



THE ONTARIO  
TOBACCO  
RESEARCH  
UNIT

UNITÉ  
DE RECHERCHE  
SUR LE TABAC  
DE L'ONTARIO

# Research Update

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## Smoking and the Price of Cigarettes in Ontario

Although recent trends in several indicators of tobacco use are positive, the individual and societal costs of smoking remain unacceptably high. More than 45,000 current and former smokers die each year in Canada due to smoking;<sup>1</sup> age-standardized lung cancer death rates *grew* almost 3% per year for women from 1989 to 1997;<sup>2</sup> and dollar costs attributable to smoking-related disease are \$17.5 billion for Canada, significant components being \$2.6 billion in health care costs and \$2.4 billion in sick days.<sup>3</sup> Two recent studies demonstrate that each percentage-point decline in the prevalence of smoking could save \$65-97 million in health care costs in Canada.<sup>3,4</sup>

In Ontario, smoking was responsible for 11,656 deaths in 1997, as well as more than 511,000 hospital days and over 173,000 years of potential life lost.<sup>5</sup> Public health and cost savings due to reduced tobacco use would thus be considerable. A government seriously interested in controlling tobacco use would be wise to employ the most effective policy levers available. It is well established that these are the price of cigarettes and restrictions on public smoking.<sup>6</sup>

In Canada, where tobacco control is a shared responsibility, multi-level analysis can help elucidate differences in these policies and how they work. In this context, “multi-level” means taking account of the fact that price varies most at the *provincial* level in Canada and public-smoking restrictions are mainly *municipal*, while age, sex, education and other *individual* differences are also important determinants of smoking status. These analyses are complex and rarely done, but a recent Canadian study shows that the odds of smoking by adults, as well as the amount they smoke daily, both *decrease* as governments *increase* each of (a) the price of cigarettes, (b) restrictions on public smoking, and (c) per-capita spending on health education.<sup>7</sup> These policy measures all work to decrease smoking, but have different impacts on men and women. This suggests that a comprehensive tobacco policy should include *all* these measures, especially increasing price through tobacco taxation, which is the most effective of the three. Unlike the other policy measures, price affects both men and women.

A simplified version of the relationship of smoking to the price of cigarettes can be illustrated graphically (Fig. 1). The four provinces with above-average prevalence and daily consumption in 2001 (upper-right quadrant) all cut their tobacco taxes in the mid-1990s (open circles) and are still below the Canadian average with respect to the price of cigarettes. The five provinces that maintained their tobacco taxes in 1994 and continued to raise them afterward (solid squares) currently have below-average use of tobacco. The current difference between these two sets of provinces in the price of cigarettes is about \$15/carton (\$49.06 vs. \$ 64.29).<sup>8</sup> Figure 2 shows some typical trends in tobacco taxation through April 2002.

Ontario appears to be an interesting exception to this rule, but how much lower might smoking be if the province did not have the cheapest cigarettes in North America? A \$15 (35%) increase in the price

of a carton of cigarettes should lead to a reduction of two to three percentage points in the prevalence of smoking. Reduced health-care costs and increased productivity would be the inevitable result.

<sup>1</sup> Makomaski Illing EM, Kaiserman MJ. Mortality attributable to tobacco use in Canada and its regions, 1994 and 1996. *Chronic Diseases in Canada* 1999; 20: 111-117.

<sup>2</sup> National Cancer Institute of Canada. *Canadian Cancer Statistics 2001*: <http://66.59.133.166/stats/index.html>.

<sup>3</sup> Stephens T, Kaiserman MJ, McCall DJ, Sutherland-Brown C. School-based smoking cessation: economic costs versus benefits. *Chronic Diseases in Canada* 2000; 21: 62-67.

<sup>4</sup> Groupe d'analyse Economique. Impact of an anti-smoking campaign on direct health care costs in Canada. Report to the Canadian Council for Tobacco Control, April 2002. [www.cctc.ca](http://www.cctc.ca).

<sup>5</sup> Ontario Tobacco Research Unit. *Monitoring the Ontario Tobacco Strategy: Seventh Annual Monitoring Report*. Toronto: Ontario Tobacco Research Unit, 2001.

<sup>6</sup> U.S. Department of Health and Human Services. *Reducing Tobacco Use. A Report of the Surgeon General*. Public Health Service, Office on Smoking and Health, 2000.

<sup>7</sup> Stephens T, Pederson LL, Koval JJ, Macnab J. Comprehensive tobacco control policies and the smoking behaviour of Canadian adults. *Tobacco Control* 2001; 10:317-322.

<sup>8</sup> Smoking and health Action Foundation. Cigarette prices along the Canada-U.S. border. <http://www.nsra-adnf.ca/english/spublications.html>

Fig 1. Current Smoking, Daily Consumption & Taxes  
by province, age 15+, Canada, 2001

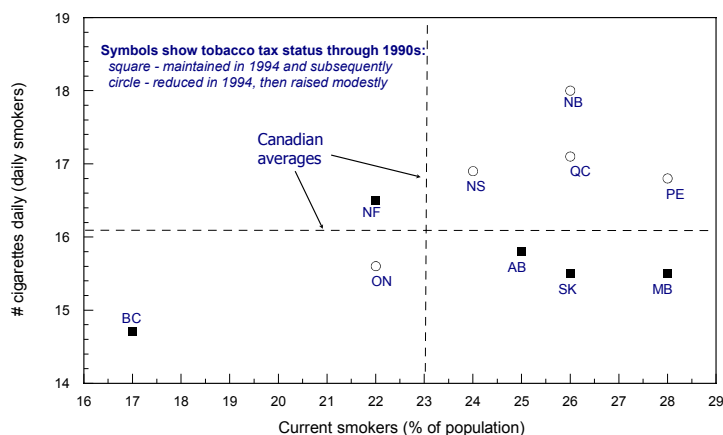


Fig 2. Price of 200 Cigarettes  
Selected Provinces, 1990-2002 (constant 1993 dollars)

