III. Cessation Interventions

Justification

Rationale

Promoting cessation is a core component of a comprehensive state tobacco control program's efforts to reduce tobacco use.[1,2] Encouraging and helping tobacco users to quit is the quickest approach to reducing tobacco-related disease, death, and health care costs.[3] Quitting smoking has immediate and long-term health benefits.[4] Although quitting smoking at any age is beneficial, smokers who quit by the time they are 35 to 44 years of age avoid most of the risk of dying from a smoking-related disease.[5]

Population-wide interventions that change societal environments and norms related to tobacco use—including increases in the unit price of tobacco products, comprehensive smokefree policies, and hard-hitting media campaigns—increase tobacco cessation by motivating tobacco users to quit and making it easier for them to do so.[1-3,6,7] Offering cessation assistance to smokers who attempt to quit in response to these interventions maximizes the impact of these interventions on cessation, while countering the perception that they are punitive.[1-3,6-8]

Guiding Principles

Population-wide cessation efforts—specifically, policy, systems, or environmental changes—are most efficient and effective at reaching many people.[1,2,6,8] Systems changes within health care organizations complement interventions in state and community settings by institutionalizing sustainable approaches that support individual behavior change.[1,6,8] As in other areas of tobacco control, policy and/or systems approaches support healthy behaviors at both the individual and the societal or institutional levels.[1,6,8]

Although it is appropriate and necessary for comprehensive state tobacco control programs to fund and provide certain cessation treatment services (i.e., to directly deliver cessation counseling and medications through population-based approaches such as state quitlines) to certain populations, particularly groups that would otherwise not have access to these services (e.g. the uninsured), the programs' focus should remain on population-level, strategic efforts to reconfigure policies and systems in ways that normalize quitting and that institutionalize tobacco use screening and intervention within medical care.[1,6,8]

State tobacco control programs can educate private and public health care systems, health insurers, and employers on the importance of assuming responsibility for, and covering the costs of, providing cessation services to their members and employees.[1] States can also monitor and leverage provisions in the Affordable Care Act that require new private health plans and state Medicaid programs to expand coverage of evidence-based tobacco use cessation treatments.[9] The Affordable Care Act and the Health Information Technology for Economic and Clinical Health Act, which gave rise to the Meaningful Use of Electronic Health Records Incentive Program, provide states with a unique opportunity to focus cessation efforts on promoting and supporting the implementation of policies and systems within health care organizations and health insurers that support cessation, and also offer eligible providers and hospitals federal funding to adopt electronic health records and use them in ways that can support improvements in the delivery of clinical preventive services, including tobacco dependence treatment.

Such policies and systems have the potential to dramatically increase the delivery of evidence-based cessation interventions, thus making them more widely available and accessible. Cessation services directly provided or funded by a comprehensive state tobacco control program are best focused on populations that lack access to

these services through other channels, such as the uninsured and the underinsured.[10] In addition, state programs may perform some functions that are most efficiently handled at a centralized level, such as tagging mass-media advertisements with a phone number or Web site where individuals can obtain or be referred to basic cessation services.

Population quit rates are determined by two factors: (1) the number of quit attempts, which includes the number of smokers who try to quit, and the number of times they make a quit attempt; and (2) the odds that smokers who try to quit will succeed in doing so.[11] It is important that state efforts to increase population quit rates strive to increase both quit attempts and quit success, and attempt to strike a balance between the reach and intensity of interventions.[1,11] State tobacco control programs play an important role in implementing interventions such as hard-hitting media campaigns that motivate smokers to quit, as well as ensuring that smokers who want help quitting, but who lack adequate cessation coverage, have access to effective cessation assistance and know how to obtain it.

Two-thirds to three-quarters of smokers who try to quit do not use any evidence-based cessation counseling or medications.[12,13] Smokers improve their odds of successfully quitting when they use these treatments.[14] It is important for state cessation initiatives to make smokers aware of this fact and to ensure that cessation treatments are readily available through health care systems and providers, state telephone quitlines, and other community-based cessation resources.[1] This message can be communicated without implying that smokers cannot quit successfully without using cessation treatments, so as not to lessen the impact of tobacco education campaigns on increasing quit attempts.[15,16]

An Altered Landscape

The cessation landscape has changed considerably since *Best Practices—2007* as a result of the following developments:

- Publication of an updated version of the Public Health Services Clinical Practice Guideline, *Treating Tobacco Use and Dependence,* in 2008
- Enactment of the Patient Protection and Affordable Care Act
- Implementation of the Meaningful Use initiative
- Widespread adoption of electronic health records
- Creation of the Centers for Medicare and Medicaid Innovation
- Introduction of new voluntary Joint Commission hospital cessation performance measures
- Increasing shift to managed care plans in state Medicaid programs
- Changes in the organization of private health care
- Increased emphasis on establishing linkages between public health interventions and clinical interventions
- Introduction of the national tobacco education media campaign, *Tips From Former Smokers,* conducted by CDC

These changes have presented significant new opportunities to expand cessation coverage, institutionalize tobacco use screening and interventions within health care systems, and increase the availability and use of evidence-based cessation treatments.

Three Major Goals

Comprehensive state tobacco control program cessation activities should focus on three broad goals:

- Promoting health systems change
- Expanding insurance coverage and utilization of proven cessation treatments
- Supporting state quitline capacity

Promoting Health Systems Change

The health care system provides multiple opportunities for motivating and helping smokers to quit.[6,8,14,17] More than 80% of smokers see a physician every year,[18] and most smokers want and expect their physicians to talk to them about quitting smoking and are receptive to their physicians' advice.[14] Tobacco dependence treatment is both clinically effective and highly cost-effective, and results in reduced health care costs, increased productivity, and reduced absenteeism.[14]

Effective tobacco cessation interventions advance the goals of national and state health care reform efforts to improve health care, to improve health, and to reduce health care costs. Health systems change involves institutionalizing cessation interventions in health care systems and integrating these interventions into routine clinical care.[6,8,14,17] This increases the likelihood that health care providers will consistently screen patients for tobacco use and intervene with patients who use tobacco, thus increasing cessation and making evidence-based tobacco dependence treatment the standard of care.[14,17,19] When a health system seeks to intervene with every tobacco user at every visit,[14] it can substantially and rapidly increase cessation.[14,17,19]

State efforts to promote health systems change involve working with health care systems and organizations to fully integrate tobacco dependence treatment into the clinical workflow.[6,8,14,17,19] The goal is to ensure that every patient is screened for tobacco use, their tobacco use status is documented, and patients who use tobacco are advised to quit.[6,8,14,17,19] This is followed by offering the patient cessation medication (unless contraindicated), counseling, and assistance, as well as arranging follow-up contact either on-site or through referrals to the state quitline or other community resources.[6,8,14,17,19,20] This approach has been summarized as the "5 A's": (1) ask about tobacco use; (2) advise to quit; (3) assess willingness to make a quit attempt; (4) assist in the quit attempt; and (5) arrange follow-up.[14]

One way to increase the use of this approach is through provider reminder systems, which prompt health care providers to screen and intervene with patients around tobacco use and increase provider delivery of cessation advice.[6,14] Consistent screening and delivery of cessation interventions are also facilitated by assigning multiple members of the health care team (e.g., medical assistants, physician assistants, nurses, and physicians) clearly identified roles in this area.[14]

State tobacco control programs can promote health systems change in multiple ways. For example, state governments provide health care coverage to Medicaid enrollees and state employees. States also regulate or otherwise interact with the health insurance market. These roles provide opportunities to improve health systems approaches to tobacco use prevention and cessation. In addition, state tobacco control programs can educate health care decision makers about the health and economic burden imposed by tobacco use and the evidence base for clinical cessation interventions, including the cost-effectiveness and return on investment of these interventions.[1,21,22] State tobacco control programs can also offer technical assistance to help health care organizations and providers measure the implementation of health systems changes and the impact of these changes on outcomes in their patient populations using data from electronic health records, insurance claims, and other sources.

State programs can further support health systems change by carrying out academic detailing initiatives.[21,22] This involves providing technical assistance to health care organizations and providers in implementing health systems changes that institutionalize tobacco use screening and intervention, including referrals to the state quitline.[20-24] The technical assistance is typically provided in-person in the health care setting by trained personnel.[21,22] Studies of academic detailing initiatives have found that they have the potential to increase: use of the "5 As";[25,26] frequency of tobacco cessation counseling;[27] appropriate use of cessation medications;[27] and fax referrals to quitlines.[20–24]

Under the Meaningful Use initiative, the Centers for Medicare and Medicaid Services is making substantial financial incentives available to eligible providers and hospitals to migrate from paper to electronic health records in order to improve health care and health care outcomes.[28] When electronic health records are implemented in a way that explicitly incorporates tobacco dependence treatment as part of a broader process of health systems change, they can serve as a powerful provider reminder system, prompting providers to screen their patients for, and intervene on, tobacco use by embedding prompts, language, and documentation within the records themselves, and helping to seamlessly integrate these steps into the clinical workflow.[29-33] The implementation of electronic health records with a cessation component can have an even greater impact if it is coupled with training and technical assistance to all members of the health care team.[32,33]

Electronic health records can also make it easier for providers to refer patients to state quitlines, counseling within the health organization, and community-based cessation programs, especially when these referrals can be made electronically.[20,30-32] Several provisions of the initial stages of Meaningful Use require electronic health records to capture identification of and intervention with patients who use tobacco and require providers to report on these measures in order to receive financial rewards.[8,20]

Health care organizations that have implemented electronic health records in combination with other health systems changes are able to achieve levels of 80% or higher for both screening and intervention, with additional improvement possible.[19] State tobacco control programs can seek opportunities to leverage the implementation of electronic health records by working with large health care systems to integrate tobacco dependence treatment into their workflows.[33] Electronic health records can also be used to monitor provider performance for purposes of feedback, recognition, and rewards at the organization and/or provider levels, as well as to conduct surveillance of tobacco-related measures.[19,30]

Finally, new hospital performance measures implemented by the Joint Commission in January 2012 expand and strengthen previous Joint Commission measures by calling on hospitals to provide cessation interventions to all tobacco users, not just those with specific diagnoses, and by expanding the scope of these interventions.[34-36] State tobacco control programs can work with the health care sector to encourage hospitals to adopt these voluntary cessation measures and can provide technical assistance with implementation.[36]

Sample State Activities: Promoting Health Systems Change

- Build and maintain relationships with large health care systems and key stakeholders in the health care sector, and educate them about the feasibility and health and economic benefits of integrating tobacco dependence treatment into their clinical workflows.
- Conduct academic detailing initiatives to provide technical assistance to health care organizations and providers in implementing health systems changes that institutionalize tobacco use screening and intervention, including promoting referrals to the state quitline.
- Collaborate with health care systems, regional extension centers, and other stakeholders to integrate tobacco dependence treatment into electronic health records and workflows.
- Leverage data from electronic health records, insurance claims, and other sources for surveillance/evaluation of the implementation and outcomes of health systems change cessation interventions.

Expanding Insurance Coverage and Utilization of Proven Cessation Treatments

Expanding cessation insurance coverage increases the number of smokers who attempt to quit, use evidence-based cessation treatments, and successfully quit by removing cost and administrative barriers that prevent smokers from accessing cessation counseling and medications. [6,14,17,37]

Expanding cessation insurance coverage also has the potential to reduce tobacco-related population disparities.[6,14,17,37] Comprehensive cessation coverage can also support providers in their efforts to offer patients effective cessation treatments.[14,17] Finally, health systems cessation interventions can increase patients' use of available coverage.[14,17]

One important function of state tobacco control programs is to educate key stakeholders—including private and public health care systems, health insurers, the state Medicaid program, and employers—on the meaning of comprehensive cessation coverage and the importance and benefits of implementing such coverage. Educating employers on these topics is important because employers can play a key role in expanding cessation coverage by demanding such coverage and because self-insured employers are in a position to directly provide such coverage.[14,17]

For cessation insurance coverage to be effective in increasing cessation, it is important for it to be comprehensive in scope. Comprehensive coverage includes all evidence-based cessation treatments—including individual, group, and telephone counseling—and all seven Food and Drug Administration (FDA) approved cessation medications (bupropion, varenicline, and five forms of nicotine replacement therapy (NRT), including the patch, gum, lozenge, inhaler, and nasal spray). Comprehensive cessation coverage also eliminates or minimizes cost sharing and other barriers to accessing this coverage.[38] Finally, comprehensive cessation coverage includes proactively promoting the coverage to ensure that smokers and their health care providers are aware of it, thus increasing the chances that they will use it, and documenting and reporting utilization of the coverage.[14,38–41]

In January 2011, the Office of Personnel Management (OPM) implemented a cessation benefit for federal employees through the Federal Employees Health Benefits Program.[42] Highlights of that benefit, which is a model of comprehensive, evidence-based coverage, are listed in the following box.

Components of the Cessation Benefit Available to Federal Employees through the Federal Employees Health Benefits Program[42]

- Individual, group, and telephone counseling.
- All seven FDA-approved cessation medications, including both prescription and over-the-counter medications.
- Coverage for two quit attempts per year, with four counseling sessions per attempt.
- No copays, coinsurance, or deductibles.
- No annual or lifetime limits.

Once comprehensive cessation coverage has been achieved, state tobacco control programs may want to consider working with private and public health care systems, health insurers, employers, and other partners to publicize this coverage to smokers and their health care providers and to monitor its utilization.[39–41] High utilization is essential for a cessation benefit to be effective, because even the most comprehensive cessation coverage will have little impact if smokers and providers are not aware of it or don't use it.[39–41] In assessing the quality of cessation coverage, it is important to take into account barriers to access and utilization, as well as the cessation treatments covered.

In addition to working with the state Medicaid program to expand Medicaid cessation coverage, state programs can also seek to expand cessation coverage for state employees.[37] These employees typically make up a significant proportion of the state workforce, and the cessation coverage offered to this group can serve as a model for private employers and health plans.[37] Another approach taken by several states is to mandate private health insurers to provide some level of cessation coverage.[37]

Results of Massachusetts' Medicaid Cessation Benefit Implemented in 2006

- The benefit was utilized by about 37% of Medicaid recipients who smoked, or more than 70,000 individuals in its first 2½ years.[43]
- The smoking rate among Medicaid enrollees fell from 38.3% to 28.3%.[43]
- Annual hospital admissions for heart attacks and other acute heart disease diagnoses among Medicaid enrollees who used the benefit fell by 46% and 49%, respectively.[44]
- The benefit was found to generate a return on investment of $3.12 in cost savings from averted hospitalizations for acute cardiovascular events for every dollar spent on it.[45]

Several provisions in the Affordable Care Act expand private and Medicaid cessation coverage.[9,37,46] The legislation requires non-grandfathered private plans to cover, with no cost-sharing, preventive services that receive an 'A' or 'B' rating from the U.S. Preventive Services Task Force, which includes tobacco cessation treatments.[9,37,46] This requirement also applies to the insurance plans available to the individual and small group health insurance markets through each state's Health Insurance Marketplace.[9,37] Neither the Task Force recommendations nor the U.S. Department of Health and Human Services rules implementing the relevant provisions of the Act clearly define the specifics of the required tobacco cessation coverage; thus, these specifics remain somewhat open to interpretation.[37,47,48] To the extent possible, it is important for state tobacco control programs to work with large health insurers to ensure that they realize the full potential of these provisions by implementing comprehensive, evidence-based cessation coverage.

As of October 2010, the Affordable Care Act requires state Medicaid programs to cover cessation counseling for pregnant women.[9,37,46] Effective January 2014, the legislation bars these programs from excluding FDA-approved cessation medications from their coverage for all Medicaid enrollees.[9,37,46] In addition, states that choose to expand Medicaid eligibility must provide tobacco cessation coverage to newly eligible adults through a benchmark benefit package.[9,37] State Medicaid programs are also eligible for an increased federal medical assistance percentage if they provide recommended clinical preventive services, including tobacco cessation treatment, to traditional Medicaid recipients without cost sharing.[9,46] State tobacco control programs can work with state Medicaid programs to ensure that the potential of these provisions is fully realized. Medicaid enrollees smoke at higher rates than the general population, and smoking-related diseases in this population are a major driver of increasing state and federal Medicaid costs.[37,49]

Another provision of the Affordable Care Act allows health insurers in the individual and small

group markets to charge tobacco users higher premiums than nontobacco users, up to a ratio of 1.5 to 1.0.[9,37,46] States retain the ability to reduce the ratio or to prohibit this practice entirely,[9,37] and several states have reportedly done so.[37] Although imposing higher premiums on tobacco users could motivate them to quit, it could also lead them to misrepresent their tobacco use status, avoid seeking cessation assistance, or forego health insurance, and could impose a prohibitive cost burden on low-income tobacco users.[37,50] The rule implementing this provision seeks to avert such outcomes by requiring health insurers in the small group market to allow tobacco users the opportunity to avoid paying the full amount of the tobacco rating factor by participating in a wellness program.[51,52] It is important for state tobacco control programs to monitor the implementation of this provision, and states may choose to restrict or prohibit the practice of charging tobacco users higher premiums if negative effects become apparent.

Separate from the Affordable Care Act, the Centers for Medicare and Medicaid Services has in recent years taken several steps to expand cessation coverage for Medicare enrollees, who comprise another potentially vulnerable population.[37] This coverage now includes individual counseling and prescription cessation medications, but not comprehensive cessation coverage.[37] There are opportunities to promote Medicare cessation benefits to increase their utilization.[37]

Sample State Activities: Expanding Insurance Coverage of Proven Cessation Treatments

- Build and maintain a relationship with private health insurers, the state Medicaid program, the state employee health plan, and large employers and educate them about the definition of comprehensive cessation coverage and about the health and economic benefits of providing such coverage.
- Work with the state Medicaid program to ensure that both fee-for-service and managed-care Medicaid plans provide comprehensive cessation coverage.
- Promote and monitor utilization of the state Medicaid cessation benefit.
- Work with state government to ensure that state employees have comprehensive cessation coverage.
- Implement a state mandate requiring private health insurers to provide comprehensive cessation coverage.
- Monitor implementation and effects of the provisions of the Affordable Care Act that have the potential to expand cessation coverage, as well as the provision that allows health insurers to charge tobacco users higher premiums.

Supporting State Quitline Capacity

Quitlines are telephone-based services that help tobacco users quit by providing callers with counseling, practical information on how to quit, referral to other cessation resources, and, in some states and for certain populations, FDA-approved cessation medications.[16] Quitlines potentially have broad reach, are effective with diverse populations, and increase quit rates.[14]

State quitlines are one of the most accessible cessation resources and can efficiently reach large numbers of smokers.[14,16] In addition, quitlines are effective in reaching certain racial/ethnic populations, including African Americans; persons who predominantly speak Asian languages; and low-income smokers.[53-56]

Quitlines are highly cost-effective relative to other commonly used disease prevention interventions.[14,57–59] State quitlines are also typically the most visible component of state cessation efforts and frequently serve as a hub or centerpiece of these efforts.[16] State quitlines can also serve as clearinghouses and referral/triage centers, educating callers about the cessation coverage available from their health insurer and referring callers to community cessation services[1,16]

State quitlines can play an important role in supporting and increasing provider cessation interventions by offering a resource for additional, more intensive cessation counseling.[20,60,61] Having the option of referring patients to state quitlines for follow-up assistance increases the likelihood that providers will intervene with patients who smoke.[20,60,61] Most state quitlines have established fax referral programs,[20] and many state quitlines are developing the capacity to accept e-referrals directly from patients' electronic health records and to electronically send patient reports to the referring provider/health care organization.

Notwithstanding their many advantages and potentially broad reach, state quitlines on average reach only about 1% of smokers annually.[62,63] This situation is largely a function of modest state funding for providing and promoting state quitline services.[62,63] Some states, employers, and health plans have attained quitline reach levels of 6% or more.[64,65] State quitlines should seek to reach 8% of their state's tobacco users annually, with a target of 90% of these callers accepting counseling services. These guidelines take into account the experiences of state quitlines that have achieved higher levels of reach for limited periods.[1,64,65] These guidelines are also based on expectations that more health care providers will refer patients to quitlines as a result of Meaningful Use and the adoption of electronic health records, that more health plans will refer their members to quitlines in response to the Affordable Care Act, and that CDC's National tobacco education campaigns will continue to drive more callers to 1-800-QUIT-NOW.

In developing funding and service models, it is crucial to balance reach and intensity. It is important for state quitlines to seek to ensure that all callers have access to a basic level of service while providing higher levels of service to certain populations that would otherwise lack access to such services. Ensuring that a basic level of quitline service is in place is important to support interventions that are likely to increase interest in quitting and calls to quitlines, such as national or state media campaigns and implementation of smokefree laws or tobacco price increases. State tobacco control programs can use several approaches to increase quitline reach, including paid media campaigns, promotion of cessation medicine giveaways, and outreach efforts to generate fax or electronic referrals from health care organizations and providers.[1,6,23,24,66,67]

It is also important for state tobacco control programs to consider the level of funding for quitline operations and promotion that can realistically be sustained over time and to explore long-term funding sources. For example, programs can establish public-private partnerships, in which health plans or employers reimburse the state quitline for services provided to their members/employees, or contract directly with a quitline vendor to provide these services.[67,68] The Colorado and Minnesota tobacco control programs worked with their states' major private health plans to implement the first and second models, respectively; both these partnerships have been successful and have remained in place for a number of years.[67,68] State tobacco control programs can also work with their state Medicaid programs to secure the 50% federal match for quitline counseling provided to

Medicaid enrollees, who typically account for a substantial proportion of state quitline callers.[69]

State quitlines should consider providing some form of cessation assistance to all callers, including ensuring that all callers who want to talk to a quitline coach receive at least one ten-minute reactive call (i.e., a call initiated by the caller in which brief counseling is offered). Beyond this initial call, state quitlines can offer an additional three proactive counseling calls (i.e., calls initiated by the quitline in which counseling is offered) to the uninsured and underinsured, persons enrolled in a plan through the state Health Insurance Marketplace, Medicaid enrollees, and members of health plans and employees of companies that have contracted with the state to receive quitline services. Callers with private health insurance that provides adequate cessation coverage can be directed to their insurer or employer for cessation services after receiving an initial counseling call, or alternatively, the cost of additional calls can be reimbursed by their insurer or employer.[67,68]

State quitlines can also provide a free 2-week starter supply of NRT patches or gum to: uninsured and underinsured callers, persons in state insurance marketplace plans, and Medicaid enrollees.[1] This can increase calls to the quitline from these populations and these callers' success rates.[6,66,70–72] Another priority activity is to conduct targeted outreach to increase the state quitline's reach to underserved populations with high smoking rates. Longer-term efforts include: developing the capacity to accept e-referrals from patient electronic health records; integrating telephone cessation services with text messaging interventions and cessation services provided through other technologies, such as the Web and social media; and re-engaging previous quitline callers who agree to be re-contacted in quit attempts.[6,73] Text messaging, Web, and social media interventions could potentially extend the reach and impact of quitlines, particularly among younger individuals.[14]

State quitlines may also consider revisiting their eligibility protocols and service offerings in light of changes in health insurance coverage resulting from the implementation of the Affordable Care Act, including changes in the proportion of adults covered by different types of health insurance and in the cessation coverage provided. For example, several studies have documented the beneficial impact of providing brief introductory courses of NRT through quitlines.[6,66,70–72] However, most of these studies were conducted at a time when over-the-counter NRT was not generally available as a covered medication through health insurance plans. Accordingly, it is important for state tobacco control programs to monitor the situation in their states as it evolves and to consider limiting state quitlines' provision of longer (e.g., 8 week) courses of NRT to the uninsured, as appropriate. State quitlines can also revise the information they provide on NRT on the basis of recent FDA changes to the warnings on labeling of over-the-counter NRT products regarding long-term use and combined use with other NRT products or cigarettes.[74]

Sample State Activities: Supporting State Quitline Capacity

- Ensure that all callers receive some form of cessation assistance and that all callers who want to talk to a quitline coach receive at least one 10-minute reactive call.
- Ensure that all uninsured and underinsured callers and callers enrolled in state insurance marketplaces and Medicaid are offered three proactive counseling calls in addition to the reactive call and a free 2-week starter supply of NRT patches or gum.
- Ensure that all members of health plans and employees of companies that have contracted with the state quitline to receive quitline services are offered three proactive counseling calls in addition to the reactive call and a free 2-week starter supply of NRT patches or gum.
- Establish public-private partnerships under which health plans and employers either reimburse the state quitline for services provided to their members/employees or provide their own quitline services to these groups.
- Secure the federal Medicaid quitline match.
- Conduct targeted outreach to increase the state quitline's reach to underserved populations with high smoking rates, including promoting the national Spanish-language quitline portal 1-855-DÉJELO-YA (1-855-335-3569) and the national Asian-language quitline.
- Develop the capacity to accept e-referrals from patient electronic health records.
- Integrate quitline services with text messaging by referring callers to NCI's text messaging program.
- Re-engage previous quitline callers who agree to be re-contacted in quit attempts.

Achieving Equity to Eliminate Tobacco-Related Disparities

Significant population disparities exist with regard to tobacco cessation.[12,14] For example, recent data suggest that African American adults are more likely to express interest in quitting and more likely to have tried to quit in the past year than white adults, but are less likely to use proven treatments and are less likely to succeed in quitting.[12] Similarly, adults of lower socio-economic status express significant interest in quitting, but are more likely to be uninsured or on Medicaid and are less likely to receive cessation assistance.[14] Medicaid enrollees smoke at higher rates than the general population[37,49] and also express similar interest in quitting smoking as smokers with private insurance but are less likely to succeed.[12] One likely reason for this population's lower quit rates is that few state Medicaid programs provide comprehensive coverage of cessation treatments.[37]

Adults with mental illness have a much higher smoking prevalence than adults without mental illness, smoke more cigarettes per month, and are less likely to quit smoking.[14,75] Potential reasons that smokers with mental illness are less likely to quit include higher levels of nicotine addiction among this population and less access to cessation treatment, which may result from a lack of financial resources, a lack of health insurance, or a general reluctance of mental health care providers and facilities to address tobacco use in their patients.[14,75]

Lower quit rates in certain populations may result in part from environments and social norms that are less supportive of cessation and more supportive of tobacco use.[1,6,76,77] For example, blue collar and service workers have traditionally been less likely to be protected by smokefree workplace policies than white collar workers, and African Americans are less likely to live under smokefree home rules and are more likely to be exposed to secondhand smoke at work.[7,78,79] Similarly, until recently, many mental illness and substance abuse treatment facilities have not implemented tobacco-free or smokefree policies.[75] Comprehensive smokefree policies have been shown to effectively reduce population-level smoking, irrespective of socioeconomic status or race/ethnicity.[80] Because environments that are smokefree and norms that reduce the social acceptability of smoking motivate smokers to quit and make it easier for them to do so,[7,76,77] the lack of such environments and norms poses a barrier to cessation. State tobacco control programs can also increase cessation among population subgroups that make fewer quit attempts or are less likely to quit successfully by ensuring that settings where they spend time are smokefree. For example, state programs can seek to ensure

that comprehensive state and local smokefree policies are fully implemented in all workplaces, and can work with primary and behavioral health care organizations serving these populations to implement tobacco-free campus policies.

In jurisdictions where comprehensive smokefree policies have already been implemented, other efforts can be made to encourage cessation, including the establishment of smokefree private settings, such as homes (including multiunit housing) and vehicles; and tobacco price increases, which motivate smokers to quit, and which low-income populations are especially responsive to. Increasing tax rates on tobacco products and dedicating a portion of the resulting revenue to fund cessation services for low-income populations can be an effective way to increase cessation in these populations.[6,81]

As illustrated in some of the examples cited above, lower quit rates in certain populations are often driven in part by reduced access to and use of evidence-based cessation treatments, which in turn results in less success in quitting.[12,14] One important way to improve cessation outcomes in populations with lower quit rates is to provide these populations with comprehensive cessation coverage.[6,14,37] Reducing barriers to accessing proven cessation treatments, including language and cost barriers, would be expected to increase quit attempts, use of effective cessation treatments, and success in quitting in these populations.[6,14,37] Providing comprehensive state Medicaid coverage would have a substantial impact, and is one of the most important steps a state can take to increase cessation and reduce tobacco use.[37,43–45]

Another effective approach is to conduct outreach and education to ensure that health care organizations serving these vulnerable populations with high smoking rates, such as federally qualified health centers, mental health care facilities, and substance abuse treatment facilities, integrate tobacco dependence treatment into routine health care delivery. Additionally, state tobacco control programs can address population disparities by conducting targeted outreach to increase the state quitline's reach to underserved populations with high smoking rates. This can include promoting national quitline resources developed to assist these populations, such as the national Spanish-language quitline portal 1-855-DÉJELO-YA (1-855-335-3569) and the national Asian-language quitline.

Budget

Promoting Health Systems Change/Expanding Cessation Insurance Coverage

The tobacco control goal of health systems change is to increase health care providers' identification of and intervention with patients who smoke. Because more than 80% of smokers see a physician each year, the clinical setting is an important channel for motivating smokers to quit and for delivering evidence-based cessation treatments. In addition, as noted previously, by removing barriers to accessing effective cessation treatments, expanding cessation insurance coverage increases the number of smokers who attempt to quit, who use effective treatments, and who successfully quit. As a result, it is important for state tobacco control programs to work with health systems as part of a comprehensive approach to encourage and help smokers to quit.

The budget recommendation for the state program for this component includes $150,000 per state, in addition to $17,850,000 allocated across states in proportion to total population, for grants to selected health care organizations, health insurers, and employers to evaluate cessation interventions, document the results, including cost-effectiveness and return on investment, and develop and disseminate reports on the findings.

Efforts to promote health systems change and expand cessation insurance coverage are demanding and time-intensive, requiring a sophisticated understanding of tobacco cessation and health care systems and sustained relationship-building with health care organizations, health insurers, and the state Medicaid program. Therefore, it is important to ensure that the tobacco control program's staff includes a dedicated, full-time cessation coordinator to oversee its cessation efforts, as well as additional staff and/or contractual personnel to conduct academic detailing and outreach to health care systems and insurers and to conduct data collection and analysis around cessation interventions and outcomes, including examining data from electronic health records and claims data.

Supporting State Quitline Capacity

The goal of state quitlines is to provide a convenient, readily accessible, evidence-based cessation service for smokers who want help quitting, a referral option for health care organizations and providers, and a clearinghouse for other cessation resources. Budget recommendations for this component are based on the percent of a state's smokers calling the state quitline (or other quitlines that health plans or employers have contracted with) for assistance each year, with a lower bound of 8% (*minimum* level) and an upper bound of 13% (*recommended* level). These parameters are based on the level of reach recommended in *Best Practices—2007,* combined with the updated assumption that 90% of callers will accept counseling and NRT.

These budget recommendations are based on offering all callers a single 10-minute reactive call and offering callers who are uninsured, underinsured, or enrolled in state insurance marketplaces or Medicaid three additional proactive counseling calls. The recommendations assume that callers who accept counseling will be provided with a total of four calls at a cost of $45.60 per call and that callers who accept medication will be provided with 2 weeks of NRT patches or gum at a cost of $38.00 per caller, with these estimates being based on state experience. In order to support population-based interventions such as smokefree policies and mass-media campaigns, state tobacco control programs may want to consider covering the cost of providing the initial reactive call during periods when such interventions are being implemented. During periods when such interventions are not being implemented, state quitlines can shift the cost of the initial call to other payers, except for uninsured and underinsured callers and callers enrolled in insurance through the state marketplaces and Medicaid.

It is assumed that the state program will cover 100% of the cost of providing the three proactive counseling calls to uninsured callers, underinsured callers, and callers who are enrolled in state insurance marketplaces and 50% of the cost of providing counseling to Medicaid callers, on the basis of the state quitline securing the 50% federal match for quitline counseling provided to Medicaid enrollees. In addition, it is assumed that the state tobacco control program will cover 100% of the cost of providing 2 weeks of NRT (patches or gum) to callers who are uninsured, underinsured, or enrolled in insurance through state marketplaces or Medicaid. Finally, it is assumed that other callers will have the costs of the three proactive quitline counseling calls and the 2 weeks of NRT borne by their payers. The payer will vary depending on the callers' insurance coverage, the quitline they call, and whether the state quitline has developed public-private partnerships with health plans and/or employers and secured the federal match for quitline counseling provided to Medicaid enrollees.

Providing Cessation Services Via Other Technologies

Emerging technologies, such as text messaging, Web, and social media interventions, could potentially extend the reach and increase the impact of quitlines by complementing telephone cessation assistance with quitting motivation and support delivered through other modalities.[14] These interventions are in some ways more convenient and readily accessible than quitlines and might engage young adult smokers, who may be especially likely to use these technologies and may prefer receiving cessation support through these familiar channels.[6,14] Budget recommendations for this component of the report are based on a fixed cost of $135,000 per state. Because these communication channels may continue to evolve and expand over time, it is important for state tobacco control programs to annually assess whether it may be cost-effective to increase this funding level to meet their goals.

References

1. Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs — 2007.* Atlanta: 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, 2007.
2. U.S. Department of Health and Human Services. Reducing Tobacco Use: *A Report of the Surgeon General.* Atlanta: 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, 2000.
3. Institute of Medicine. *Ending the Tobacco Problem: A Blueprint for the Nation*. Washington: The National Academies Press, 2007.
4. U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Service*s, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004.
5. Jha P, Ramasundarahettige C, Landsman V, Rostron B, Thun M, Anderson RN, McAfee T, Peto R. 21st-century hazards of smoking and benefits of cessation in the United States. *New England Journal of Medicine* 2013;368(4):341–50.
6. The Guide to Community Preventive Services. Reducing tobacco use and secondhand smoke exposure; <http://www.thecommunityguide.org/tobacco/index.html>; accessed: December 2, 2013.
7. U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General.* Atlanta: 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.
8. Rigotti NA. Integrating comprehensive tobacco treatment into the evolving US health care system. *Archives of Internal Medicine* 2011;171(1):53–5.
9. *Patient Protection and Affordable Care Act,* Public Law 111-148, U.S. Statutes at Large 119 (2010):124.
10. Holahan J, Buettgens M, Carroll C, Dorn S. The Cost and Coverage Implications of the ACA Medicaid Expansion: National and State-by-State Analysis. Washington: The Urban Institute, 2012.
11. Zhu SH, Lee M, Zhuang YL, Gamst A, Wolfson T. Interventions to increase smoking cessation at the population level: how much progress has been made in the last two decades? Tobacco Control 2012;21(2):110–8.
12. Centers for Disease Control and Prevention. Quitting smoking among adults — United States, 2001–2010. *Morbidity and Mortality Weekly Report* 2011;60(44):1513–9.
13. Shiffman S, Brockwell SE, Pillitteri JL, Gitchell JG. Use of smoking-cessation treatments in the United States. *American Journal of Preventive Medicine* 2008;34(2):102–11.
14. Fiore MC, Jaen 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.
15. Ossip-Klein DJ, Giovino GA, Megahed N, Black PM, Emont SL, Stiggins J, Shulman E, Moore L. Effects of a smoker's hotline: results of a 10-county self-help trial. *Journal of Consulting and Clinical Psychology* 1991;59(2):325–32.
16. Centers for Disease Control and Prevention. *Telephone Quitlines: A Resource for Development, Implementation, and Evaluation.* Atlanta: 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.
17. Fiore MC, Keller PA, Curry SJ. Health systems changes to facilitate the delivery of tobacco-dependence treatment. *American Journal of Preventive Medicine* 2007;33(6 Suppl):349S–356S.
18. Centers for Disease Control and Prevention. National Health Interview Survey; <http://www.cdc.gov/nchs/nhis.htm>; accessed: December 2, 2013.
19. Land TG, Rigotti NA, Levy DE, Schilling T, Warner D, Li W. The effect of systematic clinical interventions with cigarette smokers on quit status and the rates of smoking-related primary care office visits. *PLoS ONE* 2012;7(7):e41649.
20. Warner DD, Land TG, Rodgers AB, Keithly L. Integrating tobacco cessation quitlines into health care: Massachusetts, 2002–2011. *Preventing Chronic Disease* 2012;9:110343.

21. Schauer GL, Thompson JR, Zbikowski SM. Results from an outreach program for health systems change in tobacco cessation. *Health Promotion Practice* 2012;13(5):657–65.

22. Redmond LA, Adsit R, Kobinsky KH, Theobald W, Fiore MC. A decade of experience promoting the clinical treatment of tobacco dependence in Wisconsin. *Wisconsin Medical Journal* 2010;109(2):71–8.

23. Sheffer MA, Baker TB, Fraser DL, Adsit RT, McAfee TA, Fiore MC. Fax referrals, academic detailing, and tobacco quitline use: a randomized trial. *American Journal of Preventive Medicine* 2012; 42(1):21–8.

24. Bernstein SL, Jearld S, Prasad D, Bax P, Bauer U. Rapid implementation of a smokers' quitline fax referral service in an urban area. *Journal of Health Care for the Poor and Underserved* 2009;20(1):55–63.

25. Katz DA, Holman J, Johnson S, Hillis SL, Ono S, Stewart K, et al. Implementing smoking cessation guidelines for hospitalized veterans: effects on nurse attitudes and performance. *Journal of General Internal Medicine* 2013;28(11):1420–9.

26. Katz DA, Holman JE, Nugent AS, Baker LJ, Johnson SR, Hillis SL, et al. The emergency department action in smoking cessation (EDASC) trial: impact on cessation outcomes. *Nicotine & Tobacco Research* 2013;15(6):1032–43.

27. Kisuule F, Necochea A, Howe EE, Wright S. Utilizing audit and feedback to improve hospitalists' performance in tobacco dependence counseling. *Nicotine & Tobacco Research* 2010;12(8):797–800.

28. Centers for Medicare and Medicaid Services. Meaningful Use; <http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Meaningful_Use.html>; accessed: December 2, 2013.

29. Boyle R, Solberg L, Fiore M. Use of electronic health records to support smoking cessation. *Cochrane Database of Systematic Reviews* 2011, Issue 12. Art. No.: CD008743. DOI: 10.1002/14651858.CD008743.pub2.

30. Bentz CJ, Bayley KB, Bonin KE, Fleming L, Hollis JF, Hunt JS, LeBlanc B, McAfee T, Payne N, Siemienczuk J. Provider feedback to improve 5A's tobacco cessation in primary care: a cluster randomized clinical trial. *Nicotine & Tobacco Research* 2007;9(3):341–9.

31. Linder JA, Rigotti NA, Schneider LI, Kelley JHK, Brawarsky P, Haas JS. An electronic health record–based intervention to improve tobacco treatment in primary care: a cluster-randomized controlled trial. *Archives of Internal Medicine* 2009;169(8):781–7.

32. Greenwood DA, Parise CA, MacAller TA, Hankins AI, Harms KR, Pratt LS, Olveda JE, Buss KA. Utilizing clinical support staff and electronic health records to increase tobacco use documentation and referrals to a state quitline. *Journal of Vascular Nursing* 2012;30(4):107–11.

33. Lindholm C, Adsit R, Bain P, Reber PM, Brein T, Redmond L, Smith, SS, and Fiore MC. A demonstration project for using the electronic health record to identify and treat tobacco users. *Wisconsin Medical Journal* 2010;109(6):335–40.

34. The Joint Commission. Core Measure Sets: Tobacco Treatment; <http://www.jointcommission.org/core_measure_sets.aspx>; accessed: December 2, 2013.

35. Fiore MC, Goplerud E, Schroder SA. The Joint Commission's new tobacco-cessation measures — will hospitals do the right thing? *New England Journal of Medicine* 2012;366(13):1172–4.

36. Partnership for Prevention. *Helping Patients Quit: Implementing the Joint Commission Tobacco Measure Set in Your Hospital*. Washington: Partnership for Prevention, 2011. <http://www.prevent.org/Publications-and-Resources.aspx/hpq_full_final_10-31-11.pdf>; accessed: December 2, 2013.

37. American Lung Association. *Helping Smokers Quit: Tobacco Cessation Coverage 2012*. Washington: American Lung Association, 2012. <http://www.lung.org/assets/documents/publications/smoking-cessation/helping-smokers-quit-2012.pdf>; accessed: December 2, 2013.

38. Centers for Disease Control and Prevention. Coverage for Tobacco Use Cessation Treatments; <http://www.cdc.gov/tobacco/quit_smoking/cessation/coverage/index.htm>; accessed: December 2, 2013.

39. McMenamin SB, Halpin HA, Ibrahim JK, Orleans CT. Physician and enrollee knowledge of Medicaid coverage for tobacco dependence treatments. *American Journal of Preventive Medicine* 2004;26(2):99–104.

40. McMenamin SB, Halpin HA, Bellows NM. Knowledge of Medicaid coverage and effectiveness of smoking treatments. *American Journal of Preventive Medicine* 2006;31(5):369–74.

41. Keller PA, Christiansen B, Kim SY, Piper ME, Redmond L, Adsit R, Fiore MC. Increasing consumer demand among Medicaid enrollees for tobacco dependence treatment: the Wisconsin "Medicaid covers it" campaign. *American Journal of Health Promotion* 2011;25(6):392–5.

42. U.S. Office of Personnel Management. Special Initiatives: Quit Smoking; <http://www.opm.gov/healthcare-insurance/special-initiatives/quit-smoking/>; accessed: December 2, 2013.

43. Land T, Warner D, Paskowsky M, Cammaerts A, Wetherell L, Kaufmann R, Zhang L, Malarcher A, Pechacek T, Keithly L. Medicaid coverage for tobacco dependence treatments in Massachusetts and associated decreases in smoking prevalence. *PLoS ONE* 2010;5(3):e9770.

44. Land T, Rigotti NA, Levy DE, Paskowsky M, Warner D, Kwass JA, Wetherell L, Keithly L. A longitudinal study of Medicaid coverage for tobacco dependence treatments in Massachusetts and associated decreases in hospitalizations for cardiovascular disease. *PLoS Med* 2010;7(12):e1000375.

45. Richard P, West K, Ku L. The return on investment of a Medicaid tobacco cessation program in Massachusetts. *PLoS ONE* 2012;7(1):e29665.

46. University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI). Summary of Selected Tobacco, Prevention, and Public Health Provisions from H.R. 3590, the Patient Protection and Affordable Care Act, and H.R. 4872, the Health Care and Education Reconciliation Act of 2010, Signed into Law March 23, 2010 and March 30, 2010 respectively. University of Wisconsin Center for Tobacco Research and Intervention, 2010; <http://www.ctri.wisc.edu/HC.Providers/reform/aca/hcrtobacco2010.pdf>; accessed: December 2, 2012.

47. Kofman M, Dunton K, Senkewicz MB. Implementation of Tobacco Cessation Coverage under the Affordable Care Act: Understanding how Private Health Insurance Policies Cover Tobacco Cessation Treatments. Washington: Georgetown University Health Policy Institute, 2012; <http://www.tobaccofreekids.org/pressoffice/2012/georgetown/coveragereport.pdf>; accessed: December 2, 2013.

48. Centers for Disease Control and Prevention. Health plan implementation of U.S. Preventive Services Task Force A and B recommendations — Colorado, 2010. *Morbidity and Mortality Weekly Report* 2011;60(39):1348–50.

49. Armour BS, Finkelstein EA, Fiebelkorn IC. State-level Medicaid expenditures attributable to smoking. *Preventing Chronic Disease* 2009;6(3):A84.

50. Curtis R, Neuschler E. Tobacco Rating Issues and Options for California under the ACA. Washington: Institute for Health Policy Solutions, 2012; <http://www.ihps.org/pubs/Tobacco_Rating_Issue_Brief_21June2012.pdf>; accessed: December 2, 2013.

51. *Federal Register*. Patient Protection and Affordable Care Act; Health Insurance Market Rules; Rate Review; < https://www.federalregister.gov/articles/2013/02/27/2013-04335/patient-protection-and-affordable-care-act-health-insurance-market-rules-rate-review >; accessed: December 2, 2013.

52. *Federal Register*. Incentives for Nondiscriminatory Wellness Programs in Group Health Plans; < https://www.federalregister.gov/articles/2013/06/03/2013-12916/incentives-for-nondiscriminatory-wellness-programs-in-group-health-plans >; accessed: December 2, 2013.

53. Zhu SH, Gardiner P, Cummins S, Anderson C, Wong S, Cowling D, Gamst A. Quitline utilization rates of African-American and white smokers: the California experience. *American Journal of Health Promotion* 2011;25(5 Suppl):51S–58S.

54. Rabius V, Wiatrek D, McAlister AL. African American participation and success in telephone counseling for smoking cessation. *Nicotine & Tobacco Research* 2012;14(2):240–2.

55. Zhu SH, Wong S, Stevens C, Nakashima D, Gamst A. Use of smokers' quitline by Asian language speakers: results from 15 years of operation in California. *Research and Practice* 2010;100(5):846–52.

56. Miller CL, Sedivy V. Using a quitline plus low-cost nicotine replacement therapy to help disadvantaged smokers to quit. *Tobacco Control* 2009;18(2):144–9.

57. Hollis JF, McAfee TA, Fellows JL, et al. The effectiveness and cost effectiveness of telephone counseling and the nicotine patch in a state tobacco quitline. *Tobacco Control* 2007;16(Suppl 1):i53–i59.

58. Lal A, Mihalopoulos C, Wallace A, et al. The cost-effectiveness of call-back counselling for smoking cessation. *Tobacco Control* Published Online First: June 8, 2013. DOI: 10.1136/tobaccocontrol-2012-050907.

59. Tomson T, Helgason AR, Gilljam H. Quitline in smoking cessation: a cost-effectiveness analysis. International *Journal of Technology Assessment in Health Care* 2004;20(4):469–74.

60. Rothemich SF, Woolf SH, Johnson RE, Devers KJ, Flores SK, Villars P, Rabius V, McAfee T. Promoting primary

care smoking cessation support with quitlines: the QuitLink Randomized Controlled Trial. American *Journal of Preventive Medicine* 2010;38(4):367–74.

61. Shelley D, Cantrell J. The effect of linking community health centers to a state-level smoker's quitline on rates of cessation assistance. *BMC Health Services Research* 2010;10:25. DOI: 10.1186/1472-6963-10-25.
62. Anderson CM, Zhu SH. Tobacco quitlines: looking back and looking ahead. *Tobacco Control* 2007;16(Suppl 1):i81–i86.
63. Keller PA, Feltracco A, Bailey LA, Li Z, Niederdeppe J, Baker T, Fiore MC. Changes in tobacco quitlines in the United States, 2005–2006. *Preventing Chronic Disease* 2010;7(2):A36.
64. Woods SS, Haskins AE. Increasing reach of quitline services in a US state with comprehensive tobacco treatment. *Tobacco Control* 2007;16(Suppl 1):i33–i36.
65. National Jewish Medical and Research Center. Tobacco Cessation Outcome Results for the State Tobacco Educational and Prevention Partnership (STEPP) — August 2007. Denver, CO: National Jewish Medical and Research Center, 2007.
66. Bush TM, McAfee T, Deprey M, Mahoney L, Fellows JL, McClure J, Cushing C. Impact of a free nicotine patch starter kit on quit rates in state quitline. *Nicotine & Tobacco Research* 2008;10(9):1511–6.
67. Schillo BA, Wendling A, Saul J, Luxenberg MG, Lachter R, Christenson M, An LC. Expanding access to nicotine replacement therapy through Minnesota's QUITLINE partnership. *Tobacco Control* 2007;16(Suppl 1):i37–i41.
68. Partnership for Prevention. *Colorado Tobacco Cessation and Sustainability Partnership: A Case Study: A Collaborative Approach to Meeting the U.S. Preventive Services Task Force Recommendations on Tobacco Cessation Screening and Intervention.* Washington: Partnership for Prevention, 2011.
69. Centers for Medicare and Medicaid Services. State Medicaid Director Letter on New Medicaid Tobacco Cessation Services, June 24, 2011; <http://www.cms.gov/smdl/downloads/SMD11-007.pdf>; accessed: December 2, 2013.
70. An LC, Schillo BA, Kavanaugh AM, Lachter RB, Luxenberg MG, Wendling AH, Joseph AM. Increased reach and effectiveness of a statewide tobacco quitline after the addition of access to free nicotine replacement therapy. *Tobacco Control* 2006;15(4):286–93.
71. Cummings KM, Fix B, Celestino P, Carlin-Menter S, O'Connor R, Hyland A. Reach, efficacy, and cost-effectiveness of free nicotine medication giveaway programs. *Journal of Public Health Management Practice* 2006;12(1):37–43.
72. Campbell SL, Lee L, Haugland C, Helgerson SD, Harwell TS. Tobacco quitline use: enhancing benefit and increasing abstinence. *American Journal of Preventive Medicine* 2008;35(4):386–8.
73. National Cancer Institute. Smokefree TXT; <http://www.smokefree.gov/smokefreetxt/default.aspx>; accessed: December 2, 2013.
74. *Federal Register.* U.S. Department of Health and Human Services, Food and Drug Administration. Modifications to labeling of nicotine replacement therapy products for over-the-counter human use. Docket No. FDA-2013-N-0341. Fed. Reg. 2013;78(63):19718–21.
75. Centers for Disease Control and Prevention. Vital Signs: Current cigarette smoking among adults aged ≥ 18 years with mental illness — United States, 2009–2011. *Morbidity and Mortality Weekly Report* 2013;62(05):81–7.
76. Hopkins DP, Razi S, Leeks KD, Kaira GP, Chattopadhyay SK, Soler RE, the Task Force on Community Preventive Services. Smokefree policies to reduce tobacco use: a systematic review. *American Journal of Preventive Medicine* 2010;38(2 Suppl):275S–289S.
77. Zhang X, Cowling DW, Tang H. The impact of social norm change strategies on smokers' quitting behaviours. *Tobacco Control* 2010;19(Suppl 1):i51–i55.
78. Arheart KL, Lee DJ, Dietz NA, Wilkinson JD, Clark III JD, LeBlanc WG, Serdar B, Fleming LE. Declining trends in serum cotinine levels in US worker groups: the power of policy. *Journal of Occupational and Environmental Medicine* 2008;50(1):57–63
79. King BA, Dube SR, Homa DM. Smoke-free rules and secondhand smoke exposure in homes and vehicles among US adults, 2009–2010. *Preventing Chronic Disease* 2013;10:120218.
80. Dinno A, Glantz S. Tobacco control policies are egalitarian: a vulnerabilities perspective on clean indoor air laws, cigarette prices, and tobacco use disparities. *Social Science and Medicine* 2009;68(8):1439–47.
81. International Agency for Research on Cancer (IARC). IARC Handbooks of Cancer Prevention, Tobacco Control, Vol. 14: *Effectiveness of Tax and Price Policies for Tobacco Control.* Lyon, France: IARC, 2011.