Effects of Tobacco, Alcohol and Drugs on the Developing Adolescent Brain

Risk-taking may be based in biology, but that does not diminish the possible unhealthy consequences of alcohol and other drugs and tobacco on the developing teen brain.

Recent brain research with magnetic resonance imaging suggests that alcohol impacts adolescents differently than it does adults. Young people are more vulnerable to the negative effects of alcohol on the hippocampus—the part of the brain that regulates working memory and learning. Consequently, heavy use of alcohol and other drugs during the teen years can result in lower scores on tests of memory and attention in one's early to mid-20s.

People who begin drinking before age 15 are four times more likely to become alcohol-dependent than those who wait until they are 21. Teens also tend to be less sensitive than adults to alcohol's sedative qualities. Sedation in response to alcohol is one of the ways the body protects itself, since it is impossible to keep drinking once asleep or passed out. Teenagers are able to stay awake longer with higher blood alcohol levels than older drinkers can. This biological difference allows teens to drink more, thereby exposing themselves to greater cognitive impairment and perhaps brain damage from alcohol poisoning.

There are also striking differences in the way nicotine affects adolescent and adult smokers. Nicotine results in cell damage and loss throughout the brain at any age, but in teenagers the damage is worse in the hippocampus, the mind's memory bank. Compared to adults, teen smokers experience more episodes of depression and cardiac irregularities, and are more apt to become quickly and persistently nicotine-dependent.

Drugs such as cocaine and amphetamines target dopamine receptor neurons in the brain, and damage to these neurons may affect adolescent brain development for life in the areas of impulse control and ability to experience reward.

Other effects of substance abuse in adolescents include delays in developing executive functions (judgment, planning and completing tasks, meeting goals) and overblown and immature emotional responses to situations.

The CRAFFT Interview (version 2.1)

To be orally administered by the clinician

Begin: "*I'm going to ask you a few questions that I ask all my patients. Please be honest. I will keep your answers confidential.*"

Part A

During the PAST 12 MONTHS, on how many days did you:

1.	Drink more than a few sips of beer, wine, or any drink containing **alcohol**? Put "0" if none.	☐ # of days
2.	Use any **marijuana** (weed, oil, or hash by smoking, vaping, or in food) or "**synthetic marijuana**" (like "K2," "Spice")? Put "0" if none.	☐ # of days
3.	Use **anything else to get high** (like other illegal drugs, prescription or over-the-counter medications, and things that you sniff, huff, or vape)? Put "0" if none.	☐ # of days

Did the patient answer "0" for all questions in Part A?

Yes ☐ → **Ask CAR question only, then stop**

No ☐ → **Ask all six CRAFFT* questions below**

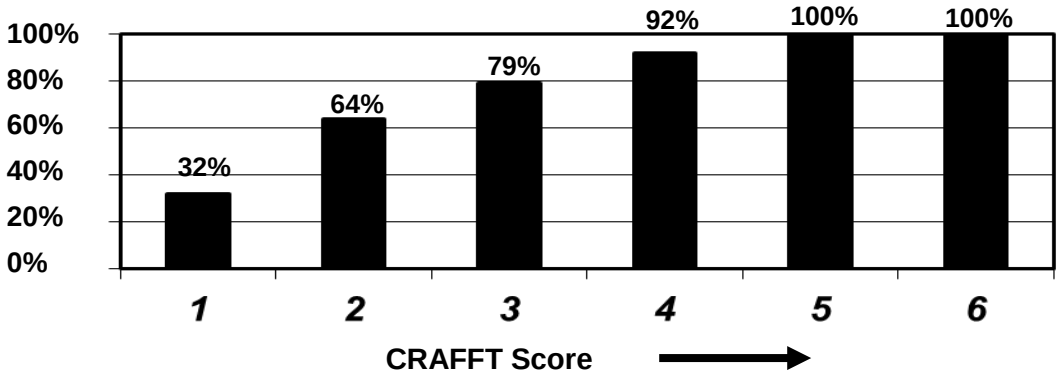
Part B		**No**	**Yes**
C	Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	☐	☐
R	Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?	☐	☐
A	Do you ever use alcohol or drugs while you are by yourself, or **ALONE**?	☐	☐
F	Do you ever **FORGET** things you did while using alcohol or drugs?	☐	☐
F	Do your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?	☐	☐
T	Have you ever gotten into **TROUBLE** while you were using alcohol or drugs?	☐	☐

***Two or more YES answers suggest a serious problem and need for further assessment. See back for further instructions →**

NOTICE TO CLINIC STAFF AND MEDICAL RECORDS:
The information on this page is protected by special federal confidentiality rules (42 CFR Part 2), which prohibit disclosure of this information unless authorized by specific written consent. A general authorization for release of medical information is NOT sufficient.

1. Show your patient his/her score on this graph and discuss level of risk for a substance use disorder.

Percent with a DSM-5 Substance Use Disorder by CRAFFT score*



*Data source: Mitchell SG, Kelly SM, Gryczynski J, Myers CP, O'Grady KE, Kirk AS, & Schwartz RP. (2014). The CRAFFT cut-points and DSM-5 criteria for alcohol and other drugs: a reevaluation and reexamination. Substance Abuse, 35(4), 376–80.

2. Use these talking points for brief counseling.

1. **REVIEW** screening results
   For each "yes" response: *"Can you tell me more about that?"*

2. **RECOMMEND** not to use
   "As your doctor (nurse/health care provider), my recommendation is not to use any alcohol, marijuana or other drug because they can: 1) Harm your developing brain; 2) Interfere with learning and memory, and 3) Put you in embarrassing or dangerous situations."

3. **RIDING/DRIVING** risk counseling
   "Motor vehicle crashes are the leading cause of death for young people. I give all my patients the Contract for Life. Please take it home and discuss it with your parents/guardians to create a plan for safe rides home."

4. **RESPONSE** elicit self-motivational statements
   Non-users: *"If someone asked you why you don't drink or use drugs, what would you say?"* Users: *"What would be some of the benefits of not using?"*

5. **REINFORCE** self-efficacy
   "I believe you have what it takes to keep alcohol and drugs from getting in the way of achieving your goals."

3. Give patient Contract for Life. Available at www.crafft.org/contract

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(617) 355-5433 www.ceasar.org

For more information and versions in other languages, see www.ceasar.org.

PATIENT: Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential, so please be honest.

Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2 to 4 times a month	2 to 3 times a week	4 or more times a week	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have 5 or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
					Total	

Note: This questionnaire (the AUDIT) is reprinted with permission from the World Health Organization and the Generalitat Valenciana Conselleria De Benestar Social. To reflect standard drink sizes in the United States, the number of drinks in question 3 was changed from 6 to 5. A free AUDIT manual with guidelines for use in primary care is available online at www.who.org.

National Institute on Alcohol Abuse and Alcoholism

Parenting to Prevent Childhood Alcohol Use

Drinking alcohol undoubtedly is a part of American culture, as are conversations between parents and children about its risks and potential benefits. However, information about alcohol can seem contradictory. Alcohol affects people differently at different stages of life—small amounts may have health benefits for certain adults, but for children and adolescents, alcohol can interfere with normal brain development. Alcohol's differing effects and parents' changing role in their children's lives as they mature and seek greater independence can make talking about alcohol a challenge. Parents may have trouble setting concrete family policies for alcohol use. And they may find it difficult to communicate with children and adolescents about alcohol-related issues.

Research shows, however, that teens and young adults do believe their parents should have a say in whether they drink alcohol. Parenting styles are important—teens raised with a combination of encouragement, warmth, and appropriate discipline are more likely to respect their parents' boundaries. Understanding parental influence on children through conscious and unconscious efforts, as well as when and how to talk with children about alcohol, can help parents have more influence than they might think on a child's alcohol use. Parents can play an important role in helping their children develop healthy attitudes toward drinking while minimizing its risk.

Alcohol Use by Young People

Adolescent alcohol use remains a pervasive problem. The percentage of teenagers who drink alcohol is slowly declining; however, numbers are still quite high. About 22.8 percent of adolescents report drinking by 8th grade, and about 46.3 percent report being drunk at least once by 12th grade.[1]

Parenting Style

Accumulating evidence suggests that alcohol use—and in particular binge drinking—may have negative effects on adolescent development and increase the risk for alcohol dependence later in life.[2,3] This

underscores the need for parents to help delay or prevent the onset of drinking as long as possible. Parenting styles may influence whether their children follow their advice regarding alcohol use. Every parent is unique, but the ways in which each parent interacts with his or her children can be broadly categorized into four styles:

- Authoritarian parents typically exert high control and discipline with low warmth and responsiveness. For example, they respond to bad grades with punishment but let good grades go unnoticed.
- Permissive parents typically exert low control and discipline with high warmth and responsiveness. For example, they deem any grades at all acceptable and fail to correct behavior that may lead to bad grades.
- Neglectful parents exert low control and discipline as well as low warmth and responsiveness. For example, they show no interest at all in a child's school performance.
- Authoritative parents exert high control and discipline along with high warmth and responsiveness. For example, they offer praise for good grades and use thoughtful discipline and guidance to help improve low grades.[4]

Regardless of the developmental outcome examined—body image, academic success, or substance abuse—children raised by authoritative parents tend to fare better than their peers.[5] This is certainly true when it comes to the issue of underage drinking,[6] in part because children raised by such parents learn approaches to problem solving and emotional expression that help protect against the psychological dysfunction that often precedes alcohol misuse.[7] The combination of discipline and support by authoritative parents promotes healthy decisionmaking about alcohol and other potential threats to healthy development.[8]

Modeling

Some parents wonder whether allowing their children to drink in the home will help them develop an appropriate relationship with alcohol. According to most studies this does not appear to be the case. In a study of 6th, 7th, and 8th graders, researchers observed that students whose parents allowed them to drink at home and/or provided them with alcohol experienced the steepest escalation in drinking.[9] Other studies suggest that adolescents who are allowed to drink at home drink more heavily outside of the home.[10] In contrast, adolescents are less likely to drink heavily if they live in homes where parents have specific rules against drinking at a young age and also drink responsibly themselves.[11] However, not all studies suggest that parental provision of alcohol to teens leads to trouble. For instance, one study

showed that drinking with a parent in the proper context (such as a sip of alcohol at an important family function) can be a protective factor against excessive drinking.[12] In other contexts, parental provision of alcohol serves as a direct risk factor for excessive drinking, as is the case when parents provide alcohol for parties attended or hosted by their adolescents. Collectively, the literature suggests that permissive attitudes toward adolescent drinking, particularly when combined with poor communication and unhealthy modeling, can lead teens into unhealthy relationships with alcohol.

Genetics

Regardless of what parents may teach their children about alcohol, some genetic factors are present from birth and cannot be changed. Genes appear to influence the development of drinking behaviors in several ways. Some people, particularly those of Asian ancestry, have a natural and unpleasant response to alcohol that helps prevent them from drinking too much. Other people have a naturally high tolerance to alcohol, meaning that to feel alcohol's effects, they must drink more than others. Some personality traits are genetic, and those, like impulsivity, can put a person at risk for problem drinking. Psychiatric problems may be caused by genetic traits, and such problems can increase risk for alcohol abuse and dependence. Finally, having a parent with a drinking problem increases a child's risk for developing an alcohol problem of his or her own.[13]

Do Teens Listen?

Adolescents do listen to their parents when it comes to issues such as drinking and smoking, particularly if the messages are conveyed consistently and with authority.[5] Research suggests that only 19 percent of teens feel that parents should have a say in the music they listen to, and 26 percent believe their parents should influence what clothing they wear. However, the majority—around 80 percent—feel that parents should have a say in whether they drink alcohol. Those who do not think that parents have authority over these issues are four times more likely than other teens to drink alcohol and three times more likely to have plans to drink if they have not already started.[5]

Whether teens defer to parents on the issue of drinking is statistically linked to how parents parent. Specifically, authoritative parents—those who provide a healthy and consistent balance of discipline and support—are the most likely to have teenagers who respect the boundaries they have established around drinking and other behaviors; whereas adolescents exposed to permissive, authoritarian, or neglectful parenting are less influenced by what their parents say about drinking.[5]

Research suggests that, regardless of parenting styles, adolescents who are aware that their parents would be upset with them if they drank are less likely to do so, highlighting the importance of communication between parents and teens as a protective measure against underage alcohol use.[12]

What Can Parents Do?

Parents influence whether and when adolescents begin drinking as well as how their children drink. Family policies about adolescent drinking in the home and the way parents themselves drink are important. For instance, if you choose to drink, always model responsible alcohol consumption. But what else can parents do to help minimize the likelihood that their adolescent will choose to drink and that such drinking, if it does occur, will become problematic? Studies[14] have shown that it is important to:

- Talk early and often, in developmentally appropriate ways, with children and teens about your concerns—and theirs—regarding alcohol. Adolescents who know their parents' opinions about youth drinking are more likely to fall in line with their expectations.
- Establish policies early on, and be consistent in setting expectations and enforcing rules. Adolescents do feel that parents should have a say in decisions about drinking, and they maintain this deference to parental authority as long as they perceive the message to be legitimate. Consistency is central to legitimacy.
- Work with other parents to monitor where kids are gathering and what they are doing. Being involved in the lives of adolescents is key to keeping them safe.
- Work in and with the community to promote dialogue about underage drinking and the creation and implementation of action steps to address it.
- Be aware of your State's laws about providing alcohol to your own children.
- Never provide alcohol to someone else's child.

Children and adolescents often feel competing urges to comply with and resist parental influences. During childhood, the balance usually tilts toward compliance, but during adolescence, the balance often shifts toward resistance as teens prepare for the autonomy of adulthood. With open, respectful communication and explanations of boundaries and expectations, parents can continue to influence their children's decisions well into adolescence and beyond. This is especially important in young people's decisions regarding whether and how to drink—decisions that can have lifelong consequences.

For more information, please visit: www.niaaa.nih.gov.

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February 2017

FAMILY CHECKUP

POSITIVE PARENTING PREVENTS DRUG ABUSE

National Institute
on Drug Abuse

Table of Contents

Introduction

Could your kids be at risk for substance abuse?

Families strive to find the best ways to raise their children to live happy, healthy, and productive lives. Parents are often concerned about whether their children will start or are already using drugs such as tobacco, alcohol, marijuana, and others, including the abuse of prescription drugs. Research supported by the National Institute on Drug Abuse (NIDA) has shown the important role that parents play in preventing their children from starting to use drugs.

This publication presents evidence-based information developed by the Child and Family Center at the University of Oregon. It highlights parenting skills that are important in preventing the initiation and progression of drug use among youth. This publication also provides access to video clips that can help you practice positive parenting skills.

Families strive to find the best ways to raise their children to live happy, healthy, and productive lives.

Communication

Good communication between parents and children is the foundation of strong family relationships. Developing good communication skills helps parents catch problems early, support positive behavior, and stay aware of what is happening in their children's lives.

Before you begin:

- Be sure it's a good time to talk and you can focus one hundred percent on communicating with your child.
- Have a plan.
- Gather your thoughts before you approach your child.
- Be calm and patient.
- Limit distractions.

Key communication skills include:

Questioning—The kind of information you receive depends a lot on how you ask the question.

- Show interest/concern. Don't blame/accuse. For example, instead of, "How do you get yourself into these situations?" say, "That sounds like a difficult situation. Were you confused?"
- Encourage problem-solving/thinking. For example: Instead of, "What did you think was going to happen when you don't think?" say, "So, what do you think would have been a better way to handle that?"

EXTRA TIPS

- Be present and tuned in.
- Show understanding.
- Listen with respect.
- Be interested.
- Avoid negative emotions.
- Give encouragement.

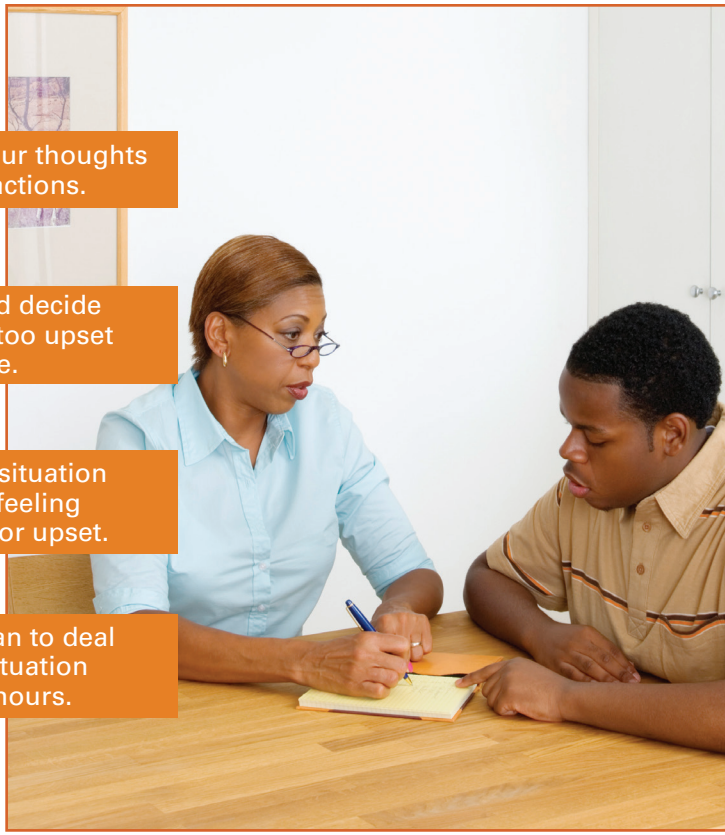
Listening and observing—Youth feel more comfortable bringing issues and situations to their parents when they know they will be listened to and not be accused.

C Control your thoughts and your actions.

A Assess and decide if you are too upset to continue.

L Leave the situation if you are feeling too angry or upset.

M Make a plan to deal with the situation within 24 hours.



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Reducing Emotion

Sometimes talking with children brings up strong feelings that interfere with clear thinking. Following the CALM steps can help a parent keep the conversation moving in the right direction.

Videos

For videos that show examples of good communication, visit www.drugabuse.gov/family-checkup/question-1-communication.

Encouragement

Encouragement is key to building confidence and a strong sense of self and helps parents to promote cooperation and reduce conflict. Many successful people remember the encouragement of a parent, teacher, or other adult. Consistent encouragement helps youth feel good about themselves and gives them confidence to:

- try new activities
- tackle difficult tasks
- develop new friendships
- explore their creativity

Encouragement promotes a strong sense of self because it sends three main messages to your child:

You can do it! Youth believe they can do things if parents:

- help them break a problem down into smaller parts
- remind them of their strengths and past successes
- encourage them by sharing how they have dealt with challenges

You have good ideas! Youth believe they have good ideas if parents:

- ask them to share their opinions and feelings
- listen to what they have to say
- ask them for input concerning family plans and events
- ask them for ideas to solve family problems

You are important! Youth know they are important if parents:

- remember what they have told them
- make time for them each day
- attend school and extracurricular activities

- let them know that they are thinking about them when they can't be with them
- display things they have made and recognitions they receive from school or the community

Practices That are Discouraging

- Being sarcastic or negative about a child's ability to be successful
- Comparing a child to brothers and sisters
- Taking over when a child's progress is slow
- Reminding a child of past failures

Videos

For videos that show examples of encouragement, visit www.drugabuse.gov/family-checkup/question-2-encouragement.

Examples of Encouraging Words

- "I know that wasn't easy."
- "You did such an awesome job!"
- "Keep on trying."
- "You are very good at that."
- "You are learning a lot."
- "I like the way you did that."
- "I can tell you've been practicing."
- "It's great to see you working so hard!"
- "I'm so proud of you."

Negotiation

Negotiating solutions offers parents a way to work together to solve problems, make changes, promote and improve cooperation, and teach youth how to:

- focus on solutions rather than problems
- think through possible outcomes of behavior
- develop communication skills

Set Up for Success

When: Select an unemotional or regularly scheduled time (not in the middle of a problem).

Where: Choose a neutral place with few distractions.

How:

- Choose problems that are small and specific!
- State the problem neutrally.
- Recognize the other person's positive behavior.
- Accept part of the responsibility for the problem.
- Restate what you hear, show understanding, and stop if you get too upset.

The Steps to Problem-Solving

Brainstorm — Open your mind to all ideas:

- Try to come up with three ideas each.
- Any idea is good — even ones that seem silly.
- Take turns coming up with ideas.

Evaluate your list of ideas:

- Go through and list the pluses and minuses of each idea.

Choose a solution:

- Combine ideas if needed.
- All of you should agree on the chosen solution.

Follow Up

- Check in with each other after you have tried your solution a couple of times to see how it is working.
- If it isn't working, go back to your list of ideas.
- If necessary, start over with some more brainstorming.

Videos

For videos that show examples of negotiating solutions, visit www.drugabuse.gov/family-checkup/question-3-negotiation.

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Problem-Solving Traps

- Don't try to solve hot issues.
- Don't blame the other person or put the other person down.
- Don't defend yourself—try to let it go.
- Don't make assumptions about another person's intentions.
- Don't bring up the past—avoid using words such as "always" and "never."
- Don't lecture—a simple statement will get your point across better.

Setting Limits

Setting limits helps parents teach self-control and responsibility, show caring, and provide safe boundaries. It also provides youth with guidelines and teaches them the importance of following rules. This is a two-step process:

Step 1: Setting Rules

- Make clear simple, specific rules.
- Make sure your child understands your rules.
- Have a list of consequences.
- Be ready to follow through.

Step 2: Following Up

Research shows that parents are most effective in setting limits when they follow up right away. Youth are more likely to follow rules if they know parents are checking up on them and will enforce the consequences consistently.

- Give a consequence when rules are broken.
- Offer encouragement when rules are followed.

Extra Tips

- State the limit and the consequence clearly.
- Catch the problem early.
- Avoid arguments and threats.
- Remember to use a firm and calm tone of voice.
- Follow through each time a limit is stretched or a rule is broken.
- Offer encouragement each time a rule is followed.

Setting limits helps parents teach self-control and responsibility.

Testing limits is a natural part of growing up, but it presents a special challenge for parents. Often our first reactions may come from fear for our child's safety, or anger at being disobeyed. The SANE guidelines can help parents establish appropriate consequences when youth break rules.

S Small consequences are better

A Avoid consequences that punish you

N Nonabusive responses

E Effective consequences (are under your control and non-rewarding to your child)

Alon Brik/Shutterstock

Youth may get angry, act out, or become isolated when parents enforce consequences. Your child is testing you and your limits. Don't react. Be consistent with your rules.

Videos

For videos that show examples of setting limits, visit www.drugabuse.gov/family-checkup/question-4-setting-limits.

Supervision

Supervision is the centerpiece of effective parenting during childhood. When youth begin to spend more and more time away from home, monitoring their behavior and whereabouts is challenging. Supervision helps parents recognize developing problems, promote safety, and stay involved.

The 4 Cs of supervision can help you with this difficult task:

Clear Rules — Have a few non-negotiable rules about your child's behavior and state them clearly! For example:

- "Give me a phone number for any place you will be."
- "I need 24-hour notice for spending the night or going to a party, dance, or other special event." (This gives you time to check out the event.)
- "No friends at the house when I am not at home."

Communication — Regular communication with other parents and teachers:

- keeps you involved in your child's activities
- creates resources to deal with problems and builds a strong safety network for your child
- informs you of dangerous places or people

Checking Up —This lets your child know that you care about his or her safety and that your rules are important. This is hard for some of us because we want to trust our children and they may resist our efforts.

- When your child gives you the phone number of a friend, call it and talk to the parent.
- Meet all the parents of your child's friends to make sure new situations are safe and supervised.
- Find out about the parties and special events your child wants to attend to make sure that responsible adults will be supervising.

Consistency — Supervision is most effective when parents set clear limits and follow through with consequences for misbehavior. Also, be consistent with giving praise and incentives when a rule is followed.

How do you supervise when you are not at home?

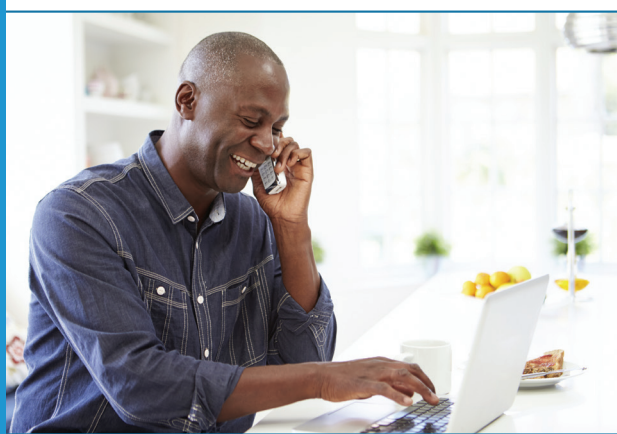
- Know your child's schedule.
- Call your child at varying times.
- Have your child check in with you or other caregivers when he or she reaches home.
- Have your child check in when he or she reaches his or her destination.
- Surprise your child with a random visit or call.
- Remain in communication with adults who interact with your child.

Videos

For videos that show examples of supervision, visit www.drugabuse.gov/family-checkup/question-5-supervision.

Extra Tips

- Stay involved.
- Spend time listening to your child.
- Know who your child's friends are and watch your child interact with them and others.
- Talk to the parent(s) of your child's friends.



monkeybusinessimages/Getty Images

Knowing Your Child's Friends

Childhood is a period of major growth and change. Youth tend to be uncertain about themselves and how they "fit in," and at times they can feel overwhelmed by a need to please and impress their friends. These feelings can leave children open to peer pressure. Knowing your child's friends and peers helps parents improve communication, reduce conflict, and teach responsibility.

You can help your child and increase your influence by:

knowing your child's friends in the neighborhood and at school:

- Communicate with friends and their parents whenever possible.
- Go to school—observe school behavior and who your child spends time with.
- Observe behaviors, speech, and attitude and acknowledge and encourage positive behavior.

staying involved in your child's activities:

- Help your child understand his or her feelings.
- Discuss your child's new ideas.
- Be responsible for sex and drug information.
- Share your values and beliefs; it gives your child a base to work from.

EXTRA TIPS

- Keep lines of communication open.
- Be patient and observe; don't react—it may pass.

talking to your child when a concern comes up, such as:

- spending time with friends you don't know
- changes in speech and attitude
- changes in schoolwork
- lying and sneaking around

Peer Influence

Youth do not always make wise choices in picking friends. Help them see what qualities they should value in friends — such as honesty, school involvement, and respect.

To decrease negative peer influence, spend time together and try these ideas:

- Play board/outdoor games.
- Read with your child or tell family stories.
- Encourage your child's interests (such as drawing, scientific curiosity, music, and cooking).
- Include your child in social/cultural events in the community.
- Include your child's friends in family activities.

Help children see what qualities they should value in friends—such as honesty, school involvement, and respect.

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CONTRACT FOR LIFE

A Foundation for Trust and Caring

This Contract is designed to facilitate communication between young people and their parents about potentially destructive decisions related to alcohol, drugs, peer pressure, and behavior. The issues facing young people today are often too difficult for them to address alone. SADD believes that effective parent-child communication is critically important in helping young adults to make healthy decisions.

YOUNG PERSON

I recognize that there are many potentially destructive decisions I face every day and commit to you that I will do everything in my power to avoid making decisions that will jeopardize my health, my safety and overall well-being, or your trust in me. I understand the dangers associated with the use of alcohol and drugs and the destructive behaviors often associated with impairment.

By signing below, I pledge my best effort to remain free from alcohol and drugs; I agree that I will never drive under the influence; I agree that I will never ride with an impaired driver; and I agree that I will always wear a seat belt.

Finally, I agree to call you if I am ever in a situation that threatens my safety and to communicate with you regularly about issues of importance to both of us.

YOUNG PERSON

PARENT (or Caring Adult)

I am committed to you and to your health and safety. By signing below, I pledge to do everything in my power to understand and communicate with you about the many difficult and potentially destructive decisions you face.

Further, I agree to provide for you safe, sober transportation home if you are ever in a situation that threatens your safety and to defer discussions about that situation until a time when we can both have a discussion in a calm and caring manner.

I also pledge to you that I will not drive under the influence of alcohol or drugs, I will always seek safe, sober transportation home, and I will always wear a seat belt.

PARENT/CARING ADULT

Students Against Destructive Decisions

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SBIRT: Screening, Brief Intervention, and Referral to Treatment

Opportunities for Implementation and Points for Consideration

SBIRT: Basics

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidenced-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and drugs[1, 2]. Typically, this practice is conducted in medical settings, including community health centers, and has proved successful in hospitals, specialty medical practices such as HIV/STD clinics, emergency departments, and workplace wellness programs such as Employee Assistance Programs. SBIRT can be easily used in primary care settings and enables healthcare professionals to systematically screen and assist people who may not be seeking help for a substance use problem, but whose drinking or drug use may cause or complicate their ability to successfully handle health, work, or family issues. SBIRT aims to prevent the unhealthy consequences of alcohol and drug use among those whose use may not have reached the diagnostic level of a substance use disorder, and to help those with the disease of addiction enter and stay with treatment.

Charged with developing a strategy to substantially improve healthcare quality over 10 years, the Institute of Medicine's Committee on the Quality of Health Care in America in 2001 called for community-based screening for health risk behaviors — including substance use — with appropriate assessment and referral activities[3] in its report, *Crossing the Quality Chasm: A New Health System or the 21st Century*. In that landmark report, the Institute of Medicine specifically cited the SBIRT model as a promising practice.

SBIRT: Benefits

Substance misuse and abuse often result in poor health outcomes and substantial healthcare costs related to illness, hospitalizations, motor vehicle injuries, and premature deaths. An Office of National Drug Control Policy study estimated that in 2011 substance use accrued a societal cost of $193 billion[4]. Research has demonstrated SBIRT's numerous benefits. Specifically, SBIRT successfully reduces:

- Healthcare costs[5];
- Severity of drug and alcohol use; and
- Risk of trauma (distressing events that may have long lasting, harmful effect on a person's physical and emotional health and wellbeing) and the percentage of at-risk patients who go without specialized substance use treatment[6].

A 2010 study examined SBIRT's cost - benefit from an employer's perspective. The study considered the costs of absenteeism and impaired presenteeism due to problem drinking. The results indicated that when absenteeism and impaired presenteeism costs, the net value of SBIRT adoption was $771 per employee[7].

SBIRT reduces healthcare costs

- Multiple studies have shown that investing in SBIRT can result in healthcare cost savings that range from $3.81 to $5.60 for each $1.00 spent[8].

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- People who received screening and brief intervention in an emergency department, hospital or primary care office experienced 20% fewer emergency department visits, 33% fewer nonfatal injuries, 37% fewer hospitalizations, 46% fewer arrests and 50% fewer motor vehicle crashes[9].

SBIRT decreases severity of drug and alcohol use

- In 2002, researchers analyzed more than 360 controlled trials on alcohol use treatments and found that screening and brief intervention was *the single most effective treatment method* of the more than 40 treatment approaches studied, particularly among groups of people not actively seeking treatment. Additional studies and reports have produced similar results showing that substance use screening and intervention help people recognize and change unhealthy patterns of use[10].
- Studies have found that patients identified through screening as having unhealthy patterns of drug or alcohol use are more likely to respond to brief intervention than those who drink heavily[11]. The latter group is more likely to meet diagnostic criteria for a substance use disorders that needs more intensive treatment.

SBIRT reduces risk of physical trauma and the percentage of patients who go without specialized substance use treatment

- Studies on brief intervention in trauma centers and emergency departments have documented positive effects such as reductions in alcohol consumption,[12] successful referral to and participation in alcohol treatment programs,[13] and reduction in repeat injuries and injury hospitalizations[14, 15].

Given SBIRT's demonstrated cost and health savings, federal agencies such as the Substance Abuse and Mental Health Services Administration (SAMHSA), Veterans Administration, Department of Defense and the White House Office of National Drug Control Policy, as well as managed care providers and major medical associations, have recommended SBIRT's routine use. Not only does SAMHSA recommend SBIRT, but the agency also continues to support SBIRT's expanded use by funding grants across the country to further implement the practice in healthcare settings.

SBIRT: Core Components

Screening

Screening is a quick, simple method of identifying patients who use substances at at-risk or hazardous levels and who may already have substance use-related disorders. The screening instrument provides specific information and feedback to the patient related to his or her substance use. The typical screening process involves the use of a brief 1-3 question screen such as the National Institute on Alcohol Abuse and Alcoholism's single question screen or National Institute on Drug Abuse's quick screen. If a person screens positive on one of these instruments, s/he is then given a longer alcohol or drug use evaluation, using a standardized risk assessment tool such as AUDIT or ASSIST. The screening and risk assessment instruments are easily administered and provide patient-reported information about substance use that any healthcare professional can easily score.

Brief Intervention

Brief Intervention is a time-limited, patient-centered strategy that focuses on changing a patient's behavior by increasing insight and awareness regarding substance use. Depending on severity of use and risk for adverse consequences, a 5-10 minute discussion or a longer 20-30 minute discussion provides the patient with

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personalized feedback showing concern over drug and/or alcohol use. The topics discussed can include how substances can interact with medications, cause or exacerbate health problems, and/or interfere with personal responsibilities[16].

Brief intervention is designed to motivate patients to change their behavior and prevent the progression of substance use. During the intervention, patients are:

- Given information about their substance use based on their risk assessment scores.
- Advised in clear, respectful terms to decrease or abstain from substance use.
- Encouraged to set goals to decrease substance use and to identify specific steps to reach those goals.
- Taught behavior change skills that will reduce substance use and limit negative consequences.
- Provided with a referral for further care, if needed.

Brief interventions are typically provided to patients with less severe alcohol or substance use problems who do not need a referral to additional treatment and services. In addition to behavioral health professionals, medical personnel (e.g., doctors, nurses, physician assistants, nurse practitioners) can conduct these interventions and need only minimal training. In the case of patients with addictions, more intensive interventions may be needed. Much of the discussion in intensive intervention is similar to that of the brief intervention; however, the intensive sessions tend to be longer (20-30 minute) and can include multiple sessions, a referral to an addiction specialty program, and the addition of a specific pharmacological therapy. While medical personnel who have received additional training may conduct intensive interventions, behavioral health professionals often conduct these longer counseling sessions.

Referral to Treatment

In some cases, a more advanced treatment option is necessary and the patient is referred to a higher level of care. This care is often provided at specialized addiction treatment programs. The referral to treatment process consists of helping patients access specialized treatment, selecting treatment facilities, and facilitating the navigation of any barriers such as cost of treatment or lack of transportation that would hinder them from receiving treatment in a specialty setting. In order for this process to occur smoothly, primary care providers must initially establish and cultivate relationships with specialty providers, and then share pertinent patient information with the referral provider. Handling the referral process properly and ensuring that the patient receives the necessary care coordination and follow-up support services is critical to the treatment process and to facilitating and maintaining recovery.

SBIRT: Opportunities and Points for Consideration

The passage of the Patient Protection and Affordable Care Act in 2010 availed several opportunities for service delivery and payment reform in healthcare, including recognition of the importance of screening and intervention in primary care to reduce disease, disability and premature mortality.

As of October 14, 2011, Medicare covers screening and behavioral counseling related to alcohol misuse in the primary care setting, which the U.S. Preventive Services Task Force recommended with a grade of B. In its

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Decision Memo for Screening and Behavioral Counseling Interventions in Primary Care to Reduce Alcohol Misuse, the Centers for Medicare and Medicaid Services (CMS) conclude that these services are "reasonable and necessary for the prevention or early detection of illness or disability"[17]. Medicare entitles beneficiaries to yearly alcohol screenings by a primary care provider and up to four behavioral counseling interventions[18].

Additionally, in December 2011, the U.S. Department of Health and Human Services (HHS) issued its first round of guidance on how states and health plans are to implement the Essential Health Benefits (EHBs) provisions of the Affordable Care Act. The Essential Health Benefits are a set of healthcare service categories that must be covered by all insurance policies participating in state health insurance exchanges and all state Medicaid plans beginning in 2014. As required by the Affordable Care Act, the EHB package must include mental health and substance use disorder services at parity with other medical/surgical care, prevention services, and rehabilitative services. However, rather than designing one standard benefit package for all health plans in the nation to follow, HHS proposed to allow states to define their own essential health benefits. States would have 10 options for selecting a "benchmark" plan in which its covered benefits would be the basis of that state's EHB package. While the package must include mental health and substance use disorder services, each state will determine the extent of coverage. The development of the EHB package is a prime opportunity to promote the inclusion of SBIRT across multiple healthcare settings. However, inclusion of these services may be dependent upon action at the state level. Stakeholders should pay close attention to further guidance released by HHS, as well as opportunities within their own state to influence the process.

Even with reimbursement codes available, it is important to note that some states may still have difficulty covering screening and brief intervention services when they are provided by non-physician professionals. According to a SAMHSA learning collaborative run by the National Network to Eliminate Disparities, Federally Qualified Health Centers (FQHCs) in Tennessee and Colorado received reimbursement from insurance carriers only when SBIRT services were conducted by primary care physicians and not when provided by psychologists or social workers. As it turned out, this caveat was included in the criteria for payment in these states. Once identified, both states were able to change their payment methodologies to correct this problem. In Colorado, health educators are now able to receive payment for delivering screening and brief intervention.

Utilizing SBIRT Reimbursement Codes

SBIRT is an effective method to identify, intervene and help treat individuals with substance use problems. Its use across healthcare settings, including emergency rooms, community clinics and trauma centers, is paramount. Hence, SBIRT coding and billing policies are a crucial component to widespread use of this practice. However, coding and reimbursement are dependent upon the payer type; reimbursement is available through commercial insurance Current Procedural Terminology (CPT) codes, Medicare G codes, and Medicaid Healthcare Common Procedure Coding System (HCPCS) codes[19].

While Medicare currently pays for screening and brief intervention as a preventive service in the primary care setting, some states are working to "activate" Medicaid codes for SBIRT reimbursement. According to the most recent information from SAMHSA, 16 states have approved SBIRT codes in their respective Medicaid plans; of these, five states have activated codes that allow providers to bill and receive payment for the services, four have activated SBIRT codes to allow for reimbursement of non-physician professionals, including Alaska, Tennessee, Colorado, and Virginia, and two states — Indiana and Oklahoma — have activated SBIRT codes to allow for reimbursement of physicians only.

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SAMHSA has funded a number of state SBIRT initiatives and has found that SBIRT programs can be implemented successfully in primary care settings[20]. However, sustainability can pose a problem once a grant-funded project ends. Addressing SBIRT reimbursement barriers not only expands the use of SBIRT, but also assists in the sustainability of providing these services in the primary care setting.

More information on SBIRT billing codes may be found through the Institute for Research, Education &Training Institute in Addictions, CMS and the SAMHSA-HRSA Center for Integrated Health Solutions.

Addressing Workflow Issues

In addition to reimbursement issues, SBIRT proponents encounter other barriers to broad implementation and sustainability of this evidence-based practice. In Maryland, efforts to integrate SBIRT into community health centers demonstrate the importance of resolving workflow hurdles and providers' time constraints in the primary care setting. Through an Open Society Institute-funded pilot project in 2010, four community health centers in Baltimore engaged in a workflow redesign process that resulted in successful institutionalization of SBIRT practices in their centers. Through this process, key lessons learned were that administrative and physician champions are essential to early adoption and that recognizing the role of technology was critical. As a result, the Baltimore SBIRT pilot supported sites in incorporating SBIRT screening into their electronic health records. This produced a dramatic improvement in delivery of brief interventions and facilitated ease in documentation and data collection.

One common barrier to implementing SBIRT in primary care settings is the additional time the practice will add to already short visits. As indicated above, the Baltimore SBIRT project overcome this hurdle by employing multi-disciplinary change team to identify not only the best screening and risk assessment tools for that practice setting, but also which existing clinical and administrative staff would conduct specific SBIRT functions. This led to the creation of several different SBIRT delivery models across seven community health centers in 14 separate locations across the state of Maryland. In some models, medical assistants complete the screening and risk assessment tools with patients; then, the primary care provider reviews the information and conducts the brief intervention. In other health centers, the primary care provider conducts only part of the brief intervention for each patient and refers to internal behavioral health professionals for completion. The success of the Maryland health center project led Baltimore Substance Abuse Systems, Inc., the lead funder of substance abuse treatment for the city, to fund SBIRT projects in six high schools and one emergency department. These efforts are currently underway. The keys to Maryland's successful implementation have included collaboration with health staff to tailor SBIRT to existing infrastructure and resources, ongoing training, data collection for quality monitoring and process revision based on results.

Visit SAMHSA-HRSA Center for Integrated Health Solutions for resources that address workflow issues.

Maintaining Confidentiality

As SBIRT's use advances, patient privacy must be carefully considered as data collected through the screening process by healthcare organizations other than addiction specialty programs are not covered by 42 CFR. Providers must ensure that all applicable safeguards are in place to protect patient data.

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SBIRT: Adapting to the Health Home Model

Under the Affordable Care Act, states have the option to establish a "health home" to better meet the healthcare needs of individuals with chronic conditions. As stipulated by the federal government, these health homes must provide comprehensive, evidence-based care and provide mental health and substance use prevention and treatment services. CMS has released guidance on the development of health homes, (available on SAMHSA's health homes webpage). Hence, as states move forward with implementing health home initiatives, an opportunity exists to significantly expand the use of SBIRT services to provide more comprehensive care to the individuals that are served through these models. The state of New York in its Health Home State Plan Amendment (SPA) and in proposals to transform their Medicaid system have proposed a significant expansion of the use of SBIRT. It is the state's hope that this expansion will lead to early interventions before more severe and costly consequences occur from alcohol and drug misuse. The state of Missouri has also taken a similar approach in the development of its Health Home SPA by identifying the use of SBIRT as a critical component of addressing the health needs of Missouri's low-income populations and those living with chronic medical and behavioral health conditions. Stakeholders must educate state Medicaid directors on the benefits of incorporating SBIRT services into health home models and allowing psychologists and licensed social workers to bill for these services. As mentioned, Alaska, Tennessee, Colorado, and Virginia have successfully worked with state Medicaid programs to activate SBIRT billing codes to allow reimbursement for non-physician professionals.

Stakeholders interested in receiving technical assistance and consultation around the Health Home SPA can contact the Substance Abuse and Mental Health Services Administration.

SBIRT: Implications

The cost of healthcare in the U.S. has been steadily growing and providers, policy makers and consumers are eager to identify high quality, cost-effective strategies to coordinate the care of individuals and manage chronic illnesses[21]. SBIRT is an evidence-based practice that has been clinically shown to identify, reduce and prevent substance misuse and the disease of addiction and ultimately reduce healthcare costs. While implementation barriers still exist, recent developments under the Affordable Care Act have created valuable opportunities for the expansion of SBIRT utilization across various healthcare settings. As states begin to explore opportunities through the Health Homes SPA, stakeholders must recognize SBIRT's value and the need to implement the practice to comprehensively address consumers' health needs. Through the use of evidence-based practices such as SBIRT, individuals will receive quality care that will lead to improved population health outcomes.

SBIRT: Additional Resources

SAMHSA-HRSA Center for Integrated Health Solutions

Substance Abuse and Mental Health Services Administration

Centers for Medicaid and Medicare Services

National Institute on Alcohol Abuse and Alcoholism

The Big Initiative

Foundations of SBIRT

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Substance Use Screening, Brief Intervention, and Referral to Treatment

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abstract

The enormous public health impact of adolescent substance use and its preventable morbidity and mortality highlight the need for the health care sector, including pediatricians and the medical home, to increase its capacity regarding adolescent substance use screening, brief intervention, and referral to treatment (SBIRT). The American Academy of Pediatrics first published a policy statement on SBIRT and adolescents in 2011 to introduce SBIRT concepts and terminology and to offer clinical guidance about available substance use screening tools and intervention procedures. This clinical report provides a simplified adolescent SBIRT clinical approach that, in combination with the accompanying updated policy statement, guides pediatricians in implementing substance use prevention, detection, assessment, and intervention practices across the varied clinical settings in which adolescents receive health care.

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INTRODUCTION

Adolescent substance use is an issue of critical importance to the American public. In 2011, a nationally representative household survey found that adults rated drug abuse as the number one health concern for adolescents.[1] These concerns are reflected in the *Healthy People 2020* objectives, which call for reducing teen substance use.[2] Alcohol, tobacco, and marijuana are the substances most often used by children and adolescents in the United States. Twenty-eight percent of students have tried alcohol by eighth grade, and 68.2% have tried alcohol by 12th grade. Twelve percent of eighth-graders and more than half of 12th-graders have been drunk at least once in their life.[3] Rates of marijuana use have increased substantially in recent years; in 2012, 45% of ninth- through 12th-graders reported ever using marijuana, and 24% reported marijuana use in the past 30 days.[4] Eight percent of teenagers reported using marijuana nearly every day, an increase of approximately 60% from 2008.[4] Decreases in tobacco use by high school students have plateaued since 2007; 41% of ninth- through 12th-graders reported having tried cigarettes and nearly one-quarter (22.4%)

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reported current (past-30-day) use of tobacco in any form.[5] "Misuse" of prescription medication, especially stimulants and pain medications, continues among a substantial minority of adolescents (eg, 15% of 12th-graders[3]). Approximately half (50.4%) of 12th-graders have used any illicit drug (half of these, or 24.7%, reported the use of any illicit drug other than marijuana).[3]

Although it is common for adolescents and young adults to try psychoactive substances, it is important that this experimentation not be condoned, facilitated, or trivialized by adults. Even the first use of a psychoactive substance may result in tragic consequences, such as injury, victimization, or even fatality. Adolescence extends from approximately 12 years of age into the early 20s and is a time of intensive neurodevelopmental molding and maturation that confers greater neurodevelopmental vulnerability at a time during which risk-taking behaviors are generally more prevalent. Adolescents are particularly susceptible to risk-related injuries, including those associated with alcohol, tobacco, and other drug use.[6,7] Most alcohol and drug use consequences during adolescence are attributable not to addiction but to the fact that all substance use confers some amount of risk.[8] Substance use correlates with sexual risk-taking[9] and can complicate pregnancy outcomes. Other health complexities, such as having a chronic disease or disability, including intellectual disability, may increase an adolescent's vulnerability to both substance use and its consequences.[10,11] The neurodevelopmental changes during adolescence confer particular vulnerability to addictions.[12] The age at first substance use is inversely correlated with the lifetime incidence of developing a substance use disorder.[7,12] Adolescence is thus a most critical time period for pediatricians, the medical home, and any other entity providing health advice to deliver clear and consistent messaging about abstaining from substance use.[13]

Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents[14] highlights the unique role of the pediatrician in addressing problem behaviors throughout the pediatric age range. Most adolescents (83%) have contact with a physician annually.[15] Adolescents consider physicians an authoritative source of knowledge about alcohol and drugs and are receptive to discussing substance use.[16] These findings underscore the tremendous opportunity for addressing substance use in primary care settings, the medical home, and other settings in which children and adolescents receive medical care and health advice.

The Substance Abuse and Mental Health Services Administration (SAMHSA) recommends universal substance use screening, brief intervention, and/or referral to treatment (SBIRT) as part of routine health care.[17] Capitalizing on opportunities to screen whenever and wherever adolescents receive medical care can increase the identification of risk behaviors and substance use. Because the adolescent age group is at the highest risk of experiencing substance use–related health consequences,[18] it is also the most likely to derive the most benefit from universal SBIRT. This clinical report, together with an update of the 2011 American Academy of Pediatrics (AAP) policy statement on SBIRT,[19] presents a simplified, practical clinical approach to support widespread implementation of research-informed SBIRT practices. Similar to any other patient interactions, SBIRT must be conducted with sensitivity to various patient population abilities, vulnerabilities, and needs, such as when adolescents have chronic medical conditions or intellectual disabilities,[10,11] and with considerations to modify SBIRT techniques as needed to ensure relevance, comprehensibility, and reliability.

CONFIDENTIALITY

Confidentiality practices in the medical home are important facilitators to SBIRT practices and the care of an adolescent disclosing substance use. Protection of their confidential health care information is an essential determinant of whether adolescents will access care, answer questions honestly, and engage in and maintain a therapeutic alliance with health care professionals.[20,21] Adolescents may disclose substance use or other high-risk behaviors as a way to reveal that they want help or feel unsafe, possibly even in their own home, so a prime consideration for the pediatrician is whether maintaining confidentiality or disclosing confidential health information is in the patient's best interest.

Health care professional organizations guiding best practices in adolescent and young adult medical care, including the American Medical Association, the AAP, the American College of Obstetricians and Gynecologists, the American Academy of Family Physicians, and the Society for Adolescent Health and Medicine, have established position statements and recommendations guiding confidentiality and informed consent in this age group.[22,23] The AAP statement recommends that all children and adolescents receive comprehensive, confidential primary care, including indicated screenings, counseling, and physical and laboratory evaluations.[19] The Society for Adolescent Health and Medicine's position paper notes that participation of parents in the health care of their adolescents should usually be encouraged but

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not mandated.[22] The Center for Adolescent Health and the Law (CAHL.org) provides detailed information about each state's regulations that specify adolescent and parent rights, including adolescent confidentiality.

Confidentiality practices are best introduced to the patient and the parent(s) or legal guardian simultaneously before the first time the teen or "tween" (preadolescent) patient is interviewed without a parent present or when an adolescent is new to a pediatrician's practice. The "limit" to maintaining confidentiality relies on the pediatrician's clinical judgment of the need to prevent imminent harm to the patient or someone else and to protect the patient's health and safety. Adolescents often express relief that their parents will be informed of serious problems, although they may have preferences about how the information is presented. By first informing the adolescent that confidentiality can no longer be upheld and then strategizing about the disclosure, the pediatrician, with the adolescent's permission, or the patient, together with the pediatrician, can transmit the necessary information to parents while simultaneously protecting the physician-patient bond. Whether or not the adolescent's substance use poses an acute safety risk, adolescents are likely to benefit from the support and involvement of their parents in accessing recommended services and accepting the care plan. Adolescents are unlikely to follow through with referrals without the support of an adult, and even more so if they are being referred for the evaluation or treatment of something they do not believe they have, such as a severe substance use disorder (SUD), or addiction. In many cases and certainly by the time an adolescent has developed an SUD, parents are already aware or at least highly suspect that their adolescent is engaged in substance use, although they may underestimate the extent of use or the seriousness of the situation.[24] In addition, confidentiality, intervention, and treatment are potentially influenced by a parent's substance use or active substance use disorder. Advising the substance-using parent to speak with their own physician or to seek other assistance is likely to be helpful as the pediatrician begins to work with the substance-using adolescent.

Adolescents may be less resistant to breaking confidentiality if the pediatrician and the adolescent first discuss why the disclosure is necessary, what details will be disclosed, who will disclose the details, and how disclosure will help. Teenagers may be most concerned about protecting tangential details (ie, which friends were involved, how and where they obtained substances, etc), which might be possible to keep confidential when disclosure would not substantially change the safety plan. Adolescents may be willing to include their parent(s) in a discussion of recommendations, particularly if the concerns and recommendations can be presented in a way that emphasizes positive attributes, such as the adolescent's honesty, willingness to change behavior, and/or acceptance of further evaluation or treatment. Adolescents who agree to accept a referral without notifying their parents may be able to access services available in the school or the community. Specific laws governing the need for parental consent for SUD treatment vary by state, so legal clarification is advised. Physicians should be aware that health insurance transactions can potentially jeopardize patient confidentiality and rapport with the patient and parent: for example, when a parent's insurance policy sends the policy holder (parent) an explanation of benefits with explicit diagnostic codes about the adolescent's care.

SCREENING

Screening is a procedure applied to populations to identify individuals or groups at risk of or with a disease, condition, or symptoms. Screening is conducted so that the results can form the basis for a corresponding care plan. The best screening tools are those containing the lowest number of succinct validated questions that can elicit accurate and reliable responses. Comprehensive biopsychosocial screening, including substance use screening, is a recommended component of routine adolescent health care. The HEEADSSS mnemonic, which stands for home environment, education and employment, eating, peer-related activities, drugs, sexuality, suicide/depression, and safety from injury and violence,[25,26] is a frequently used framework to conduct a complete psychosocial interview with adolescents, as is the SSHADESS mnemonic, a strength- and resiliency-based tool. Whether the patient responds to a written or electronic survey or provider or medical assistant questioning, the "D" in these tools triggers screening about the patient's substance use but possibly also about use by their friends or household members.

The SBIRT screening goal is to define experience with substance use along a spectrum ranging from abstinence to addiction so that this information can be used to guide the next steps of the related clinical approach, or intervention (see Table 1). Screening results broadly inform clinical care: for example, alcohol and drug use may be the source of a presenting symptom or may interfere with prescribed medications and test results. The management of inattentiveness would be different if the physician learned that the patient used marijuana (a possible cause) or a stimulant drug (a prescribing risk). Awareness about the range of possible screening results allows the pediatrician to be prepared to

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TABLE 1 Substance Use Spectrum and Goals for BI

Stage	Description	BI Goals
Abstinence	The time before an individual has ever used drugs or alcohol more than a few sips.	Prevent or delay initiation of substance use through positive reinforcement and patient/parent education.
Substance use without a disorder	Limited use, generally in social situations, without related problems. Typically, use occurs at predictable times, such as on weekends.	Advise to stop. Provide counseling regarding the medical harms of substance use. Promote patient strengths.
Mild–moderate SUD	Use in high-risk situations, such as when driving or with strangers. Use associated with a problem, such as a fight, arrest, or school suspension. Use for emotional regulation, such as to relieve stress or depression. Defined as meeting 2 to 5 of the 11 criteria for an SUD in the DSM-5.	Brief assessment to explore patient-perceived problems associated with use. Give clear, brief advice to quit. Provide counseling regarding the medical harms of substance use. Negotiate a behavior change to quit or cut down. Close patient follow-up. Consider referral to SUD treatment. Consider breaking confidentiality.
Severe SUD	Loss of control or compulsive drug use associated with neurologic changes in the reward system of the brain. Defined as meeting ≥6 of the 11 criteria for an SUD in the DSM-5.	As above. Involve parents in treatment planning whenever possible. Refer to the appropriate level of care. Follow up to ensure compliance with treatment and to offer continued support.

DSM-5, *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.*

address the range of potential patient responses.

Pediatricians' self-reported rates of routine substance use screening vary from less than 50%[27,28] to 86%,[29] although few physicians reported using a validated screening tool,[30] and most relied on clinical impressions. The most frequently cited barriers to screening were lack of time,[31] insufficient training,[32] and lack of familiarity with standardized tools.[33] Experienced pediatricians have failed to detect mild, moderate, and sometimes even severe SUDs when relying on clinical impressions alone.[34] A recent study found that when a screening tool was not used, only one-third of youth who were engaged in "excessive alcohol use" were identified.[35]

An array of validated tools is available to conduct alcohol and other substance use screening and to guide assessment for use-related problems (Table 2). The effective incorporation of screening into the pediatric practice depends on pediatricians being knowledgeable about screening options and selecting and implementing the tools most suitable for routine use in their particular care settings and patient population(s), including vulnerable patients in their care. Alcohol-only screening may be most useful with younger children, when time is very limited or when alcohol use is a particular concern. The AAP-endorsed National Institute on Alcoholism and Alcohol Abuse's "Youth Guide"[36] provides clinicians with an age-based schema to ask patients about the frequency of their drinking and their friends' drinking in the past year and to correlate the respective responses with the current and future risk of having an alcohol use disorder. The BSTAD (Brief Screener for Tobacco, Alcohol and other Drugs)[37] uses highly sensitive and specific cutoffs to identify various SUDs among adolescents 12 to 17 years of age: ≥6 days of past-year use for tobacco and >1 day of past-year use for alcohol or marijuana.[37] The Screening to Brief Intervention (S2BI) tool[38] uses a stem question and forced-response options (none, once or twice, monthly, and weekly or more) in a sequence to reveal the frequency of past-year use of tobacco, alcohol, marijuana, and 5 other classes of substances most commonly used by adolescents (Table 3). The S2BI tool is highly sensitive and specific in discriminating among clinically relevant use-risk categories and therefore is remarkably efficient in its ability to detect severe SUDs aligned with criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*[39] (Table 4). Although the S2BI is not a formal diagnostic instrument, the patient's response to the question about the frequency of use in the past year correlates closely with the present likelihood of having an SUD, as follows: used "once or twice" correlates with no SUD, uses "monthly" correlates with mild or moderate SUD, and uses "weekly or more" correlates with a severe SUD (Fig 1). The CRAFFT (Car, Relax, Alone, Friends/Family, Forget, Trouble)[40] tool originally was validated to screen for substance use risk by scoring each patient's "yes" or "no" responses to 6 questions, but using the tool as an assessment to explore "yes" responses and to reveal the extent of the patient's substance use–related problems may be more effective for gathering details for use in SBIRT intervention.

Incorporating screening into the patient care visit logically assumes that the spectrum of possible screening outcomes will be addressed by using effective approaches and available resources most suitable for the particular patient population and locale. Options for pediatricians to respond to adolescent substance use screening results and to facilitate care are described by a range of "brief intervention and referral to treatment" practices.

BRIEF INTERVENTION

Brief intervention (BI) is a conversation that focuses on

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encouraging healthy choices so that the risk behaviors are prevented, reduced, or stopped. In the context of SBIRT, regardless of which substance use screening tools are used, the BI strategy is identical, because it is a direct response to the reported substance use severity. BI encompasses a spectrum of potential pediatrician responses, including positive reinforcement for adolescents reporting no substance use; brief, medically based advice for those reporting use but showing no evidence of an SUD; brief motivational interventions when a mild or moderate SUD is revealed; and referral to treatment of those with a severe SUD. Using motivation-enhancing principles is compatible with all BI dialogue regarding any level of substance use and risk.

Among adolescents presenting to an ED for a substance use–related problem, BI has been shown to reduce subsequent alcohol use,[43] marijuana use,[44] and associated problems[45] and to be cost-effective compared with brief education.[46] Several BI models have been evaluated in primary care: structured intervention "5A's,"[47] "CHAT,"[48] intervention with follow-up "Healthy Choices,"[49] "MOMENT,"[50] and therapist-delivered versus computer-delivered BI.[51] All of these models have been modestly successful in showing reductions in substance use and related consequences and/or risky behaviors, although 1 trial found similar substance use reductions in both experimental and control groups.[50] Physician-implemented BI is acceptable to both teenagers[16] and clinicians.[52] Although a recent US Preventive Services Task Force[53] review found insufficient scientific basis to recommend any particular BI for addressing adolescent substance use, this clinical report reviews the current literature base to summarize expert opinion about practical BI strategies.

TABLE 2 Substance Use Screening and Assessment Tools Used With Adolescents

	Description
Brief screens	
S2BI (Screening to Brief Intervention)[38]	Single frequency-of-use question per substance Identifies the likelihood of a DSM-5 SUD Includes tobacco, alcohol, marijuana, and other/illicit drug use Discriminates among no use, no SUD, moderate SUD, and severe SUD Electronic medical record compatible Self- or interviewer-administered
BSTAD (Brief Screener for Tobacco, Alcohol, and Other Drugs)[37]	Identifies problematic tobacco, alcohol, and marijuana use Built on the NIAAA screening tool with added tobacco and "drug" questions Electronic medical record compatible Self- or interviewer-administered
NIAAA Youth Alcohol Screen (Youth Guide)[36]	Two-question alcohol screen Screens for friends' use and for personal use in children and adolescents aged ≥9 y Free resource: http://pubs.niaaa.nih.gov/publications/Practitioner/YouthGuide/YouthGuide.pdf
Brief assessment guides	
CRAFFT (Car, Relax, Alone, Friends/Family, Forget, Trouble)[40]	Quickly assesses for problems associated with substance use Not a diagnostic tool
GAIN (Global Appraisal of Individual Needs)[41]	Assesses for both SUDs and mental health disorders
AUDIT (Alcohol Use Disorders Identification Test)[42]	Assesses for risky drinking Not a diagnostic tool

Adapted with permission from American Academy of Pediatrics; Levy S, Bagley S. Substance use: initial approach in primary care. In: Adam HM, Foy JM, eds. Signs and Symptoms in Pediatrics. Elk Grove Village, IL: American Academy of Pediatrics; 2015:887–900. DSM-5, *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*; NIAAA, National Institute on Alcohol Abuse and Alcoholism.

No Substance Use: Positive Reinforcement

It has been recommended that adolescents reporting no substance use (whether tobacco, alcohol, or other drugs) receive positive reinforcement for making this smart decision and related healthy choices.[54] Even a few positive words from a physician may delay the initiation of alcohol use by adolescents.[55] Any delay in substance use onset coincides with additional brain maturation, so abstaining may be protective against the known acute and long-term consequences of early-onset substance use. Choosing to abstain from substance use can be framed as an active decision, and the adolescent is given credit for making a healthful decision and acting on it. Although screening has never been shown to increase rates of substance use, the National Institute on Alcoholism and Alcohol Abuse recommends including a "normative correction" statement whenever screening children or younger adolescents, such as, "I am glad to hear that you, just like most others your age, have never tried alcohol." Normative correction statements may help avoid the potential for patient misinterpretation that being screened in this case for alcohol use implies that alcohol use by the patient and at his or her age is expected and the age norm.

Substance Use Without an SUD: BI

When substance use is infrequent with a low likelihood of having an SUD, such as an S2BI screening response of using "once or twice" in the past year, the appropriate BI is to advise the patient to abstain in support of health and safety. A BI comprising clear, pointed advice to stop substance use combined with succinct mention of the negative health effects of use can lead to decreased use or

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abstinence in adolescent patients who use substances infrequently.[56] Brief medical advice could include statements such as, "For the sake of your health, I advise you to quit smoking marijuana. Marijuana use interferes with concentration and memory and is linked to getting lower grades at school." This BI could also recognize and leverage personal strengths and positive attributes, such as, "You are doing so well in school. I hope you will consider how your marijuana use could change all that, and whether or not that is what you really want."

Mild to Moderate SUD: Brief Motivational Intervention

Brief intervention for adolescents with mild to moderate SUD is a likely short structured conversation based on the principles of motivational interviewing,[57] through which the pediatrician respects patient autonomy while enhancing the patient's self-efficacy to institute behavior change, rather than persuading, coercing, or demanding the behavior change.[58] The core activity of BMI is to help the patient compare the benefits of continued substance use with the potential benefits of behavior change (ie, decreasing or stopping use) and ultimately take action that supports personal health and safety. The intervention is based on the premise that although adolescents who have experienced substance use–related problems can identify the potential benefits of reducing or stopping use, behavior change will not occur until the perceived benefits of giving up use outweigh the perceived "cost" and harms from continued use. For example, an adolescent may realize that marijuana use is causing tension in the relationship with his or her parents but continue to use marijuana because of perceived greater benefit from marijuana use to relieve stress or as a pleasurable activity shared with friends.

TABLE 3 S2BI Screen for Substance Use Risk Level

The following questions will ask about your use, if any, of alcohol, tobacco, and other drugs. Please answer every question by clicking on the box next to your choice.
In the past year, how many times have you used . . .
Tobacco?
-Never
-Once or twice
-Monthly
-Weekly or more
Alcohol?
-Never
-Once or twice
-Monthly
-Weekly or more
Marijuana?
-Never
-Once or twice
-Monthly
-Weekly or more
STOP if answers to all previous questions are "never." Otherwise, continue with the following questions.
In the past year, how many times have you used. . .
Prescription drugs that were not prescribed for you (such as pain medication or Adderall)?
-Never
-Once or twice
-Monthly
-Weekly or more
Illegal drugs (such as cocaine or Ecstasy)?
-Never
-Once or twice
-Monthly
-Weekly or more
Inhalants (such as nitrous oxide)?
-Never
-Once or twice
-Monthly
-Weekly or more
Herbs or synthetic drugs (such as salvia, "K2," or bath salts)?
-Never
-Once or twice
-Monthly
-Weekly or more

Starting an intervention with assessment questions to identify substance use frequency and associated problem severity can guide the pediatrician in deciding the next steps for patient care, namely continued conversation around behavior change managed in the medical home or referring to more specialized substance use evaluation, intervention, and/or treatment. This model optimizes the CRAFFT[40] tool as an assessment guide. For example, an adolescent patient responding "yes" to the CRAFFT question, "Have you gotten into trouble while you were using alcohol or drugs?" The pediatrician can distill these details into a fulcrum to pivot the conversation into discussing the adolescent's plans for avoiding such problems in the future. The pediatrician can assist the patient in making a specific intervention plan to record in the medical record and facilitate follow-up (Box 1).

Box 1

The pediatrician screens a 14-year-old boy who reports monthly alcohol use. The pediatrician asks follow-up questions about patterns of use and associated problems. The patient mentions binge drinking and not always knowing how he gets home from

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TABLE 4 DSM-5[39] and ICD-10 Criteria for SUD

DSM-5		ICD-10	
Criteria	Severity	Criteria	Severity
1. Use in larger amounts or for longer periods of time than intended 2. Unsuccessful efforts to cut down or quit	Severity is designated according to the number of symptoms endorsed: 0–1, no diagnosis; 2–3, mild SUD; 4–5, moderate SUD; ≥6, severe SUD	1. A strong desire or sense of compulsion to take the substance 2. Impaired capacity to control substance-taking behavior in terms of onset, termination, or level of use, as evidenced by the substance being often taken in larger amounts over a longer period than intended or any unsuccessful effort or persistent desire to cut down or control substance use	Three or more of these manifestations should have occurred together for at least 1 month or if persisting for periods of <1 month, then they have occurred together repeatedly within a 12-month period
3. Excessive time spent taking the drug		3. A psychological withdrawal state when substance use is reduced or ceased, as evidenced by the characteristic withdrawal syndrome for the substance, or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms	
4. Failure to fulfill major obligations 5. Continued use despite problems 6. Important activities given up		4. Evidence or tolerance to the effects of the substance, such that there is a need for markedly increased amounts of the substance to achieve intoxication or desired effect, or that there is a markedly diminished effect with continued use of the same amount of the substance	
7. Recurrent use in physically hazardous situations 8. Continued use despite problems		5. Preoccupation with substance use, as manifested by important alternative pleasures or interests being given up or reduced because of substance use, or a great deal of time being spent in activities necessary to obtain the substance, take the substance, or recover from its effects	
9. Tolerance 10. Withdrawal 11. Craving		6. Persisting with substance use despite clear evidence or harmful consequences, as evidenced by continued use when the person was actually aware of, or could be expected to have been aware of, the nature and extent of harm	

DSM-5, *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*; ICD-10, International Statistical Classification of Diseases and Related Health Problems, 10th ed.

parties. He admits preferring not to think about it because it frightens him. The pediatrician correlates the report of 'monthly' use to a likelihood that the patient has a mild or moderate SUD, indicating the next step is intervention to reduce use. The patient is given brief advice and challenged to make a behavior change: *"As your doctor, I recommend that you stop drinking alcohol. You described having 'blackouts' from your drinking. This means that you drank enough to poison your brain cells at least temporarily, which is why at times you can't remember how you have gotten home from parties. As you pointed out, a teenager can get into trouble with 'blackouts,' and it sounds like you have had some frightening experiences. How do you think you can protect yourself better in the future?"* The patient says that he is not going to quit drinking, but can agree to limiting himself to 2 drinks per occasion, a sharp decrease from his usual 6 to 8 drinks, because he does not want to black out again. The pediatrician gives advice about alcohol and motor vehicle-associated risks and suggests developing a safety plan. Planning is documented in the medical record and a follow-up appointment is scheduled in 3 months.

Medical home follow-up can be conducted after a few weeks of attempted behavior change to assess whether risk behaviors have diminished, remained the same, or escalated. Adolescents who are found to have met the agreed-on substance use behavior change goals can benefit from discussing the pros and cons of their decreased use and identifying any motivating factors that can be reinforced to sustain the behavior change and lead to abstinence. Adolescents who are unable to meet the behavior change goals may benefit from more extensive substance use–targeted individual counseling provided by an allied mental health professional, such

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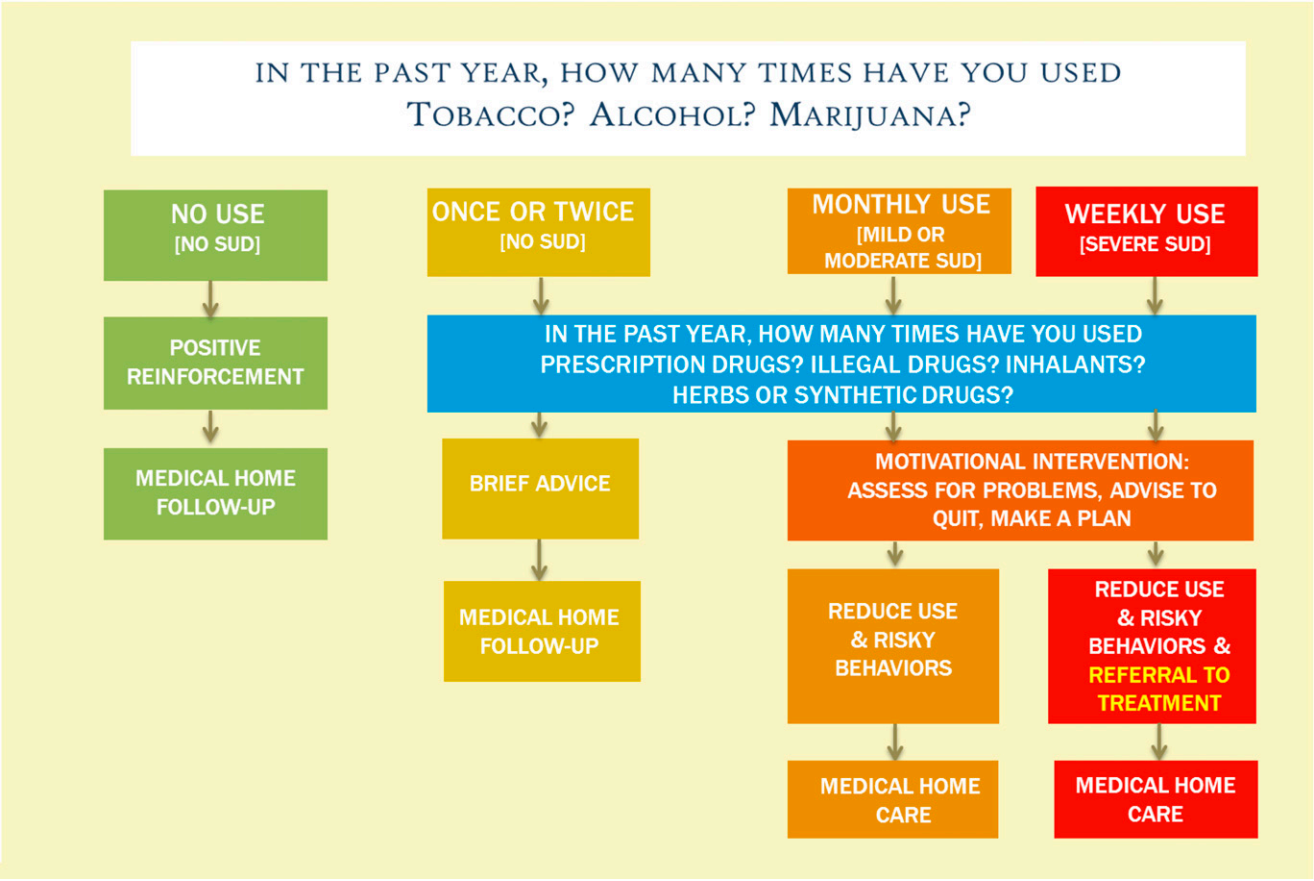

FIGURE 1

The S2BI-based approach to clinical SBIRT. S Levy, L Shrier. 2014. Boston, MA: Boston Children's Hospital. Copyright 2014, Boston Children's Hospital. Reprinted under Creative Commons Attribution-Noncommercial 4.0 International License.

as a social worker or psychologist. Referral for specific substance use evaluation and/or to psychiatric services or other available treatment options is a next step when patients have psychiatric symptomatology or cannot decrease use. When available, referral to mental health professionals within the same medical home practice setting may optimize patient compliance.

Severe SUD: Brief Intervention Focused on Referral to Treatment

Severe SUD, or addiction, is a neurologically based disorder resulting from the disruption of neurons in the reward center of the brain as the result of repeated exposure to a psychoactive substance.[59–61] The earlier an individual initiates psychoactive substance use, the more likely that individual is to develop addiction, a nearly linear and highly significant relationship.[62–64] The S2BI tool delineates use-risk categories so that a patient reporting weekly or more frequent substance use has a high probability of a severe SUD. When addiction is likely, the next SBIRT steps are to engage the patient in a comprehensive evaluation by a substance use specialist, ensure assessment for co-occurring mental health disorders, and engage in available treatment options as soon as possible to initiate the significant behavior change that is necessary for the patient's future health and safety.

Because resistance and denial (ie, lack of insight)[65] are intrinsic SUD symptoms, the patient and/or family may be unwilling to pursue an evaluation or therapy when it is recommended. Despite this challenge, it is important for the pediatrician to remain engaged with the patient and family and supportive during discussions and decision-making about the care options as well as throughout the entire course of care and aftercare. Motivational interviewing strategies can be helpful for encouraging an adolescent and/or the family to accept a referral (Box 2).

Box 2

In response to S2BI screening in the medical home, a 16-year-old girl reports weekly marijuana use. The pediatrician then asks questions to determine quantity, frequency, and context of use and to explore for problems. The patient says she relies on marijuana to help calm her down

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TABLE 5 "911 Plan" for Adolescents at Acute Risk of Harm

Break confidentiality and notify parents of risk.
Make a verbal contract with patient not to use substances while awaiting treatment entry.
Ask parents to monitor adolescent closely while awaiting treatment entry.
If parents know adolescent is talking about self-harm, seek an emergency evaluation. Call 911, if adolescent refuses.
If parents note that the adolescent has altered mental status, seek emergency evaluation.
If the adolescent is unwilling to accept parent's rules or becomes violent or threatening, advise parents to call local police station and request emergency assistance.

when she is stressed and that she does not see the harm in it. She also states that her mother knows about her use and thinks marijuana use is bad for her, so their relationship has gotten tense over this disagreement. She was recently suspended from school when caught with marijuana. The pediatrician summarizes the situation and provides brief advice: *"It seems that you depend on marijuana to help you manage stress, and at the same time you realize marijuana use is causing tension at home and has gotten you into trouble at school. It is clear to me that you are thinking about this, and I am glad you are willing to speak with me about it. As your physician and for the sake of your health, your school work, and your relationship with your mom, I recommend that you quit your marijuana use. I would like you to speak with a colleague of mine who can help you continue thinking through the "good things" and "not so good things" about marijuana use and help you figure out what you want to do. What do you think?"* The patient agrees tentatively. The pediatrician gives her positive feedback about her willingness to discuss her marijuana use now and meet with the recommended colleague soon. The pediatrician asks the patient's permission to invite her mother into the room to discuss the plan together and mentions this would also show her that the patient is taking the concerns about her marijuana use seriously. She agrees and the patient's mother joins them for a summary of the conversation. The counseling appointment is scheduled, and the plan is detailed in the medical record. The patient and mother are scheduled for follow-up in 1 month.

Acute Risk of Harm

Substance use screening may reveal that an adolescent patient is at risk of imminent harm and immediate attention is warranted, including screening for suicidal or homicidal ideation. Certain substance use patterns indicate acute risk, such as injection drug use, drug withdrawal symptoms, and active substance use with a past history of a drug-related emergency department visit or medically supervised withdrawal. Very high-risk behaviors include using different sedatives together, such as mixing alcohol, benzodiazepines, barbiturates, and/or opioids; frequent or excessive binge drinking, which is especially concerning for alcohol poisoning; and operating a motor vehicle coincident with alcohol or other drug use. The more recent the activity, the more immediate is the need to address the risk through mental health and/or medical intervention and to detect or confirm an SUD and other underlying or co-occurring health issues.

When an acute risk of harm is revealed, the next steps for the pediatrician are to use brief intervention techniques to facilitate a commitment from the adolescent to curtail or avoid further substance use and high-risk behaviors. Imminent risk of harm calls for the patient and pediatrician to discuss confidentiality and disclosure, because the parent(s) nearly always should be involved in the safety plan and next steps of medical care, including how the parent(s) can support and monitor the adolescent and respond to acute concerns about safety as specialty evaluation and care services are engaged (Table 5, Box 3).

Box 3

A 17-year-old boy reports weekly use of alcohol and marijuana and monthly use of prescription medications and cocaine. The pediatrician asks follow-up questions to gauge the patient's level of acute health and safety risk. He uses marijuana to relax. He often smokes alone and sometimes drinks alone. He has frequent blackouts and explains "that's the point." He likes mixing pills with alcohol because he blacks out faster. He has thought that he may have an alcohol problem, but he does not plan to stop. He denies thoughts of hurting himself or others. The pediatrician responds: "*I am glad you spoke honestly with me today. From what you told me, I am worried about your drug use. Mixing drugs can really get you into trouble, even if you only take a couple of pills. Because I am so concerned, I want you to know that some of this information must be shared with your parents and an appointment will be made for you to speak more about your drug use with one of my colleagues. In the meantime, can you promise me that you will not use any pills or drugs at all before your next appointment? What do you think would be the best way to share the information with your parents?*"

REFERRAL TO TREATMENT

Referral to treatment describes the facilitative process through which patients identified as needing more

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TABLE 6 ASAM Levels of Care for Treatment of SUDs

	Description
OUTPATIENT	
Individual counseling	Adolescents with SUDs should receive specific treatment of their substance use; general supportive counseling may be a useful adjuvant but should not be a substitute.[69] Several therapeutic modalities (motivational interviewing, cognitive behavioral therapy, contingency management, etc) have all shown promise in treating adolescents with SUDs.[70]
Group therapy	Group therapy is a mainstay of SUD treatment of adolescents with SUDs. It is a particularly attractive option because it is cost-effective and takes advantage of the developmental preference for congregating with peers. However, group therapy has not been extensively evaluated as a therapeutic modality for this age group, and existing research has produced mixed results.[69–71]
Family therapy	Family-directed therapies are the best-validated approach for treating adolescent SUDs. A number of modalities have all been shown to be effective. Family counseling typically targets domains that figure prominently in the etiology of SUDs in adolescents: family conflict, communication, parental monitoring, discipline, child abuse/neglect, and parental SUDs.[69]
Intensive outpatient program (IOP)	IOPs serve as an intermediate level of care for patients who have needs that are too complex for outpatient treatment but do not require inpatient services. These programs allow individuals to continue with their daily routine and practice newly acquired recovery skills both at home and at work. IOPs generally comprise a combination of supportive group therapy, educational groups, family therapy, individual therapy, relapse prevention and life skills, 12-step recovery, case management, and after-care planning. The programs range from 2 to 9 hours per day, 2 to 5 times per week, and last 1 to 3 months. These programs are appealing because they provide a plethora of services in a relatively short period of time.[72]
Partial hospital program	Partial hospitalization is a short-term, comprehensive outpatient program in affiliation with a hospital that is designed to provide support and treatment of patients with SUDs. The services offered at these programs are more concentrated and intensive than regular outpatient treatment because they are structured throughout the entire day and offer medical monitoring in addition to individual and group therapy. Participants typically attend sessions for 7 or 8 hours per day, at least 5 days per week, for 1–3 weeks. As with IOPs, patients return home in the evenings and have a chance to practice newly acquired recovery skills.[73]
OUTPATIENT	
Detoxification	Detoxification refers to the medical management of symptoms of withdrawal. Medically supervised detoxification is indicated for any adolescent who is at risk for withdrawing from alcohol or benzodiazepines and may also be helpful for adolescents withdrawing from opioids, cocaine, or other substances. Detoxification may be an important first step but is not considered definitive treatment. Patients who are discharged from a detoxification program should then begin either an outpatient or residential SUD treatment program.[70,71]
Acute residential treatment (ART)	ART is a short-term (days–weeks) residential placement designed to stabilize patients in crisis, often before entering a longer-term residential treatment program.[70] ART programs typically target adolescents with co-occurring mental health disorders.
Residential treatment	Residential treatment programs are highly structured live-in environments that provide therapy for those with severe SUD, mental illness, or behavioral problems that require 24-hour care. The goal of residential treatment is to promote the achievement and subsequent maintenance of long-term abstinence as well as equip each patient with both the social and coping skills necessary for a successful transition back into society. Residential treatment programs are classified by the length of the program; short-term refers to programs of ≤30 days' duration, long-term refers to programs of >30 days' duration. Residential treatment programs generally comprise individual and group therapy sessions plus medical, psychological, clinical, nutritional, and educational components. Residential facilities aim to simulate real living environments with added structure and routine to prepare individuals with the framework necessary for their lives to continue drug and alcohol free on completion of the program.[74]
Therapeutic boarding school	Therapeutic boarding schools are educational institutions that provide constant supervision for their students by professional staff. These schools offer a highly structured environment with set times for all activities, smaller, more specialized classes, and social and emotional support. In addition to the regular services offered at traditional boarding schools, therapeutic schools also provide individual and group therapy for adolescents with mental health or SUDs.[75]

extensive evaluation and treatment are able to access the appropriate services. Historically, medical encounters have been notably poor in identifying adolescents who have severe SUDs and connecting them with treatment. SAMHSA has estimated that fewer than 10% of adolescents in need of specialty substance use treatment receive it, and the majority of referrals are from the justice system.[66,67] The referral to treatment, or "RT," of SBIRT is composed of 2 distinct yet connected clinical activities: working with the adolescent and family so they accept that timely referral and treatment are necessary for the patient's health and facilitating the referral process to engage the patient and family with the appropriate professional(s) or program(s).

Deciding where to refer an adolescent in need of treatment is often complicated by limited treatment availability, insurance coverage complexities, and preferences of the adolescent and family. In most cases, pediatricians will refer adolescents with SUDs to a mental health or addiction specialist to conduct a comprehensive biopsychosocial assessment and to determine the appropriate level of care from the treatment spectrum, ranging from outpatient substance use counseling to long-term residential treatment

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programs. In 2001, the American Society of Addiction Medicine (ASAM) revised its comprehensive national guidelines for placement, continued stay, and discharge of patients with alcohol and other drug problems. The separate guidelines devised for adults and adolescents detail 5 broad levels of care that range from early intervention to medically managed intensive inpatient treatment and correspond to addiction severity, related problems, and potential for behavior change and recovery[68] (Table 6). Adolescents should be treated in the least-restrictive environment (ie, level of care) that supports their clinical needs. Adolescents who voluntarily accept therapeutic placement will usually engage more readily in their care, which is a key factor influencing SUD treatment success.

The Center for Substance Abuse Treatment has published evidence-based treatment and assessment protocols and manuals (available at: www.ncbi.nlm.nih.gov/books/NBK82999). To help identify treatment options throughout the country, SAMHSA maintains a comprehensive and easy-to-use Substance Abuse Treatment Facility Locator on its Web site (www.samhsa.gov/treatment/index.aspx), which also lists both a Buprenorphine Physician & Treatment Program Locator and an Opioid Treatment Program Directory. Opioid and alcohol use disorders are the primary indications for medication-assisted treatment in adult populations; medication-assisted treatment with buprenorphine or naltrexone also is an option for opioid-dependent adolescents.[76,77]

Successful addiction treatment usually involves a long recovery process during which the patient experiences more than 1 level of care. In 2013, the ASAM reconceived the notion of "patient placement" by incorporating the entire admission, treatment, and continuing care into a single longitudinal process and encouraging the integration of addiction services with general health care, mental health, and a variety of other subjects and settings. Because clinicians and payers need to exchange information frequently and repeatedly during the treatment payment approval process, the current edition of the ASAM *National Treatment Guidelines*[68] includes a section about working effectively with managed care, particularly in the context of health care reform.

Most patients in addiction treatment consider themselves "recovering" rather than "recovered" to recognize their lifelong potential for relapse. Whether treatment begins in outpatient or inpatient care, it should continue at the level appropriate to support the patient's recovery process, which often is achieved through sequential or overlapping therapeutic levels and usually includes participation in a formal structured program, self-help groups (eg, Alcoholics Anonymous, Alateen, Narcotics Anonymous), ongoing after-care programs, and self-help recovery work.

The medical home plays a key role for all patients in recovery through many roles that include providing continuity of general medical care and rapport with the patient and family, coordinating the patient's various care specialties and services involved, and providing SUD follow-up care to detect relapse and providing support through referral and collaborative care. Relapse is not uncommon in SUDs, but anticipating it and viewing it as a learning opportunity can motivate the patient and family to re-engage in care. By collaborating with addiction medicine specialists and other mental health professionals as well as working with the family, third-party payers, and schools, among others, the pediatrician plays an essential role in the ongoing care of children and adolescents with SUDs.

OPTIMAL STANDARDS FOR AN SUD TREATMENT PROGRAM

The following were adapted from SAMHSA and Center for Substance Abuse Treatment standards into optimal goals for inpatient or outpatient SUD treatment programs serving the pediatric population.[78] The program will:

1. View drug and alcohol use disorders as a primary disease rather than a symptom.
2. Include a comprehensive patient evaluation and a developmentally appropriate management and treatment referral plan for associated medical, emotional, and behavioral problems identified.
3. Maintain rapport with the patient's pediatrician to facilitate seamless after-care and primary care follow-up.
4. Adhere to an abstinence philosophy and consider the patient's continued use of tobacco, alcohol, or other drugs as indicating more treatment is needed rather than the program should discharge or refuse to treat.
5. Maintain a low patient-to-staff ratio.
6. Use treatment professionals who are knowledgeable in both addiction treatment and child and adolescent behavior and development.
7. Maintain separate treatment groups for individuals at varying developmental levels (adolescents, young adults, and older adults).
8. Involve the entire family in the treatment and relate to

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the patients and their families with compassion and concern. Programs located as close to home as possible are preferable to facilitate family involvement, even though separation of the adolescent from the family may be indicated initially.

9. Offer patients an opportunity to continue academic and vocational education and assistance with restructuring family, school, and social life. Consider formal academic and cognitive skills assessment, because unidentified weaknesses may contribute to emotional factors contributing to the substance use.
10. Keep the family apprised of costs and financial arrangements for inpatient and outpatient care and facilitate communication with managed-care organizations.
11. Ensure that follow-up and continuing care are integral parts of the program.

Billing and payment for screening and office-based BI varies by payer. A fact sheet about coding for behavior change intervention for substance use is available on the AAP Web site (www.aap.org/en-us/professional-resources/practice-support/Coding-at-the-AAP/Pages/Private/Substance-Abuse-Coding-Fact-Sheet.aspx). Further clarification is available through the AAP coding hotline (AAPCodinghotline@aap.org).

SUMMARY

Pediatricians play a key role in preventing and curtailing adolescent substance use and associated harm, whether through direct patient care practices, multidisciplinary collaboration, or support of parenting and community efforts. Research-informed SBIRT practices can be applied across the variety of practice settings and clinicians providing health care to adolescents. SBIRT is recognized to include the use of validated screening tools, assessing for substance use risk and problems, sharing expert health promotion and disease prevention advice, and conducting interventions that encourage substance use reduction and/or referral to treatment. (See the accompanying policy statement for further detail and recommendations.)

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SELECTED RESOURCES FOR PEDIATRICIANS

American Academy of Child and Adolescent Psychiatry. Practice parameter for the assessment and treatment of child and adolescent substance use disorders. Available at: www.aacap.org/App_Themes/AACAP/docs/practice_parameters/substance_abuse_practice_parameter.pdf

American Academy of Pediatrics. Implementing mental health priorities in practice substance use [video]. Available at: www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Pages/substance-use.aspx

American Academy of Pediatrics Julius B. Richmond Center of Excellence. Available at: www2.aap.org/richmondcenter

Massachusetts Department of Public Health. Adolescent SBIRT toolkit for providers. Available at: http://massclearinghouse.ehs.state.ma.us/BSASSBIRTPROG/SA1099.html

National Institute on Alcohol Abuse and Alcoholism. Alcohol screening and brief intervention for youth: a practitioner's guide. Available at: www.niaaa.nih.gov/YouthGuide

Partnership for Drug-Free Kids. The Medicine Abuse Project. Available at: http://medicineabuseproject.org/resources/health-care-providers

SELECTED RESOURCES FOR FAMILIES

American Academy of Child and Adolescent Psychiatry. Family resources. Available at: www.aacap.org/AACAP/Families_and_Youth/Family_Resources/Home.aspx

American Academy of Pediatrics. Patient/parent brochures. Available at: http://bit.ly/1LIC93Z

HealthyChildren.org. Official consumer Web site of the AAP. Available at: www.healthychildren.org/English/ages-stages/teen/substance-abuse

National Institute on Alcohol Abuse and Alcoholism. Make a difference: talk to your child about alcohol. Available at: http://pubs.niaaa.nih.gov/publications/MakeADiff_HTML/makediff.htm

National Institute on Alcohol Abuse and Alcoholism. Treatment for alcohol problems: finding and getting help. Available at: http://pubs.niaaa.nih.gov/publications/Treatment/treatment.htm

National Institute on Drug Abuse. Family checkup: positive parenting prevents drug abuse. Available at: www.drugabuse.gov/family-checkup

National Institute on Drug Abuse. NIDA for teens. Available at: http://teens.drugabuse.gov

Substance Use and Mental Health Services Administration. "Talk. They hear you": application. Available at: www.samhsa.gov/underage-drinking/mobile-application

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ABBREVIATIONS

AAP: American Academy of Pediatrics
ASAM: American Society of Addiction Medicine
BI: brief intervention
S2BI: Screening to Brief Intervention
SAMHSA: Substance Abuse and Mental Health Services Administration
SBIRT: screening, brief intervention, and referral to treatment
SUD: substance use disorder

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