What You Should Know About Tobacco-Use Cessation

More than 80% of adult tobacco users in the United States began using tobacco regularly before age 18.\(^1\) The prevalence of tobacco use is now higher among teenagers and young adults than among other adult populations. However, the prevalence of quitting (i.e., the percentage of those who have ever smoked who are now former smokers) also is lower among these younger age groups. Studies indicate that most teenaged and young adult smokers want to quit and try to do so, but few succeed.\(^2,3\) Many of these young smokers will eventually die from a smoking-related disease. Although many people are aware that adult smokers are more likely to have heart disease, cancer, and emphysema, many negative health consequences also occur among youth.

Examples of negative health consequences for youth who smoke\(^1,4\) include the following:

- Smoking hurts young people's physical fitness in terms of both performance and endurance, including those trained in competitive running.
- Smoking can hamper the rate of lung growth and the level of maximum lung function among youth.
- The resting heart rates of young adult smokers are 2–3 beats per minute faster than those of nonsmokers.
- Regular smoking is responsible for cough and increased frequency and severity of respiratory illnesses.
- The younger a person starts smoking, the more likely he is to become strongly addicted to nicotine. Most young people who smoke regularly

This chapter will help you

- Understand how tobacco use adversely affects the health of youth.
- Identify national goals for reducing youth tobacco use.
- Recognize that current knowledge on how to help youth quit is limited.
- Identify recommendations for adult tobacco-use cessation that may be applicable to youth.
- Understand how youth tobacco-use cessation fits into a comprehensive tobacco control program.
continue to smoke throughout adulthood, leading to long-term health consequences.

- Teenagers who smoke are 3 times more likely than nonsmokers to use alcohol, 8 times more likely to use marijuana, and 22 times more likely to use cocaine. Smoking is associated with several other risk behaviors, such as fighting and engaging in unprotected sex.

- High school seniors who are regular smokers and who began smoking by grade 9 are 2.4 times more likely than their nonsmoking peers to report poorer overall health; 2.4–2.7 times more likely to report cough with phlegm or blood, shortness of breath when not exercising, and wheezing or gasping; and 3.0 times more likely to have seen a doctor or other health professional for an emotional or psychological complaint.

- Smoking may be a marker for underlying mental health problems, such as depression, among adolescents.

Youth Tobacco Use and Cessation

THE PROGRESSION OF TOBACCO USE

The immediate impetus to experiment with tobacco is often social, prompted by friends, family members, or other role models who smoke. However, various other factors—some of which may make certain youth more susceptible to addiction and long-term use—contribute to initiation and progression toward regular tobacco use (see Chapter 4).

The process by which a person moves from experimenting with tobacco to becoming a regular user can include the following five stages:\(^1,5\):

- The preparatory stage, when a person’s knowledge, beliefs, and expectations about tobacco use are formed.

- The initial/trying stage, when a person tries the first few cigarettes.

- The experimentation stage, which is a period of repeat, irregular use that may occur only in specific situations over a variable time.

- Regular tobacco use, when a routine pattern of use has developed. For youth, this may mean using tobacco every weekend or at certain times of the day.

- Nicotine addiction, which is regular tobacco use, usually daily, with an internally regulated need for nicotine.

TOBACCO PREVALENCE

Tobacco use is pervasive among youth across North America. In Canada, 22% of teenagers aged 15–19 reported in 2002 that they were current smokers, down from 28% in 1999. In the United States, 21.9% of high school students reported in 2003 that they had smoked cigarettes in the previous month (see Figure 2).\(^7\)
Tobacco use among U.S. youth declined slowly during the 1980s, increased rapidly during the early 1990s, and then declined significantly during 1997–2003.\textsuperscript{7,8}

**NICOTINE DEPENDENCE**
Nicotine is an addictive drug in tobacco that people are likely to begin using in adolescence. People who begin using tobacco at an early age are more likely to develop more severe levels of nicotine addiction than those who begin when they are older.\textsuperscript{1} Like other drug addictions, nicotine dependence is a chronic condition with the potential for relapse throughout one’s life. Typically, people become addicted to nicotine when they increase the frequency of tobacco use. However, dependence may begin very early for some people.\textsuperscript{1,9}

Although most youth do not become nicotine dependent until after 2–3 years of use,\textsuperscript{1} addiction can occur after smoking as few as 100 cigarettes.\textsuperscript{10} Studies have shown that some young people report symptoms of dependence within the first weeks, even with very irregular or sporadic use.\textsuperscript{5,9} Other studies have reported less evidence for nicotine addiction among youth, citing the irregular patterns of use and higher spontaneous quit rates as evidence that addiction is not common among this population.\textsuperscript{11,12} Some adolescent tobacco users probably are dependent and may therefore suffer symptoms of physical and/or psychological withdrawal when attempting to quit.\textsuperscript{1,9}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{Prevalence of Current Smoking Among High School Students, 2003*}
\end{figure}

\* Smoked cigarettes at least once during the 30 days preceding the survey.

YOUTH’S DESIRE TO QUIT AND QUIT ATTEMPTS

Many young people report a desire to quit and previous attempts at quitting. Of current smokers aged 15–19 in Canada, 64% reported one or more quit attempts in the 12 months before being surveyed. In the United States, approximately 60% of current smokers in high school and middle school reported one or more quit attempts in the year before being surveyed.

Although many youth think about and attempt to quit tobacco, many are unaware of or unable to access cessation services. Also, many youth do not think that quitting tobacco is difficult enough to warrant professional assistance, and they report not having much interest in participating in such interventions. Others may not access interventions or services that do not appear to address their particular needs or concerns. For these reasons, recruitment strategies (see Chapter 2) should be a critical component of your intervention plan.

The immediate need for effective cessation support has been clearly expressed, both by youth and by people who work with them. In response, efforts have increased recently to improve our understanding of how to provide effective cessation interventions to youth. This demand was the primary motivation for developing this publication.

National Goals for Reducing Youth Tobacco Use

Healthy People 2010 established national targets for reducing tobacco use and increasing quit attempts by youth in the United States. Specific objectives include the following:

- Reduce the use of tobacco products by youth in the past month from 40% to 21%.
- Reduce cigarette smoking by youth in the past month from 35% to 16%.
- Increase the proportion of regular smokers in grades 9–12 who have made a quit attempt from 61% to 84%.

The Centers for Disease Control and Prevention (CDC) recommends that one of the major goals of any tobacco control program should be to promote quitting among both young people and adults. CDC also recommends that comprehensive school health programs should include efforts to help students and school staff members quit.

Guidelines for Youth Tobacco-Use Cessation

Recommendations for “best practices” typically are based on a review of data, usually from the scientific literature, on such topics as health care services or policies. The review is designed to show the effectiveness of specific practices. For example, the recommendations in the U.S. Public Health Service’s (PHS’s) Treating Tobacco Use and Dependence: Clinical Practice Guideline, were developed...
from an initial review of about 6,000 articles, of which 180 were deemed appropriate to the evidence base for making recommendations.

In the area of youth tobacco-use cessation, fewer than 80 studies had been published in scientific journals as of spring 2001. Variations in study aims and intervention content, format, focus, and context made comparisons among these studies difficult. Many studies had small sample sizes, used study designs that did not include comparison groups, or did not report enough information to describe the intervention. These limitations reduced the ability to prove evidence of effectiveness. Thus, making recommendations from the published literature was not possible.

THE “BETTER PRACTICES” MODEL
Despite the lack of evidence-based interventions, recommendations on how to help youth quit using tobacco are needed now. To address this need, a new approach developed by the Canadian Tobacco Control Research Initiative (CTCRI) was used to review the existing evidence and try to develop practical guidelines. This “better practices” model is based on the idea that successful solutions to complex problems must draw from both science and experience. The resulting guidelines also take into account the specific needs of a given population and situation and the resources available to address those needs.

With this in mind, the special advisory panel that helped develop this publication outlined guidelines on what issues should be considered when developing youth tobacco-use cessation interventions. As the evidence base continues to expand, we should eventually be able to identify specific best practices for youth. In the meantime, the advice provided in this publication can guide you in deciding whether to implement a youth tobacco-use cessation intervention and in choosing and implementing appropriate interventions. All interventions must be monitored and rigorously evaluated (see Chapter 5) to advance knowledge in this area.

APPLY YOUR EXPERIENCE
Another approach is to apply past experience working with youth in clinical practice, tobacco prevention activities, and interventions that address other risk behaviors or conditions. Information also can be drawn from the growing knowledge about what components of comprehensive tobacco control programs are most critical (e.g., prevention policies and interventions, second-hand smoke protections, cessation interventions, changes in public attitudes toward tobacco use).

One example of how these types of peripheral knowledge can support cessation efforts can be found in counter-marketing. Research suggests that youth are particularly susceptible to tobacco advertising and promotions. If youth are
similarly influenced by counter-marketing, then learning about the strategies and tactics that the tobacco industry uses to target them may stimulate young smokers' interest in tobacco-use cessation and empower them to reject the tobacco industry's marketing efforts.

**Applying Adult Interventions to Youth**

Because of the lack of best practices for youth tobacco-use cessation interventions, we should consider the efforts that have been effective in adult cessation and determine whether such practices could be effective, appropriate, and adaptable to meet the needs of young tobacco users wanting to quit. In 2000, the PHS published *Treating Tobacco Use and Dependence: Clinical Practice Guideline*, which provides evidence-based recommendations to increase the likelihood of successful tobacco-use cessation for adults who access health care systems.18

Although evidence was lacking on what works for adolescent patients, the PHS recommended the following clinician actions on the basis of expert opinion:

• Clinicians should screen pediatric and adolescent patients and their parents for tobacco use and provide a strong message regarding the importance of totally abstaining from tobacco use.

• Counseling and behavioral interventions shown to be effective with adults should be considered for use with children and adolescents. The content of these interventions should be modified to be developmentally appropriate.

• When treating adolescents, clinicians may consider prescriptions for bupropion sustained-release or nicotine replacement therapy when there is evidence of nicotine dependence and desire to quit tobacco use.

• Clinicians in a pediatric setting should offer tobacco-use cessation advice and interventions to parents to limit children's exposure to secondhand smoke.

Another approach is to apply the lessons learned about what works with adults as a starting point for youth tobacco-use cessation strategies.18 The PHS clinical practice recommendations for adults indicate the following:

• Tobacco dependence is a chronic condition that often requires repeated intervention.

• If willing to quit, tobacco users should have access to effective treatments. If unwilling, tobacco users should be provided with brief interventions to increase their motivation to quit.

• A strong dose-response relationship exists between the intensity of tobacco-use cessation counseling and its effectiveness.

• Offering social support (both within and outside the treatment setting) and teaching problem-solving skills show promise for helping tobacco users quit.
Pharmacotherapies are available and can be used in the absence of contraindications for people experiencing symptoms of nicotine withdrawal. However, youth are less likely to show signs of physical withdrawal than adults, and pharmacotherapies have not been shown to be effective among adolescents.

A NOTE OF CAUTION
Intervention providers should use caution when adapting adult interventions for youth, and they should evaluate their efforts carefully. What works for one population may not work for another. What works in one setting (e.g., a health care visit) may not work in another (e.g., a school). For example, providers have learned from working with adults that providing social support through group counseling is an effective aid to cessation efforts. However, people who work with youth on other sensitive issues, such as substance use and sexual behavior, know that privacy concerns can make group interventions inappropriate for this population. By understanding the needs and concerns of the youth you serve, you will be able to select the intervention components that best meet their needs.

The characteristics of youth and the context of their lives are unique and significantly contribute to their tobacco use and cessation behaviors. For example, youth typically have more variable patterns of tobacco use than adults. Many young people underestimate the addictiveness of tobacco and the effect of tobacco use on their health. In fact, the actual idea of “cessation” is often different for youth than it is for adults.

Youth who use tobacco may be reluctant to identify themselves as “smokers” or “tobacco users,” and subsequently, their commitments to “quitting” may be equally variable. For these reasons, we may not be able to draw conclusions about what works for youth tobacco-use cessation on the basis of what works for adults.

A Comprehensive Approach to Tobacco Control
Overcoming tobacco dependence, like with any addiction, is not a single event. It is a complex and continuous process mitigated by an array of physical, social, and psychological factors. Many factors can prompt people to begin using tobacco, and many variables can prompt them to quit. A single intervention or activity is unlikely to be effective and suitable for every person in the population you serve.

For this reason, CDC recommends that all tobacco control programs be comprehensive. Comprehensive programs can create the synergy and supportive environment needed to help youth quit. One organization is unlikely to be able to provide every component for a comprehensive program. However, different organizations can coordinate their efforts to achieve comprehensive programs in their communities.
A comprehensive tobacco control program should include the following components\textsuperscript{16}:

\begin{itemize}
  \item Tobacco-use prevention efforts that jointly involve education, community activities, and counter-marketing.
  \item Legislative and policy efforts to limit tobacco use, stop tobacco advertising and promotions, promote clean indoor air, restrict youth access to tobacco, and increase the cost of tobacco through taxation.
  \item Enforcement of existing laws and policies.
  \item Cessation interventions for both adults and youth.
  \item Interventions to prevent or reduce the burden of chronic diseases related to tobacco use.
  \item Surveillance and evaluation to improve knowledge about best practices in tobacco control.
  \item Tobacco control efforts that operate at multiple levels (i.e., state or province, community, and school).
  \item Administrative and managerial activities that coordinate tobacco control efforts at the community level and at state, province, or other larger jurisdiction levels.
\end{itemize}

**INCORPORATING YOUTH INTERVENTIONS INTO COMPREHENSIVE PROGRAMS**

The decision about whether to implement a cessation intervention for youth is complicated and may be influenced by many factors. The impetus for developing such an intervention can come from different sources (e.g., the criminal justice system, state agencies, community groups, youth). Decisions should be made only after taking into account the services currently offered in your area, along with how your new services will be supported and integrated.

When considering whether to offer a cessation intervention for youth, first determine whether a comprehensive tobacco control program already exists in your area. If it does, assess how your intervention will enhance these efforts. If a comprehensive program does not exist, assess what tobacco interventions should be created or strengthened and what contribution your intervention can offer toward a more comprehensive approach (see Chapter 2).

**THE IMPORTANCE OF ENVIRONMENTAL FACTORS**

Strong voluntary and regulatory policies that deter tobacco use and protect youth from secondhand smoke are critical to helping youth quit. Increases in taxes on tobacco, which raise the overall cost, significantly reduce tobacco use by youth.\textsuperscript{21} Smoke-free policies in public places make tobacco use less socially acceptable, which also may help to prevent and reduce tobacco use by youth.
In communities where such measures are not in place, people interested in youth tobacco-use cessation should actively campaign for policy changes that can benefit all community members.

Counter-advertising also can play a significant role in reducing tobacco use by youth.\textsuperscript{21,22} As noted previously, youth are very susceptible to the influence of tobacco industry advertisements. Mass media campaigns can counter that effect and help create an environment in which tobacco use is less acceptable, thereby increasing the motivation to quit. Even when counter-advertising is aimed at preventing tobacco use among youth, it may benefit youth tobacco-use cessation by increasing interest in quitting.

If cessation resources already exist for adults, they could be expanded to include interventions for youth.\textsuperscript{18} A comprehensive tobacco control program that includes cessation interventions for both adults and youth and links them to existing cessation resources (e.g., quitlines) could be established.

Another important factor is the environment in which an intervention is delivered. For example, a school-based intervention may lose credibility if teachers are seen using tobacco on school grounds (whether inside or outside a building). To counter this effect, smoke-free school policies should be established and enforced, as recommended by CDC.\textsuperscript{17}

References


EXAMPLE A-1
How One State Developed a Tobacco Quitline for Youth

A health department in a western state established a Tobacco Prevention and Control Program (TPCP) in the mid-1980s to address the public health consequences of tobacco use. Before 1990, the state’s youth tobacco-use cessation efforts consisted primarily of modified adult interventions available on a limited basis at the local level.

The impetus for developing the first cessation intervention designed specifically for youth came from the juvenile court system, where demand arose for a diversionary intervention for youth who had been cited for underage tobacco possession. The state developed a short series of classes designed to help youth understand the physical and legal consequences of tobacco use and develop skills to help them reduce the amount of tobacco they used. The intervention appeared to work well, but research data to prove its effectiveness were lacking.

An expanded version of the intervention was implemented in different settings, including schools and communities, and an evaluation was planned and implemented. The evaluation showed that the intervention was effective but was not reaching all youth who needed help to quit tobacco use. The intervention was offered only in the more densely populated areas of the state and with youth who already were involved to some extent in their school community or the criminal justice system. A large number of youth did not have access to the intervention.

In the spring of 2000, the TPCP received a large allocation of tobacco settlement funding and set aside money to implement an intervention that would reach more youth. With this new funding, officials were able to develop a statewide telephone quitline for youth.
EXAMPLE B-1

A Rural County High School’s Cessation Intervention

A school system in a county with a largely rural population had focused its tobacco control efforts on prevention. School officials developed a peer education intervention that trained interested youth in grades 6–12 to deliver educational interventions to elementary school classes in the area.

This approach continues to be modestly effective at raising awareness about tobacco use among younger students. However, teenagers, school officials, and others in the community realized that they were only addressing part of the problem. In 1999, 42% of youth in grades 9–12 in the state reported smoking at least once during the past 30 days, according to the Youth Risk Behavior Surveillance System. Also, 15.7% reported using chewing tobacco or snuff at least once during the past 30 days. Although tobacco use was prohibited on school grounds, teenagers still smoked and chewed at school. Those who were caught using tobacco faced detention or possible suspension.

The idea of developing a youth tobacco-use cessation intervention, which ultimately was named Teens In Control, came from two students who were serving detention for tobacco use. They wanted to stop their tobacco use but did not know how or what resources were available. The teacher in charge of detention that day brought the students’ concerns to the school counselor, who in turn shared them with an advisor for the school’s tobacco prevention intervention. The subject was addressed at the next meeting of the intervention’s advisory board, which includes youth, parents, school administrators, teachers, and a representative from the local health department. They agreed to work on a cessation intervention designed for teenagers.