



Effective Public Health Practice Project Summary Statement

October 2006

This is a summary statement written to condense the work of the authors of a systematic review. The reference for the full review is below. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

Reference for Review: Lancaster, T., Stead, L.F. (2004). **Physician advice for smoking cessation.** *The Cochrane Database of Systematic Reviews 2004*, Issue 4. Art. No.: CD000165.pub2. DOI: 10.1002/14651858.CD000165.pub2.

Issue

Every day, approximately 50 Ontarians die as a result of tobacco use (Holowaty et al., 2002). Over the past 50 years, almost 500,000 deaths have occurred among Ontarians that can be directly attributed to tobacco. Tobacco is the single most important cause of cancer. In Ontario, one-quarter of all cancer deaths are due to tobacco (Cancer Care Ontario, 2005). Tobacco is also a major cause of death from other chronic diseases, including various cardiovascular and lung diseases. The direct health care costs associated with smoking in Ontario in 1992 were approximately \$1.1 billion; this estimate likely represents only a small portion of the real economic toll of smoking, because it does not include the costs associated with lost productivity and earnings as a result of illness, disability and death, which are estimated at another \$2.6 billion (Single et al., 1996).

The Mandatory Health Programs and Services Guidelines prepared by the Ontario Ministry of Health and Long-Term Care include tobacco use interventions for youth and adults who smoke daily to meet the goal of “reducing the premature mortality and morbidity from preventable chronic diseases” (Ontario Ministry of Health and Long-Term Care, 1997). The Ontario Guidelines identify the type of intervention considered by this review within the requirements and standards for public health organizations working with health professionals to provide information and education on the benefits of and methods for quitting smoking.

Review Content Summary

This systematic review with meta-analysis was performed to determine the effectiveness of physician advice to stop smoking in achieving long-term smoking cessation, compared to no advice or usual care. Evidence was available from a total of 39 randomized or quasi-randomized trials. Seventeen studies compared an intervention group that received minimal advice to a control group who did not receive advice routinely, and eight compared intensive advice to usual care. The remaining studies compared different types of advice. Definitions of ‘advice’ varied from study to study and included leaflets, verbal messages to stop smoking, behavioural counselling, contracts stating that the patient would quit smoking, offering an incentive, and demonstrations of pulmonary function. Brief advice, with or without brief printed

material, was more effective than no intervention. More intensive interventions were more effective than no intervention and marginally more effective than minimal interventions.

Comments on this Review's Methodology

Studies were identified from a register of trials assembled from searches of health and social science databases, relevant journals, conference proceedings and reference lists. Eligibility criteria were well described. Randomized and quasi-randomized trials with at least six months follow-up were included. Allocation method was used as the main indicator of study quality. Where possible, biochemical confirmation of abstinence was used as the outcome variable. Where these data were not available, the most conservative method for determining smoking status was used and all participants lost to follow-up were counted as continuing smokers. Fixed-effects models were used to pool results across studies. For meta-analysis, studies were grouped according to type of treatment and control interventions. There was statistically significant heterogeneity within some of these groups of studies. Sensitivity analysis was used to assess the impact of cluster randomization on pooled results.

Seventeen trial reports included insufficient information to determine if treatment allocation was concealed prior to randomization. No trials used a centralized randomization process. Fourteen trials were open to bias because participants were allocated by day of attendance or birth date.

Evidence and Implications for Practice & Policy

Evidence points ARE NOT weighted or ranked according to strength.

What's the evidence?	Implications for practice and policy:
<p>> Pooled data from 17 trials comparing brief advice with no advice (or usual care) revealed a small but significant increase in the odds of quitting with brief advice (odds ratio [OR], 1.74; 95% confidence interval [CI], 1.48 to 2.05; N=13,999). 6% of intervention participants quit smoking versus 4% of controls.</p>	<p>> Public Health should provide large numbers of physicians, in all settings, with tools to help them advise their clients to quit smoking.</p> <p>> Public Health strategies encouraging physicians to systematically identify their smoking patients and routinely offer those patients advice would be beneficial.</p> <p>> Efforts by Public Health to increase education and awareness should focus on ensuring that all physicians are aware that brief advice is effective in promoting smoking cessation.</p>
<p>> Pooled data from 15 trials with direct comparison of intensive (e.g., counselling +/- follow-up) versus minimal advice showed that intensive advice produces a small advantage (OR, 1.44; 95% CI, 1.24 to 1.67; N=9,775). 11% of intervention participants quit smoking versus 8% of controls. There was significant heterogeneity among these studies overall as well as in the subset of five studies in high risk populations.</p>	<p>> Where possible, physicians should plan a follow-up visit after giving advice to quit smoking.</p> <p>> Counselling and other behaviour modification strategies may also be appropriate for some patients.</p>

What's the evidence?	Implications for practice and policy:
<ul style="list-style-type: none"> > Pooled data from five trials with direct comparison suggested a small benefit to follow-up visits (OR, 1.61; 95% CI, 1.10 to 2.37; N=1,254). 11% of intervention participants quit smoking versus 9% of controls. 	
<ul style="list-style-type: none"> > Evidence on the effects of various aids used at the time of consultation in addition to verbal advice was available only from indirect comparisons among trials. 	<ul style="list-style-type: none"> > There is insufficient evidence to determine if aids enhance the effects of advice to quit smoking.
<ul style="list-style-type: none"> > Only one study determined the effect of smoking advice on mortality. It found no statistically significant differences in death rates at 20 years follow-up (OR, 0.89; 95% CI, 0.72 to 1.10; N=1445). 	<ul style="list-style-type: none"> > Surveillance data is required to demonstrate the effect of counselling on morbidity and mortality.
<p>General Implications: Further studies of interventions offered by physicians during routine clinical care are unlikely to yield new information about the role of advice. Research should now focus on developing strategies to increase the frequency with which smokers are identified and offered advice.</p>	

Cost Benefit or Cost-Effectiveness Information: Not included in the review.

References Used to Outline Issue

Cancer Care Ontario. (2005). Submission to the Standing Committee on Finance and Economic Development: In Support of Bill 164, an Act to Rename the Tobacco Control Act, 1994, repeal the Smoking in the Workplace Act, and make complementary amendments to other Acts.

Holowaty, E., Chin Cheong, S., Di Cori, S., Garcia, J., Luk, R., Lyons, C., & Thériault, M.E. (2002). Tobacco or Health in Ontario. Toronto, ON: Surveillance Unit and Prevention Unit, Division of Preventive Oncology, Cancer Care Ontario and the Ontario tobacco Research Unit.

Ontario Ministry of Health and Long-Term Care. (1997). Mandatory Health Programs and Services Guidelines. Retrieved October 19, 2006 from:
<http://www.health.gov.on.ca/english/providers/pub/pubhealth/manprog/mhp.pdf>

Single, E., Robison, L., Xie, X., et al. (1996). The costs of substance abuse in Canada : A cost estimation study. Ottawa: Canadian Centre on Substance Abuse.

Related EPHPP Summary Statements

The Effective Public Health Practice Project is producing or has completed summary statements for the following systematic reviews on smoking cessation:

Hey, K., & Perera, R. (2005). Competitions and incentives for smoking cessation. *The Cochrane Database of Systematic Reviews 2005* (2). Art. No.: CD004307.pub2. DOI: 10.1002/14651858.CD004307.pub2.

- Lancaster, T., & Stead, L.F. (2005). Individual behavioural counselling for smoking cessation. *The Cochrane Database of Systematic Reviews 2005 (2)*. Art. No.: CD001292.pub2. DOI: 10.1002/14651858.CD001292.pub2.
- Lancaster, T., Stead, L., Silagy, C., & Sowden, A. (2000). Effectiveness of interventions to help people stop smoking: findings from the Cochrane Library. *British Medical Journal*, 321(7257),355-358.
- Moher, M., Hey, K., & Lancaster, T. (2005). Workplace interventions for smoking cessation. *The Cochrane Database of Systematic Reviews 2005 (2)*. Art. No.: CD003440.pub2. DOI: 10.1002/14651858.CD003440.pub2.
- Murphy-Hoefer, R., Griffith, R., Pederson, L.L., Crossett, L., Iyer, S.R., & Hiller, M.D. (2005). A review of interventions to reduce tobacco use in colleges and universities. *American Journal of Preventive Medicine*, 28, 188-200.
- Park, E.W., Schultz, J.K., Tudiver, F., Campbell, T., & Becker L. (2005) Enhancing partner support to improve smoking cessation. *The Cochrane Database of Systematic Reviews 2004 (3)*. Art. No.: CD002928.pub2. DOI: 10.1002/14651858.CD002928.pub2.
- Stead, L.F., & Lancaster, T. (2005). Group behaviour therapy programmes for smoking cessation. *The Cochrane Database of Systematic Reviews 2005 (2)*. Art. No.: CD001007.pub2. DOI: 10.1002/14651858.CD001007.pub2.
- Usher, M.H., Taylor, A.H., West, R. & McEwen, A. (2000). Does exercise aid in smoking cessation? A systematic review. *Addiction*, 95(2):199-208.

Summary Statement Author: Lisa Ashley, RN, BScN, MEd, Clinical Nurse Specialist, Ottawa Public Health, Ottawa, Ontario

Contact Information for the Effective Public Health Practice Project (EPHPP)

Hamilton Public Health Services
Epidemiology and Evaluation
Effective Public Health Practice Project
2 King Street West, 3rd Floor
Dundas, Ontario Canada L9H 6Z1

Phone: 905-546-2424, Ext. 1578
Fax: 905-628-6465
Email: ephpp@hamilton.ca
Website: www.hamilton.ca/ephpp

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