tobacco Product	A tobacco product is defined by statute in Maryland to include any product which contains any amount of tobacco, in any form.
Under-age	Within this report, the term “under-age” youth refers to youth who are less than eighteen years of age. In Maryland, tobacco products may not be legally sold to persons who are less than eighteen years old, nor may such persons lawfully possess them unless doing so in the regular course of their employment.