

Problem

Tobacco use is the leading preventable cause of death in the United States.¹ Tobacco use accounts for approximately 443,000 deaths per year; an estimated 49,000 of these smoking-related deaths are the result of secondhand smoke exposure. According to the Centers for Disease Control and Prevention (CDC) Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) report, during 2000-2004, cigarette smoking and exposure to tobacco smoke resulted in approximately 5.1 million Years of Potential Life Lost (YPLL), and \$96.8 billion in productivity losses annually in the United States.² Tobacco use impacts every organ of the body. Cigarette smoking has adverse health consequences including nicotine addiction, and accelerates the development of chronic diseases. Smoking has been associated with various cancers, including oral cancer, as well as heart disease, stroke, emphysema, bronchitis, and chronic airway obstruction.¹ On average, smokers die 13 to 14 years earlier than nonsmokers.³ Smokeless tobacco is not a safe alternative to smoking cigarettes; it is predominantly a public health problem among men, young adults, persons with lower education; and in certain states.⁴

Secondhand smoke “is a serious health hazard that can lead to disease and premature death in children and non-smoking adults.” Secondhand smoke contains toxic cancer-causing chemicals and causes heart disease and lung cancer in non-smoking adults.⁵ Secondhand smoke causes an increased risk of sudden infant death syndrome (SIDS) and a number of conditions in children; including ear infections, more frequent and severe asthma attacks and respiratory infections.^{5,6}

Tobacco use remains one of the leading risk factors for developing oral cancer. Almost 40,000 Americans will be diagnosed with oral or pharyngeal cancer every year. Oral cancer results in more than 8,000 deaths per year, killing roughly one person per hour, 24 hours a day. Of the 40,000 Americans diagnosed with oral cancer this year, slightly more than half will be alive in five years.⁷ Delayed diagnosis is associated with higher rates of morbidity and mortality. Early detection and prevention efforts can increase survival rates for tobacco-associated oral or pharyngeal cancers.

Tobacco use is a risk factor for a number of other oral diseases including periodontal disease and dental caries. Current smokers are more likely than former smokers and those who have never smoked to have poor oral health status and three or more oral health problems. Current smokers are also more likely to delay routine dental visits.⁸ Smokeless tobacco use can result in many negative oral health findings including oral cancer, leukoplakia, gingival recession, periodontal disease and tooth decay.⁹ Community-based approaches for tobacco use assessment can be instrumental in not only reducing the morbidity and

mortality of tobacco-associated cancers, but also in identifying the people most at risk for oral health problems.

Among adolescents and young adults, cigarette smoking has declined from the late 1990s, particularly after the Master Settlement Agreement in 1998, commonly known as the Tobacco Settlement. This decline has slowed in recent years mostly due to reduced funding for comprehensive tobacco control programs.¹⁰ Recent studies of tobacco use in the United States report that 18.1 percent of high school students report smoking in the last month with 12.8 percent of high school males reporting that they use smokeless tobacco products. Each day approximately 4,000 youth less than 18 years of age try smoking for the first time with approximately 1,000 youth becoming new regular, daily smokers. Adult tobacco rates also remain high with 19.3 percent of adults reporting that they smoke (21.5% men; 17.3% women).¹¹ Among adults who become daily smokers, nearly all first use of cigarettes occurs by 18 years of age (88%), and 99 percent of smokers first use tobacco by 26 years of age.¹⁰ Unless smoking rates decline, an estimated six million young people will die from smoking-related illnesses.¹¹ Morbidity and mortality rates increase when considering the health effects of other tobacco products including smokeless tobacco which has been associated with oral cancer, oral health problems, and nicotine addiction.⁹ Effective state and community-based prevention efforts can reduce the morbidity and mortality associated with tobacco use.

Methods

The central foundation for understanding and carrying out the most effective tobacco control interventions is based on four key documents. *Best Practices for Comprehensive Tobacco Control Programs – 2007* outlines programmatic guidance for implementing recommendations to reduce tobacco use. The *Guide to Community Preventive Services* identifies evidence-based, effective tobacco control recommendations and helped inform the development of the *Best Practices for Comprehensive Tobacco Control Programs – 2007*. The U.S. Public Health Service Clinical Practice Guideline *Treating Tobacco Use and Dependence: 2008 Update* identifies effective tobacco dependence treatments and practices. The World Health Organization's *Report on the Global Tobacco Epidemic, 2008: The MPOWER Package* mirrors the recommendations of the other documents by providing a strategic framework of evidence-based, high-impact interventions that have proven effective.¹² Healthy People 2020 provides a framework and outlines national objectives for ending the tobacco use epidemic consistent with these focus areas.¹³

Based on these guiding documents, effective state and community programs focus prevention efforts on 1) prevention of youth initiation of tobacco use, 2) promoting tobacco use cessation, 3) eliminating exposure to secondhand smoke, and 4) identifying and eliminating tobacco-related health disparities.¹⁴ These focus areas are consistent with the recommendations in the *Guide to Community Preventive*

Services stressing the effectiveness of community practice interventions to reduce tobacco consumption and eliminate exposure to secondhand smoke.

Implementation goals and strategies designed to assist states and communities in effective tobacco use prevention and control include the following key areas for action:

- **Support significant and sustained funding for comprehensive evidence-based tobacco use prevention and control programs and policies at the federal, state and local levels.**

Comprehensive tobacco use prevention programs and policies must be fully integrated and supported within federal, state and local health agencies to ensure significant program outcomes.^{10,13,14}

- **Prevent tobacco use initiation among youth and young adults.**

Effective strategies to prevent the initiation and reduce the prevalence and intensity of tobacco use include sustained programs combining increases on the unit price of tobacco products; mass media campaigns; regulatory initiatives such as those that ban advertising to youth, restrict youth access to tobacco, and establish smoke-free public and workplace environments; and school-based and community-wide programs and policies.^{10,15}

- **Increase tobacco use cessation.**

Effective strategies to increase tobacco use cessation include increasing the unit price of tobacco products and mass media campaigns in combination with Telephone Quit lines, mobile phone-based interventions, provider reminders when used alone or with provider education, and reducing out-of-pocket costs for evidence-based cessation treatments. Telephone-based quitlines (1-800-QUIT NOW) are an effective intervention especially when coupled with social support and problem-solving strategies.^{10,14,15} A sustainable model with a strong integrated community support system will provide additional resources for people who want to quit. Text messaging programs similar to the National Cancer Institute's SmokefreeTXT program targeting youth and young adults have been shown to be effective in reducing tobacco consumption.¹⁶ Tobacco warning labels that display graphic images and provide a clear, direct message about the dangers of tobacco use have also been shown to be effective in promoting smoking cessation and preventing smoking initiation among youth.¹⁷

Oral healthcare providers can be effective in promoting tobacco cessation by implementing the Public Health Service (PHS) Clinical Practice Guideline *Treating Tobacco Use and Dependence: 2008* Update. Oral healthcare providers can use the 5A's (ASK, ADVISE, ASSESS, ASSIST, ARRANGE) or abbreviated 3A's (ASK, ADVISE, ASSIST) model to assess the nicotine dependence of the patient as well as their willingness to quit. Motivational interviewing strategies including the use of the 5R's as described by the PHS guidelines: (Relevance, Risks, Rewards, Roadblocks and Repetition) can be

used in combination with the 3A's or 5A's to improve the effectiveness of the brief intervention counseling that is provided by oral healthcare professionals.¹⁸ Implementation of brief intervention strategies by oral healthcare professionals have been shown to be effective in increasing cessation attempts and improving the health of their patients.

- **Eliminate secondhand smoke exposure.**

Effective strategies to reduce secondhand smoke exposure include smoking bans and restrictions. Smoke-free policies also reduce tobacco use among workers.¹⁵

- **Identifying and eliminating tobacco-related disparities.**

Some populations experience disproportionate health and economic burden from tobacco use and secondhand smoke exposure. Measuring the differences in patterns, prevention and treatment of tobacco use; differences in the risk, incidence, morbidity and mortality, and the burden of tobacco-related illness; as well as the capacity, infrastructure and resources will identify the populations with tobacco-related disparities. Engaging organizations that can reach the identified populations in appropriate languages and in a culturally competent manner are important strategies to meet the needs of the population subgroups and eliminate tobacco-related disparities. Community-based oral health programs are uniquely positioned to assist in reaching specific populations.¹⁴

Recommendations for evidence-based state and community practice interventions are included in each of the aforementioned focus areas, demonstrating the importance of effective interventions specific to target populations as an effort to reduce tobacco consumption and exposure for adolescents and adults.

Evidence-based community practice interventions can be an effective means to reduce the initiation of tobacco use as well as increase the cessation rates by current tobacco users of all ages. Providing and sustaining sufficient funding for comprehensive community programs, statewide tobacco control programs, school-based policies and programs, and mass media campaigns that raise public awareness of the dangers of tobacco use and secondhand smoke exposure must be a priority. Implementation of a variety of interventions from mass media campaigns to mobile-phone based interventions can prove to be a cost-effective approach to reducing tobacco use.^{10,13,14}

Policy Statement

The Association of State and Territorial Dental Directors (ASTDD) endorses and fully supports evidence-based state and community practice interventions to reduce tobacco consumption and eliminate exposure to secondhand smoke. ASTDD supports fully funding comprehensive tobacco prevention and control programs at the CDC-recommended level, increasing the unit price of tobacco products, implementing comprehensive smoking bans and tobacco use restrictions, implementing policies to restrict youth access to tobacco products, along with mass media campaigns, tobacco use telephone-based quit services and other evidence-based interventions. A cost-effective approach to promoting overall health in evidence-based state and community practice interventions is to incorporate tobacco prevention strategies into oral health promotion efforts.

¹ U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2004.

http://www.cdc.gov/tobacco/data_statistics/sgr/2004/complete_report/index.htm. Accessed June 10, 2012.

² Centers for Disease Control and Prevention. Smoking-attributable mortality, years of potential life lost, and productivity losses – United States, 2000–2004. *Morbidity and Mortality Weekly Report*. 2008;57(45):1226-1228.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm>. Accessed September 12, 2012.

³ Centers for Disease Control and Prevention. Annual smoking-attributable mortality, years of potential life lost, and productivity losses – United States, 1995–1999. *Morbidity and Mortality Weekly Report*. 2002;51(14):300-303.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5114a2.htm>. Accessed September 12, 2012.

⁴ Centers for Disease Control and Prevention. State-specific prevalence of cigarette smoking and smokeless tobacco use among adults – United States, 2009. *Morbidity and Mortality Weekly Report*. 2010;59(43):1400-1406.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5943a2.htm>. Accessed January 10, 2013.

⁵ U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2006. <http://www.surgeongeneral.gov/library/reports/secondhandsmoke/fullreport.pdf>. Accessed January 10, 2013.

⁶ Centers for Disease Control and Prevention. Tobacco use: smoking, secondhand smoke. *CDC Vital Signs*. September 2010.

<http://www.cdc.gov/VitalSigns/pdf/2010-09-vitalsigns.pdf>. Accessed January 10, 2013.

⁷ Oral Cancer Foundation, Inc. *Oral Cancer Facts*. 2012. www.oralcancerfoundation.org/facts/index.htm. Accessed July 9, 2012.

⁸ Bloom B, Adams PF, Cohen RA, Simile C. Smoking and oral health in dentate adults aged 18-64. *NCHS Data Brief, No 85*. 2012; Feb;(85):1-8.

⁹ Centers for Disease Control and Prevention. Smokeless Tobacco Facts. http://www.ncada-stl.org/ti/notebook/tobacco/smokeless_tobacco_facts.pdf. Accessed February 17, 2013.

¹⁰ U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012.

<http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>. Accessed June 10, 2012.

¹¹ Campaign for Tobacco-Free Kids. *Toll of Tobacco in the United States of America*. Fact Sheet. November 2012.

<http://www.tobaccofreekids.org/research/factsheets/pdf/0072.pdf>. Accessed January 10, 2013.

¹² U.S. Department of Health and Human Services. *Ending the Tobacco Epidemic: A Tobacco Control Strategic Plan for the U.S. Department of Health and Human Services*. Washington, DC: Office of the Assistant Secretary for Health; November 2010.

¹³ U.S. Department of Health and Human Services. *Healthy People 2020*. 2010.

<http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=41>. Accessed January 31, 2013.

¹⁴ Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs – 2007*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Prevention; October 2007.

¹⁵ Guide to Community Preventive Services. Reducing Tobacco Use Initiation.

www.thecommunityguide.org/tobacco/initiation/index.html. Last updated: 03/29/2012. Accessed June 10, 2012.

¹⁶ National Cancer Institute. SmokefreeTXT. 2012. <http://teen.smokefree.gov/smokefreeTXT.aspx>. Accessed September 12, 2012.

¹⁷ Campaign for Tobacco Free Kids. *Tobacco Warning Labels: Evidence of Effectiveness*. Fact Sheet. 2012.

<http://www.tobaccofreekids.org/research/factsheets/pdf/0325.pdf>. Accessed January 31, 2013.

¹⁸ Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence:2008 Update. Clinical Practice Guideline*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service. 2008.