

Tobacco Use: Ending the Epidemic

Corinne G. Husten

Nurses should encourage leaders in their health care systems to provide effective tobacco-use treatment and follow up. Nurses also need to support the policy and community interventions that motivate tobacco users to try to quit, create a supportive environment, and provide more intensive interventions for those needing them.

Editor's Note: For more on the issue of tobacco, see Lewis, P.C. (2008). Tobacco: What is it and why do people continue to use it? *MEDSURG Nursing*, 17(3), 193-202.

Tobacco use is the leading preventable cause of death in the United States, contributing to more than 1,200 deaths every day (Centers for Disease Control [CDC], 2005). The Institute of Medicine (2007) called for a concerted effort to end the epidemic of diseases caused by tobacco. Recommendations included giving the Food and Drug Administration (FDA) the authority to regulate tobacco products, and funding comprehensive tobacco control programs at the level recommended by the CDC. Such comprehensive tobacco control programs can reduce youth initiation (Tauras et al., 2005), adult prevalence (Farrelly, Pechacek, Thomas, & Nelson, 2008), and overall cigarette consumption (Farrelly, Pechacek, & Chaloupka, 2003). A comprehensive approach to tobacco control combines clinical interventions to help tobacco users quit with community interventions that create a supportive environment for those trying to quit, thus increasing the chances that they

will be successful. Therefore, it is important for nurses to encourage leaders in their health care systems to screen and treat all tobacco users appropriately at every visit, as well as support the policy, community, and environmental changes that increase tobacco users' motivation to quit and makes it easier for them to succeed.

Clinical Interventions Proven to Increase Quitting

The Public Health Service (PHS) recently published the latest update of the tobacco-use treatment guideline, *Treating Tobacco Use and Dependence* (Fiore et al., 2008). Recommendations are based on meta-analyses of studies that met these criteria: (a) the study reported the results of a placebo/comparison controlled trial of a tobacco-use treatment randomized on the patient level (except for adolescents and system changes, where group randomization was allowed); (b) the study

Corinne G. Husten, MD, MPH, is Vice-President for Policy Development, Partnership for Prevention, Washington, DC.

Notes: This column is made possible through an educational grant from C-Change, a 501(3)c (not-for-profit) organization. The purpose of the Cancer: Caring and Conquering column is to strengthen the cancer knowledge, skills, and confidence of medical-surgical nurses who care for patients at risk for or living with cancer.

C-Change is a not-for-profit organization whose mission is to eliminate cancer as a public health problem, at the earliest possible time, by leveraging the expertise and resources of our members. C-Change is the *only* organization that assembles cancer leaders from the three sectors – private, public,

and not-for-profit – from across the cancer continuum – prevention, early detection, treatment, and quality of life. C-Change invests in the resolution of problems that cannot be solved by one organization or one sector alone. For more information about C-Change, visit www.c-change.together.org.

The author and all *MEDSURG Nursing* Editorial Board members reported no actual or potential conflict of interest in relation to this continuing nursing education article.



provided follow-up results at least 5 months after the quit date (except for pregnant smokers, where the follow up was end of pregnancy); (c) the study was published in a peer-reviewed journal; (d) the study was published between January 1975 and June 2007; (d) the study was published in English. The criteria for the strength of evidence recommendations were as follows:

- **A** Multiple well-designed randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.
- **B** Some evidence from randomized clinical trials supported the recommendations, but the scientific support was not optimal. For instance, few randomized trials existed, the trials that did exist were somewhat inconsistent, or the trials were not directly relevant to the recommendation.
- **C** Reserved for important clinical situations where the panel achieved consensus on the recommendation in the absence of relevant randomized controlled trials.

According to the Guideline recommendations (see Table 1), brief clinician advice to quit is effective (30% increase in cessation rates) but more intensive counseling doubles the cessation rate. Interventions can be delivered effectively by a variety of clinicians (physicians, nurses, psychologists, others). Counseling can be delivered via individual counseling, group programs, or telephone counseling. FDA-approved medications double or triple success rates. Patients not yet willing to quit smoking should receive a motivational intervention to promote later quit attempts. Changes were made in the recommendations from the 2000 edition to the 2008 publication (see Table

Table 1.
2008 PHS Guideline Summary Recommendations

- Tobacco dependence is a chronic condition that often requires repeated intervention and multiple attempts to quit. Effective treatments exist, however, that can increase rates of long-term abstinence significantly.
- It is essential that clinicians and health care delivery systems consistently identify and document tobacco use status and treat every tobacco user seen in a health care setting.
- Tobacco dependence treatments are effective across a broad range of populations. Clinicians should encourage every patient willing to make a quit attempt to use the counseling treatments and medications recommended in the Guideline.
- Brief tobacco dependence treatment is effective. Clinicians should offer every patient who uses tobacco at least the brief treatments shown to be effective in this Guideline.
- Individual, group, and telephone counseling are effective and their effectiveness increases with treatment intensity. Two components of counseling are especially effective, and clinicians should use these when counseling patients making a quit attempt:
 - Practical counseling (problem-solving/skills training)
 - Social support delivered as part of treatment
- Numerous effective medications are available for tobacco dependence, and clinicians should encourage their use by all patients attempting to quit smoking except when medically contraindicated or with specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents).
 - Seven first-line medications (5 nicotine and 2 non-nicotine) reliably increase long-term smoking abstinence rates:
 - Bupropion SR
 - Nicotine gum
 - Nicotine inhaler
 - Nicotine lozenge
 - Nicotine nasal spray
 - Nicotine patch
 - Varenicline
 Clinicians also should consider the use of certain combinations of medications identified as effective in the Guideline.
- Counseling and medication are effective when used by themselves for treating tobacco dependence. The combination of counseling and medication, however, is more effective than either alone. Thus, clinicians should encourage all individuals making a quit attempt to use both counseling and medication.
- Telephone quitline counseling is effective with diverse populations and has broad reach. Therefore, clinicians and health care delivery systems both should ensure patient access to quitlines and promote quitline use.
- If a tobacco user currently is unwilling to make a quit attempt, clinicians should use the motivational treatments shown in the Guideline to be effective in increasing future quit attempts.
- Tobacco dependence treatments are both clinically effective and highly cost-effective relative to interventions for other clinical disorders. Providing coverage for these treatments increases quit rates. Insurers and purchasers should ensure that all insurance plans include the counseling and medication identified as effective in the Guideline.

Source: Fiore et al. (2008).

Table 2.
Key Recommendation Changes from the 2000 Clinical Practice Guideline

| New Recommendations in the 2008 Update | <i>Types of counseling and behavioral therapies</i> |
|---|---|
| <i>Formats of psychosocial treatments</i> | |
| <ul style="list-style-type: none"> Tailored materials, both print and Web-based, appear to be effective in helping people quit. Therefore, clinicians may choose to provide tailored self-help materials to their patients who want to quit (Strength of Evidence = B) | <ul style="list-style-type: none"> 2000 recommendation: Aversive smoking interventions (rapid smoking, rapid puffing, other aversive smoking techniques) increase abstinence rates and may be used with smokers who desire such treatment or who have been unsuccessful using other interventions. Rationale for the change: New studies since the 2000 Guideline, including a Cochrane review, cast doubt on the effectiveness of aversive smoking. Because of this and the side effects of this treatment, a decision was made not to recommend the use of aversive smoking in the update. |
| <i>Combining counseling and medication</i> | <i>Medications</i> |
| <ul style="list-style-type: none"> The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, when feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking (Strength of Evidence = A) There is a strong relation between the number of sessions of counseling when it is combined with medication, and the likelihood of successful smoking abstinence. Therefore, to the extent possible, clinicians should provide multiple counseling sessions, in addition to medication, to their patients who are trying to quit smoking (Strength of Evidence = A) | <ul style="list-style-type: none"> 2000 recommendation: Long-term smoking cessation medications should be considered as a strategy to reduce the likelihood of relapse. Rationale for the change: Long-term monotherapy did not appear to be more effective than standard duration treatment. However, combination therapy of long-term patch with ad lib nicotine-replacement therapy was more effective than standard duration patch therapy. |
| <i>For smokers not willing to make a quit attempt at this time</i> | <i>Pregnancy</i> |
| <ul style="list-style-type: none"> Motivational intervention techniques appear to be effective in increasing a patient's likelihood of making a future quit attempt. Therefore, clinicians should use motivational techniques to encourage smokers who currently are not willing to quit to consider making a quit attempt in the future (Strength of Evidence = B). | <ul style="list-style-type: none"> 2000 recommendation: Medications should be considered when a pregnant woman otherwise is unable to quit, and when the likelihood of quitting, with its potential benefits, outweighs the risks of the medication and potential continued smoking. Rationale for the change: Nicotine most likely has adverse effects on the fetus during pregnancy. Although nicotine-replacement therapy exposes pregnant women to nicotine, smoking exposes them to nicotine plus numerous other chemicals that are injurious to the woman and fetus. These concerns must be considered in the context of inconclusive evidence that cessation medications boost abstinence rates in pregnant smokers. |
| <i>Nicotine lozenge</i> | <i>Children and adolescents</i> |
| <ul style="list-style-type: none"> The nicotine lozenge is an effective smoking cessation treatment that patients should be encouraged to use (Strength of Evidence = B). | <ul style="list-style-type: none"> 2000 recommendation: When treating adolescents, clinicians may consider prescriptions for bupropion or nicotine-replacement therapy when there is evidence of nicotine dependence and desire to quit tobacco use. Rationale for the change: There is little evidence that medications are effective in promoting long-term abstinence among adolescent smokers. |
| <i>Varenicline</i> | <i>Weight gain after stopping smoking</i> |
| <ul style="list-style-type: none"> Varenicline is an effective smoking cessation treatment that patients should be encouraged to use (Strength of Evidence = A). | <ul style="list-style-type: none"> 2000 recommendation: The clinician should acknowledge that quitting smoking is often followed by weight gain. Additionally, the clinician should (a) note that the health risks of weight gain are small when compared to the risks of continued smoking, (b) recommend physical activities and a healthy diet to control weight, and (c) recommend that patients concentrate primarily on smoking cessation, not weight control, until ex-smokers are confident they will not return to smoking. Rationale for the change: Interventions specifically designed to mitigate weight gain do not appear to adversely affect cessation, though there is also no convincing evidence that they result in reduced weight gain. The Guideline gives similar advice to clinicians as in the above recommendations, but since there was not a strong evidence base to support these strategies, they were deleted as specific recommendations. |
| <i>Specific populations</i> | <i>Cost-effectiveness of tobacco interventions</i> |
| <ul style="list-style-type: none"> The interventions found to be effective in this Guideline have been shown to be effective in a variety of populations. In addition, many of the studies supporting these interventions comprised diverse samples of tobacco users. Therefore, interventions identified as effective in this Guideline are recommended for all individuals who use tobacco, except when medically contraindicated or with specific populations in which medication has not been shown to be effective (pregnant women, smokeless tobacco users, light smokers, and adolescents) (Strength of Evidence = B). | <ul style="list-style-type: none"> 2000 recommendation: Intensive smoking cessation interventions are especially efficacious and cost-effective, and smokers should have ready access to these services as well as to less-intensive interventions. Rationale for the change: The tobacco dependence treatments shown to be effective in the Guideline are still recommended as highly cost-effective with Strength of Evidence = A. This recommendation was deleted because it refers only to "intensive" smoking cessation interventions. |
| <i>Light smokers</i> | |
| <ul style="list-style-type: none"> Light smokers should be identified, strongly urged to quit, and provided counseling cessation interventions (Strength of Evidence = B). | |
| Recommendations from 2000 that Were Deleted from the 2008 Update | |
| <i>Advice to quit smoking by non-physician clinicians</i> | |
| <ul style="list-style-type: none"> 2000 recommendation: All clinicians should strongly advise their patients who use tobacco to quit. Although studies independently have not addressed the impact of advice to quit by all types of non-physician clinicians, it is reasonable to believe that such advice is effective in increasing their patients' long-term quit rates. Rationale for the change: There were too few studies to examine advice delivered by non-physician clinicians; however, there is good evidence that treatment, even brief interventions, delivered by a variety of clinicians increases abstinence rates, so this change only applies to simple advice to quit. | |

Note: The deletion in the 2008 update of specific recommendations for women, racial and ethnic minority populations, hospitalized smokers, psychiatric illness, and/or non-tobacco chemical dependency, and older smokers reflect addressing specific populations differently in the 2008 Guideline update.

Source: Fiore et al. (2008).

Table 3.
Community Preventive Services Task Force Recommendations for Interventions that Increase Tobacco Use Cessation

| Strong Evidence of Effectiveness |
|---|
| Increasing the unit price for tobacco products |
| Mass media education campaigns combined with other interventions |
| Health care provider reminder systems with provider education, with or without client education |
| Sufficient Evidence of Effectiveness |
| Health care provider reminder systems |
| Reducing client out-of-pocket costs for effective cessation therapies |
| Smoke-free policies to reduce tobacco use among workers |

Source: Task Force on Community Preventive Services (2005).

2), with some recommendations being strengthened and others being dropped.

Cessation counseling/coaching provides practical advice about how to quit, and how to deal with withdrawal and challenging situations when the tobacco user is offered tobacco or has a strong urge to smoke. It also provides social support to the tobacco user as he or she tries to quit. Using counseling and medication together or combining medications results in higher cessation rates. A major problem is that few tobacco users use treatments; evidence also suggests that tobacco users take fewer doses of medication than prescribed and for a shorter time period, which may contribute to lower success rates (Fiore et al., 2008). Because of the low unaided success rate, smokers make, on average 8-11 quit attempts before succeeding for good (Yankelovich, 1998).

The PHS clinical practice guideline (Fiore et al., 2008) concluded that effective tobacco use treatments should be offered to every patient who smokes. This assumes that office systems will be developed to ensure the routine assessment of tobacco use and appropriate treatment. The guideline also recommended a brief intervention (3 minutes) called the 5 As:

- **Ask** every patient at every visit if he or she uses tobacco and document the patient's status in the medical chart (e.g., as a vital sign).
- **Advise** all tobacco users to quit.
- **Assess** the patient's interest in quitting.
- **Assist** the smoker to quit by helping him or her set a quit date; recommending and/or prescribing FDA-approved medications unless contra-indicated; and providing or referring the patient to more intensive individual counseling, telephone counseling, or group programs in the community.
- **Arrange** for follow up (by telephone or by scheduling a return appointment) to assess progress and to encourage the relapsed smoker to try again.

Tobacco-use treatment for adults is extremely cost-effective, more so than other commonly covered preventive interventions, such as mammography, treatment for mild-to-moderate hypertension, and treatment for hypercholesterolemia (Fiore et al., 2008). An analysis of recommended clinical preventive services ranked the services based upon disease impact, treatment effectiveness, and cost-effectiveness; the conclusion was that treatment of tobacco use among adults ranked first

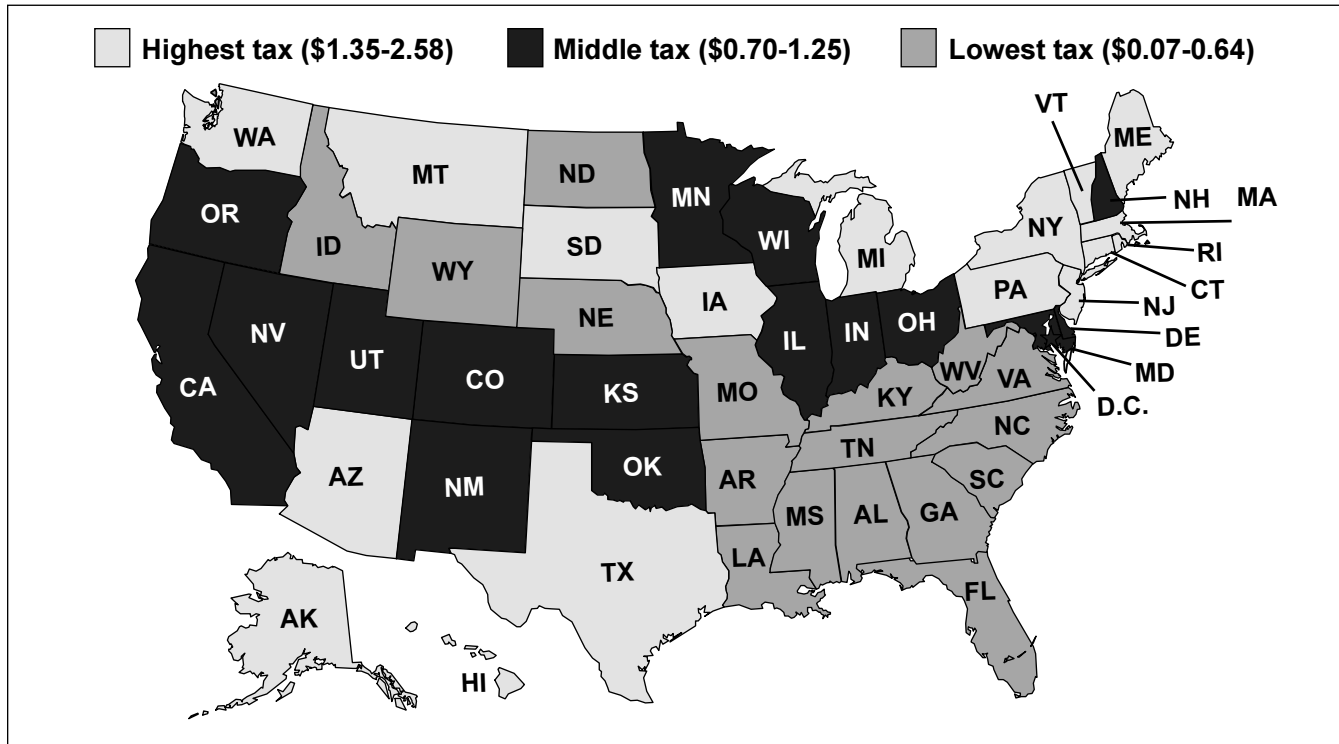
(along with childhood immunizations and aspirin therapy to prevent cardiovascular events in high-risk adults) as an effective and cost-saving intervention. Tobacco use treatment also had one of the lowest delivery rates among the top-ranked preventive interventions (Maciosek et al., 2006).

Community Interventions Proven to Increase Quitting

Community interventions proven to increase cessation include higher prices for tobacco products, sustained countermarketing campaigns, smoke-free policies, reduction of out-of-pocket costs of treatment, telephone quitlines, and systematic processes to ensure that all tobacco users are screened and treated every time they are seen in the health care system (see Table 3) (Task Force on Community Preventive Services, 2005).

Price. Price increases are one of the most effective interventions to increase cessation; youth are more sensitive to price increases than adults, probably because they have lower discretionary income (U.S. Department of Health and Human Services [DHHS], 2000). For adults, a 10% price increase decreases consumption by 4% and increases cessation by 1.5% (Task Force on Community Preventive Services, 2005). The

Figure 1.
Cigarette Excise Tax Rates by State (2008)



Source: CDC, State Tobacco Activities Tracking and Evaluation (STATE) System, through 4th quarter, 2007.

effect of price attenuates with inflation, so regular increases are needed. Other tobacco products also respond to price interventions, and prices need to be kept aligned among various tobacco products or use merely shifts to a less-expensive form of tobacco (Delnevo, Hrywna, Foulds, & Steinburg, 2004).

Although some states have raised their tobacco excise taxes in an effort to reduce tobacco use (see Figure 1), tobacco industry discounting strategies (coupons, two-for-one offers) reduce the impact of these tax increases. Despite significant tax increases in 2002-2004, the real price of cigarettes increased only 4% (U.S. Department of Labor, 2007). Evidence suggests the tobacco industry uses discounting strategies more heavily in states with more robust tobacco control programs (Loomis, Farrelly, & Mann,

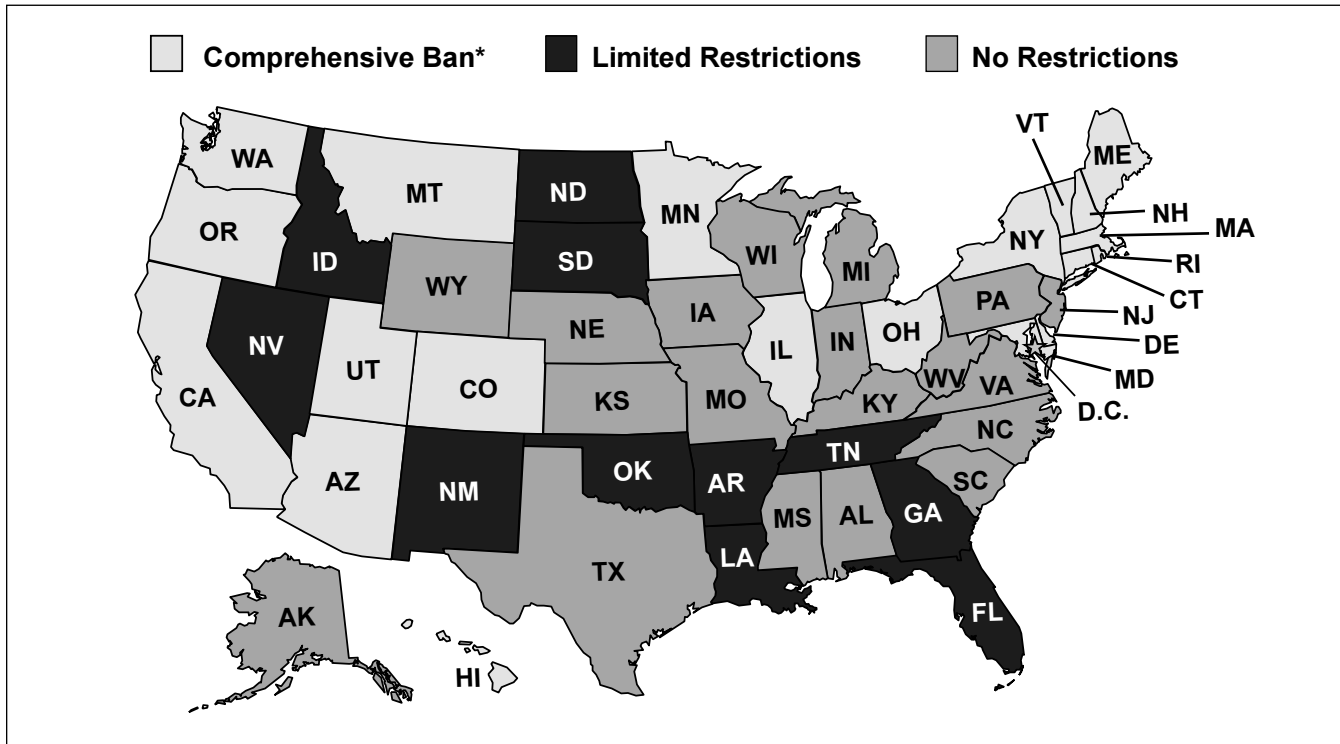
2006). Other tobacco control strategies that impact price include restrictions on free samples of tobacco products, restrictions on coupons or discounting, prohibition of single-cigarette sales ("loosies"), efforts to combat smuggling, and restrictions on Internet or mail-order sales.

Countermarketing campaigns. Sustained countermarketing campaigns also are important to counteract the promotion of tobacco products. In 2005, the cigarette industry spent \$13.1 billion on advertising and promotion (Federal Trade Commission [FTC], 2007). Countermarketing campaigns can change social norms about tobacco use, increase awareness of the health hazards of smoking and exposure to second-hand smoke, educate about tobacco industry actions, provide motivations for people to quit, inform

tobacco users about resources available to help them quit, and support policy efforts such as tobacco excise tax increases. The Community Preventive Services Task Force Guideline (Community Guide) recommended sustained countermarketing campaigns in conjunction with other interventions, such as tax increases, community education programs, cessation counseling or self-help materials, or other mass media efforts, as an effective strategy to increase cessation, estimating that such campaigns increase cessation by a median 2%, reduce tobacco consumption by a median 17%, and reduce prevalence by a median 3% (Task Force on Community Preventive Services, 2005).

Studies suggest that campaigns that focus on the health consequences of tobacco use and produce negative emotions are

Figure 2.
Smoke-Free Policies by State (2008)



*Comprehensive bans are defined as 100% smokefree offices, restaurants, and bars.
Source: CDC, 2007.

viewed by smokers as the most persuasive (CDC, 2007). Effective campaigns for adults often tell the story of real people who had been harmed by tobacco use. Media also have been very effective in driving calls to quitlines. In fact, limited quitline resources often require states to titrate media buys carefully to control call volume so demand does not overwhelm their ability to provide services (CDC, 2007).

Advertising bans. Evidence for the effectiveness of advertising bans is mixed. The apparent lack of effect in some studies may be due, in part, to frequent circumvention of the bans. For example, after the broadcast ban went into effect in the United States, tobacco advertising shifted to other media: newspapers, magazines, outdoor signs, transit, and point of sale (FTC, 2007). Evidence suggests that par-

tial bans are not effective, but complete bans can decrease consumption (Saffer, 2000).

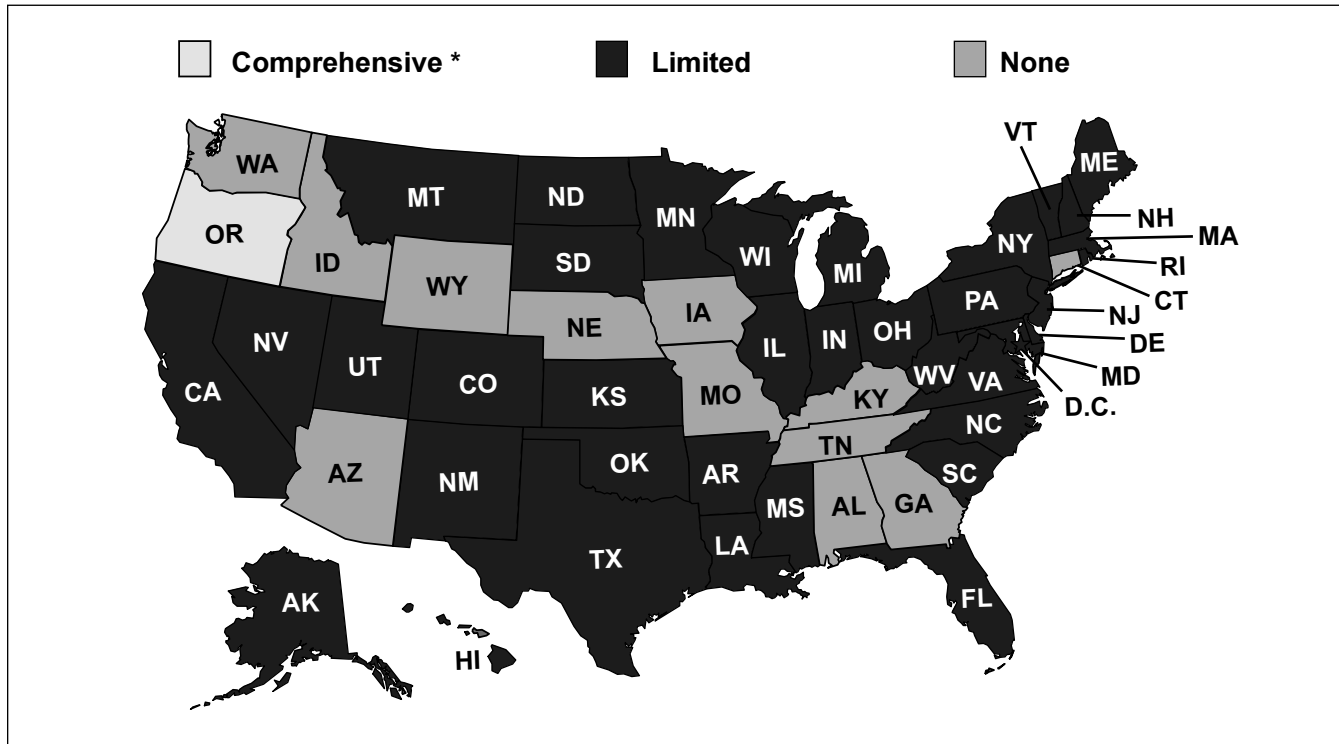
Warning labels. To be effective, warning labels need to stand out, have visual impact, and be content-specific (not give just general information). Some evidence indicates that warning labels can have an impact on smoking behavior. Stronger warning labels in Australia appear to have a larger effect on quitting behavior than the old labels, and half of Canadian smokers said that warning labels had contributed to their desire to quit or decrease their consumption (Kenkel & Chen, 2000).

Smoke-free policies. Although the purpose of smoke-free policies is to reduce second-hand smoke exposure, these policies also reduce consumption, increase quitting, decrease relapse, and reduce initiation (Task Force on Com-

munity Preventive Services, 2005). Despite substantial progress, 125 million Americans still are exposed to second-hand smoke (see Figure 2). A recent nationally representative study reported that 12% of nonsmoking adults living in counties with extensive smoke-free laws were exposed to second-hand smoke, compared with 35% in counties with limited coverage and 46% in counties with no law (Pickett, Schober, Brody, Curtin, & Giovino, 2006).

Reducing out-of-pocket costs of treatment. Although 70% of smokers want to quit and more than 40% try to quit each year, most tobacco users do not use treatments shown to be effective when trying to quit (Fiore et al., 2008). Reducing the barriers to obtaining treatment is critical to increasing the number of smokers who successfully quit. The Community Guide and PHS

Figure 3.
Medicaid Coverage of Tobacco Use Treatment by State (2008)



* Comprehensive coverage includes all FDA-approved medications/NRT (gum, patch, nasal spray, inhaler, lozenge, Chantix and Zyban) and all forms of counseling (individual, group, and telephone quitlines) for all Medicaid beneficiaries.

Source: CDC, 2008.

guideline recommend reducing the out-of-pocket costs of treatment through comprehensive insurance coverage of proven treatment interventions because it increases use of treatment and also increases the number of successful quitters (Fiore et al., 2008; Task Force on Community Preventive Services, 2005). The Community Guide estimated that the median increase in cessation was 8 percentage points.

Although slowly improving, insurance coverage for tobacco use treatment is poor in both the public and private sector. Medicare first included cessation counseling as a covered benefit in 2005 (but only for smokers with a tobacco-related disease), and with the prescription drug benefit, FDA-approved prescription medications are also covered (Centers for Medicare and Medicaid Services,

2005). By 2006, 42 state Medicaid programs covered some form of tobacco use treatment, but only one state (Oregon) offered comprehensive coverage and nine states provided no Medicaid coverage for cessation counseling or FDA-approved medications (CDC, 2008) (see Figure 3). Despite a very favorable return on investment for employers (for every dollar spent covering smoking cessation, \$5.04-\$6.48 saved) (Halpern, Khan, Young, & Battista, 2000), private coverage of tobacco dependence treatments also is limited. A survey of work sites having at least 10 employees and providing health insurance reported that there was at least some coverage for cessation devices and drugs in 23% of workplaces, and for counseling in 22%, but only 4% offered coverage of screening, counseling, and med-

ications (including over-the-counter medications) (Partnership for Prevention, 2007).

Telephone quitlines. Telephone quitlines increase access to treatment and quitting success, and are recommended by the PHS Clinical Practice Guideline and by the Community Guide (Fiore et al., 2008; Task Force on Community Preventive Services, 2005). Telephone quitlines provide practical advice to smokers interested in quitting about how to deal with withdrawal symptoms and the challenges of quitting. The quitlines increase access to treatment because they are free, generally available in the evenings and weekends as well as during the day, do not require transportation or childcare arrangements, and provide individually tailored help. Some quitlines also provide free nicotine

replacement therapy (CDC, 2007).

In 1992, California became the first state to have a quitline. Other states followed, although funding has been erratic, with some states losing and then regaining financial support. In 2004, the federal government developed a national network of quitlines. This network has a single portal number (1-800-QUIT NOW), that routes callers to their state's quitline service. As part of the initiative, CDC provided funding to states without these services so every state would have a quitline (DHHS, 2004). As of August 2006, all states offered quitline services. Some quitline services offer free nicotine replacement therapy with the counseling service (CDC, 2007). However, for most states, current funding is not high enough to allow widespread promotion and provision of counseling and medication to all tobacco users interested in quitting. An estimated 15% of smokers would use a quitline service annually, but current quitlines have the capacity to only serve 1%-3% of smokers (Fiore et al., 2004).

Comprehensive tobacco prevention and control programs. California had the first robustly funded tobacco prevention and control program, paid for with part of a cigarette excise tax increase in 1989. Evaluation of the program revealed that per capita consumption of cigarettes and smoking prevalence declined faster in California than the rest of the country (Campaign for Tobacco-Free Kids, 2005). California also has seen improvements in health outcomes. Lung cancer incidence has declined three times more rapidly in California than in the rest of the country, and six tobacco-related cancers have a lower incidence rate in California than in the rest of the United States (lung/bronchus, esophagus, larynx, bladder, kidney, and pancreas). Reductions in cardiovascular disease that are greater than the rest of the country also have been reported. Estimates indi-

cate that \$3.60 has been saved for every dollar spent on tobacco control (Campaign for Tobacco-Free Kids, 2005).

Comprehensive tobacco prevention and control programs decrease consumption (Farrelly et al., 2003), decrease youth prevalence (Tauras et al., 2005), decrease adult prevalence (Farrelly et al., 2008), reduce disease burden, and are cost-effective (Campaign for Tobacco-Free Kids, 2005). Evidence from well-funded comprehensive state programs (particularly California and Massachusetts) and from controlled studies was analyzed and developed into The CDC's "Best Practices" guideline. The annual cost to implement comprehensive state tobacco control programs was estimated at \$9-\$18 per capita (CDC, 2007).

In 1998, the Master Settlement Agreement (MSA) settled lawsuits from 46 states, The District of Columbia, and five territories against the tobacco industry for Medicaid and Medicare costs for treating smokers (four other states settled individually). This MSA provided \$246 billion over 25 years to compensate the states for these health care costs (Campaign for Tobacco-Free Kids, 2007). Although states were expected to fund comprehensive tobacco control programs under this settlement, in most cases the funds have been used for other purposes, particularly as states experienced budget deficits in the first few years of the 21st century (Schroeder, 2004).

In 2007, only three states were funding their programs at the 1999 minimum CDC-recommended levels, and one state provided no state funding for tobacco prevention and control. Total funding for tobacco control programs dropped 27% between 2002 and 2005, then increased 20% from 2006-2007. However, funding still was below the spending in 2002, and well below the CDC-recommended amount (Campaign for Tobacco-Free Kids, 2007).

What Can Nurses Do?

Seventy percent of smokers see a health care provider each year (Fiore et al., 2008), so nurses have many opportunities to ensure they have access to effective treatments. Nurses should assess tobacco use routinely and advise users to quit. They also can lead efforts to ensure that the health care facility in which they work has processes in place to screen all patients for tobacco use and provides effective treatment and follow up. "How To" guides are available that outline the process for setting up such systems (Partnership for Prevention, 2008). Having a tobacco-free campus also is important.

However, nurses need to think beyond the clinic to the communities where their patients live, and also support the policy and community interventions that will motivate tobacco users to try to quit, support tobacco-free lifestyles, and provide community-based treatment services for those needing more intensive interventions (see Table 4). Full implementation of comprehensive tobacco control programs would allow widespread promotion and delivery of counseling services to all smokers interested in quitting (CDC, 2007; Eriksen, Green, Husten, Pedersen, & Pechacek, 2007). Thus, nurses need to lend their voices in support of initiatives to raise tobacco taxes, implement comprehensive smoke-free policies in their community or state, improve insurance coverage for tobacco use treatment under both public and private insurance, and increase funding for comprehensive state tobacco control programs that will provide the sustained media campaigns that encourage quitting as well as robust quitline counseling and medication support.

The decrease in cigarette consumption has been termed one of the greatest public health achievements of the 20th century, but it is only half achieved. The challenge is

Table 4.
Helpful Resources

| Clinical Practice Guidelines | Patient Education Materials |
|--|---|
| <ul style="list-style-type: none"> • Fiore et al. (2008). <i>Treating tobacco use and dependence clinical practice guideline, 2008 Update</i>. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service. Available at http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf | <ul style="list-style-type: none"> • Smokefree.gov. Materials for any smoker, older smokers, and tailored to racial and ethnic minority groups. Available at www.smokefree.gov/info.html • Consumer materials from the PHS Guideline – 2008 Update. Available at http://www.surgeongeneral.gov/tobacco/#consumer • National Institute of Dental and Craniofacial Research and the National Cancer Institute. (2008). <i>Spit tobacco: A guide for quitting</i>. National Institutes of Health. Available at http://www.nidcr.nih.gov/NR/rdonlyres/DF314871-B0A6-4171-B831-C472F543C154/0/SpitTobacco.pdf • American Lung Association. Information and self-help materials. Available at http://www.lungusa.org/site/c.dvLUK9O0E/b.22931/ • American Legacy Foundation. A Web-based personal cessation program. Available at http://www.becomeanex.org/#learn_overview • American Cancer Society. Web-based materials. Available at http://americancancersociety.org/docroot/PED/ped_10_3.asp?sitearea=PED |
| <p>Working with Health Care to Promote the Routine Provision of Tobacco Use Treatment</p> | Quitlines |
| <ul style="list-style-type: none"> • Partnership for Prevention. (2008). <i>Healthcare provider reminder systems, provider education, and patient education: Working with healthcare delivery systems to improve the delivery of tobacco-use treatment to patients: An action guide</i>. Washington, DC: Partnership for Prevention. Available at www.prevent.org • CDC. (2006). <i>A practical guide to working with health-care systems on tobacco-use treatment</i>. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health. Available at http://www.cdc.gov/tobacco/quit_smoking/cessation/00_pdfs/Toolkit.pdf | <ul style="list-style-type: none"> • CDC. (2004). <i>Telephone quitlines: A resource for development, implementation, and evaluation</i>. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health. Information about how to contract for quitline services. Available at http://www.cdc.gov/tobacco/quit_smoking/cessation/quitlines/ • Pacific Center on Health and Tobacco. <i>Linking a network: Integrating quitlines with health care systems</i>. Available at http://www.tcln.org/cessation/pdfs/7a.Linkingrev6-29-05web.pdf |
| Provider Training/Provider Education Resources | Reimbursement for Providing Tobacco Use Treatment |
| <ul style="list-style-type: none"> • Provider materials from the PHS Guideline – 2008 Update. Available at http://www.surgeongeneral.gov/tobacco/#clincian • U.S. Department of Health and Human Services. (2005). <i>Helping smokers quit: A guide for nurses</i>. Available at http://www.ahrq.gov/about/nursing/hlpsmksqt.pdf • Center for Tobacco Research and Intervention, University of Wisconsin Medical School. <i>Treating tobacco use and dependence: Practical strategies to help your patient quit</i>. Training packet. Available at http://www.ctri.wisc.edu/HC_Providers/Guideline%20Training%20Manual.pdf • <i>A quick primer...to counseling tobacco cessation</i>. An online video available through the Colorado Clinical Guidelines Collaborative. Available at http://www.coloradoguidelines.org/tobacco/quitlinevideo.asp | <ul style="list-style-type: none"> • PACT. (2008). <i>Reimbursement for smoking cessation therapy: A healthcare practitioner's guide. How to bill for tobacco use treatment services</i>. Available at http://www.endsmoking.org/resources/reimbursementguide/pdf/reimbursement-guide-3rd-edition.pdf |
| More Intensive Cessation Assistance | Guidelines for Community, Policy, and Population-Based Interventions |
| <ul style="list-style-type: none"> • North American Quitline Consortium. <i>Quitline map and facts</i>. Information about each state's free telephone cessation quitline. Available at http://www.naquitline.org/index.asp?dbsection=map&dbid=1 • National Cancer Institute, Smokefree.gov. <i>Telephone and online assistance</i>. Available at http://www.smokefree.gov/expert.html • American Lung Association online cessation assistance. Available at http://www.lungusa.org/site/c.dvLUK9O0E/b.38973/k.CD9F/Freedom_From_Smokingreg_Online/apps/kb/home/login.asp?membershipreq=83912&targetURL=http%3A%2F%2Fwww%2Elungusa%2Eorg%2Fsite%2Fpp%2Easpx%3Fc%3DdvLUK9O0E%26b%3D22933&sessionId=84485A4439E1442F90DE4A92DA1B2D7D | <ul style="list-style-type: none"> • Task Force on Community Preventive Services. (2005). <i>The guide to community preventive services: What works to promote health?</i> New York: Oxford University Press. Available at http://www.thecommunityguide.org/tobacco/ |
| Advocacy Groups | <ul style="list-style-type: none"> • Campaign for Tobacco-Free Kids. Available at http://www.tobaccofreekids.org • Americans for Nonsmokers Rights. Available at http://www.no-smoke.org |

to accelerate progress so the morbidity, mortality, and disability caused by tobacco use no longer occur. Full implementation of proven interventions could accelerate the reduction in tobacco use among youth and adults; prevent disease, disability, and death for millions of Americans; increase productivity; and lower health care costs. Reducing tobacco use is a shared responsibility of federal, state, and local governments; the public health community; the health care system, the private sector; and individual communities (Eriksen et al., 2007). If each sector did its part, continued progress in reducing tobacco use could be realized. As the Surgeon General David Satcher said in 2000, "The issue is not that we don't know what to do, but the failure to implement what we know works" (DHHS, 2000). A comprehensive approach, analogous to the efforts to eliminate the morbidity and mortality from polio or smallpox, is needed. The leading preventable cause of death deserves no less, and nurses can help lead the way to this tobacco-free future. ■

References

Campaign for Tobacco-Free Kids. (2005). *Comprehensive statewide tobacco prevention programs save money*. Retrieved on July 24, 2008, from <http://www.tobaccofreekids.org/research/factsheets/pdf/0168.pdf>

Campaign for Tobacco-Free Kids. (2007). *A broken promise to our children: The 1998 state tobacco settlement nine years later*. Washington, DC: Author.

Centers for Disease Control (CDC). (2005). Annual smoking attributable mortality, years of potential life lost, and productivity losses – United States, 1997-2001. *MMWR*, 54(25), 625-628.

Centers for Disease Control (CDC). (2007). *Best practices for comprehensive tobacco control programs – 2007*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health.

Centers for Disease Control (CDC). (2008). State Medicaid coverage for tobacco-dependence treatments – United States, 2006. *MMWR*, 57(5), 117-122.

Centers for Medicare and Medicaid Services. (2005). *Smoking cessation*. Retrieved July 24, 2008, from <http://www.cms.hhs.gov/SmokingCessation/>

Delnevo, C.D., Hrywna, M., Foulds, J., & Steinburg, M.B. (2004). Cigar use before and after a cigarette excise tax increase in New Jersey. *Addictive Behaviors*, 29(9), 1799-1807.

Eriksen, M.P., Green, L.W., Husten, C.G., Pedersen, L.L., & Pechacek, T.F. (2007). Thank you for not smoking: The public health response to tobacco-related mortality in the United States. In J.W. Ward & C. Warren (Eds.), *Silent victories: The history and practice of public health in twentieth-century America* (pp. 423-436). New York: Oxford University Press.

Farrelly, M.C., Pechacek, T.F., & Chaloupka, F. (2003). The impact of tobacco control program expenditures on aggregate cigarette sales: 1981-2000. *Journal of Health Economics*, 22(5), 843-859.

Farrelly, M.C., Pechacek, T.F., Thomas, K.Y., & Nelson, D. (2008). The impact of tobacco control programs on adult smoking. *American Journal of Public Health*, 98(2), 304-309.

Federal Trade Commission (FTC). (2007). *Federal Trade Commission cigarette report for 2004 and 2005*. Washington, DC: Author.

Fiore, M.C., Croyle, R.T., Curry, S.J., Cutler C.M., Davis R.M., Gordon, C., et al. (2004). Preventing 3 million premature deaths and helping 5 million smokers to quit. A national action plan for tobacco cessation. *American Journal of Public Health*, 94(2), 205-210.

Fiore, M.C., Jaen, C.R., Baker, T.B., Bailey, W.C., Benowitz, N.L., Curry, S.J., et al. (2008). *Treating tobacco use and dependence clinical practice guideline, 2008 update*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service.

Halpern, M.T., Khan, Z.M., Young, T.L., & Battista, C. (2000). Economic model of sustained-release bupropion hydrochloride in health plan and work site smoking-cessation programs. *American Journal of Health System Pharmacology*, 57(15), 1421-1429.

Institute of Medicine. (2007). *Ending the tobacco problem: A blueprint for the nation*. Washington, DC: National Academies Press.

Kenkel, D., & Chen, L. (2000). Consumer information and tobacco use. In P. Jha & F. Chaloupka (Eds.), *Tobacco control in developing countries* (pp. 177-214). New York: Oxford University Press.

Loomis, B.R., Farrelly, M.C., & Mann, N.H. (2006). The association of retail promotions for cigarettes with the Master Settlement Agreement, tobacco control programmes and cigarette excise taxes. *Tobacco Control*, 15(6), 458-463.

Maciosek, M.V., Edwards, N.M., Coffield, A.B., Flottemesch, T.J., Nelson, W.W., Goodman, M.J., et al. (2006). Priorities among effective clinical preventive services: Results of a systematic review and analysis. *American Journal of Preventive Medicine*, 31(1), 52-61.

Partnership for Prevention. (2007). *Why invest: Recommendations for improving your prevention investment*. Washington, DC: Author.

Partnership for Prevention. (2008). *Healthcare provider reminder systems, provider education, and patient education: Working with healthcare delivery systems to improve the delivery of tobacco-use treatment to patients*. Washington, DC: Author.

Pickett, M.S., Schober, S.E., Brody, D.J., Curtin, L.R., & Giovino, G.A. (2006). Smoke-free laws and secondhand smoke exposure in U.S. non-smoking adult, 1999-2002. *Tobacco Control*, 15(4), 302-307.

Saffer, H. (2000). Tobacco advertising and promotion. In P. Jha & F. Chaloupka (Eds.), *Tobacco control in developing countries* (pp. 215-236). New York: Oxford University Press.

Schroeder, S.A. (2004). Tobacco control in the wake of the 1998 master settlement agreement. *New England Journal of Medicine*, 359(3), 293-301.

Task Force on Community Preventive Services. (2005). Tobacco. In S. Zaza, P.A. Briss, & K.W. Harris (Eds.), *The guide to community preventive services: What works to promote health?* (pp. 3-79). New York: Oxford University Press.

Tauras, J.A., Chaloupka, F.S., Farrelly, M.F., Giovino, G.A., Wakefield, M., Johnson, L.D., et al. (2005). State tobacco control spending and youth smoking. *American Journal of Public Health*, 95(2), 338-344.

U.S. Department of Health and Human Services (DHHS). (2000). *Reducing tobacco use: A report of the surgeon general*. Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health.

U.S. Department of Health and Human Services (DHHS). (2004). *HHS announces national smoking cessation quitline network*. Retrieved July 24, 2008, from <http://www.hhs.gov/news/press/2004pres/20040203.html>

U.S. Department of Labor. (2007). *Consumer price index – All urban consumers. U.S. city average, cigarettes*. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics. Retrieved July 24, 2008, from <http://data.bls.gov>

Yankelovich Partners. (1998). *Smoking cessation study*. Norwalk, CT: Author.



Answer/Evaluation Form: Tobacco Use: Ending the Epidemic

COMPLETE THE FOLLOWING

This test may be copied for use by others.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Preferred telephone: (Home) _____ (Work) _____

Registration fee: **Complimentary CNE provided as an educational service by C-Change (www.c-changetogether.org).**

OBJECTIVES

This continuing nursing educational (CNE) activity is designed for nurses and other health care professionals who care for and educate patients and their families regarding tobacco use. For those wishing to obtain CNE credit, an evaluation follows. After studying the information presented in this article, the nurse will be able to:

1. List clinical interventions proven to increase smoking cessation.
2. Describe community interventions proven to increase quitting.
3. Discuss how nurses can help their patients quit smoking.

ANSWER FORM

1. If you applied what you have learned from this activity into your practice, what would be different?

CNE Instructions

1. To receive continuing nursing education credit for individual study after reading the article, complete the answer/evaluation form to the left.
2. Photocopy and send the answer/evaluation form to *MEDSURG Nursing*, CNE Series, East Holly Avenue Box 56, Pitman, NJ 08071-0056.
3. Test returns must be postmarked by October 31, 2010. Upon completion of the answer/evaluation form, a certificate for 1.4 contact hour(s) **AND** 5 minutes of pharmacology credit will be awarded and sent to you.
4. CNE forms can also be completed online at www.medsurnursing.net.

This independent study activity is co-sponsored by **AMSN** and **Anthony J. Jannetti, Inc. (AJJ)**.

AJJ is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC-COA).

Anthony J. Jannetti, Inc. is a provider approved by the California Board of Registered Nursing, Provider Number, CEP 5387.

This article was reviewed and formatted for contact hour credit by Dottie Roberts, MSN, MACI, RN, CMSRN, OCNS-C, *MEDSURG Nursing* Editor; and Valerie Leek, MSN, RNC-NIC, CMSRN, AMSN Education Director.

| Evaluation | Strongly disagree | 1 | 2 | 3 | 4 | Strongly agree |
|--|-------------------|---|---|---|---|----------------|
| 2. By completing this activity, I was able to meet the following objectives: | | | | | | |
| a. List clinical interventions proven to increase smoking cessation. | 1 | 2 | 3 | 4 | 5 | |
| b. Describe community interventions proven to increase quitting. | 1 | 2 | 3 | 4 | 5 | |
| c. Describe how nurses can help their patients quit smoking. | 1 | 2 | 3 | 4 | 5 | |
| 3. The content was current and relevant. | 1 | 2 | 3 | 4 | 5 | |
| 4. The objectives could be achieved using the content provided. | 1 | 2 | 3 | 4 | 5 | |
| 5. This was an effective method to learn this content. | 1 | 2 | 3 | 4 | 5 | |
| 6. I am more confident in my abilities since completing this material. | 1 | 2 | 3 | 4 | 5 | |
| 7. The material was (check one) ___new ___review for me | | | | | | |
| 8. Time required to complete the reading assignment: _____minutes | | | | | | |

I verify that I have completed this activity: _____

Comments
