

# Secondhand Smoke

Knowledge, Attitudes, and Behaviors of Minnesotans

## CONTENTS

- 2 Introduction
- 2 Secondhand Smoke Causes Death and Disease
- 3 Nine Out of Ten Minnesotans Agree: Secondhand Smoke Harms Adults
- 3 Nearly All Minnesotans Agree: Secondhand Smoke Harms Children
- 4 Secondhand Smoke is Annoying—Even to Many Smokers
- 4 Smoking Restrictions Help Many Smokers Cut Down
- 5 Not All Minnesotans Are Protected from Secondhand Smoke at Work
- 6 Two-Thirds of Minnesota Households Have a Smoking Ban
- 6 Many Children Are at Risk at Home
- 7 Nearly All Young People Agree: Secondhand Smoke is Harmful
- 7 Most Youth are Exposed to Secondhand Smoke—Many Repeatedly
- 7 Youth Living with Smokers Are at Greater Risk
- 8 Appendix A: Methods
- 9 Appendix B: Who Was Surveyed
- 11 Acknowledgements/For Further Information
- 12 Collaborating Organizations/References

## INTRODUCTION

*Secondhand Smoke: Knowledge, Attitudes, and Behaviors of Minnesotans* is the first in a series of collaborative research reports from the Minnesota Partnership for Action Against Tobacco (MPAAT), Blue Cross and Blue Shield of Minnesota, and the Minnesota Department of Health. These three organizations conducted surveys of youth and adults in Minnesota, the results of which are reported here. The Minnesota Smoke-Free Coalition also contributed significantly to this report.

Our objective is to provide scientifically valid, Minnesota-specific data on knowledge, attitudes, and behaviors to support policy development, advocacy, and program planning. Our overarching goals are to help current smokers quit, to prevent new smokers from starting, and to protect all people from secondhand smoke.

This report provides information on secondhand smoke for four groups of Minnesotans: the general population of adults, adult members of the Blue Cross MinnesotaCare program, adult members under age 65 of the Blue Cross Prepaid Medical

Assistance Program (PMAP), and 6<sup>th</sup>-12<sup>th</sup> grade public school students. MinnesotaCare is a unique health insurance program subsidized by the state government for low-income employed persons. PMAP is a Medicaid managed care program paid for by the state and federal governments. (*See Appendix B for more information about the groups surveyed.*)

Blue Cross PMAP and Blue Cross MinnesotaCare results will be of special interest because low-income populations have a high smoking rate and face disproportionate damage from tobacco use. These results are also of interest to stakeholders involved in these programs, including: the Minnesota Department of Human Services, state legislators, health plans, county contractors, providers, and program members. Although these populations are small compared to the state's population, findings show that these groups have higher smoking rates, are less often protected by smoke-free policies, and more often have children exposed to tobacco smoke in their homes.

## SECONDHAND SMOKE CAUSES DEATH AND DISEASE

Secondhand smoke, also referred to as environmental tobacco smoke, is a complex mixture of chemicals from smoke exhaled by a smoker and from a lit tobacco product (cigarette, cigar, or pipe). Secondhand smoke contains thousands of chemicals, including more than 50 known cancer-causing agents and 200 known poisons.

Numerous studies have confirmed that exposure to secondhand smoke causes many serious illnesses in nonsmokers, including heart disease, respiratory problems, low birth weight, and sudden infant death. Secondhand smoke is estimated to be responsible for 3,000 deaths from lung cancer per year among nonsmokers in the United States.

Secondhand smoke accounts for up to 62,000 heart disease deaths annually in the U.S.

U.S. Surgeon General David Satcher, M.D., Ph.D., states that the public health burden caused by secondhand smoke “more than justifies public policies creating smoke-free workplaces and public areas.” The latest report from the U.S. Surgeon General on reducing tobacco use states that “most state and local laws for clean indoor air reduce but do not eliminate nonsmokers’ exposure to ETS; smoking bans are the most effective method for reducing ETS exposure . . . Optimal protection of nonsmokers and smokers requires a smoke-free environment.” (*See page 12 for references.*)

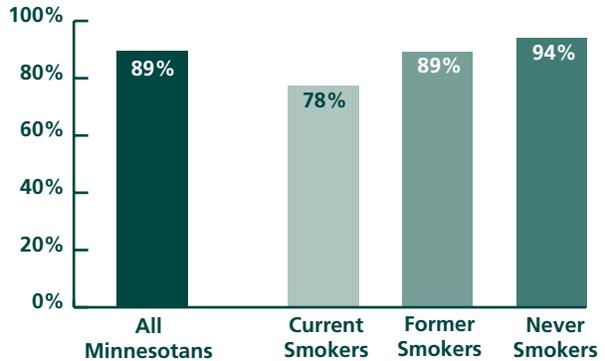
## NINE OUT OF TEN MINNESOTANS AGREE: SECONDHAND SMOKE HARMS ADULTS

Three million Minnesotans—89% of the adult population—believed that secondhand smoke is harmful to adults. Even three-quarters of current smokers agreed.

There was no difference in this belief between people who live in the seven-county metropolitan area and Greater Minnesota, and there was no consistent difference by age. Women (93%) were more likely than men (85%) to state that secondhand smoke is harmful to adults. College graduates (93%) were more likely than people with fewer years of formal education to believe that secondhand smoke harms adults (for example, 85% of those who have not completed high school agreed).

**BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE**  
Findings for the Blue Cross PMAP and Blue Cross MinnesotaCare samples were approximately the same as the statewide sample.

Figure 1—Minnesotans who agree that secondhand smoke is harmful to adults

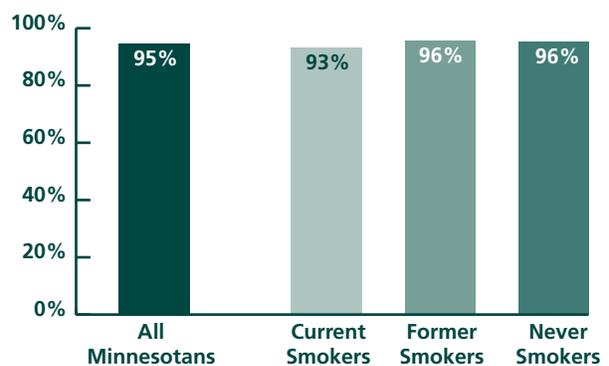


## NEARLY ALL MINNESOTANS AGREE: SECONDHAND SMOKE HARMS CHILDREN

Even more Minnesotans—95% of the state’s adult population (3.2 million people)—believed that secondhand smoke is harmful to children. Almost all Minnesotans believed this, regardless of whether or not they smoke. This awareness did not substantially vary by region of the state, gender, level of education, or age.

**BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE**  
This high level of awareness also existed among the Blue Cross PMAP and Blue Cross MinnesotaCare populations.

Figure 2—Minnesotans who agree that secondhand smoke is harmful to children



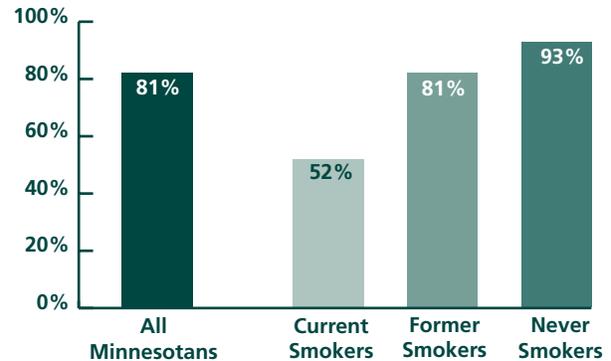
## SECONDHAND SMOKE IS ANNOYING—EVEN TO MANY SMOKERS

In addition to understanding that secondhand smoke harms the health of adults and children, overall, eight of ten Minnesotans—nearly 2.8 million adults—stated that smoke from other people’s cigarettes annoys them. Just over half of current smokers (52%) found secondhand smoke annoying.

Annoyance with secondhand smoke did not differ between people who live in the seven-county metro area and those who live in Greater Minnesota. A greater percentage of women (85%) than men (77%) said that secondhand smoke annoys them. Almost 90% of college graduates, as compared to about 70% of those with less than a high school education, expressed annoyance with secondhand smoke. Twenty-five to thirty-four-year-olds were the most likely of any age group to find secondhand smoke annoying (85%).

**BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE**  
Findings for the Blue Cross PMAP and Blue Cross MinnesotaCare samples were similar to the statewide sample.

**Figure 3—Minnesotans who agree that secondhand smoke is annoying**



## SMOKING RESTRICTIONS HELP MANY SMOKERS CUT DOWN

Restrictions in public settings, school settings, and the workplace have helped an estimated 310,000 adult Minnesotans to reduce their smoking.

### *Public Settings*

Almost 40% of adult Minnesotans who currently smoke (250,000 people) reported having reduced their smoking due to restrictions in public settings, such as indoor shopping malls and restaurants.

### *School Settings (Including Training Facilities)*

Statewide, one-third of adults who currently smoke said that they reduced their smoking due to restrictions at educational settings.

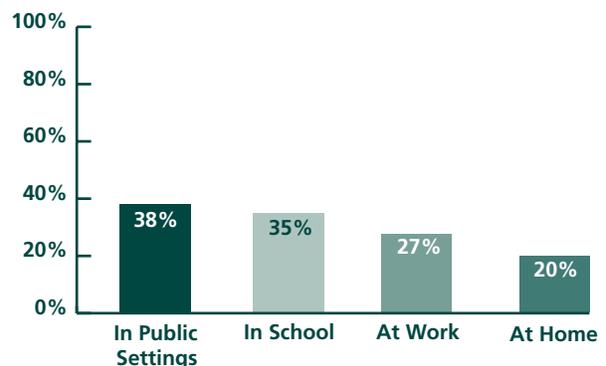
### *Workplace*

One-quarter of Minnesotans who currently smoke and work outside their homes reported having reduced smoking due to restrictions in the workplace.

In addition, 20% of Minnesota adults who currently smoke reported that smoking bans inside the home have encouraged them to smoke less.

**BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE**  
Blue Cross PMAP and Blue Cross MinnesotaCare members were as motivated as Minnesotans overall to cut back on smoking due to restrictions in public settings. Compared to Minnesotans overall, about half of Blue Cross PMAP (49%) and Blue Cross MinnesotaCare (51%) members reduced smoking due to restrictions in school settings. In the workplace, approximately one-third of Blue Cross PMAP (31%) and Blue Cross MinnesotaCare (20%) members reduced due to smoking restrictions.

**Figure 4—Minnesotans who smoked less due to smoking restrictions**



## NOT ALL MINNESOTANS ARE PROTECTED FROM SECONDHAND SMOKE AT WORK

### *Smoke-free Policy Protection*

Approximately two-thirds (64%) of the state's employed population reported that their workplace has a policy that does not allow smoking at all in the building. The remaining one-third, or approximately 800,000 Minnesotans, indicated that they either do not have an official workplace policy or have a policy that does not completely eliminate exposure to secondhand smoke.

### *Policies Protect Workers from Secondhand Smoke Exposure*

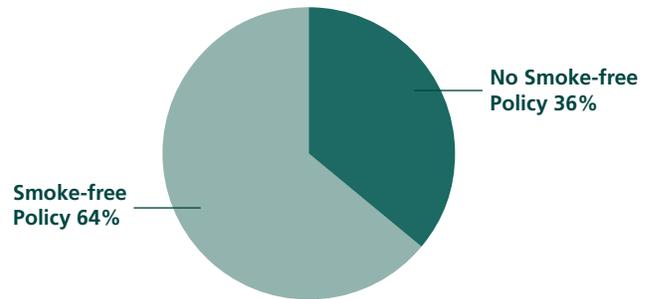
Only one in ten Minnesotans protected by a smoke-free worksite policy reported that smoking occurs in the building. In contrast, of workers employed in workplaces *without* a smoke-free policy, eight of ten reported that smoking occurs in their building, resulting in a much greater chance for exposure to secondhand smoke.

Men, cigarette smokers, and those who have not graduated from college were more likely to work in places without smoke-free policies.

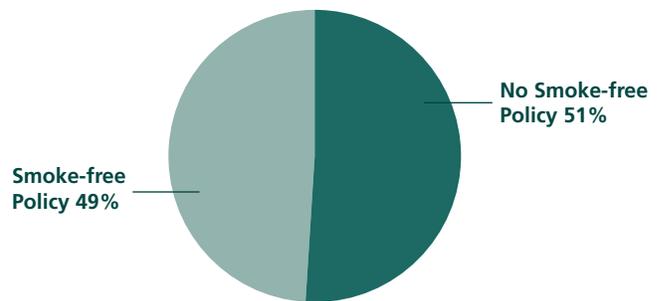
### **BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE**

Seventy-one percent of Blue Cross PMAP members and 82% of Blue Cross MinnesotaCare members were employed. Compared to the state overall, a much higher proportion of Blue Cross PMAP and Blue Cross MinnesotaCare workers reported risk of exposure to secondhand smoke in the workplace. Only 49% of Blue Cross PMAP and 39% of Blue Cross MinnesotaCare wage-earners indicated having smoke-free policies restricting all indoor smoking. Similar to the state overall, Blue Cross PMAP and Blue Cross MinnesotaCare workers who are men, cigarette smokers, and who have not graduated from college, were more likely to work in places without smoke-free policies.

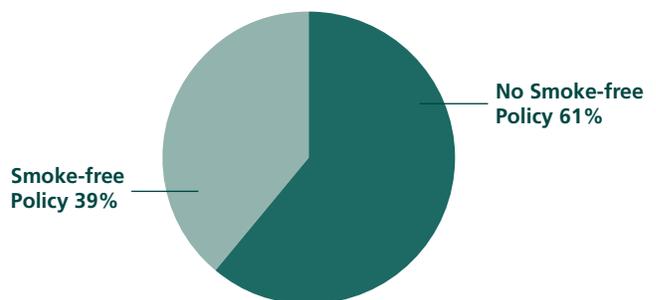
**Figure 5—Worksite smoking policies in Minnesota**



**Figure 6—Worksite smoking policies for Blue Cross PMAP members**



**Figure 7—Worksite smoking policies for Blue Cross MinnesotaCare members**



## TWO-THIRDS OF MINNESOTA HOUSEHOLDS HAVE A SMOKING BAN

*Note: This section describes any type of smoking in Minnesota households—cigarette, pipe, or cigar smoking by any household member. The survey found that a smoker lives in approximately one-third of Minnesota households.*

Two-thirds of all Minnesota households have banned indoor smoking, regardless of whether or not a smoker lives there. Even 40% of households with a smoker have limited their exposure to secondhand smoke by banning indoor smoking.

### BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE

*Note: A smoker lives in almost half (48%) of Blue Cross MinnesotaCare households and almost two-thirds (61%) of PMAP households.*

Approximately half of Blue Cross MinnesotaCare (53%) and Blue Cross PMAP (48%) households stated that they did not allow smoking inside the home.

## MANY CHILDREN ARE AT RISK AT HOME

*Note: The survey found that 40% of all Minnesota households have at least one child under age 18 living at home.*

Seventy percent of households with children have banned smoking in the home, although in households where *both* children *and* a smoker reside, only 47% have banned smoking. This leaves children at risk for secondhand smoke exposure at home in 53% of households with both smokers and children.

### BLUE CROSS PMAP AND BLUE CROSS MINNESOTACARE

*Note: Sixty-nine percent of Blue Cross MinnesotaCare and 80% of Blue Cross PMAP households reported having at least one child under age 18 living in the household.*

In each of the Blue Cross publicly insured populations, less members' homes have banned indoor smoking when both a tobacco smoker and a child live there.

Figure 8—Smoking bans in households

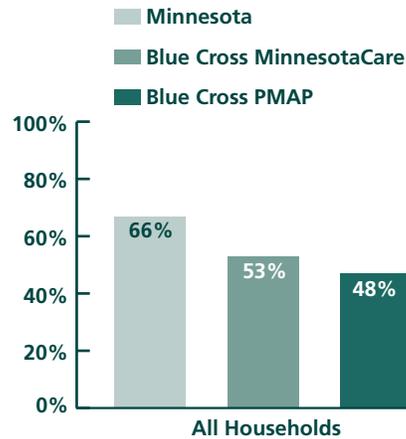
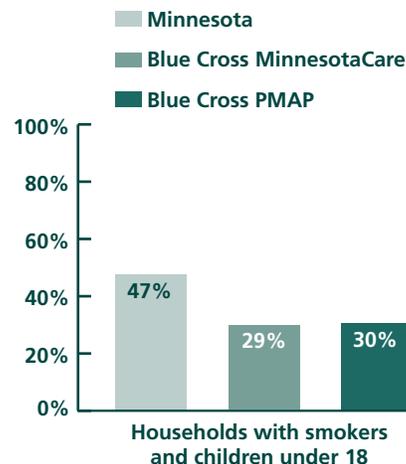


Figure 9—Smoking bans in households with smokers and children



## NEARLY ALL YOUNG PEOPLE AGREE: SECONDHAND SMOKE IS HARMFUL

The Minnesota Youth Tobacco Survey (MYTS), conducted by the Minnesota Department of Health, found that Minnesota's youth share the same beliefs as adults about secondhand smoke—93% of 6<sup>th</sup>-12<sup>th</sup>

grade students agreed that “smoke from other people’s cigarettes is harmful to you.” Current smokers were almost as likely as nonsmokers to agree with this statement.

## MOST YOUTH ARE EXPOSED TO SECONDHAND SMOKE—MANY REPEATEDLY

More than half of middle school students (58%) and three-fourths of high school students (76%) reported that they were exposed to secondhand smoke on one or more days in the past week, either in a room or in a car. Most of these young people were exposed frequently, rather than just once or twice. Overall, one-third of middle school students (34%) and half of high school students (49%) indicated that they

faced repeated exposure to secondhand smoke (three or more days) during the past week.

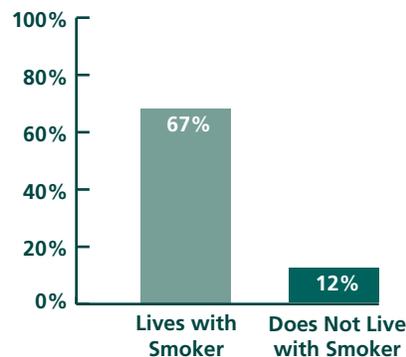
Even nonsmoking students report breathing in other people’s smoke. Among high school students, 66% of nonsmokers reported that they were exposed to secondhand smoke in the past week, and one-third nonsmokers (34%) were exposed on three or more days in the past week.

## YOUTH LIVING WITH SMOKERS ARE AT GREATER RISK

Living with someone who smokes (a parent, sibling, or someone else) was a very important factor in determining exposure to secondhand smoke among youth, especially for younger middle school students

and nonsmokers. Middle school students living with at least one smoker were nearly six times more likely than students living without any smokers to face repeated exposure to secondhand smoke (67% to 12%).

**Figure 10—Middle school students repeatedly exposed to secondhand smoke**



## APPENDIX A: METHODS

### ADULT TOBACCO SURVEY

The data in this collaborative report were gathered from adults age 18 and older from three different samples using the same survey instrument. Phone interviews were conducted during the spring and summer of 1999. All respondents were assured of the confidentiality of their individual responses. Responses were weighted to represent adults in the population from which the sample was selected. Demographic characteristics vary among the three adult study populations, in part reflecting the eligibility requirements for participation in the publicly insured programs.

- *Minnesota Sample*

MPAAT sampled Minnesotans living in six geographic regions in the state. Residential telephone numbers were randomly selected within each region, and an adult household member living at each residence was randomly selected to respond to the survey. Approximately 1,000 telephone surveys were completed in each region for a total statewide sample of 6,000 surveys.

- *Blue Cross Samples*

From a larger survey of approximately 10,000 members, the Blue Cross samples described in this report were selected randomly from its members enrolled in Blue Cross MinnesotaCare or Blue Cross PMAP. This report includes information only from the 18- to 65-year-old members of Blue Cross PMAP (689 completed surveys) and Blue Cross MinnesotaCare (994 completed surveys) samples. Blue Cross members were alerted to the survey by letter prior to being called and were offered the opportunity to decline participation.

Comparison with the entire state's PMAP and MinnesotaCare eligible populations demonstrated that the Blue Cross samples closely mirror their respective statewide populations on age, gender, and proportion of households with children under age 18. However, the Blue Cross samples substantially underrepresented PMAP and MinnesotaCare membership in the Twin Cities seven-county metropolitan area.

- *Data Limitations*

As with any telephone survey, these samples under-represent households that do not have a telephone (2% of Minnesota's households). Minority ethnic populations and populations of color in Minnesota are likely to be under-represented in these surveys for other reasons as well, including cultural or language barriers to the survey. All of the results in this report were self-reported, and may be subject to biases introduced in the interview process. However, most measures used in these surveys have been extensively tested and are believed to be highly reliable.

### YOUTH TOBACCO SURVEY

The Minnesota Department of Health conducted the MYTS to obtain information on the prevalence of tobacco use, attitudes and beliefs about tobacco use, and other topics of interest to tobacco prevention efforts. The U.S. Centers for Disease Control and Prevention contributed most of the questions used in the survey instrument. The survey was administered in January, February, and March, 2000. Careful measures were taken to protect the anonymity and confidentiality of students' responses. Individual responses were weighted to represent the public school 6<sup>th</sup>-12<sup>th</sup> grade population in Minnesota.

- *MYTS Sample*

Participants were selected from 46 middle schools and 57 high schools that were randomly selected and agreed to participate. Five or six classrooms within each school were randomly selected, and all students in these classrooms were asked to participate. Survey responses were received from 12,376 students.

- *Data Limitations*

As with most school-based surveys, the sample under-represents school dropouts, students who frequently miss school, and students in juvenile institutions, treatment centers, and some alternative schools.

## APPENDIX B: WHO WAS SURVEYED

### *Minnesota Adults*

When surveyed, just under half (46%) of the Minnesota population lived outside the seven-county metropolitan area, half (51%) were women, and one-third had graduated from college. The average age of the Minnesota adult population was 44.7 years.

### *Blue Cross MinnesotaCare Members*

At the time of the survey, almost all (98%) of Blue Cross MinnesotaCare members lived outside the seven-county metropolitan area. Over half (58%) of the Blue Cross MinnesotaCare population were women, and 8% had graduated from college. The average age of the adult MinnesotaCare member in this sample was 37.5. Because so few people in the Blue Cross MinnesotaCare sample lived in the seven-county metropolitan area, this report does not present information based on residence in the seven-county area as compared to Greater Minnesota.

### *Blue Cross PMAP Members*

At the time of the survey, 81% of the Blue Cross PMAP population lived outside the seven-county metropolitan area, three-quarters (74%) were women, and one in ten (11%) had graduated from college. The average age of the adult Blue Cross PMAP member in this sample was 32.0 years.

### *The Minnesota Youth Population*

Youth who participated in the Youth Tobacco Survey are representative of 6<sup>th</sup>-12<sup>th</sup> grade public school students in Minnesota.

**Table 1—Adult Population Demographics**

		Minnesota	Blue Cross MinnesotaCare	Blue Cross PMAP
<b>Geographic Area</b>	Greater Minnesota	46%	98%	81%
	Seven-county metro area	54%	2%	19%
<b>Gender</b>	Men	49%	42%	26%
	Women	51%	58%	74%
<b>Age</b>	Average age	44.7	37.5	32.0
<b>Education</b>	Less than high school	7%	13%	19%
	High school graduate/GED	29%	49%	44%
	Some college or technical school	28%	30%	27%
	College graduate and above	36%	8%	11%
<b>Employed for wages (of only those younger than 65)</b>		86%	71%	82%
<b>Children under 18 years of age at home</b>	None	60%	31%	21%
	At least one	40%	69%	80%

## SMOKING STATUS

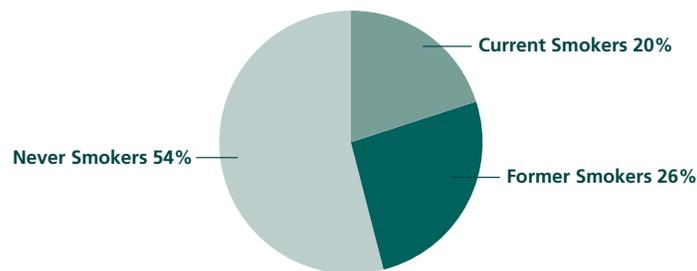
By definition, an adult current smoker is someone who has smoked at least 100 cigarettes in his or her lifetime and now smokes every day or some days.

At the time of the survey, 20% of adult Minnesotans were current smokers. Approximately one-quarter (26%) of Minnesotans had quit smoking and over half (54%) of Minnesotans had never smoked.

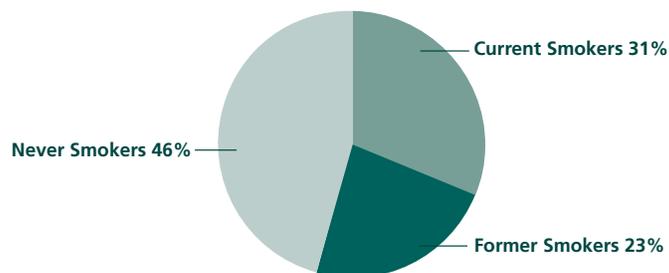
Almost one-third (31%) of Blue Cross MinnesotaCare members were current smokers, 23% were former smokers, and nearly half (46%) had never smoked.

Almost half (48%) of Blue Cross PMAP members were current smokers, 17% were former smokers, and 35% had never smoked.

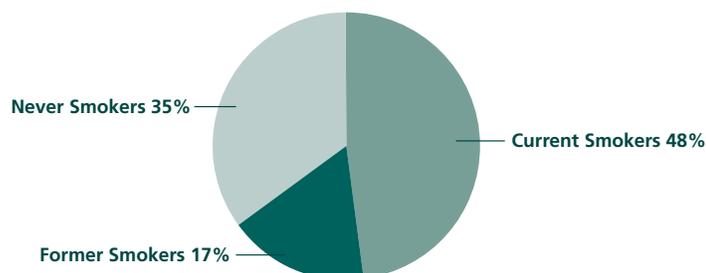
**Figure 11**  
Statewide smoking rates



**Figure 12**  
Blue Cross MinnesotaCare smoking rates



**Figure 13**  
Blue Cross PMAP smoking rates



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## COLLABORATING ORGANIZATIONS

**THE MINNESOTA PARTNERSHIP FOR ACTION AGAINST TOBACCO (MPAAT)** is an independent, nonprofit foundation dedicated to reducing the harm caused by tobacco. MPAAT's goal is to transform the social environment through intervention and research to reduce tobacco use in Minnesota to less than 10% by the year 2023. To achieve this goal, MPAAT will serve Minnesota over a 25-year period through grants to health, community and academic organizations throughout the state in support of research, intervention, and related program activities. MPAAT is funded by proceeds from the Minnesota tobacco settlement through payments ordered by the courts for the harm tobacco caused Minnesotans.

**BLUE CROSS AND BLUE SHIELD OF MINNESOTA** is the first health care plan to date to win a legal battle against the tobacco industry. Blue Cross' 1994 lawsuit against Big Tobacco resulted in unprecedented public gains, open access to secret tobacco industry documents and a settlement that will reduce tobacco use and improve the health of Minnesotans for many years to come. Blue Cross, with headquarters in the St. Paul suburb of Eagan, covers more than two million members through its health plans or plans administered by its affiliated companies. Blue Cross is Minnesota's oldest health plan and began operations in 1933. Blue Cross and Blue Shield of Minnesota is an independent licensee of the Blue Cross and Blue Shield Association.

**THE MINNESOTA DEPARTMENT OF HEALTH** works to protect, improve, and maintain the health of all Minnesotans. The Department has launched an energetic campaign of youth-inspired marketing, youth organizing activities, and statewide and local programs to significantly reduce youth tobacco use over the next five years.

**THE MINNESOTA SMOKE-FREE COALITION** is a statewide organization dedicated exclusively to reducing tobacco use in Minnesota. Representing health, business, and community organizations, the Coalition supports measures to reduce tobacco use by preventing children from beginning a lifelong addiction to tobacco, helping those who want to quit smoking and protecting nonsmokers from exposure to secondhand smoke. The Coalition includes Allina Health System, American Cancer Society Midwest Division, the American Heart Association Northland Affiliate, the American Lung Association of Minnesota, Blue Cross and Blue Shield of Minnesota, Fairview Health Services, Hazelden Foundation, HealthPartners, Minnesota Medical Association, Park Nicollet Foundation, the University of Minnesota Cancer Center, and others.

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