

# The Impact Imperative: Is Discovery Enough?

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Tobacco Training Meeting

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Canadian  
Cancer  
Society

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canadienne  
du cancer



National  
Cancer Institute  
of Canada

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du Canada



# Taking Stock

Where are we?

Where do we need to be?

How do we get there?

# Taking Stock

Where Do We Not Want to Be?

“We’re lost, but we’re making good time.”

Yogi Bera

# Taking Stock

**Where we need to be:** Build a **research system** to support population health (not just public health) intervention research capacity.

**Where we are:** we have many component parts of the system.

**What we need to do to get to where we need to be:**

- Create and implement a system plan
- Fill gaps in system
- Acquire resources to enable the system

# Taking Stock

To get where we need to go, it is imperative that we develop science that is **impact oriented**; although discovery oriented science is vital, it is not enough.

We are set up to do investigator driven discovery oriented research, but not systemically organized, strategic impact oriented research.

The need to move from where we are to where we need to be is **urgent and imperative**.

# Taking Stock

The status quo is not an option.

Our community as an obligation to build an impact oriented population health intervention research system.

This system should encompass, benefit from, and boost discovery oriented research.

# Overview

1. The Problem
2. Assets in Place to Address the Problem
3. Next Steps
4. Audience Comments

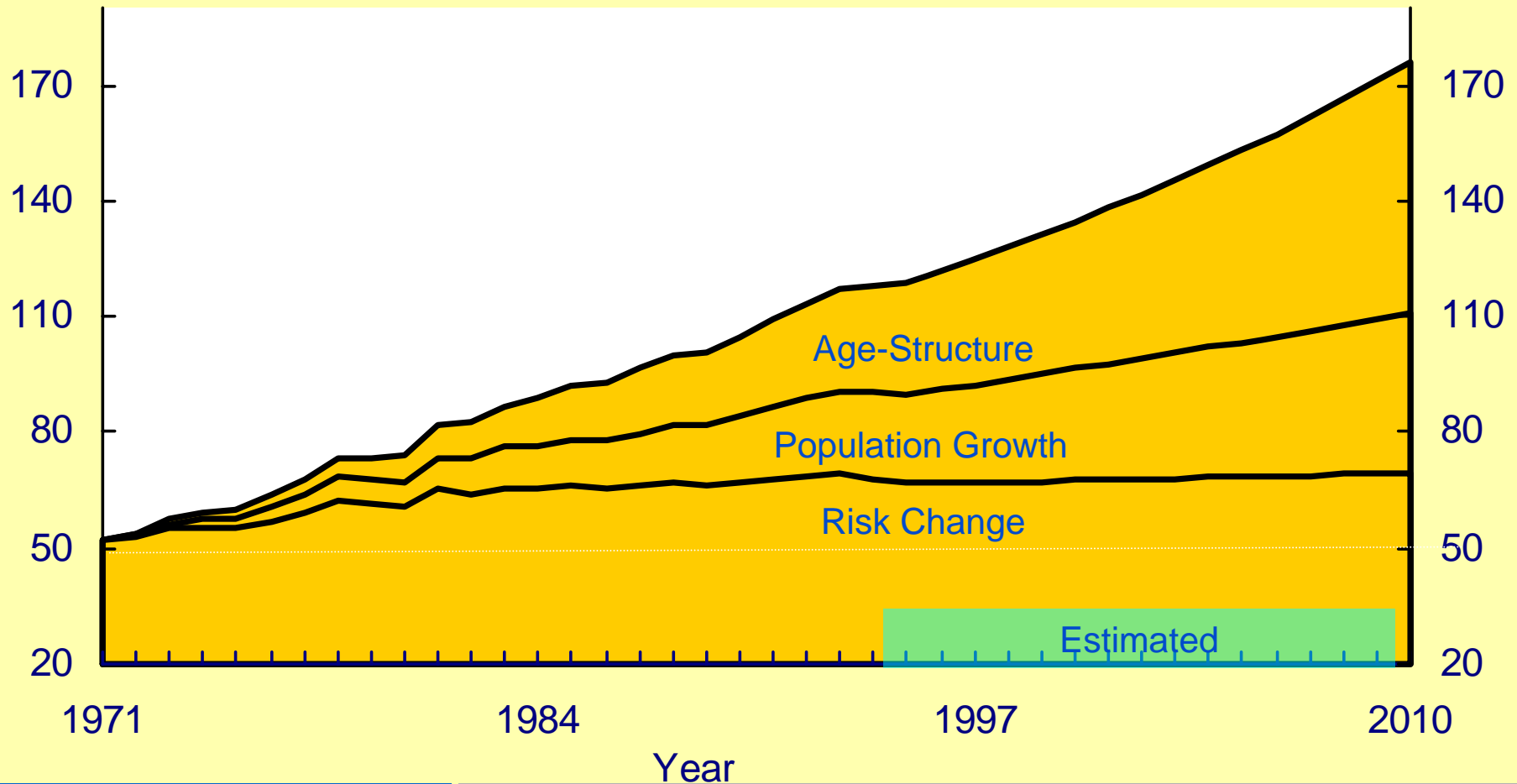
Will tend to use cancer as an example in interest of time.

# The Problem

# Growth in Cancer Cases

## Attribution of rise in new cases

Cases (000s)



# The Problem of Spiraling Health Care Costs

Andrew Hazelwood

- If Education flat-lined
- If Health Care costs continue on trajectory
- No money for anything but Health & Education in 2016
- Disclaimer – these details need to be confirmed

Response

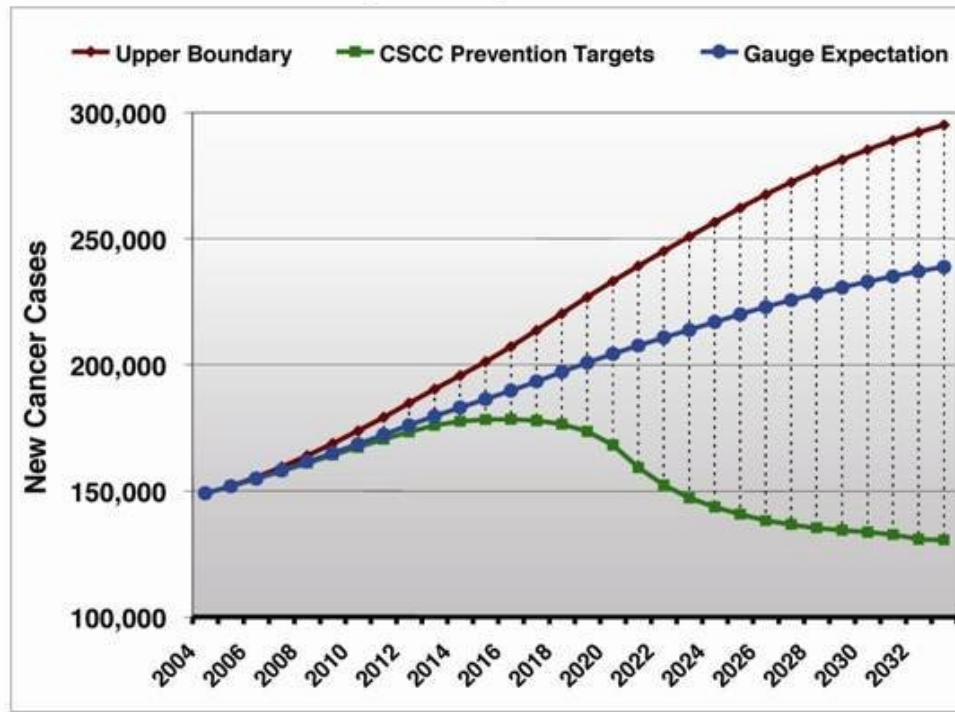
**Act Now BC:**

all Ministries engaged in prevention agenda

# The Problem: Potential for Response

# The Projected Incidence

**Canadian New Cancer Case Possibilities, Yearly, 2004-2033, All Age Groups, Both Genders**



Source: RiskAnalytica Life at Cancer Risk, 2005

The blue line is the estimated number of people that will be diagnosed with cancer in Canada over the next 30 years (5.9 million).

The green line presents the potential “reward” that can be achieved if the CSCC is implemented (1.24 million less cases).

The red line represents the worst-case scenario should Canada lag in implementing a national cancer strategy (776,700 more cases).

# The Economic Outcomes

**ACTION**



**INACTION**

This graph shows a range of economic factors that will be affected by the rising number of cancer cases over the next 30 years.

The “inaction” side represents the worst-case scenario should Canada lag in implementing a national cancer strategy.

The “action” side shows the potential reward that can be achieved if the CSCC is implemented (e.g., savings of \$39 billion in direct health costs).

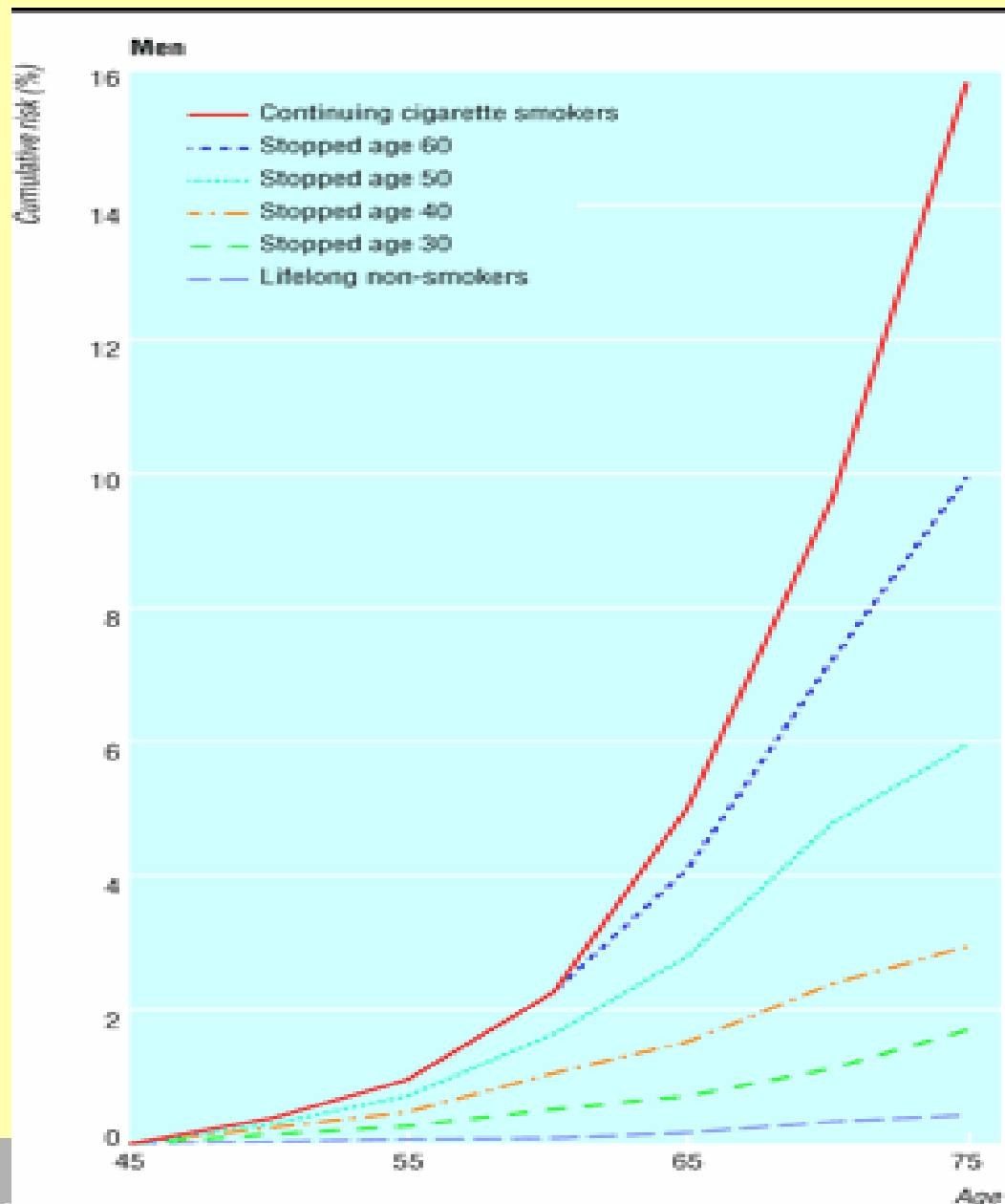
# The Problem: Window for Impact is Closing

# Effects of Smoking Cessation on Cumulative Risk of Death from Lung Cancer

Effects of stopping smoking at various ages on the cumulative risk (%) of death from lung cancer up to age 75, at death rates for men in United Kingdom in 1990. (Non-smoker risks are taken from a US prospective study of mortality)

\*Source: Peto R, Darby S, Deo H, Silcocks P, Whitley E, Doll R. Smoking, smoking cessation, and lung cancer in the UK since 1950:

combination of national statistics with two case-control studies. *BMJ*. 2000; 321: 323-328.



# Assets

Growing clarity about what is needed.

For instance:

- Call for more intervention research: Nutbeam
- Call for greater external validity in trials: Glasgow
- Call for study of “natural experiments”: Petticrew
- Call for “practice based evidence”: Green

# Assets

Chronic Disease Prevention Alliance of Canada (CDPAC)

- Major NGOs (Cancer, CVD, Diabetes)
- Public Health Agency of Canada

Agreement to work jointly to address common risk factors:  
Tobacco, nutrition, physical activity

Recognition of importance of addressing determinants

Concern with vulnerable populations.

# Assets

Disease strategies:

- Diabetes funded
- Cancer promised
- Cardiovascular – initial planning funding committed

Agreement to integrate primary prevention via CDPAC.

# 5-Year Budget Allocations: Cancer

	\$ M	%
Research	50.8	19.5
Surveillance and staging	50.2	19.3
<b>Primary prevention</b>	<b>41.1</b>	<b>15.8</b>
Standards	17.9	6.9
Rebalance focus	15.5	5.9
Human resources	11.9	4.6
Screening	10.3	4.0
Clinical practice guidelines	10.3	4.0
Pan-Canadian coordination	39.9	15.4
Quality/performance assurance	<u>12.0</u>	<u>4.6</u>
TOTAL	260.0	100.0

# Assets

- Growing provincial capacity to link research, evaluation, policy and practice: e.g., Ontario, Quebec; all others
- Louise Guyon, Michele Tremblay,
- OTRU (Roberta et al)
- Program Training and Consultation Centre: Josie D'Avernas et al.

# Assets

Growing strength in clinical interventions and special populations:

Peter Selby, Tony George CAMH

Strong basic biomedical science behind this:  
Paul Clarke, Bernard Le Foll, Rachael Tyndale

# Assets

Centres and networks of research excellence:

Many represented in this room:

e.g., Nursing, Women's Health

Community based networks: Ottawa, Champlain

# Assets

Knowledge Synthesis & Dissemination Capacity

Examples:

Better practices model and infrastructure:

CTCRI, Health Canada:

Moyer, Sutherland-Brown, Garcia, Maule, Manske et al.

Public Health Agency of Canada Best Practices Portal

Health-evidence.ca: Maureen Dobbins, McMaster

# Assets in Place

Canadian Council for Tobacco Control: Bob Walsh

Serve pan Canadian integrating function.

# Assets in Place Thought Leaders

Only listing people who spoke, not previously mentioned:

- Joanna Cohen
- Annette Schultz
- Murray Kaiserman
- Catherine Sabiston
- David Hammond

# Indicators and Data Systems

Standard indicators for evaluating provincial tobacco strategies: Royer, O'Connor, Lovato

School Health Action Planning and Evaluation System:  
Manske, Kaiserman

# Networks

North American Consortium of Quit Lines:  
Hachey, McDonald, Campbell et al

Standard Indicators for Evaluating Quit Lines: Campbell

# Networks

ICE networks:

e.g., Paul McDonald's work with PEI and BC

# Assets: CBRPE, Mission

- To build capacity for, and to conduct social and behavioural studies that contribute to improved cancer prevention and care at a population level.
- Analogous to clinical trials network supporting population intervention studies: enable people to work together across Canada.

# Assets: Powerful Advocacy

Examples:

- Physicians for a Smoke-Free Canada
- Health Charities

# Assets: Training Programs

# Assets: Movement to Build Research System

Chronic Disease Prevention Alliance of Canada:

Goal is to create a “prevention system” that integrates research, evaluation, policy and practice.

# Assets: Movement to Create Research System

Population Health Intervention Research Initiative for Canada:

- CIHR, Population and Public Health
- CIHR, Nutrition, Metabolism and Diabetes
- CIHI Population Health Initiative
- Public Health Agency of Canada
- Researches and other partners

# Assets: CTCRI

Set up to support population intervention studies.

Is building our community

# Next Steps

Need leadership from funders:

Role of CTCRI—can it become driver of work that needs to be done urgently?

Concerns: CIHR dissolved the Health Promotion Panel

# Next Steps

Integration of applied and basic research:  
Pasteur's Quadrant, Donald Stokes

E.g. epigenetics?

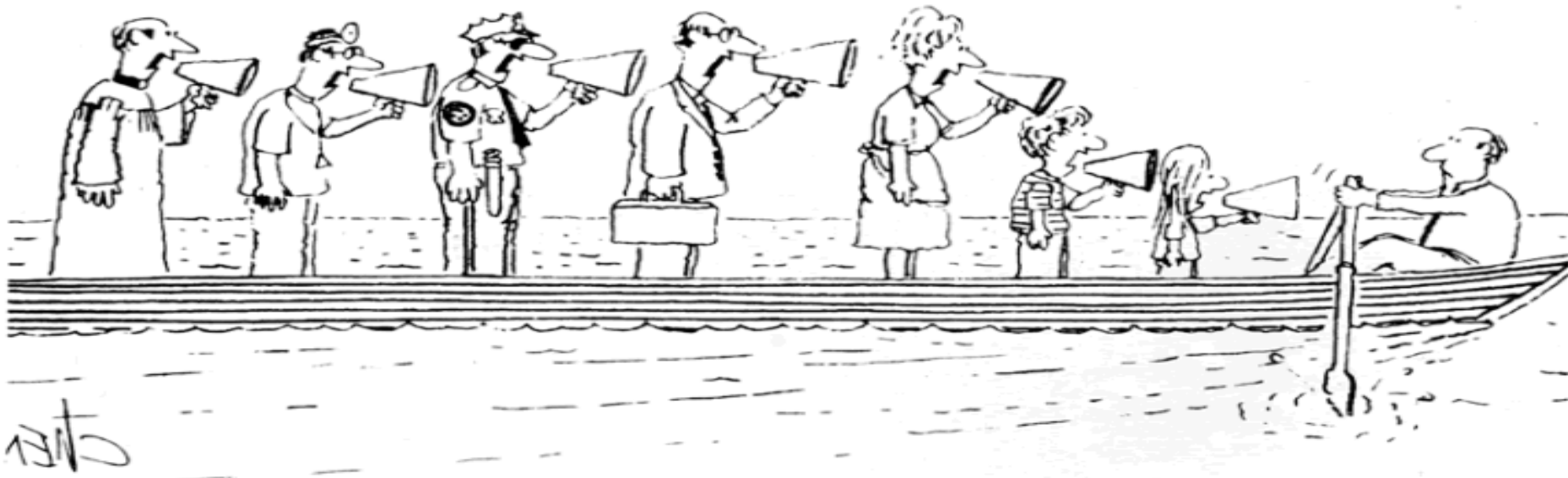
Eva Jablonka and Marion J. Lamb

Evolution in Four Dimensions:

Genetic, Epigenetic, Behavioral, and Symbolic Variation  
in the History of Life

MIT Press, 2005

# Capacity...



# Reactions?

James Surowiecki

The Wisdom of Crowds:

Why the Many Are Smarter than the Few...

Doubleday, 2004

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