

Prevention

Over the long run, preventing cancer by reducing health risk behaviors will have an enormous impact on the burden of cancer in Minnesota. It has been estimated that close to two-thirds of all cancers are attributable to risk factors that can be modified.¹⁷ Research has identified effective strategies to change behaviors known to increase cancer risk, such as cigarette smoking.¹⁷ The challenge is to organize public and private resources around the strategies that have the greatest impact.

Many of the common types of cancer share behavioral risk factors with other chronic diseases, such as heart disease, diabetes, and chronic obstructive lung disease. Coordinating efforts to address these common risk factors will help advance Minnesota’s strategic health objectives not only for cancer, but also for stroke, heart disease, diabetes, arthritis, and asthma.

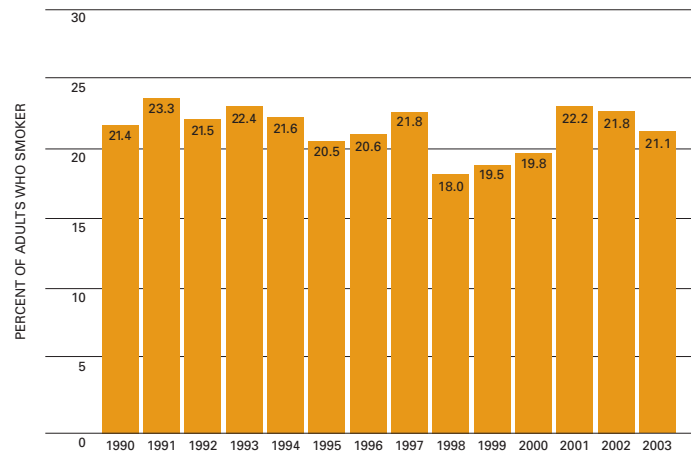
Tobacco is a leading preventable cause of cancer.

About 30 percent of cancer deaths are associated with tobacco use.¹⁴ Despite the highly publicized link between cigarette smoking and cancer, about 21 percent of adults in Minnesota habitually smoked cigarettes in 2003, and smoking rates in the state have not decreased significantly during the last decade (Figure 6).¹⁵ The toll is economic as well as human: each pack of cigarettes costs \$7.18 in medical care costs and lost productivity.¹⁸

A major tax increase on tobacco will significantly reduce the number of youth who take up smoking and will encourage many adults to quit.^{19,20} However, Minnesota currently taxes each pack of cigarettes \$0.48, compared to \$0.84 nationally, and ranks 37th lowest in tobacco taxes.²¹

To reduce exposure to secondhand smoke, many citizens have advocated for smoke-free environments in homes, daycare homes or centers, schools, workplaces, recreation areas, motor vehicles, and public places.^{22,23} Although Minnesota was the first state to mandate smoke-free areas in restaurants and bars, it now lags behind 16 other states in passing statewide smoking bans to protect patrons and employees from exposure to secondhand smoke.²⁴

Figure 6
Trends in Adult Smoking, Minnesota, 1990–2003

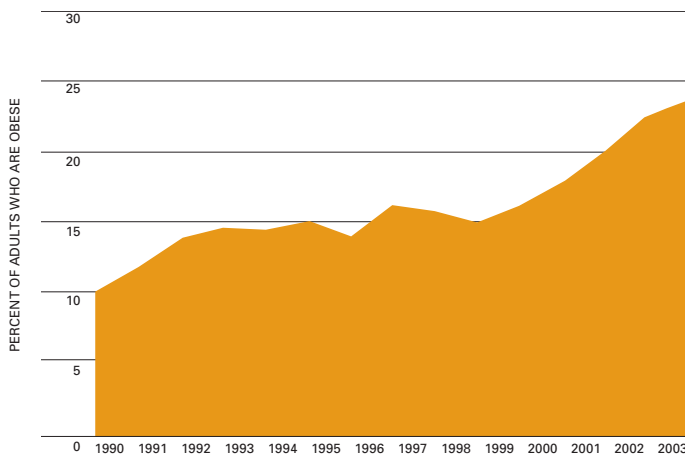


Source: Behavioral Risk Factor Surveillance System. Smokers in this survey are defined as adults who have smoked at least 100 cigarettes in their lifetime and now smoke every day or some days.

Poor diet, physical inactivity, and obesity are responsible for about another 30 percent of cancer deaths in the United States.^{14,25}

Figure 7

Trends in Adult Obesity, Minnesota, 1990–2003



Source: Behavioral Risk Factor Surveillance System.
Obese persons have a body mass index (BMI) of 30.0 or higher.

Evidence indicates that the cancer incidence would decrease if people ate healthier foods, maintained a healthy weight, and included more physical activity in their daily lives.^{26,27} Yet the trends are not moving in a healthy direction. The proportion of obese adults in Minnesota, for example, has risen from 10 percent in 1990 to 23 percent in 2003 (Figure 7).¹⁵

Effective community-wide campaigns can provide people with the support they need to change unhealthy behaviors; they can also promote supportive environments and community norms for regular physical activity and healthy eating.²⁸ Such campaigns include support and self-help groups, counseling, risk factor screening and education, community events, and access to or development of facilities for physical activity and healthy eating. When covered by the media, community-wide campaigns have an even broader reach and impact.

Overexposure to ultraviolet (UV) light, and sunlight in particular, is the main cause of skin cancer.

Sunburn in childhood is strongly associated with an increased risk of both melanoma and non-melanoma skin cancers in adulthood,²⁹ although sunburns in adulthood are also a risk factor. Reducing exposure to UV light can be achieved by increasing awareness about the use of sun protection measures, educating individuals of all ages about best practices and policies to promote sun protection, and implementing environmental changes to reduce ultraviolet light exposure.³⁰

Reduce the use of tobacco.



OBJECTIVE 1

Indicators:

- Proportion of adults who currently smoke cigarettes
(Target: 17%; Baseline: 21.1%; Source: MBRFSS 2003)
- Proportion of young adults who currently smoke cigarettes
(Target: 29%; Baseline: 39.0%; Source: MATS 2003)
- Proportion of adolescents who currently smoke cigarettes as measured in grades 9–12 (Target: 23%; Baseline: 28.9%; Source: MYTS 2002)
- Proportion of American Indians who currently smoke cigarettes
(Target: ♂: 44%; ♀: 50%; Baseline: ♂: 48.4%, ♀: 55.2%; Source: MBRFSS 1996–2000)

Strategies:

- Advocate for an increase in the state cigarette tax and taxes on other tobacco products, and for limiting or prohibiting discounting of wholesale prices for tobacco products.
- Advocate for funding for “comprehensive tobacco prevention programs” at the funding levels recommended by the U.S. Centers for Disease Control and Prevention.
- Provide culturally appropriate tobacco-cessation interventions.
- Maintain and coordinate effective statewide telephone tobacco-cessation counseling programs.
- Challenge and engage all insurers, employers, and purchasers to include evidence-based tobacco-dependence treatment (counseling and pharmacotherapy) as part of their basic health benefits package.
- Publicly recognize health insurance plans and healthcare facilities that meet or exceed smoking cessation guidelines.
- Advocate for increased legislative funding to expand the Minnesota Department of Health’s Population-At-Risk tobacco grantees’ program.
- Increase funding for community-based programs that address commercial tobacco use within racial and ethnic minority communities.
- Support current efforts to develop a strong statewide tribal tobacco coalition.

OBJECTIVE 2

Reduce exposure to secondhand smoke.

Indicators:

- Proportion of adults exposed to secondhand smoke
(Target: 46%; Baseline: 65.3%; Source: MATS 2003)
- Proportion of young adults exposed to secondhand smoke
(Target: 58%; Baseline: 82.5%; Source: MATS 2003)
- Proportion of adolescents in grades 9–12 exposed to secondhand smoke
(Target: 50%; Baseline: 71.8%; Source: MYTS 2002)

Strategies:

- Advocate for clean indoor air policies that require all workplaces to be smoke-free.
- Increase public awareness about raising children in completely smoke-free environments.

OBJECTIVE 3

Increase the proportion of adults and children who meet recommended physical activity levels.

Indicators:

- Proportion of adults who engage in moderate or vigorous physical activity for 30 minutes or more on at least 5 days of the week
(Target: 53%; Baseline: 48.5%; Source: MBRFSS 2001)
- Proportion of children who participate in vigorous physical activity for at least 20 minutes on at least 5 days of the week (Target: 6th graders: 45%, 9th graders: 37%, 12th graders: 33%; Baseline: 6th: 41%, 9th: 43%, 12th: 30%; Source: MSS 2001)
- Proportion of children who participate in moderate physical activity for at least 30 minutes on at least 5 days of the week (Target: 6th graders: 48%, 9th graders: 56%, 12th graders: 40%; Baseline: 6th: 44%, 9th: 51%, 12th: 37%; Source: MSS 2001)
- Proportion of children who participate in moderate or vigorous physical activity for 60 minutes on at least 5 days of the week (Source: to be identified)

Strategies:

- Conduct worksite programs to promote physical activity.
- Conduct physical activity and healthy eating programs, specifically for African American, American Indian, and Latino populations.
- Conduct school-based programs that promote regular physical activity for students, staff, and the community.
- Provide quality, daily physical education for children from pre-kindergarten through grade 12.
- Increase the availability of safe and accessible recreational facilities in the community, and support the development and operation of community-based recreation centers for all people, including the elderly.
- Promote regular physical activity through counseling and education from healthcare providers and organizations.
- Conduct community-wide campaigns to promote physical activity.
- Encourage mixed-use zoning with homes situated within walking and bicycle-riding distance of attractive, walker-friendly commercial, business, and community facilities.

Improve the diet of adults and children.



OBJECTIVE 4

Indicators:

- Proportion of adults who consume 5 or more servings of fruits and vegetables daily (Target: 25%; Baseline: 22.7%; Source: MBRFSS 2002)
- Proportion of all adults who do not consume alcohol or, if they do consume alcohol, use alcohol in moderation (less than 2 drinks per day for men, less than 1 drink per day for women) (Target: ♂: 97%, ♀: 100%; Baseline: ♂: 93.2%, ♀: 95.7%; Source: MBRFSS 2002)
- Proportion of children aged 2–18 years who consume 5 or more servings of fruits and vegetables daily (Target: 6th graders: 24%, 9th graders: 17%, 12th graders: 13%; Baseline: 6th: 22%, 9th: 15%, 12th: 12%; Source: MSS 2001)
- Proportion of children and adults who choose a diet that is low in caloric density and high in nutrient density (Source: to be identified)
- Proportion of children and adults who consume 3 or more servings of whole grain foods daily (Target: 10% increase over baseline; Source: to be identified)

- Proportion of children and adults who consume less than 10% of their daily calories from added sugars (Target: 10% increase over baseline; Source: to be identified)
- Proportion of children and adults who consume 30% or less of their daily calorie intake from fat (Target: 10% increase over baseline; Source: to be identified)
- Proportion of children and adults who consume 10% or less of their daily calorie intake from saturated plus trans fat (Target: 10% increase over baseline; Source: to be identified)
- Proportion of adults who consume 1 serving or less (3 ounces or less) of red meat per day (Target: 10% increase over baseline; Source: to be identified)
- Proportion of children and adults who consume the recommended servings of calcium-rich foods daily based on recommendations for age and gender (Target: 10% increase over baseline; Source: to be identified)

Strategies:

- Conduct community-wide campaigns to promote healthy, low-fat eating, including promoting the daily consumption of 5 or more servings of fruits and vegetables, 3 or more servings of whole grains, and adequate calcium intake.
- Conduct school-based programs to promote healthy, low-fat eating, including promoting the daily consumption of 5 or more servings of fruits and vegetables, 3 or more servings of whole grains, and adequate calcium intake.
- Develop school policies requiring that a variety of healthy choices be provided in vending machines, school stores, and other venues within the school's control.
- Provide counseling and education by healthcare providers and organizations to promote healthy, low-fat eating, including promoting the daily consumption of 5 or more servings of fruits and vegetables, 3 or more servings of whole grains, and adequate calcium intake.
- Conduct worksite programs to promote healthy, low-fat eating, including promoting the daily consumption of 5 or more servings of fruits and vegetables, 3 or more servings of whole grains, and adequate calcium intake.

Reduce the proportion of adults and children who are overweight or obese.

OBJECTIVE 5

Indicators:

- Proportion of adults aged 18 years and older who are obese (body mass index [BMI] greater or equal to 30.0) (Target: 20%; Baseline: 22.4%; Source: MBRFSS 2002)
- Proportion of adults aged 18 years and older with BMI below 25.0 (Target: 45%; Baseline: 41.1%; Source: MBRFSS 2002)
- Proportion of children aged 2–18 years with a BMI less than the 95th percentile for age and gender (Source: to be identified)

Strategies:

- Partner with existing coalitions or groups working to increase physical activity, decrease obesity, and encourage a healthy diet, particularly among racial and ethnic minority communities.
- Conduct social marketing campaigns to promote healthy weight management for adults.



Reduce the exposure of adults and children to ultraviolet light.

Indicators:

- Proportion of adults aged 18 years and older who report one or more sunburns in the past year (Target: 30%; Baseline: 39%; Source: MBRFSS 1999)
- Proportion of adults aged 18 and older who use indoor tanning devices (Target: 30%; Baseline: 38%; Source: Lazovich, unpublished data)
- Proportion of adolescents aged 14–17 years who use indoor tanning devices (Target: 30%; Baseline: 40%; Source: Lazovich, unpublished data)
- Proportion of children and adolescents who experience sunburns (Source: to be identified)
- Proportion of adults and children who consistently use sun protection measures (Target: increase to 75%; Source: to be identified)

Strategies:

- Establish partnerships to promote sun protection policies, encourage sun protection product development and availability, and support educational efforts to increase awareness and behavior change towards greater sun protection.
- Promote adoption of sun protection curricula in primary schools.
- Advocate for sun protection policies at primary schools.
- Educate the public and staff at recreational and tourism settings about sun protection.
- Advocate for sun protection policies in recreational and tourism settings.
- Promote counseling by primary care physicians to their patients and their patients' family members about the need for sun protection practices.
- Educate adolescents, their parents, and young adults about the potential harm caused by use of indoor tanning.
- Advocate for school policies that prohibit high schools from accepting promotional materials from commercial tanning businesses.
- Enforce commercial tanning facility compliance with existing state licensure regulations that support inspections, enforcement, and penalties.