ACES

Adolescent Cessation in Every School

An evidence-based adolescent tobacco cessation toolkit for the school setting, Second Edition

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Missouri DHSS Department of Health and Senior Services

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Testimony

Why the ACES toolkit?

"Missouri does not provide state funding for a formalized adolescent tobacco cessation program, therefore the programs are developed at a local/community level where funding and program content may be inadequate. This toolkit can be used in schools where interaction with students during the school day is consistent and provided by a school nurse."

"Due to Missouri's failing grade in addressing youth tobacco use, it is time that school districts take an active role in assisting our kids to quit. This toolkit provides an easy-to-follow format that does not place an undue burden on school staff to implement. It is evidence based and contains all pieces necessary in assisting youth, as well as adults, to be successful in their attempt to quit the use of tobacco products."

"It is a helpful resource for school nursing and other school personnel."

"The rate of tobacco use in Missouri needs to be effectively addressed. One approach is to assist adolescents with tools to quit. The toolkit is designed to assist the School Nurse or other school personnel to help students create a plan to quit, and assist with support the students will need through the process."

"After serving as a cessation coach, I find this toolkit to be incredibly thorough, comprehensive and successfully provides all the necessary pieces to implement a cessation program."

"Currently, the Missouri school smoking rate is higher than the national average. This toolkit provides schools with an evidence based approach to help our teens to quit smoking."

"This is an easy, low-cost way to make the teens in Missouri healthier."

"This toolkit will take little prep time to utilize in group or one-on-one settings. More important, it does not require that the user attend an off-site training or purchase an expensive curriculum prior to implementing."

Importance of adolescent tobacco cessation

"Our youth are the future of our state. In addition to the research that links improved health with improved academic success, the physical effects on an adolescent's body can be long lasting. The sooner the cessation, the lower the risk of an adolescent becoming an adult tobacco user."

"The adolescent brain is extremely susceptible to nicotine addiction. The vast majority of adult smokers started before age 18 and nearly all smokers before age 25. Yet, research is limited on effective strategies for helping youth to quit."

"Tobacco use has been linked to many health issues that lead to death. An effective tobacco cessation intervention during adolescence can prevent nicotine addiction and severe health consequences later as an adult."

"Nicotine is addictive and tobacco in general increases the risk of pulmonary and cardiovascular diseases. Tobacco cessation will improve the overall health of an adolescent."

"Adolescents have the right to live a life free from the influence of Big Tobacco. It is the responsibility of adults to assist youth in learning all facts related to tobacco use as well as long-term health effects, thus lessening a young person's chance of developing a tobacco-related illness."

"Adolescent tobacco cessation is important because evidence shows that the vast majority of current adult smokers experience initiation prior to the age of 18."

"If we can cut down on the number of children coming out of high school that are [tobacco users], we can make an impact on the health of many people in the State of Missouri."

"Youth are at an increased risk of becoming addicted to nicotine. By providing an adolescent tobacco cessation program in schools across Missouri, students will have access to quit assistance in a convenient location. Helping these students quit early on in their smoking career will decrease their growth in addiction throughout the years."

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Section 1:
Background

Overview

As professionals who work with youth, we strive to make our schools safe and healthy environments that promote learning, healthy behavior choices, and overall well-being. **We recognize that young people have to be healthy in order to be effective learners and grow into successful young adults.** We focus much of our time on educating and intervening with youth who are participating in risky behavior such as alcohol use, marijuana, methamphetamine and other substance use, and it is critical that we address tobacco use alongside these other substances. Although tobacco use is legal for adults over age 18 (or in some cities, age 21), it is the only product that, if used as intended, will ultimately kill half of the people who use it.[1] If you or someone you know has ever tried to quit tobacco, you know the challenge of breaking a nicotine addiction. As advocates for the health and education of young people, we cannot ignore tobacco use among this age group.

Nicotine addiction has no place in schools. Experimentation with tobacco and nicotine addiction almost always begins by the time young people graduate from high school.[2] This early exposure to nicotine and the resulting addiction negatively affects brain development in young people and has major implications for future tobacco use, engagement in other risky behaviors, and both short- and long-term adverse impact on health.[3] As professionals who work with youth on a daily basis in the school setting, we have an obligation to help young people live lives free from addiction.

2017 data found that 49.6% of middle school and 47.8% of high school students in Missouri have tried to quit smoking in the past year.[4] However, few (8.9%) Missouri high school students who currently smoke or use tobacco had participated in a program to help them quit, and only 4.1% of these students reported having programs at school to help them quit.[5] Schools that provide tobacco cessation for students will see immediate health benefits, and this is one of the most cost effective health services available.[4] The cessation tools and resources provided in this toolkit are grounded in theories of health behavior change, best practices for cessation and evidence-based literature, and have been tailored for use with adolescents. **These tools can be used for one-on-one interventions with adolescent tobacco users and emphasize building the coping skills that are needed to successfully quit tobacco.**

Who is this toolkit for?

This toolkit is for professionals who work with youth, especially in a school-based setting. This includes but is not limited to:

- School nurses
- Health aides
- Administration
- Faculty
- Counselors
- Social workers
- Health teachers
- Physical education teachers
- Coaches
- Resource officers

Who do these tools benefit?

Adolescent tobacco users, ages 13-18

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3. Campaign for Tobacco Free Kids. (2015). The path to tobacco addiction starts at very young ages. Retrieved from: <http://www.tobaccofreekids.org/research/factsheets/pdf/0127.pdf>.

4. Missouri Department of Health and Senior Services. (2017). Missouri youth and tobacco, 2007-2017. Retrieved from: <https://health.mo.gov/data/yts/pdf/missouri-youth-and-tobacco-2007-2017.pdf>.

Nicotine Addiction

Nicotine addiction can occur as quickly as a few days after experimental smoking.[1] The adolescent body and brain are still developing, making youth especially vulnerable to addiction.[2] Nicotine has lasting and adverse consequences for the brain.[2] Once nicotine enters the body it makes its way to the brain. Nicotine molecules then attach to receptors in the brain, causing the release of the feel-good neurotransmitter dopamine. This spike of dopamine produces self-confidence, euphoria and alertness. However, regular use of tobacco and exposure to nicotine leads to over-stimulation of these brain receptors. In response to over-stimulation the brain down-regulates these receptors, making them less sensitive. The only thing that brings a tobacco user's brain back to a near normal balance again is further use of tobacco and more nicotine. This effect is heightened in the developing brains of adolescents - their receptors ramp up and down much faster, more thoroughly and more permanently than adults.[3]

Tobacco use is often an indicator of engagement in other risky behaviors. Research has shown that teen tobacco users are more likely to use alcohol and illegal drugs than are non-users.[4] Tobacco users are also more likely to: get into fights, carry weapons, attempt suicide, suffer from mental health problems such as depression and engage in high-risk sexual behaviors.[5] This doesn't necessarily mean that tobacco use caused these behaviors, but they're more common in teens who use tobacco. Tobacco use is a warning sign that a young person needs support and services.

The younger a person is when he or she begins using tobacco, the higher the risk that this youth will become a daily tobacco user and be less likely to successfully quit.[6] Symptoms of addiction, such as strong cravings, irritability and anxiety can appear in youth within just days or weeks of occasional smoking, even before daily smoking is established.[1]

Adolescents underestimate the addictiveness of nicotine.[7] Compared to nonsmokers, adolescent smokers (occasional and daily) are more likely to believe that they can quit at any time.[7] Not surprisingly, adolescent tobacco users often make unassisted quit attempts and do not rely on best practices for cessation when doing so. In fact, only 4% of adolescent smokers successfully quit each year,[9-10] which is lower than the rate of successful quit attempts among adult smokers.[11]

Research finds that 48% of young people make a quit attempt while in high school and fail due to the addictiveness of nicotine.[2] **Moreover, 75% of these youth will continue smoking into adulthood despite their desire to quit.**[2]

Not only is tobacco physiologically addicting due to the drug nicotine, the process of using tobacco also becomes a learned habit. Just as one learns to use tobacco over a period of time, it will take time to unlearn the habit. These learned behaviors combine with nicotine to make a highly addictive practice. In fact, when health care professionals rank the addictiveness of drugs, nicotine tops the list – higher than methamphetamine and heroin.[12]

Nicotine dependence results from a combination of physiological and psychological factors, and effective cessation approaches should address both. For example, physical dependence can be addressed by slowly reducing the amount of tobacco used over a period of time or by using a Food and Drug Administration (FDA) approved nicotine replacement therapy product (see page 35). At the same time, the psychological and behavioral aspects of addiction should be addressed by identifying triggers and developing coping strategies, which can be accomplished through the use of a quit plan (see page 23).

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Types of Tobacco and Nicotine Products

All tobacco products contain the drug nicotine and can lead to addiction and harm. Combustible tobacco products (i.e., tobacco that is lit or heated) top the list as the most dangerous. Tobacco smoke contains over 7,000 chemicals; more than 70 of these are known to cause cancer.[1]

Cigarettes

Cigarettes are thin cylinders of finely cut tobacco and chemical additives rolled in paper. They are sold in packs of twenty. They may or may not have a filter on the end. All flavored cigarettes are banned in the U.S. except menthol. They are often one of the most expensive tobacco products.

Cigars/little cigars/cigarillos/blunts

The only difference between a cigarette and a cigar is that a cigarette is wrapped in paper (often white in color) and a cigar is wrapped in whole or in part in tobacco leaf (often brown in color). A cigar can come in any size, from very large to as small as a cigarette. Cigars can be sold individually, in packs of twenty resembling cigarettes or any other quantity. Cigars are sold in hundreds of flavors such as grape, cherry and peach. They are not taxed as highly as cigarettes and may be very inexpensive. One cigar can be purchased for as little as $0.50.

While cigarette consumption has been declining among youth over the past several decades, cigar use is increasing. Cigars are addictive, contain the same harmful and carcinogenic ingredients as cigarettes and result in the same adverse health outcomes.

Hookah/water pipe

Similar to cigars, hookah use is on the rise. Cheap prices and youth-appealing flavors are a major contributor to the rise in hookah smoking. Hookahs are a type of pipe that are often smoked socially among young people. Hookahs have a bowl where sticky, flavored tobacco (often called shisha) is heated by burning coals that are placed in a larger bowl directly beneath the tobacco bowl or via coals placed on top of the tobacco bowl. The user inhales the tobacco smoke through a mouthpiece, which is connected to a hose. The tobacco smoke is then pulled through the pipe stem and through the vase or base chamber, which is filled with water. The water cools the tobacco smoke before it is inhaled by the user. There are many misperceptions about the harms of hookah. Hookah smoke contains the same harmful carcinogens as cigarette smoke and can addict users. During a one-hour hookah smoking session, users typically take 200 puffs (compared to only 10-20 puffs for a cigarette), the equivalent of smoking a pack of cigarettes.

Smokeless tobacco

Smokeless tobacco products are not a safe alternative to cigarette smoking. Smokeless tobacco contains nicotine and cancer-causing chemicals.

Chew/dip

Chew is loose leaf or 'plugs' of tobacco placed between the lower gum and cheek. The nicotine and other chemicals are absorbed through the lining of the mouth. The user has to spit out the brown saliva that accumulates during use. Chew tobacco is often sold in circular cans and can come in flavors such as green apple.

Snus

Snus is sold in round or oblong shaped cans. Each can contains several small teabag-like pouches filled with loose tobacco. Users place a snus pouch in their mouth between the gum and cheek, and the chemicals and nicotine are absorbed through the lining of the mouth. Unlike chew tobacco, most snus users place the pouches next to their upper gums, instead of lower gums. There are no saliva glands in the upper gums and this eliminates the need to regularly spit, as seen with chew. Because of this and the small size of the pouches, snus use is very discrete and it is difficult to tell if a young person is "snusing". Snus use carries the same health risks as all smokeless tobacco products.

Dissolvable products

These are available as orbs or pellets (resembling candy), sticks (resembling toothpicks) or strips (resembling breath strips). All dissolvable products contain nicotine and they are chewed or sucked on until they dissolve in the mouth and the juices are swallowed. They are sold in flavors such as mint. These products are relatively new and little research has been conducted on them. Because of their candy-like appearance, they may be especially targeted toward youth.

Electronic nicotine delivery systems/e-cigarettes/mods/vape pens/ hookah pens

History

Electronic nicotine delivery systems (ENDS) are composed of a battery-operated heating element, a cartridge, chamber or tank that contains the nicotine or other chemicals and an atomizer (sometimes called a cartomizer), which when heated, converts the contents of the cartridge into an aerosol (usually referred to as a "vapor") which is then inhaled by the user. ENDS may look like a cigarette or cigar or look like everyday items such as pens and USB memory sticks.[2] Users (called "vapers") can choose from several nicotine strengths and thousands of flavorings.[3]

The first electronic cigarette was patented in 2004 and the popularity of these devices, world-wide and in the United States, has increased dramatically ever since.[4] Most brands are marketed as a tobacco-free alternative to conventional cigarettes that can be used in nonsmoking areas. The FDA does not currently allow e-cigarettes to be marketed for smoking cessation.

Use by adolescents

While many states (including Missouri) prohibit the use and sale of ENDS to those under age 18, a recent report from the Centers for Disease Control and Prevention (CDC) found that more than a quarter of a

million youth who had never smoked a cigarette had used an ENDS in 2013.[5] This is a threefold increase from 2011. Tim McAfee, Director of the CDC's Office on Smoking and Health said,

"We are very concerned about nicotine use among our youth, regardless of whether it comes from conventional cigarettes, e-cigarettes, or other tobacco products."[5]

This data comes from the National Youth Tobacco Survey of middle and high school students and shows that youth who have never used conventional cigarettes but who use e-cigarettes are almost twice as likely to intend to smoke conventional cigarettes compared to youth who have never used e-cigarettes.[5]

In addition, because these products are so new, many school and community smokefree policies do not currently prohibit their use indoors. School district policies should be strengthened to include ENDS products (See page 44).

Secondhand aerosol

Instead of referring to the smoke emitted from ENDS as a "vapor" (a term used by the tobacco industry), researchers have more accurately identified this as a chemical aerosol. Secondhand aerosol contains nicotine, ultrafine particles and low levels of toxins that are known to cause cancer.[6] Secondhand aerosol exposure causes eye, throat and airway irritation, damages lung tissues and may exacerbate or lead to respiratory illnesses such as asthma.[6]

Potential risks

The FDA has not evaluated any ENDS for safety or effectiveness as a cessation device.[2] **According to the FDA website, e-cigarettes have not been fully studied and consumers do not have information about the potential risks of use or how much nicotine or other potentially harmful chemicals are being inhaled.**[7] There is also concern that ENDS may increase nicotine addiction among youth and lead young people to initiate other tobacco product use.[2,7] As of now ENDS are unregulated by the FDA, and as a result, they can be marketed on television, radio, billboards, online, at sporting events, in mall kiosks, and in many other ways reminiscent of tobacco advertising in previous decades. The Truth Initiative (formerly the American Legacy Foundation) also cautions that any potential harm reduction benefits of ENDS use may be offset if ENDS encourage the initiation of use of conventional tobacco products or promotes dual product use.[8] **As a result, it is important to educate young people about the risks of using ENDS.**

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JUUL

JUUL is not your typical e-cigarette. In appearance, JUUL resembles a USB flash drive, and is in fact charged using a USB port. JUUL first launched in 2015 and is marketed heavily on social media sites. Users reported buying or getting JUUL from physical retail locations (74%), social sources (52%), and the internet (6%).[1] As of March 2018, JUUL represented 64% of the dollar share of the e-cigarette retail market.[2] A recent study found 38% of 12-17 year olds recognize JUUL, and nearly 1 in 5 students have seen JUUL used in school.[1] In addition, statistics on youth e-cigarette use (see page 12) may underreport the problem. A study from Truth Initiative found that a quarter of youth and young adult JUUL users don't refer to JUUL use as "e-cigarette use" or "vaping" but rather as "JUULing."[3]

A JUUL starter kit costs approximately $50 and includes the device, charger, and 4 flavored nicotine pods. Flavors include mango, fruit medley, crème brulee, cool mint, and cool cucumber. JUUL is high tech, discreet and easy to hide, and contains nicotine salts which users describe as delivering a faster, smoother "hit." Every JUUL pod contains nicotine. The 5% strength of a JUUL pod is equivalent to the nicotine in a pack of cigarettes. Alarmingly, 63% of JUUL users don't know that the product always contains nicotine.[1]

For more information about e-cigarettes & JUUL, visit:

- Campaign for Tobacco Free Kids: https://www.tobaccofreekids.org/assets/factsheets/0394.pdf
- Truth Initiative: https://truthinitiative.org/news/what-is-juul
- CDC: https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm

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Tobacco Industry Marketing and Youth

In 2006, U.S. District Judge Gladys Kessler issued a final judgment in the U.S. government's lawsuit against the major tobacco companies. This lawsuit convicted the tobacco companies as racketeers for defrauding the American people by lying for decades about the health risks of smoking and their marketing to children.[1]

Regarding the tobacco industry's targeting of youth, Judge Kessler said:

"From the 1950s to the present, different defendants, at different times and using different methods, have intentionally marketed to young people under the age of twenty-one in order to recruit 'replacement' smokers to ensure the economic future of the tobacco industry."
(Final Opinion, United States v. Philip Morris)[2]

Tobacco industry CEO's testifying that "Nicotine is not addictive." Hearing on the Regulation of Tobacco Products House Committee on Energy and Commerce Subcommittee on Health and the Environment - April 14, 1994[3]

To maintain profits, tobacco companies must replace customers who quit tobacco or die from tobacco-related diseases with new smokers. "Replacement smokers" are often youth who are attracted to tobacco products through expensive marketing campaigns that use images that are highly appealing to young people.[4]

The tobacco industry spends $9.6 billion dollars every year ($26 million dollars per day) to promote their addictive and deadly products, of which $359.8 million is spent in the state of Missouri.[5] Many of their marketing efforts are aimed at youth.[6-7]

While tobacco companies may claim that they have stopped targeting youth with their marketing, evidence shows that they continue to advertise in ways which target vulnerable, underage populations. In fact, one study found that 91% of middle school and 93% of high school students were exposed to tobacco ads in stores, in magazines or on the internet in 2011.[8] Internal tobacco industry documents, revealed as a result of lawsuits, show that the industry considers youth as young as 13 to be a key market. Here are a few industry quotes about marketing to kids.

Philip Morris: "Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers begin to smoke while still in their teens…The smoking patterns of teenagers are particularly important to Philip Morris."[8]

Lorillard Tobacco: "The base of our business is the high school student."[9]

U.S. Tobacco: "Cherry Skoal is for somebody who likes the taste of candy, if you know what I'm saying."[10]

R.J. Reynolds: "We reserve the right to smoke for the young, the poor, the black and stupid."[11]

Moreover, despite the ban on flavored cigarettes, the tobacco industry continues to lure kids into nicotine with a wide assortment of sweet-flavored cigars, smokeless tobacco products, hookah tobacco and electronic nicotine delivery systems (ENDS; aka e-cigarettes). Flavors range from fruit punch to watermelon to chocolate. A recent study found that nationwide, about 18% of all high school students reported using at least one flavored tobacco product in the past 30 days, far more than the 5.8% who reported using only non-flavored tobacco,[13] and among current users of any tobacco product, 70% of middle and high school students (representing 3.26 million young people) report using a flavored product in the past 30 days.[14] In 2014 alone, an estimated 1.58 million students used a flavored e-cigarette, 1.02 million used flavored hookah tobacco, 910,000 used flavored cigars, 900,000 used menthol cigarettes, and 690,000 used flavored smokeless tobacco products.[14]

According to one retired Missouri school nurse, "Teens listen when they realize they are being targeted." This information can be used to engage student tobacco users in dialogue about how the tobacco industry preys on young people and vulnerable groups, and this may change their feelings about tobacco use.

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Tobacco and Nicotine Use Initiation

Every day, more than 2,800 U.S. youth under age 18 try their first cigarette, and an additional 700 youth become new daily smokers.[1]

Most kids try smoking for the first time between sixth and seventh grade (ages 11-13).[2]

Nearly one in ten youth have smoked at least one whole cigarette before age 13.[3]

By the 10th grade, one out of every five students has tried smoking, and by the 12th grade, one out of three has tried smoking.[4]

More than one-third of all youth who ever try smoking a cigarette will become daily smokers before they leave high school.[5]

Research finds that 90% of adult smokers began smoking before age 18, and 2 out of 3 adult smokers report having become daily smokers before age 19.[6]

More than 250,000 youth who had never smoked a cigarette used an electronic nicotine delivery system (aka e-cigarette) in 2013.[7] **There is growing concern that initiation of these products is another pathway to nicotine addiction.**

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Missouri: By the Numbers

Every year 3,100 Missouri kids under the age of 18 become new daily smokers.[1] The Missouri high school smoking rate is 9.2% (representing 29,100 youth smokers), which is higher than the national average of 7.6%.[2] [See Figure 1]

Use of Electronic Nicotine Delivery Systems (ENDS; aka e-cigarettes) is increasing among Missouri middle school (5.4%) and high school (10.9%) students, as it is nationwide.[2-3] [See Figure 2]

Smokeless tobacco use in Missouri is also high. Among high school males in Missouri, smokeless tobacco use is 8.1%[2-3]. [See Figure 3]

In addition, the rate of middle school and high school students who have ever used tobacco in any form is alarming. [See Table 4]

Figure 1. Current (Past 30 Days) Cigarette Smoking[1-2]

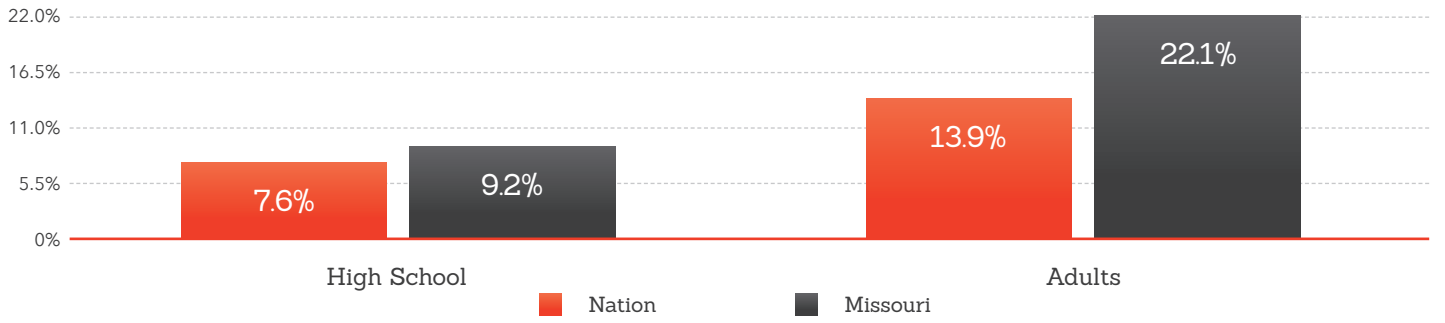

Figure 2. Current (Past 30 Days) Electronic Nicotine Delivery System Use[2-3]

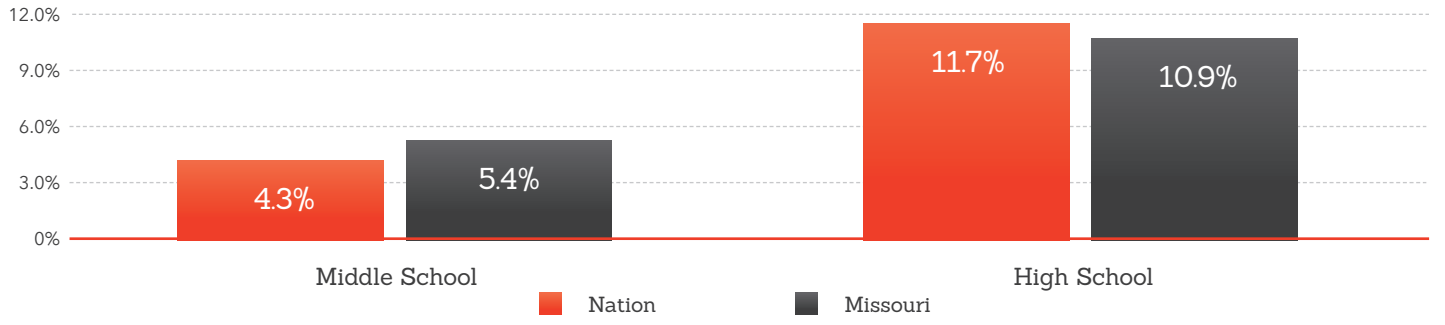

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Figure 3. Current (Past 30 Day) Smokeless Tobacco Use Among Males[2-3]

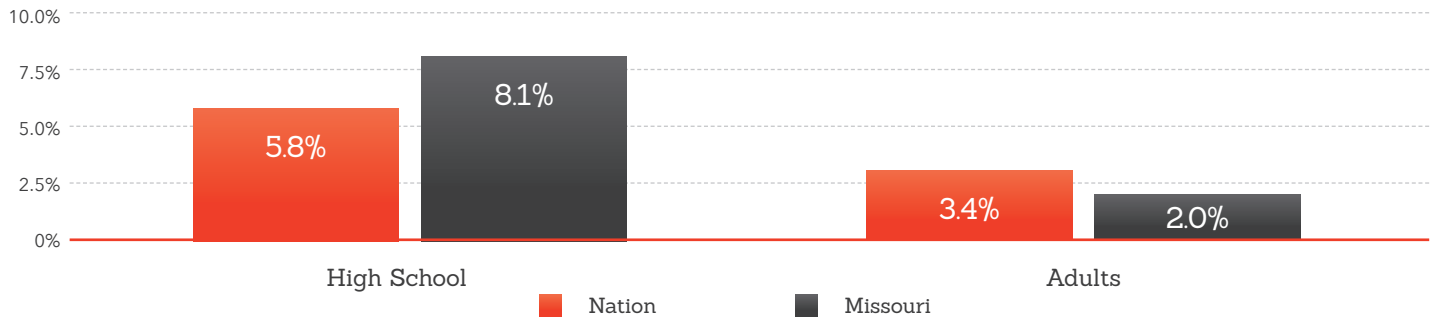

Figure 4. Ever Use of Any Form of Tobacco[2-4]

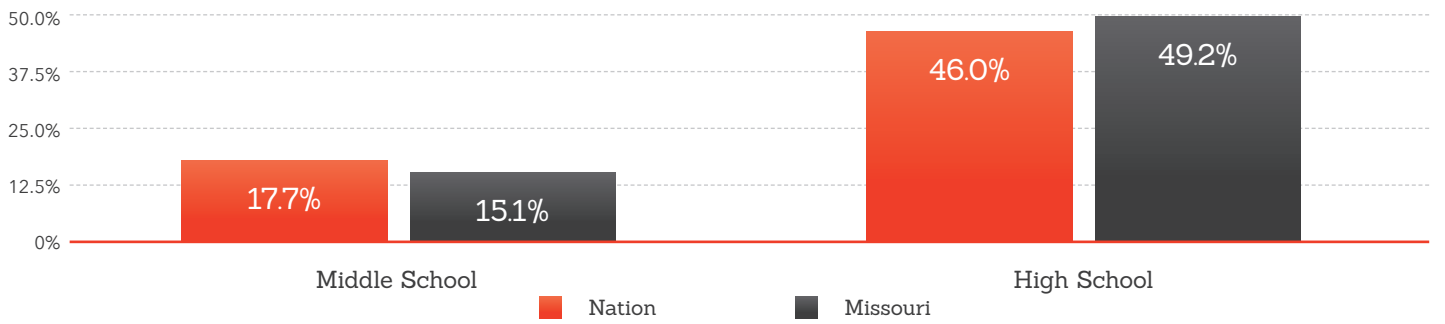

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Figure 3 References

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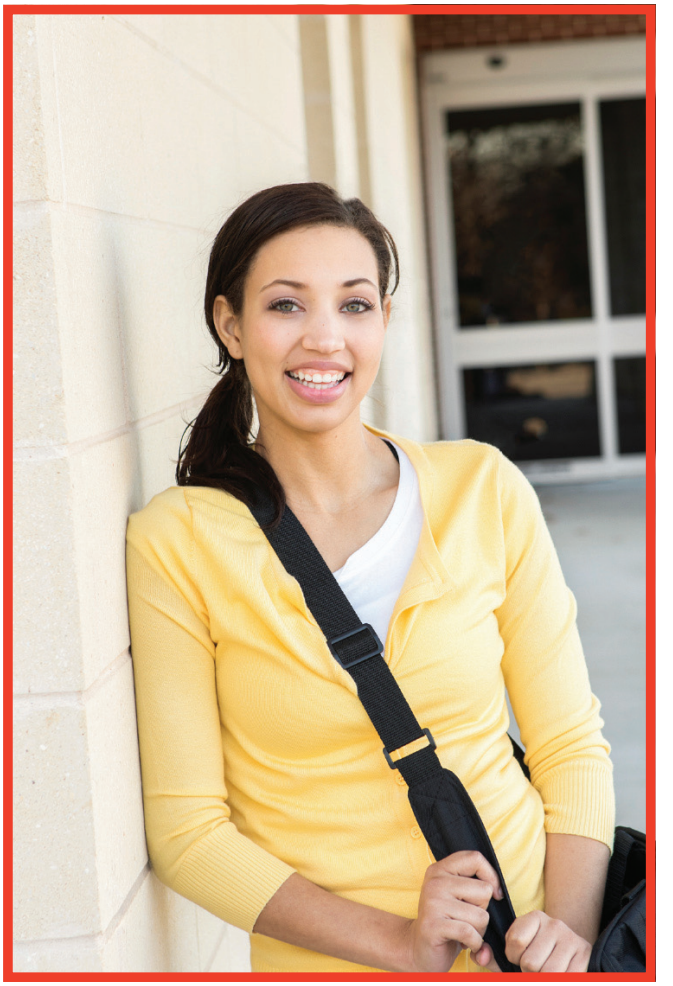
How Tobacco Harms Youth

It is important to understand the health and social consequences associated with tobacco use among young people. However, these lists should not be used to lecture or recite to young people. They provide a learning opportunity, and not all items on these lists may be of particular concern to any one young person. Everyone is uniquely motivated to quit tobacco use.

Short-term health consequences:[1-3]

- Chronic coughing
- Asthma attacks
- Emphysema
- Bronchitis
- Increased susceptibility to the influenza with more severe symptoms
- Mild airway obstruction and reduced lung function
- Shortness of breath and increased phlegm
- Higher resting heart rates
- Decreased athletic performance and endurance
- Headaches
- Vision problems and hearing loss
- Halitosis (bad breath)
- Stained teeth
- Reduced sense of smell
- Decreased overall health



Long-term health consequences:[2-3]

- Stunted lung growth (the lungs continue to grow until around age 20)
- DNA damage that can cause cancer
- Wrinkles
- Early cardiovascular disease (heart attacks and stroke)
- Damaged arteries (atherosclerotic lesions)
- Increased triglycerides
- Oral cancer
- Tooth decay and tooth loss (periodontal degeneration)

In addition to the health risks associated with smoking, using tobacco has negative impacts on a person socially. For some teens, these social consequences may be of more concern than health.[4]

Social consequences:[4]

- Smell of smoke on clothes, hair and breath
- Makes one less attractive to others
- Often limits potential romantic partners
- Sexual dysfunction in males
- Lowers the ability to smell and taste
- Less money to spend
- Risk of getting caught using tobacco in places where it isn't allowed
- Having to hide or lie to people about the habit
- Not being a good role model for younger friends and siblings
- Irritability and lack of concentration when prevented from using tobacco (see withdrawal symptoms on page 32)
- Less likely to be hired by employers
- Trouble finding an apartment to rent because landlords prefer to rent to non-tobacco users
- Taking more sick days from work and school
- Repeatedly having to go outside to use tobacco
- Non-tobacco using friends may spend less time with the youth

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Missouri is Falling Behind

When it comes to tobacco control efforts, Missouri is falling behind. The problem is three-fold:

First, the state does not fund any youth tobacco prevention programming. There is a widely held misconception that the state dedicates a portion of the funds from the Master Settlement Agreement (MSA) to this cause – as was the intention of the MSA. Sadly, the Missouri State Legislature does not use the MSA funding for this purpose. Any current prevention efforts taking place statewide in Missouri are the result of local, federal, and non-profit grant funding. This type of prevention funding is intermittent and falls far short of the CDC's best practices state spending recommendation. In Best Practices for Comprehensive Tobacco Control Programs, the CDC recommended that Missouri spend $72,900,000 on tobacco control. In 2018 the Missouri tobacco control program had $2,203,107 to spend, only 3% of the recommendation. Federal funds made up 96% of that total, with state general revenue contributing $48,500.[1]

To learn more about the Master Settlement Agreement, visit:

- Tobacco Control Legal Consortium, The Master Settlement Agreement, An Overview
  http://www.publichealthlawcenter.org/sites/default/files/resources/tclc-fs-msa-overview-2015.pdf

- Campaign for Tobacco Free Kids, Broken Promises to Our Children
  http://www.tobaccofreekids.org/microsites/statereport2015/

The second challenge in Missouri is the lack of a comprehensive smokefree indoor air law, which would prohibit indoor smoking in all workplaces, including bars and restaurants. Currently, Missouri is one of twenty-five states without a comprehensive smokefree indoor air law.[2] The main purpose of smokefree laws and policies is to protect nonsmokers from secondhand smoke; however, research shows that these laws also have the added benefit of increasing overall cessation[3] and reducing smoking initiation among youth.[4]

Finally, Missouri ranks last with its tobacco tax, at only $0.17 per pack of cigarettes, compared to the national average of $1.73.[5] Many economic studies have documented that increases in the cigarette tax or price reduce adult and youth smoking.[6] For every 10% increase in the price of cigarettes, there is a 6-7% reduction in the number of youth who smoke.[6] Young people are especially sensitive to the price of tobacco products, and substantial tax increases are the most effective way to deter youth smoking. Having the lowest tobacco tax in the nation allows the rate of youth tobacco use in Missouri to remain high.

Taken together, the lack of youth prevention funding, the lack of a comprehensive statewide smokefree law, and the low tobacco tax are largely to blame for the high prevalence of adult and youth tobacco use in Missouri. In the 2015 State of Tobacco Control report, the American Lung Association gave Missouri a grade of "F" in the four categories considered: tobacco prevention and cessation funding, smokefree air, tobacco taxes, and Tobacco 21. Missouri also received a "D" grade in access to cessation services.[1] Because of these challenges at the state level, efforts must be made at the local level to reduce tobacco use.

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Intention to Quit

A survey of 11-19 year-olds found that 82% of smokers are thinking about quitting.[1] In a longitudinal study of adolescent novice smokers it was found that the first serious desire to quit smoking was only 1.5 months after smoking initiation.[2] The first serious quit attempt occurred at 2.5 months from initiation. **Research finds that 48-77% of adolescent smokers have made a serious quit attempt.**[3-4] In Missouri, 49.6% of middle school and 47.8% of high school students have tried to quit smoking in the past year.[5] However, few (8.9%) Missouri high school students who currently smoke or use tobacco had participated in a program to help them quit, and only 4.1% of these students had programs at school to help them quit.[5]

Quit attempts by young people are often unplanned and unassisted[5], even though tobacco cessation programs double an adolescent's chances of successfully quitting.[6-7] **Adolescent smoking cessation programs, compared with control conditions, increase the probability of quitting by approximately 46%.**[6,8]

Regrettably, a national focus group of adolescents found that many young smokers did not consider tobacco use urgent or intense enough for professional help.[9] Perceptions of cessation programs were nonexistent or negative. Unfortunately, without assistance, three out of four will continue smoking into adulthood.[3] It is critical to educate adolescents about what cessation programming is, what it is not, why it is needed, how it can help and where it is offered.

To increase utilization, smoking cessation programs should be made available to adolescents in a variety of settings.[10] In addition, cessation programs need to address other tobacco products in addition to cigarettes.[11] Similar to older and adolescent daily smokers, young adolescents and non-daily smokers make regular cessation attempts and should be included in cessation programs along with older adolescents and adolescent daily smokers.[12]

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The Need for Cessation in Schools

Schools are institutions of learning and well-being. Adolescents spend one third of their waking time in school, and 95% of children in the United States attend school.[1] **While many school districts have tobacco-free policies, these policies are incomplete and fall short of the "gold standard" if cessation services are not included.**[2]

Schools are the optimal setting to reach large populations of youth with health-related interventions, including tobacco cessation. Offering services in schools helps eliminate barriers to cessation for youth, such as transportation, cost, and ability to provide follow-up. **In addition, the availability of cessation provides a treatment alternative to the usual disciplinary action for youth who violate school tobacco policies.** School nurses, in particular, are well situated to provide cessation services and have the skills and credibility necessary to do so.[3] Almost all school districts in Missouri have at least one school nurse, and in most cases, one nurse per school. Nurses have a unique opportunity to screen for tobacco use during routine health screenings and office visits. Youth who smoke have more illnesses and more severe illness than youth who do not smoke and therefore might be more likely to visit the school nurse.[4]

Cessation services should be incorporated into coordinated school health programs which seek to integrate health-promoting practices into the school-setting.[5] Missouri school nurses prioritize asthma care and oral health, both of which can be improved by tobacco-free school policies and the provision of cessation services. In fact, during the 2014-2015 school year there were 80,443 Missouri students who had an asthma diagnosis.[6] **In alignment with the Centers for Disease Control and Prevention's *Whole School, Whole Community, Whole Child* model, tobacco cessation is a critical piece of the Health Services component.**[5] School nurses, teachers, counselors and administrators all have a role to play in improving the health of young people and can utilize this toolkit to help adolescents quit tobacco.

Many of the tools provided in the ACES toolkit focus on helping young people quit tobacco through behavioral interventions (e.g., motivational interviewing, completing the quit plan) and would not be considered a medical treatment requiring permission from parents and guardians. By focusing on changing behaviors around tobacco use, school nurses and professionals are able to provide effective and evidence-based assistance to student tobacco users, while respecting the young person's need for confidentiality.

This toolkit was developed from evidence-based literature and best practices for adolescent tobacco cessation. It has been reviewed by experts in tobacco cessation and school nursing and is available to schools at no cost. It is designed to be used one-on-one with adolescents and does not require a group or classroom format. Trainings on adolescent tobacco cessation and the use of this toolkit are available at no cost (see page 45). Schools can and should play a major role in helping young people live full and happy lives, free from nicotine addiction.

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Prevention vs. Cessation

Prevention and cessation are related, yet separate activities. While prevention focuses on preventing non-tobacco users from ever experimenting with or initiating regular tobacco use, cessation involves actively helping a current tobacco user quit. Both are needed in the school setting in order to reduce tobacco use among young people.

Prevention

Prevent non-tobacco users from ever experimenting with or initiating regular tobacco use

Examples:

- Anti-tobacco brochures and PSAs
- Social norms posters (i.e., 88% of students do not use tobacco)
- Peer-to-peer education programs
- Health class presentations on the harms of tobacco
- Red Ribbon Week
- DARE

Cessation

Actively help current tobacco users quit

Examples:

- Setting a quit date
- Talking to someone about quitting
- Making a quit plan
- Cutting back the number of cigarettes smoked each day
- Using nicotine replacement therapy patches or gum
- Using a medication to help stop smoking

Section 2:
Implementation

The 5As Approach

Cessation interventions that take place through the provision of self-help materials, via a telephone Quitline, in a group setting and one-on-one have all been shown to be more effective than making an unassisted quit attempt.[1] **One-on-one cessation coaching is the most effective approach[1], can be implemented on-the-spot and is highly individualized – making it the best approach for working with adolescents in the school setting.**

The 5As are a brief, evidence-based tobacco cessation intervention that takes less than three minutes to complete.[1] **The American Academy of Pediatrics endorses the use of the 5As approach with adolescent tobacco users,[2] and studies have shown it to be effective with young people.[3-4]**

The 5As will help you determine a person's willingness to quit smoking. The first step is to **ask** if a young person uses tobacco. For example, a school nurse could ask all students who visit her office about their tobacco use or she could focus on asking students who present with coughs, respiratory illness, and those who smell of tobacco. If they confirm that they use tobacco, the next step is to **advise** them to quit and **assess** their willingness to make a quit attempt. If a young person is unwilling to quit, the nurse should utilize motivational interviewing techniques to increase the likelihood the young person will make a quit attempt in the future (see page 22). If the young person is willing to quit, the nurse should **assist** him or her in making a quit attempt by helping with setting a quit date and completing a quit plan (see page 23). The final step is to **arrange** for follow-up with that individual to provide support, encouragement and accountability during the quit attempt.

Table 1. The "5As" model for treating tobacco use and dependence[1]

Ask	**Ask every student about tobacco use at every visit. Identify tobacco users and document tobacco use.** Example: 1. "Do you use any tobacco products, even occasionally?"
Advise	**Advise tobacco users to quit. In a clear, strong and personalized manner, urge every tobacco user to quit.** Example: 1. "I think it is important for you to quit now and I can help you. Nicotine is an addictive drug, and the longer you use tobacco the harder it will be to quit."
Assess	**Assess willingness to make a quit attempt.** Example: 1. "On a scale from 0 to 10, how motivated are you to quit?" 2. "Have you ever tried to quit on your own?" 3. "Do you want to quit within the next month?"
Assist	**For persons who want to quit:** Assist the young person in making a quit attempt. Help him/her set a quit date, complete the quit plan (see page 23), identify coping strategies and provide one-on-one support throughout the quit attempt. **For persons who are uninterested in quitting:** Implement motivational interviewing techniques to increase future quit attempts (see page 22).
Arrange	**Arrange follow-up, especially on and following the quit date.** Example: 1. During follow-up visits, success should be congratulated. If the individual has slipped up, review and adapt the quit plan and encourage a new commitment to quitting.

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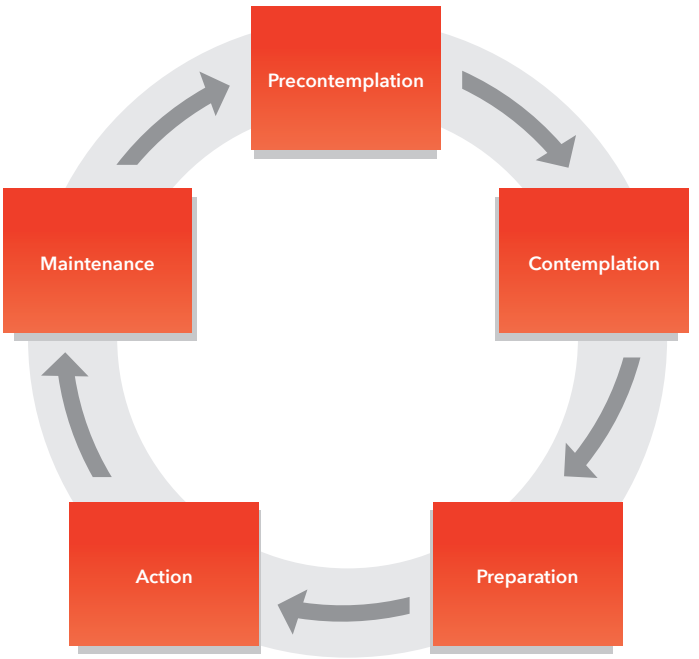
Stages of Change

The Stages of Change (also called the Transtheoretical Model or TTM) help us understand where in the process (i.e., what stage) a person is in terms of making a behavior change, such as quitting tobacco. **There are five Stages of Change and the stages can be thought of as a cycle; people can move backwards or forwards in the cycle at any time.**

It is important to have an idea of which stage a tobacco user is in, in order to best assist him or her in cessation. For example, a student who is in the precontemplation stage will be unaware that his or her tobacco use is a problem and may not have thought about quitting. In this case, motivational interviewing techniques can be used to help the student become aware of the problem and move him/her to the next stage of change (see page 22). If a student expresses interest in quitting in the near future, he or she is in the preparation stage. Offer to help the student set a quit date, fill out the quit plan, identify triggers and coping strategies, provide support and arrange for follow-up (see page 23). A person's stage of change will guide your efforts to help him or her become tobacco free.



Adapted from Prochaska and DiClemente[1]

State of Change	Characteristics	How to Help
Precontemplation	Student is unaware of the problems with their tobacco use. Student is not thinking about quitting any time soon.	Motivational interviewing
Contemplation	Student is weighing the pros and cons of tobacco use and is starting to think about making a change.	Motivational interviewing
Preparation	Student is preparing to make a quit attempt. The student might have chosen a quit date or started looking for people or resources to help with quitting.	Set a quit date, Fill out a quit plan, Identify triggers and coping strategies
Action	The student is actively trying to quit tobacco.	Follow up regularly, Provide support
Maintenance	The student has successfully quit tobacco for a period of time.	Discuss relapse prevention strategies

References
1. Prochaska, J. O., and DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. Psychotherapy: Theory, Research and Practice, 19(3): 276.

Motivational Interviewing

One definition of motivational interviewing (MI) is: a directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence.[1]

A person's motivation to change a behavior, such as quitting tobacco, is always fluctuating. MI helps people explore and resolve their uncertainties about changing a behavior. When thinking about trying to quit tobacco, a young person will experience many moments of doubt. **However, MI can reduce a person's resistance to quitting tobacco by increasing awareness that tobacco use is a problem, strengthening motivation to quit and increasing confidence in one's ability to quit.** MI avoids an aggressive or confrontational approach and instead steers people towards choosing to change their behavior and enhances their self-confidence to do so.[2] Practicing MI with students who are currently uninterested or unwilling to make a quit attempt is critical to increasing the likelihood that they will make a quit attempt in the future. **The goal of MI is to help young people realize that they want to quit and to help them do so.**

MI can be practiced by anyone who works with students. The key characteristics needed to be effective at MI are:

1. Active listening
2. Understanding
3. Demonstrating empathy
4. Knowledgeable
5. Non-Judgmental

MI techniques:

1. Ask open-ended questions
2. Try to understand the student's frame of reference
3. Express acceptance and affirmation
4. Elicit and selectively reinforce the student's own statements related to behavior change
5. Monitor the student's degree of readiness to change
6. Affirm the student's freedom of choice and self-direction

Examples of MI questions that you could ask a young person who is uninterested or unwilling to quit tobacco in an effort to reduce ambivalence about quitting:

1. What warning signs would let you know that this is a problem?
2. Have you tried to quit tobacco in the past?
3. What would have to happen for you to know that this is a problem?
4. What are your reasons for not quitting?
5. What might help you quit?
6. What do you think you need to learn about quitting?
7. What could happen if you don't quit?
8. What would be the good things about quitting?
9. If you were to decide to quit, what would you have to do to make this happen?
10. How can I help you get past some of the difficulties you are experiencing?
11. What is the best thing you can imagine about quitting?
12. If you make changes like quitting, how will your life be different from what it is today?

Learn more about MI:

- **Motivational Interviewing Network of Trainers:** http://www.motivationalinterviewing.org/
- **American Academy of Pediatrics:** https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/HALF-Implementation-Guide/communicating-with-families/pages/Motivational-Interviewing.aspx
- **Nova Southeastern University:** http://www.nova.edu/gsc/forms/mi_rationale_techniques.pdf

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My Personalized Quit Plan – Overview

All cessation interventions should include a behavioral component, such as the completion of an evidence-based quit plan, to achieve optimal success.

An evidence-based quit plan template and a follow-up form for adolescent tobacco cessation interventions were developed for this toolkit. The quit plan template covers reasons for quitting, triggers, coping strategies, support and the rewards of quitting. It should be completed with persons who are in the preparation or action stage of quitting tobacco (see page 21). **You can increase a young person's chances of successfully quitting by helping him or her develop a quit plan using the template on page 27.**

The follow-up form (page 31) covers withdrawal symptoms, triggers experienced, coping strategies used, positive changes experienced and confidence level to remain tobacco-free. It should be completed with young people who are coming back for follow-up throughout a quit attempt.

These tools are unique in several aspects. **These tools were developed from the evidence base (see pages 47-48) and are centered in the most recent research advances in adolescent cessation treatments.** While many of the components of adult cessation interventions can be used with adolescents, there are some unique differences that must be addressed, and all components need to be developmentally appropriate for this age group. These tools are easy to use for both cessation providers (aka "quit coaches") and adolescents and are variable in the amount of time required to complete. An initial cessation intervention meeting, including using the 5As and completing the quit plan template, could take 20 to 60 minutes, depending on the amount of time available to provide the service. While most of the existing cessation curriculums for adolescents require a group or class setting and the purchase of materials, these tools can be used one-on-one and at no cost. **By having the flexibility to provide individual, on-the-spot cessation interventions, cessation providers in the school setting can reach young people more effectively than they would by referring them to outside services or asking them to wait until there is enough interest and participation to justify a group cessation class.**

How to Use My Personalized Quit Plan

The quit plan should be used only with young people who are currently ready and willing to quit tobacco. This quit plan was designed to be completed by an adolescent with the guidance and support of an adult, such as a school nurse or other school professional, who will serve as the "quit coach." **The quit coach should guide the young person through its completion, section-by-section, asking open-ended questions and stimulating conversation along the way.** The quit coach can ask the young person the questions on the quit plan and write down his or her responses, or give the quit plan directly to the young person to fill out. However, the quit coach should be involved in the development of the plan by engaging the young person in conversation about the quit plan and not simply hand it out like a homework assignment. Once completed, the quit coach and young person should both keep a copy of the quit plan. An overview of each section of the quit plan is provided below and an example of a completed quit plan can be found on pages 29-30.

My quit date

It is important for all tobacco users completing the quit plan to set a quit date. **This is the day on which the young person will stop using all tobacco products.** The ideal quit date is approximately two weeks from the time of the completion of the quit plan. This provides enough time for the young person to start to put the quit plan into place, practice his or her coping skills, have his or her support system in place, and cut down on tobacco use. If the young person proposes a quit date longer than two weeks, it may be an indication he or she is still in the precontemplation or contemplation stages of change (see page 21) and motivational interviewing techniques should be employed to reduce the young person's ambivalence about quitting (see page 22).

Follow up appointment

Before the young person leaves, a follow-up appointment should be scheduled. Research finds that the more sessions a person attends with a quit coach, the higher his or her chances are of successfully quitting.[1] The follow-up appointment could be scheduled for as little as a few days from the initial appointment, but should be no longer than two weeks from the initial meeting. **During the follow-up appointment, the follow-up form should be completed, successes should be acknowledged and setbacks should be reviewed.** The quit plan may need to be adapted during the follow-up appointment and additional follow-up appointments can be scheduled.

Reasons to quit

In this section of the quit plan, the young person should make a list of all of the reasons why he or she wants to quit. Examples might be, "it costs too much money" or "I can't smoke at home or at school." Encourage the young person to make a long list. It may help to have the young person identify both short-term goals (e.g., going to college, getting a job) and long-term goals (e.g., being a parent) and imagine the impact that tobacco use would have on achieving those goals.

Triggers

Triggers are people, places, objects, situations or emotions that prompt someone to use tobacco. Triggers are often strongly learned associations. Examples might be:

- **People** – Spending the day with my best friend who smokes, my older brother offering me a cigarette
- **Places** – In my car, at my cousin's house, at the bowling alley
- **Objects** – Lighters, ashtrays, coffee
- **Situations** – While watching TV, at football games, after school
- **Emotions** – Anger, boredom, stress

Start by explaining what triggers are. If the young person has trouble identifying triggers, ask him or her to walk you through a typical day, identifying the times when he or she uses tobacco. After the triggers are identified, complete the "What will I do?" column with a list of healthy coping strategies that are alternatives to tobacco use. Coping strategies often fall into one of the "3 As" or "4 Ds" of tobacco cessation.

Consider the 3 As of tobacco cessation when filling out the "What will I do?" section of the quit plan:

Alternative - Use an alternative product to satisfy the desire to have tobacco products in the hands or mouth.

- Chew candy, gum, mints, sunflower seeds, straws or toothpicks
- Occupy your hands with silly putty, rubber bands or stress balls
- Brush your teeth

Alter - Change the situation or environment that triggers the use of tobacco.

- Pay for your gas at the pump instead of going inside convenience stores
- Ride a bike instead of driving
- Drink tea instead of coffee
- Clean the car so that it doesn't smell like tobacco
- Take breaks by watching funny videos online
- Take deep breaths or go for a jog after an argument
- Spend more time with friends and family members who do not smoke

Avoid – Avoid your triggers.

- Take work breaks inside instead of going out back with the smokers
- Avoid spending a lot of time in places that allow smoking
- Avoid drinking coffee while quitting

Alternatively, some quit coaches encourage users to consider the 4 Ds of quitting tobacco:

Delay – Delaying tobacco can be an effective cessation strategy. By lengthening the amount of time that passes between a craving and tobacco use, resistance to cravings is strenghtend and confidence in your ability to quit is built. Try to increase the length of time between cravings and tobacco use until one is able to completely avoid tobacco use. Cutting down the number of cigarettes smoked or tobacco products used over time can be a successful way to quit.

Deep Breathing – Triggers for tobacco use, such as stress, sadness and anger, can often be managed by deep breathing. Taking several deep breaths can also help alleviate cravings and the symptoms of nicotine withdrawal.

Drink Water – Similar to deep breathing, drinking water can alleviate cravings and the symptoms of nicotine withdrawal.

Distract/Do Something Else – Doing something else allows time for cravings to pass. Staying busy and engaged in hobbies, sports and other activities is an important part of a successful quit attempt.

Things to do instead

This section is used to list hobbies and activities that can be done instead of using tobacco. Examples might include: dancing, playing soccer, practicing piano or reading. It is important to make a list of enjoyable activites that can replace the time that was previously spent using tobacco.

Support

Support from friends, significant others, family and a quit coach, can greatly increase a person's chances of successfully quitting tobacco. It is important to identify specific individuals who will support one's quit attempt at school, at home, at work and in other modes (i.e., via text messages, phone calls and online – see page 38). **A person's support system can provide encouragement and accountability during the quit**

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attempt. In addition, letting people know about a quit attempt can reduce the number of people who use tobacco around the youth, thus reducing temptations and triggers.

Other support strategies

Other support strategies might include the use of online, social media and text messaging programs (see page 38), self-help materials and worksheets or use of a nicotine replacement therapy product (see page 35).

Rewards of quitting

Research finds that young people are motivated to quit tobacco by rewards such as having more money, being more attractive to potential romantic partners and fitting in with their peers. Efforts to promote cessation among young people are most successful when they focus on these types of rewards as well as social norming messages (i.e., 9 out of 10 CPS high school students do not use tobacco; 88% of CPS students prefer to kiss nonsmokers), rather than long-term health consequences such as emphysema and cancer.

ACES
Adolescent Cessation in Every School

My Personalized Quit Plan

Name:

My Quit Date: **Follow-Up Appointment:**

Reasons to quit

Examples: It costs too much, I can't use tobacco in a lot of places

1.

2.

3.

4.

5.

6.

Triggers

Triggers are situations that prompt you to want to smoke.
Examples: After a meal, driving, stress, feeling bored, feeling sad

Trigger 1	**What will I do?**
Trigger 2	**What will I do?**
Trigger 3	**What will I do?**
Trigger 4	**What will I do?**
Trigger 5	**What will I do?**
Trigger 6	**What will I do?**

Things to do instead

Examples: Go for a walk, Call a friend who supports your quitting, Hang out in places you're not allowed to use tobacco

1.

2.

3.

4.

5.

6.

Support

Who can support me at home?

Who can support me at school?

Who can support me at work?

Which friends will help me the most when I'm quitting?

Which friends will be less helpful when I'm quitting?

Other support strategies

Examples: nicotine replacement therapy patches or gum, Call 1-800-Quit-NOW, Get online support at www.becomeanex.org

1.

2.

3.

4.

Rewards of quitting

1.

2.

3.

4.

ACES

Adolescent Cessation in Every School

My Personalized Quit Plan

Name: Alyssa Johnson

My Quit Date: October 15th **Follow-Up Appointment:** October 18th

Reasons to quit

Examples: It costs too much, I can't use tobacco in a lot of places

1. I don't want my little brother to start smoking.
2. I have to hide it from my parents.
3. My hair and clothes smell like smoke.
4. My boyfriend doesn't smoke.
5. We have to start running track in PE class.
6. I don't want to be a smoker when I graduate.

Triggers

Triggers are situations that prompt you to want to smoke.
Examples: After a meal, driving, stress, feeling bored, feeling sad

Trigger 1
Fights with my mom

What will I do?
Take deep breaths, go jogging

Trigger 2
After school

What will I do?
Spend time with my brother

Trigger 3
When I'm with my friends who smoke

What will I do?
Go to places without smoking like the movies, ask them to not offer me cigarettes, spend more time with friends who don't smoke

Trigger 4
Gas station

What will I do?
Pay for my gas at the pump, go to a different station

Trigger 5
Watching TV

What will I do?
Brush my teeth beforehand

Trigger 6
When I'm on the phone

What will I do?
Chew gum, drink water

Things to do instead

Examples: Go for a walk, Call a friend who supports your quitting, Hang out in places you're not allowed to use tobacco

1. Practice piano.
2. Dance classes.
3. Take my brother places.
4. Listen to music.
5. Read a book.
6. Go to the mall.

Support

Who can support me at home? My brother

Who can support me at school? My friends who don't smoke, nurse

Who can support me at work? Jenny

Which friends will help me the most when I'm quitting? Cassie, Joe

Which friends will be less helpful when I'm quitting? Erica, Ron, Dan

Other support strategies

Examples: nicotine replacement therapy patches or gum, Call 1-800-Quit-NOW, Get online support at www.becomeanex.org

1. Chew gum.
2. Download smokefreeTXT.
3. Visit the school nurse once a week.
4.

Rewards of quitting

1. More money for clothes.
2. Not hiding from my parents.
3. Not disappointing my brother.
4. Not having bad breath.

ACES

Adolescent Cessation in Every School

Follow-Up Form

Name: **Next Appointment:**

1. Please circle all withdrawal symptoms you have experienced in the last 7 days.

Desire to smoke (cravings)	Irritability	Restlessness
Dizziness	Headache	Stomach/bowel problems
Anxiety/depression	Difficulty concentrating	Increased eating
Difficulty sleeping	Increased stress	Other: _____
Coughing More		

2. Please circle all the triggers you have experienced in the last 7 days.

When I wake up	After class/school	With coffee or alcohol
After a meal	Talking on the phone	When I'm with certain friends
During social events	Relaxing	When I'm sad
During breaks	Boredom	When I'm angry
In the car	When I'm getting ready for bed	Other: _____

3. Please circle all the coping strategies you have used in the last 7 days.

Drink water	Reduce alcohol/caffeine intake	Go to places that don't allow smoking
Exercise	Call a supportive friend	Chew gum/candy
Deep breathing	Avoid people who are smoking	Use nicotine patches or gum
Avoid triggers	Ride a bike	Work on a hobby
Brush teeth	Take a walk	Play with a pet
Distract myself	Other: _____	

4. Please circle any positive changes experienced since you quit or cut back on tobacco.

Less coughing	Better circulation in hands and feet	Less sinus problems
Easier to breathe	Increased energy	More relaxed, less anxiety
Food tastes better	Sleep improvement	Better concentration
Improved sense of smell	More money	Better grades
Excerise is easier	Whiter teeth	Better relationships
Clearer skin	Fresher breath	Other: _____

5. Since my quit date I have used tobacco:

Not at all 1-2 times 2-5 times 5 or more times Everyday

6. How confident are you that you can stay tobacco free? Please circle your current confidence level.

Not at all confident — Somewhat confident — Very confident

1 2 3 4 5 6 7 8 9 10

Nicotine Withdrawal and Cravings

Nicotine is the main addictive substance found in tobacco products and electronic nicotine delivery systems (see page 3).

Symptoms of nicotine withdrawal vary from person to person. In adolescents, symptoms may include:[1-2]

- Cravings
- Trouble sleeping
- Irritability, frustration or anger
- Restlessness or anxiety
- Trouble concentrating
- Increased hunger
- Feeling sad, down or depressed

Withdrawal symptoms may peak around one week into the quit attempt and will then begin to decrease.[3] **By the second week into a quit attempt, most adolescents experience few withdrawal symptoms.**[3]

Adolescents who use tobacco, those that are making quit attempts and former tobacco users may all experience cravings. Cravings are a symptom of nicotine withdrawal, resulting from physiological nicotine dependence, behavioral habits or a combination of the two. **Cravings may be intense but will normally pass after a few minutes - whether or not the individual uses tobacco.** Knowing that cravings are short (3-10 minutes), often reassures people that they can ride out a craving by utilizing one of the 3 As or 4 Ds (see page 25). Each time a young person is able to resist a craving, he or she is one step closer to being tobacco free.

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2. Bailey, S. R., Harrison, C. T., Jeffery, C. J., Ammerman, S., Bryson, S. W., Killen, D. T., and Schatzberg, A. F. (2009). Withdrawal symptoms over time among adolescents in a smoking cessation intervention: Do symptoms vary by level of nicotine dependence? Addictive Behaviors, 34(12): 1017-1022.

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Fagerstrom Test for Nicotine Dependence[1]

The Fagerstrom test for nicotine dependence is a helpful tool that can be used with anyone making a quit attempt. This tool provides a measure of physiological nicotine dependence. It does not address psychological dependence (e.g., learned behaviors, associations and habits). It may be helpful to complete the Fagerstrom test before or during quit plan development.

Those with higher levels of physiological nicotine dependence may experience more withdrawal symptoms, may need more intensive coaching and may benefit from gradually tapering tobacco use.

1. How soon after you wake up do you smoke your first cigarette?

- Within 5 minutes (3 points)
- 5 to 30 minutes (2 points)
- 31 to 60 minutes (1 point)
- After 60 minutes (0 points)

2. Do you find it difficult not to smoke in places where you shouldn't, such as in church or school, in a movie, at the library, on a bus, in a court or in a hospital?

- Yes (1 point)
- No (0 points)

3. Which cigarette would you most hate to give up; which cigarette do you treasure the most?

- The first one in the morning (1 point)
- Any other one (0 points)

4. How many cigarettes do you smoke each day?

- 10 or fewer (0 points)
- 11 to 20 (1 point)
- 21 to 30 (2 points)
- 31 or more (3 points)

5. Do you smoke more during the first few hours after waking up than during the rest of the day?

- Yes (1 point)
- No (0 points)

6. Do you still smoke if you are so sick that you are in bed most of the day, or if you have a cold or the flu and have trouble breathing?

- Yes (1 point)
- No (0 points)

Scoring:
7 to 10 points = highly dependent
4 to 6 points = moderately dependent
Less than 4 points = minimally dependent

References
1. Heatherton, T. F., Kozlowski, L. T., Frecker, R. C., and FAGERSTROM, K. O. (1991). The Fagerström test for nicotine dependence: A revision of the Fagerstrom tolerance questionnaire. British Journal of Addiction, 86(9): 1119-1127.

Section 3:
Resources

Nicotine Replacement Therapy and Cessation Medications: Overview

Nicotine replacement therapy products and cessation medications, when paired with a behavioral intervention such as a quit plan, increase a person's chances of successfully quitting tobacco. In addition, research finds these products to be effective and safe for use by adolescents, with no more risk of side effects than seen in adults.

Nicotine replacement therapy (NRT)

Similar to adults, adolescent smokers experience withdrawal symptoms that can be reduced by pharmacological interventions.[1] Behavioral strategies combined with nicotine replacement therapy will increase the number of successful smoking cessation attempts among youth.[1] The most common forms of NRT (patches, gum and lozenges) are available over-the-counter at pharmacies, drug stores and retail outlets. Other forms of NRT and cessation medications (nasal spray, inhaler, varenicline and bupropion SR) require a prescription. These products may be available to some individuals at no cost depending on his or her insurance or Medicaid. Types of pharmacological therapies and appropriate dosing are discussed below.

Evidence and recommendations for Using NRT with adolescent tobacco users:

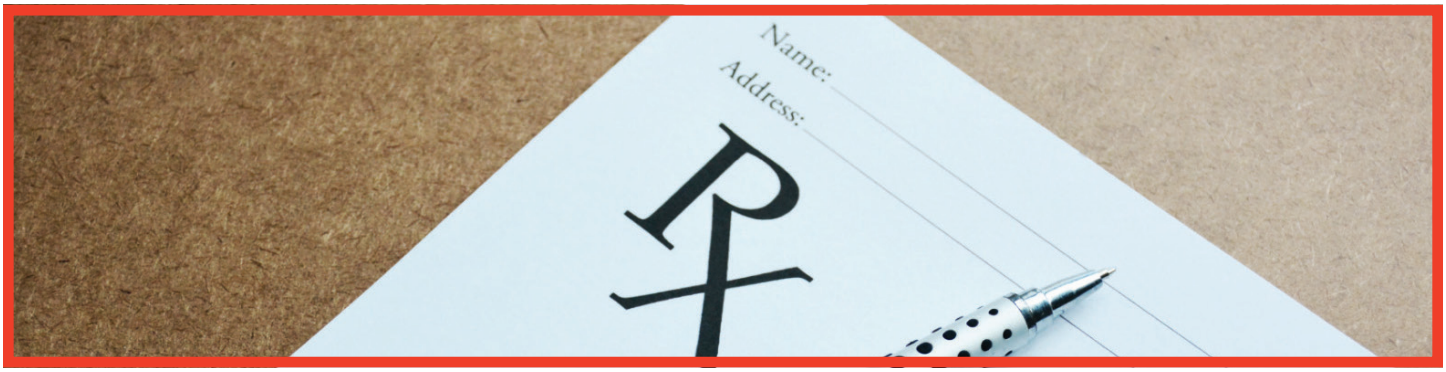
- Adolescents not interested in quitting smoking can still reduce tobacco use through cigarette reduction and NRT use.[2] In a study conducted at the University of Minnesota, adolescents were told to reduce their smoking by 25% during the first week of the program and by 50% during the subsequent three weeks. At the end of treatments, 49% of adolescents had reduced smoking by at least 50%. The results suggest that cigarette reduction along with NRT may be a potential aid to engage adolescents who are unable or unwilling to quit, but should not be an end goal.
- NRT use significantly increases self-reported and biochemically verified smoking abstinence rates in adolescents.[3-7]
- Approximately 5% of adolescents reported trying or currently using nicotine gum or patches, and almost 40% of former adolescent smokers reported using NRT to try to quit smoking.[8] **More than 50% of adolescents reported that it would be easy for them to get NRT.**
- Participation in cessation counseling was significantly associated with increased NRT use by adolescent tobacco users, whereas attending anti-smoking classes in school was inversely associated with using NRT.[9] School-based antismoking classes should discourage tobacco use without discouraging the use of nicotine products that are FDA approved to help users quit (e.g., nicotine patches, gum and lozenges).
- In a study of the safety and efficacy of NRT use among adolescent tobacco users, compliance was higher for the use of NRT patches than for NRT gum.[4] Both NRT products were well tolerated, and side effects were similar to those reported in adults. No serious adverse events were reported.[5-6]
- NRT use along with behavioral therapy is effective in helping adolescent smokeless tobacco users quit.[10]
- NRT use and counseling not only improve smoking abstinence rates in adolescents, they also reduce nicotine dependence and withdrawal symptoms.[7]

Cessation medications

Prescription medications are also available to help tobacco users quit. Some can be used along with nicotine replacement therapy (NRT), and some must be started before a person's planned quit day. A prescription is needed for these medications. Types of pharmacological therapies and appropriate dosing are discussed below.

Recommendations:

- Adolescents do not experience any more side effects from cessation medications than reported in adults.[11-12]
- Adolescents can receive lower doses of cessation medications according to their body weight.[12]
- A study of varenicline and bupropion XL use in adolescent smokers reported no serious adverse events.[13]
- If pharmacotherapy is used to treat adolescent tobacco users, it should be individualized (based on smoking patterns, patient preferences and comorbidities) and combined with psychosocial and behavioral interventions.[14]
- Combination nicotine patch, bupropion SR and counseling sessions achieved a 28% abstinence rate for adolescent smokers 26 weeks from baseline.[15] Combinations of NRT, cessation medication and counseling are effective at achieving long term cessation.[15]



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Nicotine Replacement Therapy and Cessation Medications: Dosing

Nicotine replacement therapy (NRT) and cessation medication dosing will likely be similar for adolescents and adults. The type of NRT or medication used and dosing should be determined by health care professionals and based on the adolescent's body size, nicotine dependence level and medical history.

FDA approved NRT and medication include:

	Availability*	Dosage	Duration	Education
Nicotine Patches	OTC	21 mg/day for > 10 cigs/day 14 mg/day or 7 mg/day for ≤ 10 cigs/day OR if <100 lbs	Up to 12 weeks Taper after 4-6 weeks	Apply each day to dry, hairless skin Rotate site daily Remove before bedtime if needed to avoid insomnia
Nicotine Gum	OTC	2 mg for < 25 cigs/day 4 mg for ≥ 25 cigs/day Max 1 piece/hour Use as needed	Up to 12 weeks Taper after 4-6 weeks	Do not chew like ordinary gum Alternate chewing and "parking" between the cheek and gum to allow nicotine to absorb through the lining of the mouth (about 30 minutes) Avoid food and acidic drinks (soda and coffee) before and during use
Nicotine Lozenges	OTC	2 mg if smoke 1st cig more than 30 minutes after waking 4 mg if smoke 1st cig within 30 minutes of waking Do not use more than 20 lozenges/day Use as needed	Up to 12 weeks Taper after 4-6 weeks	Do not bite, chew or swallow Allow to absorb in mouth slowly (20-30 minutes) Avoid food and acidic drinks (soda and coffee) before and during use
Nicotine Nasal Spray	RX	Max 40 doses/day 1 dose = 1 spray per nostril	Up to 6 months Taper after 12 weeks	Check with physician
Nicotine Inhaler	RX	6-16 cartridges/day Use 1 cartridge/hour Use as needed	Up to 6 months Taper after 4-6 weeks	Check with physician
Varenicline (Chantix)	RX	Start 1 week before quit date Use as prescribed	As prescribed	Check with physician
Bupropion SR (Zyban or Wellbutrin)	RX	Start 1-2 weeks before quit date Use as prescribed	As prescribed	Can be used with NRT

*OTC = Over the counter; RX = prescription

For additional information on NRT, cessation medications and dosing:

- **American Cancer Society**
  http://www.cancer.org/healthy/stayawayfromtobacco/guidetoquittingsmoking/guide-to-quitting-smoking-types-of-nrt
- **American Academy of Family Physicians**
  http://www.aafp.org/afp/2001/0601/p2251.html
- **Mayo Clinic**
  http://www.mayo.edu/research/documents/medication-handout-2015-02-pdf/doc-20140182
- **Food and Drug Administration (FDA)**
  http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm198176.htm

Self-Help Materials

In-between visits with the quit coach, adolescents should practice the coping strategies identified in their quit plans and take advantage of the numerous self-help materials available to them. **Depending on the interests and needs of the young person you are helping, work together to choose a few of these self-help resources for the young person to use in-between your appointments.**

*Highly youth friendly resource

Online

- *SfT (Smokefree Teen): http://teen.smokefree.gov/
- Quit Now: https://www.quitnow.net/Program/
- Smokefree.gov: http://smokefree.gov/
- Smokefree Women: http://women.smokefree.gov/
- BeTobaccoFree.gov: http://betobaccofree.hhs.gov/quit-now/index.html
- Quit Tobacco – Make Everyone Proud (for military families): https://www.ucanquit2.org/
- American Lung Association: http://www.lung.org/stop-smoking/
- American Heart Association: http://www.heart.org/HEARTORG/GettingHealthy/QuitSmoking/Quit-Smoking_UCM_001085_SubHomePage.jsp
- American Cancer Society: http://www.cancer.org/healthy/stayawayfromtobacco/guidetoquittingsmoking
- Become an Ex: http://www.becomeanex.org/
- *truth: http://www.thetruth.com/
- truth initiative: http://truthinitiative.org/
- *The Real Cost: http://therealcost.betobaccofree.hhs.gov/

Text message

- *SmokefreeTXT: http://teen.smokefree.gov/smokefreeTXT.aspx

Instant messaging

- National Cancer Institute: https://livehelp.cancer.gov/app/chat/chat_launch
- American Lung Association: http://www.lung.org/

Phone

- State Quitline: 1-800-QUITNOW
- National Cancer Institute: 1-877-44U-QUIT
- American Lung Association: 1-800-LUNGUSA
- American Cancer Society: 1-800-ACS-2345

Mobile apps

- *QuitSTART: http://teen.smokefree.gov/sftapps.aspx

Videos

- Tips from Former Smokers: http://www.cdc.gov/tobacco/campaign/tips/
- *truth: https://www.youtube.com/user/truthorange
- *The Real Cost: https://www.youtube.com/user/KnowTheRealCost

Worksheets and quizzes

- *Smokefree Teen: http://teen.smokefree.gov/quizzes.aspx
- Cost Savings Calculator: https://www.quitnow.net/missouri/About/Calculator/CostSavings.aspx

In-person

- Contact the local health department (cessation services are often available at reduced or no cost)
- Talk to a healthcare provider (cessation services fully covered by Medicaid, Medicare and many private insurers)

Cessation for Adults

The cessation services presented in this toolkit will also work for adults. Cessation providers can and should extend these services to school faculty, staff and parents. Helping school faculty and staff quit will reduce violations of school tobacco-free policies and create role models for adolescent tobacco users who are thinking of quitting. In addition, parents and adolescents may benefit from quitting tobacco together. Engaging parents in cessation will reduce youth exposure to secondhand smoke and easy access to tobacco products in the home.

To promote these services to faculty and staff:

- Hang flyers in lounge and office areas promoting the services
- Announce the services at faculty and staff meetings
- Ask administration to send out an email promoting the services
- Have cessation services listed on tobacco-free signs around the campus

To promote these services to parents:

- Hang flyers in the nurse's office
- Hand out information to all parents who visit the nurse's office
- Bring up tobacco cessation when discussing a child's health issues such as coughing, asthma and respiratory illness
- Let parents know that children are harmed by exposure to secondhand smoke and that anyone who smokes in the home can get help quitting

Additional Cessation Resources for Adults include:

Online

- Quit Now: https://www.quitnow.net/Program/
- Smokefree.gov: http://smokefree.gov/
- Smokefree Women: http://women.smokefree.gov/
- BeTobaccoFree.gov: http://betobaccofree.hhs.gov/quit-now/index.html
- Quit Tobacco – Make Everyone Proud (for military families): https://www.ucanquit2.org/
- American Lung Association: http://www.lung.org/stop-smoking/
- American Heart Association: http://www.heart.org/HEARTORG/GettingHealthy/QuitSmoking/Quit-Smoking_UCM_001085_SubHomePage.jsp
- American Cancer Society: http://www.cancer.org/healthy/stayawayfromtobacco/guidetoquittingsmoking
- Become an Ex: http://www.becomeanex.org/

Instant messaging

- National Cancer Institute: https://livehelp.cancer.gov/app/chat/chat_launch
- American Lung Association: http://www.lung.org/

Phone

- State Quitline: 1-800-QUITNOW
- National Cancer Institute: 1-877-44U-QUIT
- American Lung Association: 1-800-LUNGUSA
- American Cancer Society: 1-800-ACS-2345

Videos

- Tips from Former Smokers: http://www.cdc.gov/tobacco/campaign/tips/

Worksheets and quizzes

- Cost Savings Calculator: https://www.quitnow.net/missouri/About/Calculator/CostSavings.aspx

In-person

- Contact the local health department (cessation services are often available at reduced or no cost)
- Talk to a healthcare provider (cessation services fully covered by Medicaid, Medicare and many private insurers)

Resources for Tobacco Prevention

Along with cessation services, prevention resources should be utilized in a comprehensive effort to decrease adolescent tobacco use. School-based tobacco prevention programs are effective at reducing tobacco use initiation among youth.[1]

According to the CDC, successful school-based tobacco prevention efforts should include[2]:

- Education about the short-term and long-term negative physical, cosmetic and social consequences of tobacco use
- Practices that change the social norms related to smoking, decrease social acceptability and help youth understand that most of their peers do not smoke
- Information about the reasons teens begin to smoke, such as a desire for maturity and acceptance, with guidance toward more positive means to achieve these goals
- Exposure of the tobacco industry's manipulative marketing practices and targeting of youth and development of the skills to counter these messages
- Refusal skills training (i.e., refusal to try tobacco, saying "no")

Many evidence-based national and local tobacco prevention resources are available for the school-based setting.

Local resources

- **Tobacco Free Missouri Youth (TFMYouth):**
  https://www.facebook.com/TobaccoFreeMissouriYouthAdvisoryBoard
- **Missouri Department of Health and Human Services:**
  http://health.mo.gov/living/wellness/tobacco/smokingandtobacco/tobaccocontrol.php
- **Wyman's Teen Outreach Program:**
  http://wymancenter.org/midwest/
- **ACT Missouri:**
  https://www.actmissouri.org/
- **National Council on Alcoholism and Drug Abuse-St. Louis Area (NCADA):**
  http://ncada-stl.org/prevention-programs/school-based-programs/k-12-programs/

National resources

- **Campaign for Tobacco Free Kids:**
  http://www.tobaccofreekids.org/
- **truth initiative:**
  http://truthinitiative.org/
- **SfT (Smokefree Teen):**
  http://teen.smokefree.gov/
- **The Real Cost:**
  http://therealcost.betobaccofree.hhs.gov/
- **CDC's Effective Tobacco Countermarketing Campaign:**
  http://www.cdc.gov/tobacco/stateandcommunity/counter_marketing/manual/index.htm
- **Surgeon General's - Report Preventing Tobacco Use Among Youth and Young Adults:**
  http://www.cdc.gov/tobacco/data_statistics/sgr/2012/index.htm
- **The Social Norms Approach:**
  http://www.alanberkowitz.com/articles/social%20norms%20approach-short.pdf

A note on tobacco industry youth prevention programs

Tobacco companies have created their own youth "prevention" programs; however, research finds that these programs are ineffective and therefore should not be used. The 2012 Surgeon General's Report, *Preventing Tobacco Use Among Youth and Young Adults*, states, "The tobacco companies' activities and programs for the prevention of youth smoking have not demonstrated an impact on the initiation or prevalence of smoking among young people."[3] Read more at:

- Campaign for Tobacco Free Kids. (2015). Big surprise: Tobacco company prevention campaigns don't work; Maybe it's because they are not supposed to. Retrieved from: https://www.tobaccofreekids.org/research/factsheets/pdf/0302.pdf

References
1. Campaign for Tobacco Free Kids. (2015). School-based programs reduce tobacco use. Retrieved from: <http://www.tobaccofreekids.org/research/factsheets/pdf/0050.pdf>.

2. Centers for Disease Control and Prevention. (1994). Guidelines for school health programs to prevent tobacco use and addiction. Morbidity and Mortality Weekly Report: 43(RR-2).

3. U.S. Department of Health and Human Services. (2012). Preventing tobacco use among youth and young adults: A report of the Surgeon General. Retrieved from: <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>.

School District Tobacco-Free Policies

How to find your school district tobacco-free policy

For school districts using the Missouri Consultants for Education (www.moconed.com) policies, check Policy 2640 (related to smoking). Most of these policies are expanded in Regulations 2610, which defines the penalties that are involved when students commit tobacco policy infractions. For school districts using the Missouri School Board (www.msbanet.org) policies, check Section A (covers tobacco-free campus policies) and Section I (covers tobacco discipline issues).

The gold standard

To reinforce tobacco prevention messages and cessation services, schools should implement and enforce strong, comprehensive tobacco-free policies. A comprehensive school tobacco-free policy must be consistent with state and local laws and should include the following elements[1-2]:

- An explanation of the rationale for preventing tobacco use
- Prohibition of tobacco use by students, faculty, staff, contractors, parents and visitors
- Prohibition of tobacco use on school property (owned, leased or rented), in school vehicles (owned, leased or rented) and at school-sponsored functions away from school property
- Prohibition of all tobacco and electronic nicotine delivery system products – including, but not limited to: cigarettes, cigars, pipes, smokeless tobacco and e-cigarettes
- Provisions for enforcing the policy 24 hours a day, 365 days a year
- Designation of a person responsible for policy enforcement
- Procedures for communicating the policy to students, faculty, staff, contractors, parents and visitors
- Provisions for the consequences of violating the policy for students, faculty, staff, contractors, parents and visitors
- Provisions for students, faculty and staff to have access to tobacco cessation services
- **Designates cessation** and education for offenses by students and staff, not just punitive measures
- A requirement that all students receive tobacco prevention and education messages

How to strengthen your policy

Between now and the year 2020 the Comprehensive Tobacco Control Program in the Missouri Department of Health and Senior Services will be working with local health departments and school districts to assure that districts have tobacco-free policies that are comprehensive. For more information, contact:

Comprehensive Tobacco Control Program
motobaccoprogram@health.mo.gov
Missouri Department of Health and Senior Services
(573) 522-2824

State School Nurse Consultant
shs@health.mo.gov
Missouri Department of Health and Senior Services
(573) 522-2622

References
1. Centers for Disease Control and Prevention. (1994). Guidelines for school health programs to prevent tobacco use and addiction. Morbidity and Mortality Weekly Report, 43(RR-2): 1-18.

2. Barbero, C., Moreland-Russell, S., Bach, L. E., and Cyr, J. (2013). An evaluation of public school district tobacco policies in St. Louis County, Missouri. Journal of School Health, 83(8), 525-532.

3. Nebraska Department of Health and Human Services. (n.d.). Tobacco free school kit. Retrieved from: <http://dhhs.ne.gov/publichealth/Documents/TFSchoolToolkit.pdf>.

Who Can Help?

There are professionals in Missouri who can assist you in using this toolkit and providing tobacco cessation services.

Jenna Wintemberg, MPH, CHES
For more information and to request a training: cessationineveryschool@gmail.com
University of Missouri
ACES, Creator and Trainer, Nationally Certified Tobacco Treatment Specailist

Marjorie Cole, MSN, RN
marjorie.cole@health.mo.gov
State School Nurse Consultant
Missouri Department of Health and Senior Services
(573) 522-2622

Kevin Everett, PhD
everettk@health.missouri.edu
Associate Professor
University of Missouri Department of Family and Community Medicine
(573) 882-2190

Comprehensive Tobacco Control
motobaccoprogram@health.mo.gov
Missouri Department of Health and Senior Services
(573) 522-2824

Diane Coffman, EdS, MEd
diane.coffman@health.mo.gov
Cessation Coordinator, Comprehensive Tobacco Control
Missouri Department of Health and Senior Services
(573) 441-6231

Books and Guides:

- Jaen, C. R., Baker, T. B., Bailey, W. C., Benowitz, N. L., Curry, S. E. E. A., Dorfman, S. F., ... and Wewers, M. E. (2008). Treating tobacco use and dependence: 2008 update. http://www.ncbi.nlm.nih.gov/books/NBK63952/.
- Abrams, D. B., and Niaura, R. (Eds.). (2003). The tobacco dependence treatment handbook: A guide to best practices. Guilford Press.

Section 4:
Appendices

Appendix 1:
Quit Plan Template with References

ACES
Adolescent Cessation in Every School

My Personalized Quit Plan

Name:

My Quit Date: **Follow-Up Appointment:**

Patten CA, Decker PA, Dornelas EA, et al. Changes in readiness to quit and self-efficacy among adolescents receiving a brief office intervention for smoking cessation. Psychol Health Med. 2008;13(3):326-336.

Sussman S, Sun P, Dent CW. A meta- analysis of teen cigarette smoking cessation. Health Psychol. 2006;25 (5):549-557.

Reasons to quit

Examples: It costs too much, I can't use tobacco in a lot of places

1.
2.
3.
4.
5.
6.

van Zundert RM, van de Ven MO, Engels RC, Otten R, van den Eijnden RJ. The role of smoking-cessation-specific parenting in adolescent smoking-specific cognitions and readiness to quit. J Child Psychol Psychiatry. 2007;48(2):202-209.

Sussman S, Lichtman K, Ritt A, Pallonen UE. Effects of thirty-four adolescent tobacco use cessation and prevention trials on regular users of tobacco products. Subst Use Misuse. 1999;34(11):1469- 1503.

Triggers

Triggers are situations that prompt you to want to smoke.
Examples: After a meal, driving, stress, feeling bored, feeling sad

Trigger 1

Trigger 2

Trigger 3

Trigger 4

Trigger 5

Trigger 6

Donovan KA. Smoking cessation programs for adoles- cents. J Sch Nurs. 2000;16(4):36-43.

Krishnan-Sarin S, Duhig AM, McKee SA, et al. Contingency management for smoking cessation in adolescent smok- ers. Exp Clin Psychopharmacol. 2006;14(3):306-310.

Asfar T, Klesges RC, Sanford SD, et al. Trial design: The St. Jude Children's Research Hospital Cancer Survivors Tobac- co Quit Line study. Contemp Clin Trials. 2010;31(1):82-91.

Colby SM, Nargiso J, Tevyaw TO, et al. Enhanced motiva- tional interviewing versus brief advice for adolescent smoking cessation: results from a randomized clinical trial. Addict Behav. 2012;37(7):817-823.

Hwang MS, Yeagley KL, Petosa R. A meta-analysis of ado- lescent psychosocial smoking prevention programs pub- lished between 1978 and 1997 in the United States. Health Educ Behav. 2004;31(6):702-719.

Sussman S, Sun P, Dent CW. A meta-analysis of teen ciga- rette smoking cessation. Health Psychol. 2006;25(5):549- 557.

Curry SJ, Mermelstein RJ, Sporer AK. Therapy for specific problems: youth tobacco cessation. Annu Rev Psychol. 2009;60:229-255.

McDonald P, Colwell B, Backinger CL, Husten C, Maule CO. Better practices for youth tobacco cessation: evidence of review panel. Am J Health Behav. 2003;27(Suppl 2):S144- S158.

Sussman S. Effects of sixty six adolescent tobacco use cessation trials and seventeen prospective studies of self- initiated quitting. Tob Induc Dis. 2002;1(1):35-81.

Sussman S, Lichtman K, Ritt A, Pallonen UE. Effects of thirty-four adolescent tobacco use cessation and preven- tion trials on regular users of tobacco products. Subst Use Misuse. 1999;34(11):1469-1503.

Things to do instead

Examples: Go for a walk, Call a friend who supports your quitting, Hang out in places you're not allowed to use tobacco

1.

2.

3.

4.

5.

6.

Support

Who can support me at home?

Who can support me at school?

Who can support me at work?

Which friends will help me the most when I'm quitting?

Which friends will be less helpful when I'm quitting?

Other support strategies

Examples: Nicotine Replacement Therapy patches or gum, Call 1-800-Quit-NOW, Get online support at www.becomeanex.org

1.

2.

3.

4.

Rewards of quitting

1.

2.

3.

4.

Chen HH, Yeh ML. Developing and evaluating a smoking cessation pro- gram combined with an Internet-assisted instruction program for ado- lescents with smoking. Patient Educ Couns. 2006;61(3):411-418.

Mermelstein R, Turner L. Web-based support as an adjunct to group- based smoking cessation for adolescents. Nicotine Tob Res. 2006;8 (Suppl 1):S69-S76.

Peterson AV, Jr., Kealey KA, Mann SL, et al. Group-randomized trial of a proactive, personalized telephone counseling intervention for adoles- cent smoking cessation. J Natl Cancer Inst. 2009;101(20):1378-1392.

Hurt RD, Croghan GA, Beede SD, Wolter TD, Croghan IT, Patten CA. Nico- tine patch therapy in 101 adolescent smokers: efficacy, withdrawal symptom relief, and carbon monoxide and plasma cotinine levels. Arch Pediatr Adolesc Med. 2000;154(1):31-

Moolchan ET, Robinson ML, Ernst M, et al. Safety and efficacy of the nicotine patch and gum for the treatment of adolescent tobacco addic- tion. Pediatrics. 2005;115(4):e407-e414.

Scherphof CS, van den Eijnden RJ, Engels RC, Vollebergh WA. Short-term efficacy of nicotine replacement therapy for smoking cessation in ado- lescents: a randomized controlled trial. J Subst Abuse Treat. 2014;46 (2):120-127.

Smith TA, House RF, Jr., Croghan IT, et al. Nicotine patch therapy in adolescent smokers. Pediatrics. 1996;98(4 Pt 1):659-667.

Swanson AN, Shoptaw S, Heinzerling KG, et al. Up in smoke? A prelimi- nary open-label trial of nicotine replacement therapy and cognitive behavioral motivational enhancement for smoking cessation among youth in Los Angeles. Subst Use Misuse. 2013;48(14):1553-1562.

Cavallo DA, Cooney JL, Duhig AM, et al. Combining cognitive behavioral therapy with contingency management for smoking cessation in adolescent smokers: a preliminary comparison of two different CBT formats. Am J Addict. 2007;16(6):468-474.

Sussman S. Effects of sixty six adolescent tobacco use cessation trials and seventeen prospective studies of self-initiated quitting. Tob Induc Dis. 2002;1(1):35-81.

Appendix 2:
Follow Up Form with References

ACES
Adolescent Cessation in Every School

Name: **Next Appointment:**

1. Please circle all withdrawal symptoms you have experienced in the last 7 days.

Sussman S. Effects of sixty six adolescent tobacco use cessation trials and seventeen prospective studies of self-initiated quitting. Tob Induc Dis. 2002;1(1):35-81.

Klein JD, Camenga DR. Tobacco prevention and cessation in pediatric patients. Pediatr Rev. 2004;25(1):17-26.

Maharaj K, Ternullo S. Using nicotine replacement therapy in treating nicotine addiction in adolescents. J Sch Nurs. 2001;17(5):278-282.

Smith TA, House RF, Jr., Croghan IT, et al. Nicotine patch therapy in adolescent smokers. Pediatrics. 1996;98(4 Pt 1):659-667.

2. Please circle all the triggers you have experienced in the last 7 days.

3. Please circle all the coping strategies you have used in the last 7 days.

Sussman S. Effects of sixty six adolescent tobacco use cessation trials and seventeen prospective studies of self-initiated quitting. Tob Induc Dis. 2002;1(1):35-81.

Sussman S. Effects of sixty six adolescent tobacco use cessation trials and seventeen prospective studies of self-initiated quitting. Tob Induc Dis. 2002;1(1):35-81.

Donovan KA. Smoking cessation programs for adolescents. J Sch Nurs. 2000;16(4):36-43.

Hwang MS, Yeagley KL, Petosa R. A meta-analysis of adolescent psychosocial smoking prevention programs published between 1978 and 1997 in the United States. Health Educ Behav. 2004;31(6):702-719.

Bailey SR, Hagen SA, Jeffery CJ, et al. A randomized clinical trial of the efficacy of extended smoking cessation treatment for adolescent smokers. Nicotine Tob Res. 2013;15(10):1655-1662.

Krishnan-Sarin S, Duhig AM, McKee SA, et al. Contingency management for smoking cessation in adolescent smokers. Exp Clin Psychopharmacol. 2006;14(3):306-310.

Asfar T, Klesges RC, Sanford SD, et al. Trial design: The St. Jude Children's Research Hospital Cancer Survivors Tobacco Quit Line study. Contemp Clin Trials. 2010;31(1):82-91.

Colby SM, Nargiso J, Tevyaw TO, et al. Enhanced motivational interviewing versus brief advice for adolescent smoking cessation: results from a randomized clinical trial. Addict Behav. 2012;37(7):817-823.

Curry SJ, Mermelstein RJ, Sporer AK. Therapy for specific problems: youth tobacco cessation. Annu Rev Psychol. 2009;60:229-255.

McDonald P, Colwell B, Backinger CL, Husten C, Maule CO. Better practices for youth tobacco cessation: evidence of review panel. Am J Health Behav. 2003;27(Suppl 2):S144-S158.

Sussman S, Lichtman K, Ritt A, Pallonen UE. Effects of thirty-four adolescent tobacco use cessation and prevention trials on regular users of tobacco products. Subst Use Misuse. 1999;34(11):1469-1503.

Moolchan ET, Robinson ML, Ernst M, et al. Safety and efficacy of the nicotine patch and gum for the treatment of adolescent tobacco addiction. Pediatrics. 2005;115(4):e407-e414.

Scherphof CS, van den Eijnden RJ, Engels RC, Vollebergh WA. Short-term efficacy of nicotine replacement therapy for smoking cessation in adolescents: a randomized controlled trial. J Subst Abuse Treat. 2014;46(2):120-127.

Smith TA, House RF, Jr., Croghan IT, et al. Nicotine patch therapy in adolescent smokers. Pediatrics. 1996;98(4 Pt 1):659-667.

Swanson AN, Shoptaw S, Heinzerling KG, et al. Up in smoke? A preliminary open-label trial of nicotine replacement therapy and cognitive behavioral motivational enhancement for smoking cessation among youth in Los Angeles. Subst Use Misuse. 2013;48(14):1553-1562.

4. Please circle any positive changes experienced since you quit or cut back on tobacco.

Sussman S. Effects of sixty six adolescent tobacco use cessation trials and seventeen prospective studies of self-initiated quitting. Tob Induc Dis. 2002;1(1):35-81.

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5. Since my quit date I have used tobacco:

Not at all | 1-2 times | 2-5 times | 5 or more times | Everyday

6. How confident are you that you can stay tobacco free? Please circle your current confidence level.

Not at all confident — Somewhat confident — Very confident

1 2 3 4 5 6 7 8 9 10

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