

THE CANADIAN TOBACCO CONTROL RESEARCH INITIATIVE (CTCRI)



The Canadian Tobacco Control Research Initiative (CTCRI) was established in 1997, with seed funding from the National Cancer Institute of Canada. Presently, it represents a national partnership of research organizations including Canadian Institutes of Health Research, Canadian Cancer Society, National Cancer Institute of Canada, Health Canada, Heart and Stroke Foundation, and the Lung Association. CTCRI's mission is to provide strategic leadership to stimulate, coordinate and sustain research that has a direct impact on tobacco control policies and issues in Canada and internationally.

Scope of Engagement

The CTCRI's goal to maintain its leadership position in the field of tobacco control prompted it to initiate a set of research activities that would

- shed light on the political aspects of tobacco control in Canada;
- provide the CTCRI with reliable data on the risk factors associated with tobacco-related diseases; and
- outline various short and long-term intervention and prevention scenarios along with their potential health, life and economic impacts.

The CTCRI chose RiskAnalytica to identify and map future directions for tobacco control research in Canada and develop recommendation on current and future research priorities. To do this, RiskAnalytica conducted a series of quantitative and qualitative analyses; selected the associated variables; and developed short and long-term scenarios simulating demographic, social and economic impacts of tobacco-related policy changes.

CTCRI's Challenges

- *Fragmented character of the tobacco control landscape.* The channels of communication between policy makers, tobacco-control researchers, health care providers and general public are scattered. This causes difficulties in communicating the results of tobacco-control research findings and diminishes efficiency of anti-smoking campaigns.
- *Insufficient knowledge about potential short- and long-term effects of tobacco-related diseases on quality of life, demographic and economic factors.* No risk-based research has been conducted on the potential effects of tobacco use in Canada over time, which would include such indicators as economy, epidemiology, smoking prevalence and demographics.

- *Absence of solid methodology to determine the direction and potential outcomes of tobacco control initiatives.* The lack of solid methodology to estimate the potential effects of tobacco-related diseases resulted in ambiguous expectations of what level of tobacco control is achievable within various timeframes, considering current resources and population parameters.

RiskAnalytica Solutions

To address the challenges the CTRI was facing, RiskAnalytica applied **qualitative** and **quantitative** analyses that resulted in 10 core recommendations for CTCRI's future research endeavors.

QUALITATIVE ANALYSIS

Using a panel of experts to construct a model of the present-day perspective on the field of tobacco control. To facilitate a discussion on the state of the Canadian tobacco control landscape, RiskAnalytica consulted experts in the fields of government health care, tobacco control research, policy and fiscal management. Their opinions, after being recorded and coded, provided the basis for the assessment process, which was subsequently factored into the quantitative analysis.

QUANTITATIVE ANALYSIS

Developing a framework to model potential effects of the tobacco-related diseases. RiskAnalytica used its Life at Cancer Risk™ framework to model potential short- and long-term quality of life, demographic and economic impacts of the tobacco-related diseases in Canada. To accomplish this, the Life at Cancer Risk™ framework considered the following parameters: population and demographics; risk factors and co-morbidity associated with tobacco-related diseases; epidemiology; and economics parameters. To provide a quantitative evaluation of different tobacco control policies, the following scenarios were considered:

- **Upper Smoking Prevalence Boundary**, to model the potential future quality of life, demographic and economic effects of the worst-case smoking prevalence scenario that assumes that smoking prevalence in Canada will reach its highest possible level.
- **Lower Smoking Prevalence Boundary**, to model the potential future quality of life, demographic and economic effects of the best-case smoking prevalence scenario that assumes that smoking prevalence in Canada will reach its lowest possible level as predicted by the other variables.
- **Comprehensive Scenario**, to simulate the expected smoking prevalence based on the combined effects of tobacco tax increase, enforced smoking bans, high-intensity media campaigns, cessation policies and a strict youth access policy.

- **95% High Tax Scenario**, to calculate a 95% confidence interval for the estimated range of possible values that tobacco taxes may take in the future and then assume that tobacco taxes will follow the upper path of this confidence interval.
- **95% Low Tax Scenario**, to calculate a 95% confidence interval for the estimated range of possible values that tobacco taxes may take in the future and then assume that tobacco taxes will follow the lower path of this confidence interval.
- **Cessation Programs Scenario**, to show the effect of tobacco addiction treatment policies for those who wish to quit smoking.
- **Youth Access Scenario**, to show the effect of tobacco policies which aim to completely ban youth access to tobacco products.
- **Ignoring Mental Illness Scenario**, to demonstrate the effects of ignoring mental illness as a specific tobacco control factor.
- **California Reduced Focus Scenario**, to model the Canadian data after a scenario in California.