

HEALTH CANADA'S FEDERAL TOBACCO CONTROL STRATEGY (FTCS)



Health Canada is the Federal department responsible for helping Canadians maintain and improve their health, while respecting individual choices and circumstances. In 2001 the Federal government of Canada introduced the Federal Tobacco Control Strategy (FTCS) and endorsed Health Canada with its implementation. The FTCS has been designed as a comprehensive tobacco control program built upon previous federal tobacco control strategies including the Tobacco Demand Reduction Strategy (TDRS) and the Tobacco Control Initiative (TCI). The FTCS is targeted toward all Canadians, with a particular emphasis on groups with a higher risk of smoking, such as youth, young adults, aboriginals and recent immigrants. The FTCS aims to reduce smoking prevalence and exposure to second-hand smoke; regulate the manufacturer and sale of tobacco; and reduce youth tobacco uptake.

Scope of Engagement

By way of a competitive tender, Health Canada engaged the services of RiskAnalytica to provide a mid-term cost effectiveness assessment of the FTCS implemented by Health Canada for fiscal years 2001-02 to 2005-06. RiskAnalytica utilized a risk management approach within the Life at Risk[®] framework to analyze whether the FTCS program costs were justified by the program results and if the FTCS had made progress toward achieving target goals.

FTCS's Challenges

In order to plan and implement future tobacco control policy decisions the FTCS needed to know:

- The expected future smoking prevalence rates among Canadians (by age group, gender, smoking consumption level, co-morbid factors)
- The expected associated health impacts (incidence, prevalence and mortality of cancer generally, lung cancer specifically, cardiovascular disease, chronic obstructive pulmonary disease) that result from historical, present and future smoking prevalence;
- The expected associated economic impacts (direct and indirect wages, corporate profits, federal government taxation revenue and provincial government taxation revenue impacts and direct health cost impacts) that result from historical, present and future smoking prevalence;

- Whether federal tobacco control intervention programs implemented between fiscal years 2001-02 and 2005-06 are expected to have a short-term or long-term impact on smoking prevalence changes and the associated health and economic impacts;
- Whether federal tobacco control programs costs are expected to outweigh the health and economic benefits in the future; and
- Whether target goals are expected to be met in the foreseeable future and if the FTCS has made progress toward achieving these goals.

RiskAnalytica Solution

RiskAnalytica used its risk management modeling approach (based on the Life at Risk[®] framework) to conduct a cost-effectiveness assessment of the FTCS for fiscal years 2001-02 to 2005-06 that incorporated effects up to an including the year 2036. The approach utilized RiskAnalytica's risk-based simulation methodology to generate a range of scenarios that incorporate key life and economic indicators associated with changes in smoking prevalence and exposure to second-hand smoke in Canada.

The following specific steps were taken by RiskAnalytica to perform the cost-effectiveness assessment:

- In order to examine the cost-effectiveness of the program, RiskAnalytica estimated the differences in smoking prevalence that could be attributed to government actions. To do so, RiskAnalytica generated and compared two sets of base and counterfactual risk-based simulation scenarios for the period between fiscal years 2001-02 and 2005-06. The base smoking prevalence scenarios took into account the effect of the FTCS tobacco control initiatives implemented over the specified period. The counterfactual smoking prevalence scenarios were generated for hypothetical volume of smoking prevalence between fiscal years 2001-02 and 2005-06, removing effects of FTCS tobacco control initiatives. The differences that resulted from the comparison demonstrated that implementing FTCS tobacco control initiatives resulted in decrease of smoking prevalence and exposure to second-hand smoke in Canada.
- To estimate the long-term effect of the FTCS initiatives on smoking prevalence and the associated health care and economic impacts, smoking prevalence volumes under the base and the counterfactual scenarios were simulated into the future, from 2006 to 2036.
- The simulation demonstrated that the FTCS tobacco control initiatives implemented between fiscal years 2001-02 and 2005-06 are expected to produce substantial long-term health and economic benefits over the period between 2006 and 2036. In order to provide accurate estimates of these benefits, the simulations also accounted for the effects of increasing tobacco taxes. The benefits attributable to FTCS included:
 - Lowering the incidence, mortality and the number of disability-adjusted life years associated with cancer, circulatory disease and chronic obstructive pulmonary disease that occur due to smoking and exposure to second-hand smoke.

- Generating positive economic impacts as the result of the abovementioned health benefits, such measurable increases in wages, corporate profits and non-tobacco taxation revenue, supplemented by decrease in direct health care costs.

Conclusion

The RiskAnalytica's analysis demonstrated that the long-term health and economic benefits attributed to Health Canada's investment in FTCS tobacco control initiatives are expected to outweigh the program costs. Using risk management simulation techniques, RiskAnalytica was able to identify the effects of the FTCS (along with provincial tobacco control programs) with that of insurance premiums, as the effect was an initial upfront investment that is followed by a reduction in risk (in terms of the population health of Canadians) with a commensurate expansion in rewards (reduced health costs, increased wages, taxation revenues).

The project was executed on time and on budget with the Canadian Ministry of Health planning to use results of RiskAnalytica's analysis to develop its long-term national strategy for tobacco control.