Preventing 3 Million Premature Deaths and Helping 5 Million Smokers Quit: A National Action Plan for Tobacco Cessation

In August 2002, the Subcommittee on Cessation of the Interagency Committee on Smoking and Health (ICSH) was charged with developing recommendations to substantially increase rates of tobacco cessation in the United States.

The subcommittee's report, A National Action Plan for Tobacco Cessation, outlines 10 recommendations for reducing premature morbidity and mortality by helping millions of Americans stop using tobacco. The plan includes both evidence-based, population-wide strategies designed to promote cessation (e.g., a national quitline network) and a Smokers' Health Fund to finance the programs (through a \$2 per pack excise tax increase).

The subcommittee report was presented to the ICSH (February 11, 2003), which unanimously endorsed sending it to Secretary Thompson for his consideration. In this article, we summarize the national action plan. (*Am J Public Health.* 2004;94:205–210) Michael C. Fiore, MD, MPH, Robert T. Croyle, PhD, Susan J. Curry, PhD, Charles M. Cutler, MD, MS, Ronald M. Davis, MD, Catherine Gordon, RN, MBA, Cheryl Healton, DrPH, Howard K. Koh, MD, MPH, FACP, C. Tracy Orleans, PhD, Dennis Richling, MD, David Satcher, MD, PhD, John Seffrin, PhD, Christine Williams, MEd, Larry N. Williams, DDS, MAGD, Paula A. Keller, MPH, and Timothy B. Baker, PhD

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imperative to reduce tobacco use in America. A confluence of circumstances and events make this an ideal time to take bold, effective steps to achieve this goal. At a time when health care dollars are scarce, tobacco-related diseases cost \$150 billion each year.^{1,2} At a time when numerous effective tobacco dependence treatments exist, millions of tobacco users are unable to obtain or afford such treatments, nor do clinicians systematically address tobacco use with every patient.³⁻⁶ At a time when sound scientific research reveals strategies certain to reduce tobacco use,^{7–9} funding sources such as the Master Settlement Agreement are being used to address budget shortfalls rather than to implement effective tobacco control programs.^{10,11} At a time when the devastating health impact of tobacco has been exhaustively documented, the tobacco industry continues to entice adolescents and adults into tobacco dependence through an \$11.2 billion advertising and promotion effort.^{12,13}

Unless the prevalence of tobacco use is reduced dramatically, about 25 million Americans, 1 of 2 current smokers in the United States, will die prematurely of a disease caused by their dependence on tobacco,¹⁴ shortening lives by an average of 13 to 14 years.¹ Furthermore, it is estimated that approximately 5 million American children living today will die prematurely as a result of tobacco-related diseases.¹⁵ Moreover, the adverse health effects of tobacco use are inflicted disproportionately on individuals of lower socioeconomic status and on members of certain racial and ethnic minority groups.^{16–18} Finally, recent research has led to a greater understanding of the health effects of environmental tobacco smoke,19,20 making tobacco cessation of vital importance to family members, coworkers, and others who come into contact with environmental tobacco smoke.

In recognition of the profound costs of tobacco use, in 2002 Tommy G. Thompson, secretary of the US Department of Health and Human Services, requested that the US Interagency Committee on Smoking and Health (ICSH) establish a subcommittee on cessation to craft a set of bold, evidence-based recommendations for promoting cessation in the United States. The subcommittee met on 5 occasions between October 2002 and January 2003, including 3 regional meetings at which public input was solicited. A comprehensive review of available evidencebased strategies supplemented by public input guided the development of the subcommittee's 10 recommendations. On February 11, 2003, the report produced by the subcommittee was unanimously endorsed by its parent committee, the ICSH, chaired by

Surgeon General Richard Carmona, and sent to Secretary Thompson for his consideration. This essay summarizes the subcommittee's report.

The subcommittee developed a national tobacco cessation action plan that (1) targets meaningful reductions in both tobacco use and its human and economic costs; (2) relies on the strongest scientific evidence; (3) addresses disparities in tobacco use; (4) is national in scope and regional in application; (5) includes publicprivate partnerships; (6) targets both immediate and sustained effects of tobacco use; (7) is comprehensive and integrated, with each component having an independent impact; (8) is regularly evaluated; and (9) is securely funded. The plan was designed to reduce tobacco use by a minimum of 10% in its first year; that is, 5 million smokers will quit in the first year. This target was chosen because of its significant public health benefit and its feasibility. As a consequence of this reduction in tobacco use, the plan will prevent approximately 3 million premature deaths through the avenues of smoking cessation and prevention of smoking initiation (F.J. Chaloupka, oral and written testimony to Subcommittee on Cessation, December 3, 2002. and December 20, 2002).

The National Action Plan for Tobacco Cessation comprises 10 recommendations and includes both federal initiatives and public–



FIGURE 1-Federal initiatives in the National Action Plan for Tobacco Cessation.

private partnership opportunities. In this article, we describe the 6 federal recommendations in detail (Figure 1) and summarize the 4 public–private partnership recommendations.

FEDERAL INITIATIVES

Recommendation 1

Establish a federally-funded National Tobacco Quitline network by FY 2005 that will provide universal access to evidencebased counseling and medications for tobacco cessation. This quitline would provide a national portal to available state- or regionally-managed quitlines.

While there are numerous effective treatments for tobacco dependence, research shows that only a minority of smokers use such treatments.^{21,22} Therefore, it is essential that effective treatments, including both counseling and medications, be provided through innovative delivery systems that will significantly increase participation on the part of smokers. Moreover, research reveals significant disparities in access to treatment across different geographic locations, racial and ethnic groups, and socioeconomic strata.^{7,21,22} Thus, treatments should be available nationwide to the entire population of tobacco users and should pose minimal financial, language, and logistical barriers to participation.

Research shows that proactive smoking cessation quitlines (vs reactive hotlines) are a highly effective means of helping large numbers of individuals quit smoking. A meta-analysis revealed that quitline counseling increased smokers' chances of long-term abstinence by approximately 30%.⁷ Given the strength of the evidence, both the Public Health Service (PHS) clinical practice guideline, *Treating Tobacco Use and Dependence* ("PHS guideline"),⁷ and the *Guide to* Community Preventive Services of the Centers for Disease Control and Prevention (CDC) ("CDC community guide")⁹ endorsed quitlines as a recommended cessation strategy. Subsequent to these recommendations, a study involving approximately 3200 smokers confirmed the effectiveness of a quitline program used in California.²³ Relative to selfhelp materials alone, the quitline was more effective in prompting new quit attempts and preventing relapses.

Because they can be designed with few barriers to their use (e.g., availability in many languages, extended hours of operation, no transportation requirements), quitlines have tremendous potential to reach a wide range of smokers. One study suggests that smokers are 4 times more likely to use a quitline than to seek face-to-face counseling.²⁴ In addition, quitlines are heavily used by elderly, low-income, and ethnic minority smokers. As such, they represent an effective strategy for addressing disparities in tobacco use. For example, in the California quitline study, about one third of callers were members of ethnic minority groups.²³

Given the strength of the evidence supporting quitlines, the subcommittee recommended establishing a national quitline network that would enhance and work in partnership with existing state quitlines. The network would have a single tollfree number accessible 24 hours per day, 7 days per week. All calls to the national toll-free number would be transferred to appropriate state-managed or regional quitlines in cases in which these resources are available. Quitline counseling would be augmented with free pharmacotherapy treatment, approved by the Food and Drug Administration (either over-thecounter medications or vouchers for prescription medications that must be signed by a physician), for every caller for whom it is medically appropriate.

Testimony given before the subcommittee indicated that an optimal quitline service providing both counseling and medication might reach up to 16% of smokers each year. Conservatively estimating a 10% use rate per year among smokers and a 20% long-term successful cessation rate, such a quitline service could result in approximately 1 million smokers quitting each year. The estimated cost of a national quitline is \$3.2 billion per year (Group Health Center for Health Promotion, written testimony to Subcommittee on Cessation, December 20, 2002; T. McAfee, written testimony to Subcommittee on Cessation, November 10, 2002).

Recommendation 2

Launch an ongoing, extensive, paid media campaign by FY 2005 to help Americans quit using tobacco. After a thorough evaluation of the evidence of effectiveness of 15 tobacco control strategies, the Task Force on Community Preventive Services⁹ "strongly recommended" multifaceted media campaigns on the basis of 15 qualifying studies. These studies showed that multimedia campaigns, when combined with other tobacco control programs, resulted in increased levels of cessation and reductions in tobacco use prevalence rates. Research shows that media campaigns increase cessation across a variety of populations. In addition, they can be targeted to reach high-risk groups and to address disparities.²⁵

Comprehensive, multicomponent tobacco control programs, including media campaigns, have been markedly effective wherever they have been introduced.²⁶ For instance, such a program was introduced in California in 1988, and since that time cigarette consumption has declined by 57%, in contrast to a nationwide decline of 27%.27,28 Moreover, smoking prevalence in California has declined by 25% (from 22.8% to 17.1% between 1988 and 2000). Focused analyses suggest that a significant portion of this benefit derives from the media campaign per se.²⁹⁻³¹ Similar findings have been obtained in other states such as Maine, Massachusetts, and Florida.26,32

Given the strength of the evidence, the subcommittee recommended that a national paid media campaign be instituted to (1) encourage tobacco users to call the national toll-free quitline, (2) increase the percentage of tobacco users who make a quit attempt each year, and (3) motivate parents to quit by informing them of the health risks of passive smoking. The subcommittee recommended that the campaign be guided by media and communication science; be multifaceted, pervasive, and independent; and use diverse messages and types of media to reach multiple subpopulations of tobacco users. The estimated cost of a national media campaign is \$1 billion per year.

Recommendation 3

Include evidence-based counseling and medications for tobacco cessation in benefits provided to all federal beneficiaries and in all federally funded healthcare programs by FY 2005. There is a large and compelling body of evidence indicating that treatments for tobacco use (counseling and medications) are highly effective in the clinical practice setting. Results of meta-analyses of hundreds of studies on treatments for tobacco use were included in the PHS guideline.⁷ Many of these clinical treatments double or triple a tobacco user's likelihood of remaining tobacco-free at long-term follow-up. In addition, such treatments are highly costeffective relative to many other routinely covered preventive health practices.³³⁻³⁶

However, despite the existence of effective treatments, clinicians intervene far too infrequently. According to a 1997 report, only 15% of smokers who had seen a clinician in the previous year were offered assistance with quitting, and only 3% were given a follow-up appointment to address the problem.³⁷ Finally, there is evidence that lack of insurance coverage and lack of availability serve as barriers to the use of tobacco dependence treatments.^{38,39}

Extending tobacco treatment insurance coverage to all individuals with federal coverage (including Medicaid and Medicare beneficiaries, Department of Defense beneficiaries, persons covered by the Department of Veterans Affairs, federal employees, and individuals receiving health care at federally funded clinics) will have several important benefits. First, this action will ensure that approximately 100 million individuals and their families will have comprehensive insurance coverage for treatment of tobacco dependence. Second, this change in federal insurance plans might prompt other insurers to expand coverage for tobacco dependence treatments. Finally, this change would address health disparities pertaining to tobacco use by providing evidence-based treatment to populations that are socioeconomically disadvantaged or that suffer disproportionately from smoking-related death and disability (e.g., Medicaid beneficiaries, veterans).

Covering tobacco dependence treatments through health insurance programs is advantageous even if counseling and medications are available through a national quitline. For example, because health care delivery constitutes a "teachable moment," physicians and other clinicians can influence health decisions and relate patients' tobacco use directly to their health problems and concerns (e.g., asthma, diabetes, heart disease). In addition, there is a strong dose-response relationship between treatment intensity and treatment success.7 Insurance coverage increases the likelihood that smokers will use intensive services. Finally, the success of a national action plan

for cessation will be enhanced if treatment is made available through a variety of routes; that is, a "one-size-fits-all" approach is less effective than a plan that provides treatment options.

Recommendation 4

Invest in a new, broad and balanced research agenda (basic, clinical, public health, translational, and dissemination) by FY 2005 to achieve future improvements in the reach, effectiveness and adoption of tobacco dependence interventions across both individuals and populations. Current treatments for tobacco dependence, while more effective than unassisted quit attempts, still result in only 10% to 30% of smokers achieving long-term success.7 These quit rates, although comparable or superior to the rates of effectiveness associated with treatments for other chronic diseases, discourage some clinicians from more actively intervening in tobacco dependence. Failure also discourages smokers from making new quit attempts.40

The strategies outlined in the National Action Plan for Tobacco Cessation will yield tremendous public health benefits. However, there is great potential to improve the efficacy of existing treatments and to develop tailored treatments that will be more effective with high-risk and underserved populations, including tobacco users with psychiatric comorbidities, individuals with other addictions, pregnant women, members of racial/ethnic minority groups, adolescent smokers, and individuals with high levels of nicotine dependence.7

While federal funding is currently available for tobacco dependence research, the subcommittee determined that optimal progress in understanding and treating tobacco dependence requires a substantial investment of new research dollars. This investment would target 2 specific goals: (1) developing, within 10 years, interventions that produce long-term success among more than 50% of smokers treated in a given quit attempt and (2) producing, again within 10 years, effective treatments for underserved tobacco users, including adolescents, members of racial/ ethnic minority groups, pregnant smokers, highly addicted smokers, and those with other addictions or psychiatric comorbidities. The estimated cost of this new research program is about \$500 million per year.

Recommendation 5

Invest in training and education by FY 2005 to ensure that all clinicians in the United States have the knowledge, skills and support systems necessary to help their patients quit tobacco use. During public hearings, the subcommittee heard from health care professionals, students, and others about the lack of available training in the treatment of tobacco dependence. In addition, according to the PHS guideline, both clinicians and clinicians in training should receive instruction in how to provide evidencebased tobacco dependence treatment and to implement office systems and organizational changes needed to promote tobacco interventions.⁷ According to the CDC community guide, multicomponent interventions, consisting of both provider education programs and provider reminder systems, increase rates of successful cessation.9 However, research shows that clinicians feel inadequately prepared to intervene with their patients who

smoke,⁴¹ and appraisals of medical school curricula reveal little training in tobacco intervention strategies.^{42–44}

The subcommittee endorsed training clinicians to deliver effective tobacco dependence treatments and to implement systemslevel changes to ensure the reliable and effective provision of tobacco interventions.^{9,45} Also, the subcommittee recommended that the US Department of Health and Human Services (1) provide grants to medical and other health care professional schools to develop, implement, and evaluate curricula for treatment of tobacco dependence; (2) establish partnerships with health care professional organizations and licensing bodies to ensure that licensure and certification examinations assess knowledge of tobacco dependence and its treatment; and (3) convene a diverse group of experts to ensure that competency in tobacco dependence interventions is a core graduation requirement for all new physicians and other key health care professionals. The estimated cost of this training program is \$500 million per year.

Recommendation 6

Establish a Smokers' Health Fund by FY 2005 by increasing the federal excise tax on cigarettes by \$2.00 per pack (from the current rate of \$0.39 to \$2.39) with a similar increase in the excise tax on other tobacco products. At least 50% of the new revenue generated by this tax increase (at least \$14 billion of the estimated \$28 billion generated) should be earmarked to pay for the components of this action plan.

There are 3 reasons to increase the federal excise tax on tobacco products. First, a significant increase in the excise tax will markedly reduce both smoking prevalence rates and the harm caused by tobacco use. Second, the proposed tax, in and of itself, will raise a sufficient amount of money to continue funding the science-based programs outlined in the action plan. Third, it would satisfy the need expressed repeatedly in public testimony for a stable, dedicated funding source for tobacco cessation initiatives.

Research shows that increases in cigarette taxes and price lead to reductions in cigarette purchases and smoking. Specifically, each 10% increase in price results in about a 4% decrease in overall cigarette consumption resulting from smokers quitting, former smokers not restarting, reductions in amounts smoked among those continuing to smoke, and young people not becoming smokers.^{12,46,47} A \$2 per pack increase in the federal cigarette excise tax would reduce total cigarette sales by more than 4 billion packs each year and would achieve a 10% reduction in adult smoking prevalence rates; an estimated 4.7 million smokers would quit in response to such a tax increase (F.J. Chaloupka, oral and written testimony to Subcommittee on Cessation, December 3, 2002, and December 20, 2002). As a result, about 3 million premature deaths would be prevented cumulatively owing to smoking cessation and prevention of smoking initiation (F.J. Chaloupka, oral and written testimony to Subcommittee on Cessation, December 3, 2002, and December 20, 2002).

Raising tobacco excise taxes is also the most effective strategy currently available to eliminate the regressive impact of tobaccocaused harms. Increasingly, the morbidity and mortality that result from tobacco use occur disproportionately among economically disadvantaged individuals and among members of certain racial/ethnic minority groups.48 Therefore, efforts to discourage tobacco use will disproportionately benefit these individuals. Consistent with economic theory and existing evidence, raising the price of tobacco increases quit rates disproportionately among those with fewer financial resources.46,49 Research shows that smokers with family incomes below the median are at least 4 times more sensitive to the price of cigarettes than those with incomes above the median.49

Similarly, teenage smokers are about 3 times more sensitive to price increases than are adult smokers, with each 10% increase in cigarette price leading to a reduction in smoking prevalence of nearly 7%.50-52 Available data suggest that a \$2 per pack increase in the excise tax would deter an estimated 6 million young people from becoming regular smokers as adults (F.J. Chaloupka, oral and written testimony to Subcommittee on Cessation, December 3, 2002, and December 20, 2002).

National survey data show that the American public will support an increase in the cigarette excise tax if the revenues are dedicated to helping smokers quit and preventing children from starting to smoke. Data from a survey conducted in 2002 indicated that 61% of a random sample of adult Americans would favor a "\$2.00 increase in the federal excise tax on cigarettes to discourage kids from starting to smoke, with the revenue used to provide every smoker who wants to quit with the full range of smoking cessation products and services to

help them succeed" (D. Mc-Goldrick, written testimony to Subcommittee on Cessation, December 20, 2002). Moreover, a recent survey of African Americans revealed that 47% of respondents supported raising taxes on tobacco products.⁵³

Statutory mechanisms are available to ensure that funding for national action plan programs is permanently earmarked. The model for such a secure source of funding is the Highway Trust Fund, wherein a proportion of revenue derived from federal gasoline taxes is earmarked exclusively for highway building and maintenance. A \$2 per pack increase in the cigarette excise tax would generate an estimated \$28 billion in new federal revenues (F.J. Chaloupka, oral and written testimony to Subcommittee on Cessation, December 3, 2002, and December 20, 2002). Because at least 50% of the income generated by this tax increase is permanently earmarked (approximately \$14 billion per year), for the first time funds that smokers generate through federal excise taxes will be dedicated to helping them overcome tobacco dependence.

PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITIES

The subcommittee was also charged with developing recommendations regarding public– private partnership opportunities. The subcommittee attempted to ensure that plan elements would enlist both governmental and private resources so as to leverage all available resources in an efficient manner. Such partnerships can markedly enhance the impact that would be achieved by either group working alone. Although not summarized in detail here, these 4 public-private partnership opportunities are as follows:

• Mobilizing health insurers, employers and others to foster evidence-based tobacco dependence coverage for all covered lives

• Mobilizing health systems to implement system-level changes to foster effective utilization of tobacco dependence treatments

 Mobilizing national quality assurance and accreditation organizations, clinicians, health systems, and others to establish and measure the treatment of tobacco dependence as part of the standard of care

• Mobilizing communities to ensure that policies and programs are in place to increase demand for services and to ensure access to such services, especially for underserved populations

CONCLUSIONS

Tobacco use in the United States exacts profound human and economic costs. These costs argue eloquently for bold, scientifically grounded strategies to curb tobacco use. The Subcommittee on Cessation of the ICSH was established in August 2002 to address this need. Using sound scientific evidence, the subcommittee developed the National Action Plan for Tobacco Cessation. This plan comprises bold steps that will yield immediate and sustained reductions in tobacco use by promoting cessation.

Each day in America, approximately 1150 individuals die prematurely because of tobacco use. On a personal level, this means that children are deprived of parents, spouses are deprived of partners, and immense human capital is lost to families, businesses, and society. The National Action Plan for Tobacco Cessation is designed to reduce this toll substantially, resulting in 5 million quitters in the first year and the prevention of 3 million premature deaths. If implemented, this plan promises to fundamentally change tobacco use in the United States, dramatically reducing the prevalence and human costs of smoking by basing national policies on scientific knowledge about tobacco use and its treatment.

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