

Reducing Tobacco Use and Secondhand Smoke Exposure: Multicomponent Interventions that Include Telephone Support (2000 Archived Review)

Table of Contents

| | |
|---|---|
| Review Summary | 2 |
| Intervention Definition | 2 |
| Summary of Task Force Finding | 2 |
| Results from the Systematic Reviews | 2 |
| Publications..... | 2 |
| Task Force Finding..... | 4 |
| Intervention Definition | 4 |
| Task Force Finding..... | 4 |
| Supporting Materials | 5 |
| Evidence Gaps | 5 |
| What are Evidence Gaps? | 5 |
| Identified Evidence Gaps..... | 5 |
| Included Studies..... | 6 |
| Disclaimer..... | 8 |

Review Summary

Intervention Definition

These multicomponent interventions provide people who use tobacco products with cessation counseling or assistance in initiating or maintaining abstinence via telephone. Telephone support can be reactive (tobacco user initiates contact) or proactive (provider initiates contact or user initiates contact with provider follow-up). Telephone support includes the use of trained counselors, health care providers, or taped messages in single or multiple sessions. Sessions usually follow a standardized protocol for providing advice and counseling, and the telephone support component is usually combined with other interventions, such as client education materials, individual or group cessation counseling, or nicotine-replacement therapies.

Summary of Task Force Finding

The Community Preventive Services Task Force recommends cessation interventions that include telephone support based on strong evidence of effectiveness that this combination intervention:

- Increases patient tobacco cessation
- Is effective in both clinical settings and when implemented community-wide

It was not possible to determine the effect of the telephone support component alone. The minimum effective combination evaluated by the Task Force was community-wide, proactive telephone support (proactive follow-up) combined with patient education materials.

Results from the Systematic Reviews

Thirty-two studies qualified for the review of this intervention.

- Client tobacco cessation over a median follow-up of 12 months (range: 5 weeks to 34 months): median increase of 2.6 percentage points (range: -3.4 to 23 percentage points; 30 studies)
- Increase in tobacco cessation rates for patient education with client telephone support compared to patient education alone: median of 2.4 percentage points (range: 0.9 to 6.3 percentage points; 6 studies)
- In all of the qualifying studies, telephone support was coordinated with additional interventions including: patient education, provider-delivered counseling, nicotine replacement, smoking cessation clinics, and televised cessation series. The client telephone support efforts were proactive in twenty-seven studies and reactive in the other five.

These findings were based on a systematic review of all available studies, conducted on behalf of the Task Force by a team of specialists in systematic review methods, and in research, practice and policy related to tobacco use and secondhand smoke exposure.

Publications

Hopkins DP, Briss PA, Ricard CJ. [Reviews of evidence regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke](http://www.thecommunityguide.org/tobacco/tobac-AJPM-evrev.pdf) [www.thecommunityguide.org/tobacco/tobac-AJPM-evrev.pdf]. *Am J Prev Med* 2001;20(2S):16–66.

Task Force on Community Preventive Services. [Recommendations regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke](http://www.thecommunityguide.org/tobacco/tobac-AJPM-recs.pdf) [www.thecommunityguide.org/tobacco/tobac-AJPM-recs.pdf]. *Am J Prev Med* 2001;20(2S):10–5.

Hopkins DP, Husten CG, Fielding JE. [Evidence reviews and recommendations on interventions to reduce tobacco use and exposure to environmental tobacco smoke: a summary of selected guidelines](http://www.thecommunityguide.org/tobacco/tobac-AJPM-recs-evrev-ets.pdf) [www.thecommunityguide.org/tobacco/tobac-AJPM-recs-evrev-ets.pdf]. *Am J Prev Med* 2001;20(2S):67–87.

Task Force on Community Preventive Services. [Tobacco](http://www.thecommunityguide.org/tobacco/Tobacco.pdf) [www.thecommunityguide.org/tobacco/Tobacco.pdf]. In: Zaza S, Briss PA, Harris KW, eds. *The Guide to Community Preventive Services: What Works to Promote Health?* Atlanta (GA): Oxford University Press;2005:3-79 (Out of Print).

Task Force Finding

Intervention Definition

Patient telephone support interventions provide tobacco-product users with cessation counseling or assistance in attempting to quit and to maintain abstinence. Telephone support can be reactive (tobacco user initiates contact) or proactive (provider initiates contact or user initiates contact with provider-initiated follow-up). Techniques for delivery of telephone support include the use of trained counselors, health care providers, or taped messages in single or multiple sessions. Telephone support sessions usually follow a standardized protocol for providing advice and counseling. The telephone support component is usually combined with other interventions, such as patient educational materials, formal individual or group cessation counseling, or nicotine replacement therapies.

Task Force Finding (May 2000)*

Multicomponent cessation interventions that include telephone support are strongly recommended by the Task Force based on a strong body of evidence that this combination intervention (1) increases patient tobacco cessation, and (2) is effective in both clinical settings and when implemented community-wide. It was not possible in this evaluation to determine the effect of the telephone support component alone. The minimum effective combination evaluated by the Task Force was community-wide, proactive telephone support (proactive follow-up) combined with patient education materials.

*From the following publication:

Task Force on Community Preventive Services. [Recommendations regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke](http://www.thecommunityguide.org/tobacco/tobac-AJPM-recs.pdf) [www.thecommunityguide.org/tobacco/tobac-AJPM-recs.pdf]. *Am J Prev Med* 2001;20(2S):10–5.

Supporting Materials

Evidence Gaps

What are Evidence Gaps?

Each Community Preventive Services Task Force (Task Force) review identifies critical evidence gaps—areas where information is lacking. Evidence gaps can exist whether or not a recommendation is made. In cases when the Task Force finds insufficient evidence to determine whether an intervention strategy works, evidence gaps encourage researchers and program evaluators to conduct more effectiveness studies. When the Task Force recommends an intervention, evidence gaps highlight missing information that would help users determine if the intervention could meet their particular needs. For example, evidence may be needed to determine where the intervention will work, with which populations, how much it will cost to implement, whether it will provide adequate return on investment, or how users should structure or deliver the intervention to ensure effectiveness. Finally, evidence may be missing for outcomes different from those on which the Task Force recommendation is based.

Identified Evidence Gaps

Effectiveness

The effectiveness of increasing the unit price for tobacco products and mass media campaigns (when implemented with other interventions) is established. However, research issues regarding the effectiveness of these interventions remain.

- What intervention components contribute most to effectiveness of multicomponent interventions? What components contribute the least?
- What are the minimum and optimal requirements for the duration and intensity of mass media campaigns?
- What are the most effective combinations of messages for mass media campaigns?
- Do tobacco users respond differently to changes in product price that result from excise tax increases than to industry-induced increases?
- How long do the effects of a single excise tax increase last? Because the effectiveness of mass media cessation series and smoking cessation contests has not been established, basic research questions remain.

Because the effectiveness of mass media cessation series and smoking cessation contests has not been established, basic research questions remain.

- Are these interventions effective in increasing tobacco use cessation in the population?
- Do recruited tobacco users exposed to these interventions quit at a greater rate than recruited tobacco users not exposed to these interventions?
- What are the rates of participation in these interventions?

Applicability

The effectiveness of increasing the unit price and of mass media campaigns in reducing tobacco use in the population is established. However, identifying differences in the effectiveness of each intervention for specific subgroups of the population remains important.

- Do significant differences exist regarding the effectiveness of these interventions, based on the level of scale (i.e., national, state, local) at which they are delivered?
- What are the effects of mass media campaigns among populations that differ by race and ethnicity?

Other Positive or Negative Effects

Several potential negative effects of tobacco product price increases were reviewed in this evaluation. Although further research on the potential negative effects is warranted, evaluating the effect of potential positive effects of reductions in tobacco use should also be investigated to provide a complete picture of the effects of increases in state and federal excise taxes.

- What are the effects of these interventions on reducing smoking-related fires? What are the effects on secondhand smoke exposure?
- What proportion of smokers substitute tobacco products, modify their smoking habits, or both in response to an increase in the price of tobacco products? How much of the potential health benefit of a price increase is reduced by these behaviors? How can these potential problems be reduced?
- Do mass media campaigns that focus on tobacco have additional effects on other drug use?

Economic Evaluations

The available economic information on mass media campaigns was limited. Considerable research is, therefore, warranted regarding the following questions:

- What are the costs of mass media campaigns, especially campaigns that achieve an effective intensity over an extended duration?
- How do the costs per additional quitter compare with other interventions intended to reduce tobacco use?
- What is the cost-benefit, cost-utility, or cost per illness averted of these interventions?

Barriers

Implementation of these interventions requires political action and support. Research issues generated in this review include the following:

- What components of successful legislative and referendum campaigns are most effective? What components are least effective?
- What information is most important in gaining public support for these interventions? In gaining legislative support?

What are the most effective ways to maintain adequate funding levels for mass media campaigns?

Included Studies

Curry SJ, McBride C, Grothaus LC, Louie D, Wagner EH. A randomized trial of self-help materials, personalized feedback, and telephone counseling with nonvolunteer smokers. *Journal of Consulting & Clinical Psychology* 1995;63:1005-14.

Decker BD, Evans RG. Efficacy of a minimal contact version of a multimodal smoking cessation program. *Addictive Behaviors* 1989;14:487-91.

- Duncan C, Stein MJ, Cummings SR. Staff involvement and special follow-up time increase physicians' counseling about smoking cessation: a controlled trial. *American Journal of Public Health* 1991;81:899-901.
- Gebauer C, Kwo CY, Haynes EF, Wewers ME. A nurse-managed smoking cessation intervention during pregnancy. *Journal of Obstetric, Gynecologic, & Neonatal Nursing* 1998;27:47-53.
- Glasgow RE, Whitlock EP, Eakin EG, Lichtenstein E. A brief smoking cessation intervention for women in low-income planned parenthood clinics. *Am J Public Health* 2000; 90:786-9.
- Hartmann KE, Thorp JMJ, Pahel-Short L, Koch MA. A randomized controlled trial of smoking cessation intervention in pregnancy in an academic clinic. *Obstetrics & Gynecology* 1996;87:621-6.
- Hollis JF, Lichtenstein E, Vogt TM, Stevens VJ, Biglan A. Nurse-assisted counseling for smokers in primary care. *Annals of Internal Medicine* 1993;118:521-5.
- Johnson JL, Budz B, Mackay M, Miller C. Evaluation of a nurse-delivered smoking cessation intervention for hospitalized patients with cardiac disease. *Heart & Lung* 1999;28:55-64.
- Lando HA, Hellerstedt WL, Pirie PL, McGovern PG. Brief supportive telephone outreach as a recruitment and intervention strategy for smoking cessation. *American Journal of Public Health* 1992;82:41-6.
- Lando HA, Pirie PL, Roski J, McGovern PG, Schmid LA. Promoting abstinence among relapsed chronic smokers: the effect of telephone support. *American Journal of Public Health* 1996;86:1786-90.
- Lando HA, Rolnick S, Klevan D, Roski J, Cherney L, Lauger G. Telephone support as an adjunct to transdermal nicotine in smoking cessation. *American Journal of Public Health* 1997;87:1670-4.
- Lewis SF, Piasecki TM, Fiore MC, Anderson JE, Baker TB. Transdermal nicotine replacement for hospitalized patients: a randomized clinical trial. *Preventive Medicine* 1998;27:296-303.
- Manfredi C, Crittenden KS, Warnecke RB, Engler J, Cho YI, Shaligram C. Evaluation of a motivational smoking cessation intervention for women in public health clinics. *Preventive Medicine* 1999;28:51-60.
- McFall SL, Michener A, Rubin D, et al. The effects and use of maintenance newsletters in a smoking cessation intervention. *Addictive Behaviors* 1993;18:151-8.
- McBride CM, Curry SJ, Lando HA, Pirie PL, Grothaus LC, Nelson JC. Prevention of relapse in women who quit smoking during pregnancy. *American Journal of Public Health* 1999;89:706-11.
- McBride CM, Scholes D, Grothaus LC, Curry SJ, Ludman E, Albright J. Evaluation of a minimal self-help smoking cessation intervention following cervical cancer screening. *Prev Med* 1999;29:133-8.
- Miller N, Smith P, DeBusk RF, Sobel DS, Taylor CB. Smoking cessation in hospitalized patients: results of a randomized trial. *Archives of Family Medicine* 1997;157:409-15.
- Ockene JK, Kristeller J, Pbert L, et al. The physician-delivered smoking intervention project: can short-term interventions produce long-term effects for a general outpatient population? *Health Psychology* 1994;13:278-81.

- Orleans CT, Boyd NR, Bingle R, et al. A self-help intervention for African American smokers: Tailoring cancer information service counseling for a special population. *Preventive Medicine* 1998;27:S61-S70.
- Orleans CT, Schoenbach VJ, Wagner EH, Quade D, et. Self-help quit smoking interventions: Effects of self-help materials, social support instructions, and telephone counseling. *Journal of Consulting & Clinical Psychology* 1991;59:439-48.
- Ossip-Klein DJ, Carosella AM, Krusch DA. Self-help interventions for older smokers [see comments]. *Tobacco Control* 1997;6:188-93.
- Ossip-Klein DJ, Giovino GA, Megahed N, et al. Effects of a smoker's hotline: results of a 10-county self-help trial. *Journal of Consulting & Clinical Psychology* 1991;59:325-32.
- Prochaska JO, DiClemente CC, Velicer WF, Rossi JS. Standardized, individualized, interactive, and personalized self-help programs for smoking cessation. *Health Psychology* 1993;12:399-405.
- Rigotti NA, Arnsten JH, McKool KM, Wood-Reid KM, Pasternak RC, Singer DE. Efficacy of a smoking cessation program for hospital patients. *Archives of Internal Medicine* 1997;157:2653-60.
- Sexton M, Hebel JR. A clinical trial of change in maternal smoking and its effect on birth weight. *JAMA* 1984;251:911-5.
- Simon JA, Solkowitz SN, Carmody TP, Browner WS. Smoking cessation after surgery, a randomized trial. *Arch Fam Med* 1997;157:1371-6.
- Stevens VJ, Glasgow RE, Hollis JF, Lichtenstein E, Vogt TM. A smoking-cessation intervention for hospital patients. *Medical Care* 1993;31:65-72.
- Stevens VJ, Severson H, Lichtenstein E, Little SJ, Leben J. Making the most of a teachable moment: a smokeless-tobacco cessation intervention in the dental office. *American Journal of Public Health* 1995;85:231-5.
- Thompson B, Kinne S, Lewis FM, Woolridge JA. Randomized telephone smoking-intervention trial initially directed at blue-collar workers. *Journal of the National Cancer Institute Monographs* 1993;105-12.
- Weissfeld JL, Holloway JL. Treatment for cigarette smoking in a Department of Veterans Affairs outpatient clinic. *Archives of Internal Medicine* 1991;151:973-7.
- Westman EC, Levin ED, Rose JE. The nicotine patch in smoking cessation. A randomized trial with telephone counseling. *Archives of Internal Medicine* 1993;153:1917-23.
- Zhu SH, Stretch V, Balabanis M, Rosbrook B, Sadler G, Pierce JP. Telephone counseling for smoking cessation: Effects of single-session and multiple-session interventions. *Journal of Consulting & Clinical Psychology* 1996;64:202-11.

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they

provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

Document last updated July 22, 2014