

Submitted to: The World Conference on Tobacco OR Health Conference is being held July 12-15, 2006 in Washington DC.

Potential Effects of Mental Illness on Canadian Tobacco Control Policy Risk

Paul Smetanin, RiskAnalytica
 Paul Kobak, RiskAnalytica
 Charl Els, University of Alberta, Edmonton, Alberta, Canada
 December 2005

Objective: Recent evidence indicates a strong correlation between mental illness and the prevalence of tobacco dependence/consumption. Population-based simulation is conducted to understand the significant of this issue.

Methods: A population-based Monte Carlo simulation is used to model the possible impact of smoking prevalence and mental illness on the Canadian population, the disease dynamics (incorporating lung cancer, cardiovascular disease, and chronic obstructive pulmonary disease / COPD) as well as macro-economic effects.

Results: The results of simulation, provided cumulatively from 2004 are as follows:

Year	New Disease Cases			Premature Death			Private Sector Disposable Income (2004 Present Values, \$Millions)			Public Sector Disposable Income (2004 Present Values, \$Millions)		
	Lower 95% Bound	Gauge Expected	Upper 95% Bound	Lower 95% Bound	Gauge Expected	Upper 95% Bound	Lower 95% Bound	Gauge Expected	Upper 95% Bound	Lower 95% Bound	Gauge Expected	Upper 95% Bound
2020	22,224	26,502	30,779	1,645	1,919	2,193	-\$154	-\$175	-\$195	\$994	\$1,126	\$1,258
2030	72,336	100,061	127,786	15,979	20,488	24,998	-\$1,227	-\$1,468	-\$1,709	\$1,023	\$1,224	\$1,424
2033	91,869	136,779	181,689	24,944	33,321	41,698	-\$1,911	-\$2,338	-\$2,766	\$659	\$806	\$954

The results illustrate the expected difference between tobacco control interventions that do not seek to mitigate the effects of mental illness on smoking cessation rates and those that successfully do. Increases in disease related consequences and macro economic effects indicate the temporal significance/risk of a future Canadian tobacco control policy which ignores the effects of mental illness.

Conclusion: The current analysis is preliminary in nature and does not take into account tobacco-attributable illnesses other than lung cancer, cardiovascular disease, and COPD. Despite this, the results indicate that mental illness is a significant policy risk factor for an efficient and effective future Canadian tobacco control policy.