



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. (2005). **Individual behavioural counselling for smoking cessation.** *The Cochrane Database of Systematic Reviews 2005*, Issue 2. Art. No.: CD001292.pub2. DOI: 10.1002/14651858.CD001292.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 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). While individual behavioural counselling is not specifically addressed in the Ontario Guidelines, it is one strategy that public health professionals can use to help meet the chronic disease prevention goals.

Review Content Summary

This systematic review with meta-analysis was performed to determine the effectiveness of individual face-to-face counselling in achieving long-term smoking cessation. Counselling was performed by health care workers not involved in routine clinical care. Evidence was available from a total of 21 randomized or quasi-randomized trials. Eighteen studies compared an intervention group that received counselling to a control group that received a minimal level of behavioural intervention (no treatment, brief advice or self-help materials). Three studies compared intensive counselling to less intensive interventions that still involved more than ten minutes of face-to-face contact. Settings varied from study to study, and included hospitals, residential rehabilitation facilities, primary care clinics, the community and a worksite. Counselling was more effective than control, except when both groups received nicotine

replacement therapy (NRT). There was no significant difference between intensive and brief counselling.

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. Fixed-effects models were used to pool results across studies. Self report was used as the primary determinant of outcome, but sensitivity analysis was performed to evaluate the impact of biochemical validation of smoking cessation on effect size estimates. For meta-analysis, studies were grouped according to type of control intervention and use of NRT. There was no significant heterogeneity within these groups of studies. Most trial reports included insufficient information to determine whether or not treatment allocation was concealed prior to randomization. Sensitivity analysis was used to assess the impact that one study's allocation to intervention or control by month had on the pooled result.

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 14 studies of counselling, including one in which there were no quitters, detected a statistically significant benefit for counselling versus minimal contact (odds ratio [OR], 1.65; 95% confidence interval [CI], 1.35 to 2.01; N=5028), with no evidence of significant heterogeneity. 12% of intervention participants quit smoking versus 8% of controls.</p>	<p>> Counselling interventions given outside routine clinical care, by smoking cessation counsellors and other health professionals, assist smokers in quitting.</p>
<p>> Pooled data from three studies of counselling plus NRT versus NRT alone failed to detect a statistically significant benefit to the addition of counselling (OR, 1.33; 95% CI, 0.97 to 1.77; N=1356).</p>	<p>> Counselling may not provide additional benefit for individuals using nicotine replacement therapy.</p>
<p>> In a meta-analysis combining three studies, there was no evidence of increased benefit from more intensive therapy compared to brief counselling (OR, 0.98; 95% CI, 0.61 to 1.56; N=602).</p>	<p>> Brief counselling may be adequate for some populations.</p>
<p>A single trial comparing a relapse prevention approach with a health belief model showed no significant difference, but with wide confidence intervals (OR, 0.93; 95% CI, 0.39 to 2.23; N=160).</p>	<p>> Either approach—relapse prevention or health belief model—may be effective.</p>

General Implications: Identifying the intensity and duration of treatment that is most effective and cost-effective for different populations of smokers is an area for further research. However, differences in relative impact are likely to be small, especially when counselling is used alongside pharmacotherapy. Small trials are unlikely to provide clear evidence of long-term effectiveness.

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

References Used to Outline Issue

Ontario Ministry of Health and Long-Term Care. (1997). Mandatory Health Programs and Services Guidelines. Retrieved October 18, 2006 from:

<http://www.health.gov.on.ca/english/providers/pub/pubhealth/manprog/mhp.pdf>

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.

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. (2004). Physician advice for smoking cessation. *The Cochrane Database of Systematic Reviews 2004* (4). Art. No.: CD000165.pub2. DOI: 10.1002/14651858.CD000165.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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