

The Future of Population and Public Health In Canada – Evidence & Insights



Presentation for Public Health WORKS Speaker Series

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CIHR-Institute of Population & Public Health

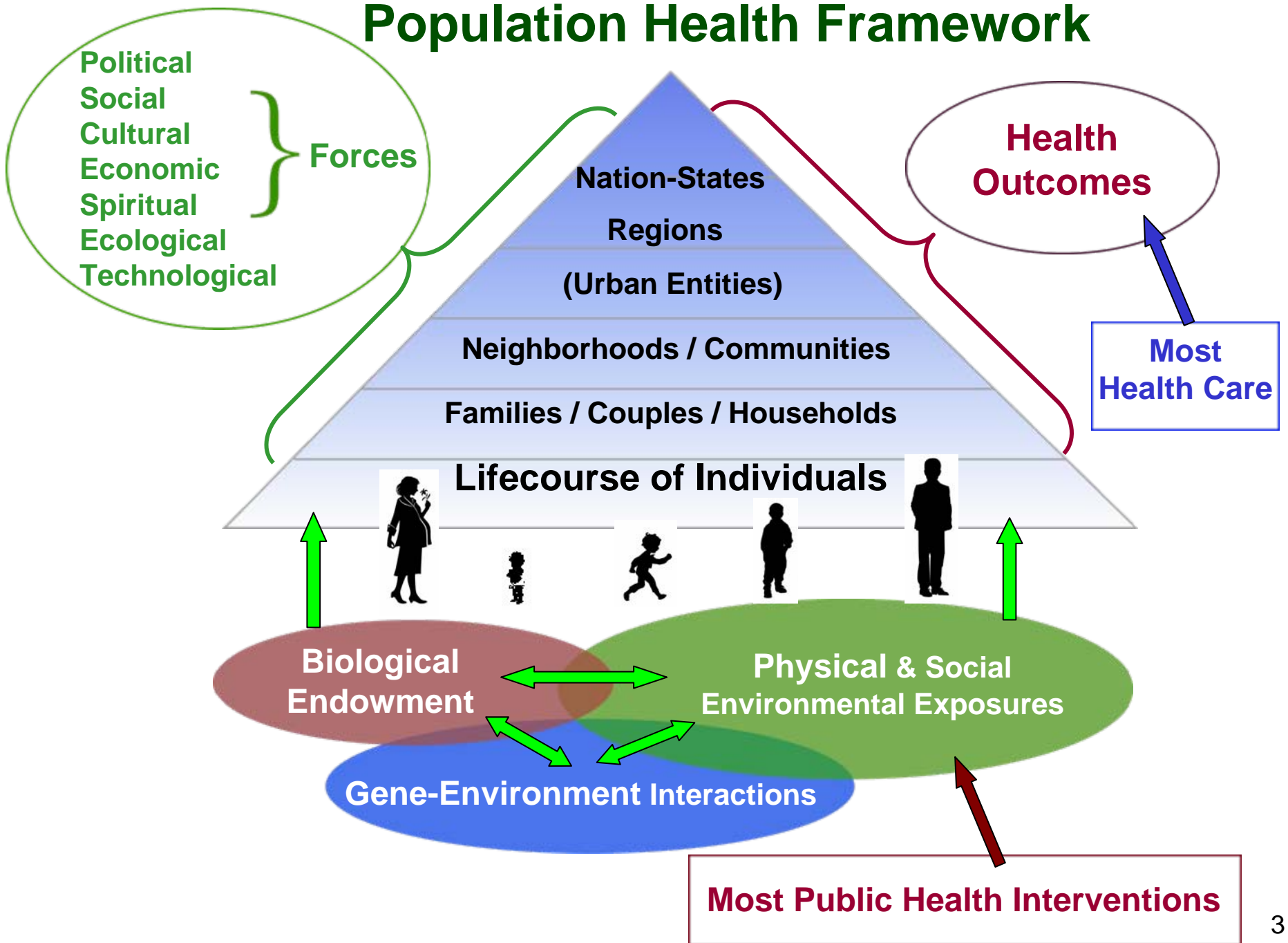


Overview of Presentation

- ❖ Population and public health challenges
- ❖ Contributions of population health and public health research
- ❖ Public health and research capacity challenges
- ❖ Current and Future Opportunities



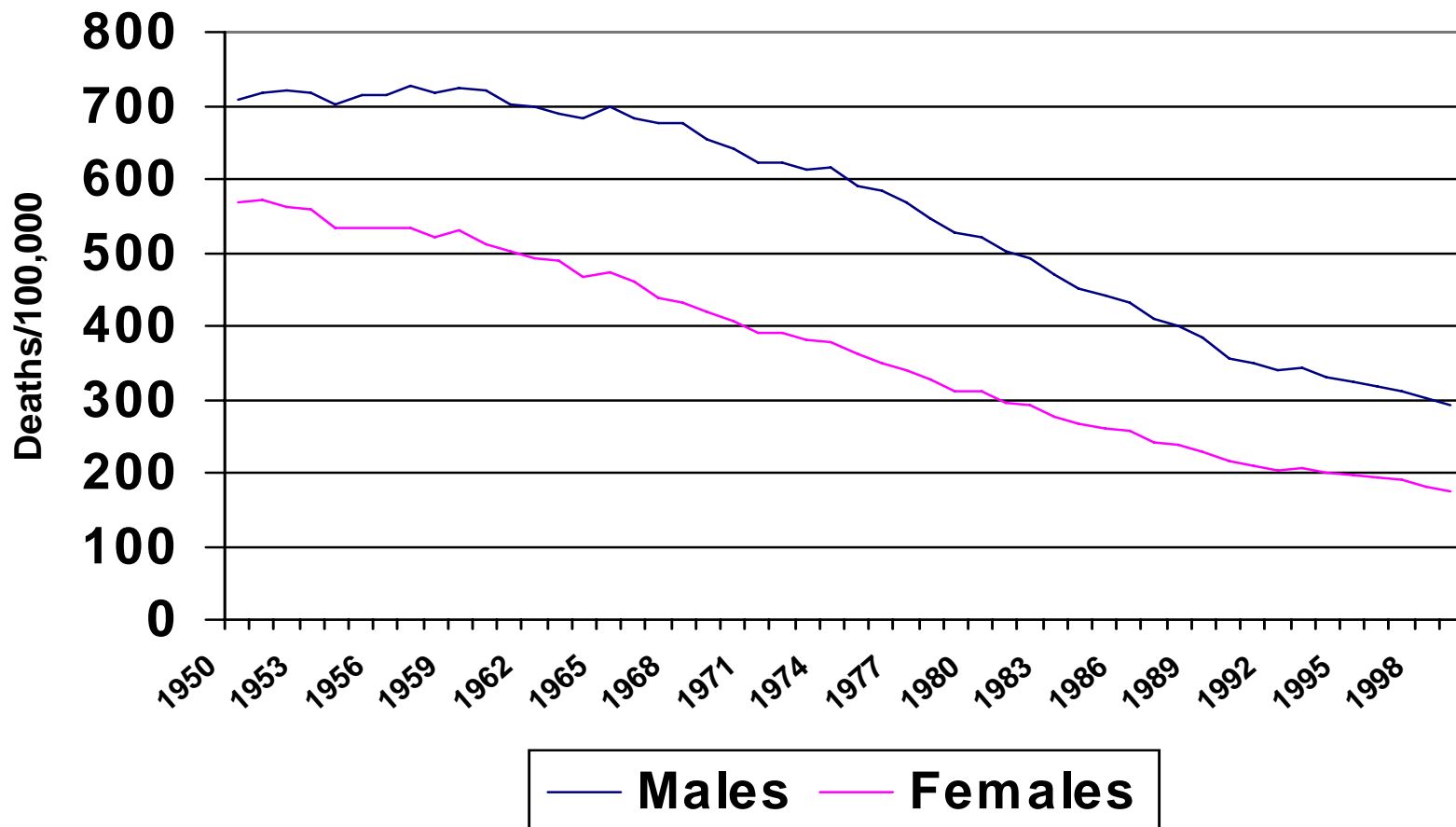
Population Health Framework



First, some good news...



Age-Standardized Mortality Rates for Cardiovascular Diseases, Canadian Males and Females, 1950-1999.

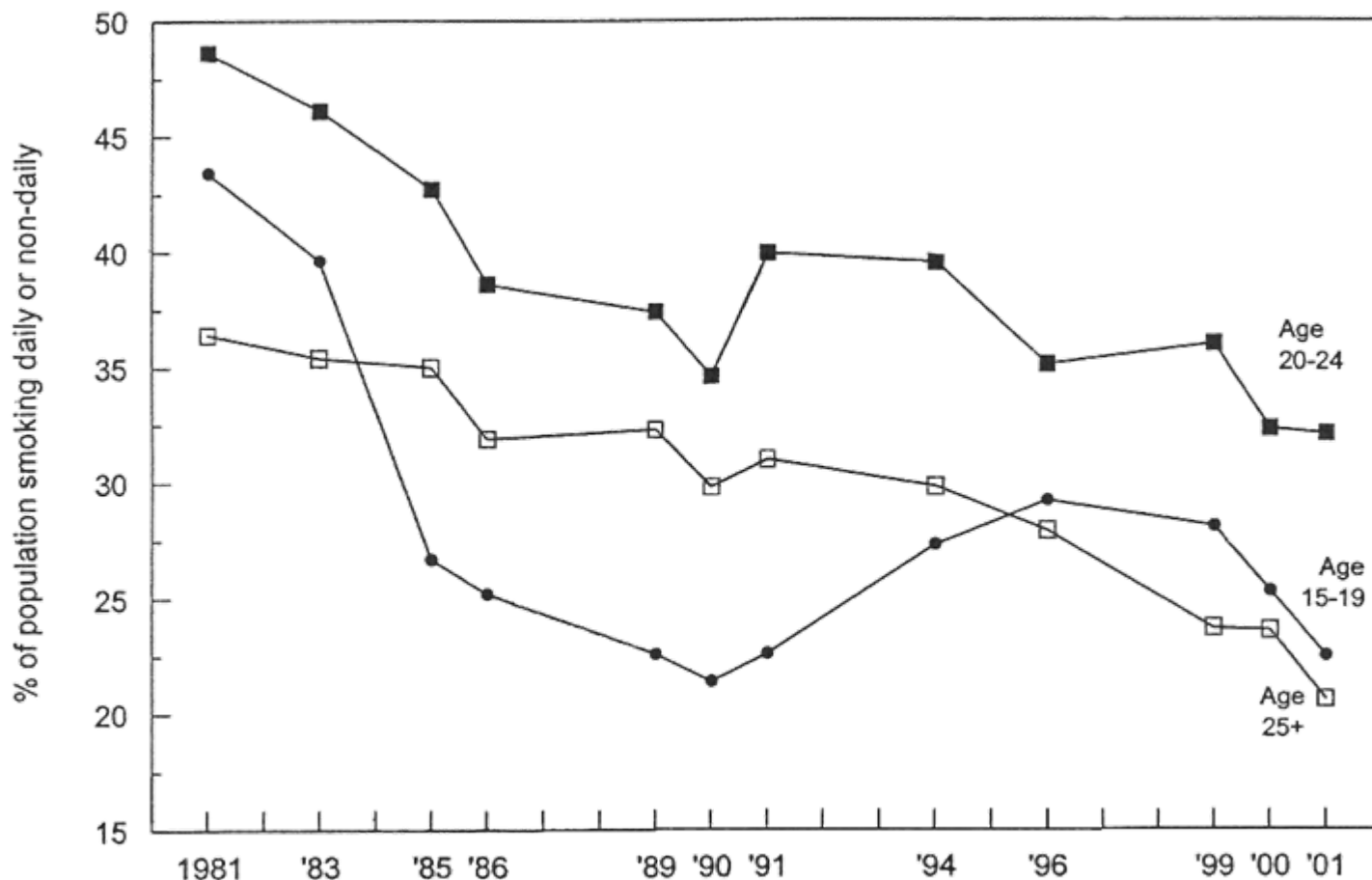


Source: Health Canada, 2003. Age-standardized to the 1991 Canadian population.



20-Year Trends in Smoking

Current smokers by age, Canada, 1981-2001



Sources: 1981-1986 Labour Force Survey supplements; 1989 National Alcohol and Other Drugs Survey; 1990 Health Promotion Survey; 1991 General Social Survey; 1994 Survey on Smoking in Canada, Cycle 1; 1996-97 National Population Health Survey; 1999-2001 Canadian Tobacco Use Monitoring Survey



Now, for the 'not so' good news...

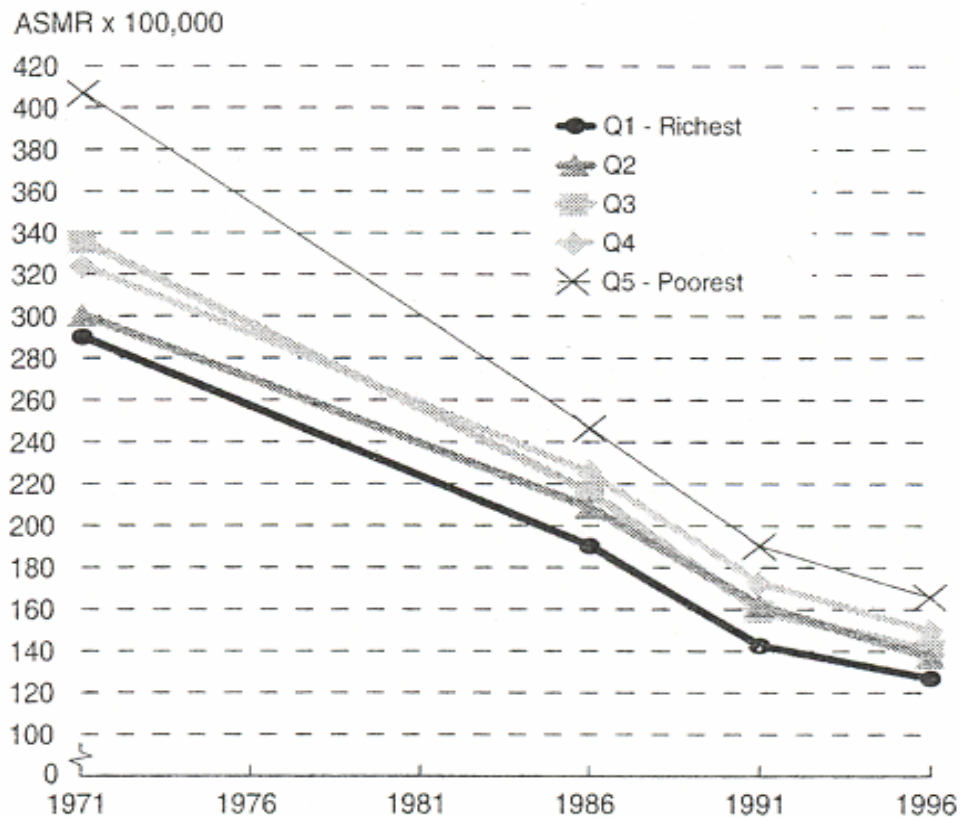


Causes of death showing progress toward “Health for All” :

Age-standardized mortality rates, by neighbourhood income quintile,

between Canada, 1971 to 1996

A - Ischemic heart disease, males



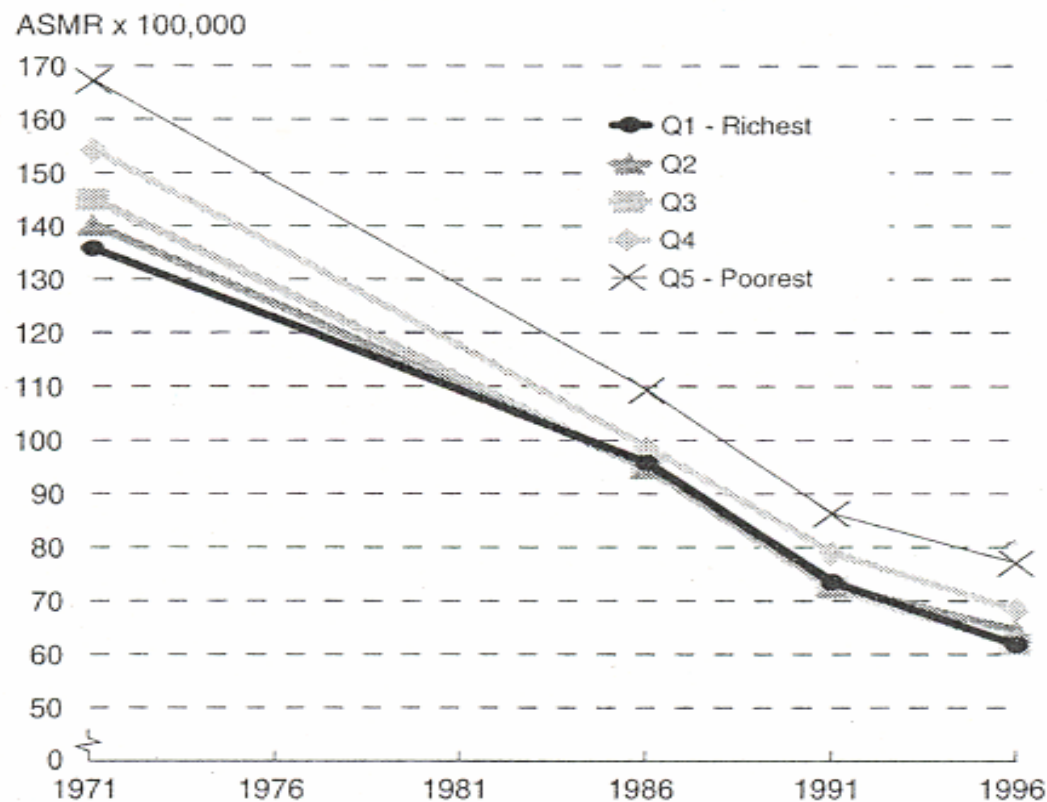
Source: Statistics Canada, Catalogue 82-003. Supplement to Health Reports, volume 13, 2002, p. 57.



Causes of death showing progress toward “Health for All” :

Age-standardized mortality rates, by neighbourhood income quintile, urban Canada, 1971 to 1996.

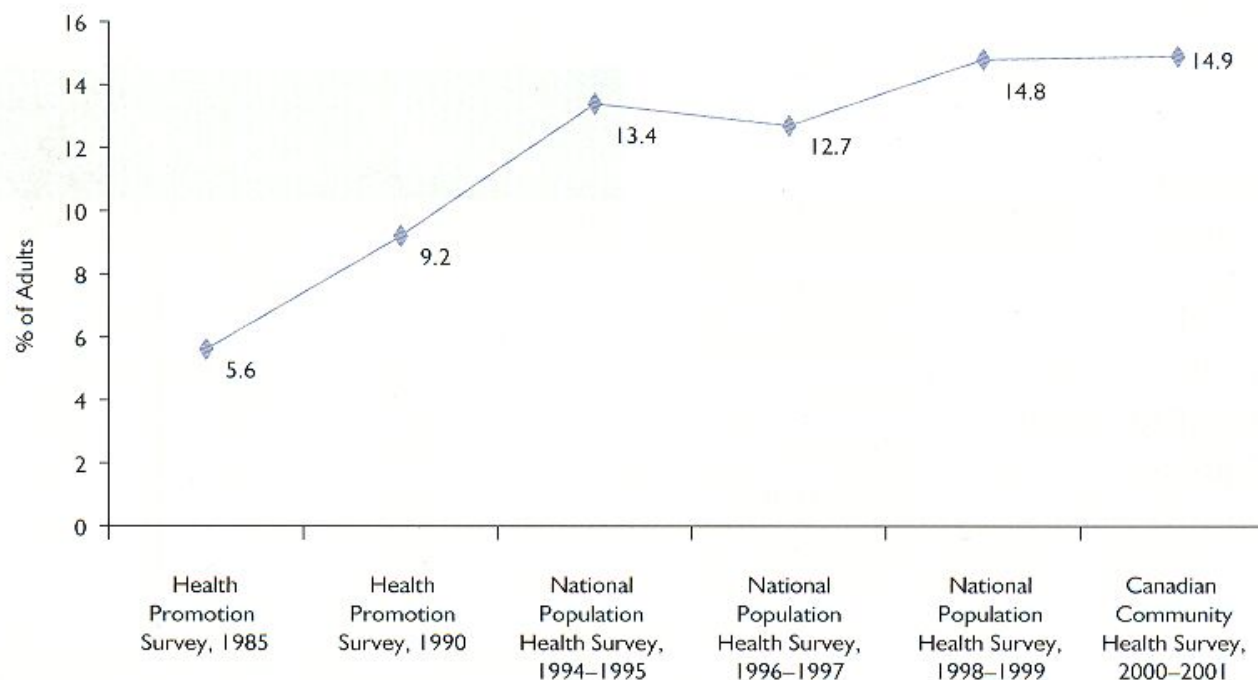
B - Ischemic heart disease, females



Source: Statistics Canada, Catalogue 82-003. Supplement to Health Reports, volume 13, 2002, p. 57.



Figure 1
**Obesity
 Increasing
 Among
 Canadian
 Adults,
 1985 to
 2000–2001***



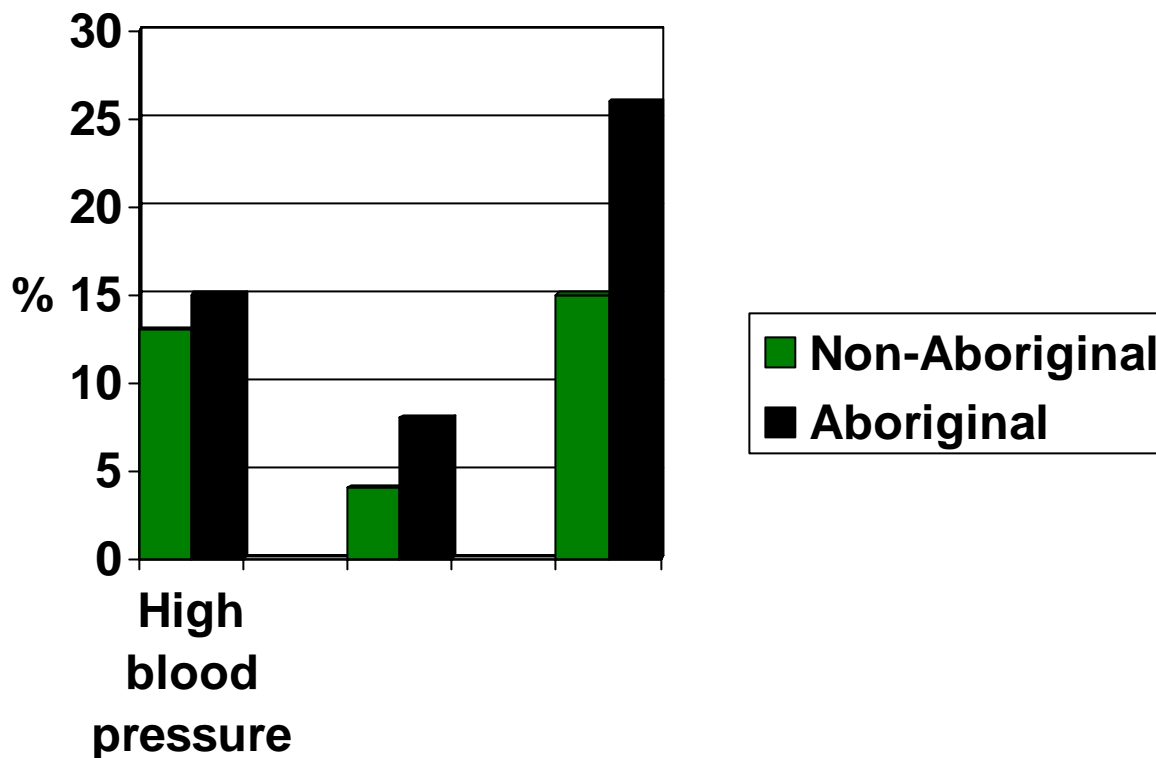
* Health Promotion Surveys, adults aged 20–98 years; National Population Health Surveys, adults aged 20–64 years; Canadian Community Health Survey, adults aged 20–64 years. All heights and weights are self-reports.

Sources: Katzmarzyk P. T. (2002). "The Canadian obesity epidemic, 1985–1998." *Canadian Medical Association Journal*, 166(8), 1039–1040. Statistics Canada. (2002). Body mass index (BMI) international standard by sex, household population aged 20 to 64 excluding pregnant women, Canada, province, territories, health regions and peer groups, 2000/2001. *Health Indicators*. Catalogue no. 82-221-XIE. <www.statcan.ca/english/freepub/82-221-XIE/01002/tables/pdf/1225.pdf>.

Source: 2004 CPHI report, *Improving the Health of Canadians*.



Frequency of Chronic Conditions by Ethnicity



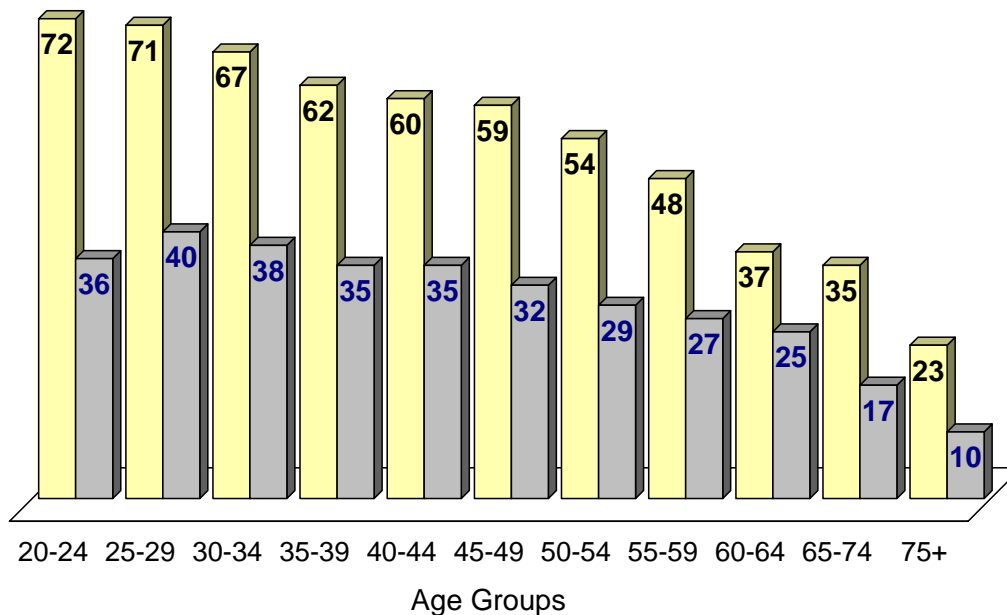
Source: Canadian Community Health Survey 2000-01.



Smoking Rates

by Age Group and Ethnicity

First Nations/Inuit Smoking Rates versus Canadian* Smoking Rates, by Age Group



FNIRHS data based on population expansion weighted proportion, 1997
* Source= National Population Health Survey, 1994-95

- First Nations and Labrador Inuit - 62% overall: Canadian counterparts - 31%.
- First Nations and Inuit 20-24 age category - 72%.



Communicable Diseases

- ❖ Walkerton
- ❖ SARS
- ❖ West Nile
- ❖ Syphilis
- ❖ Bioterrorism



Who will rise to the challenge?...



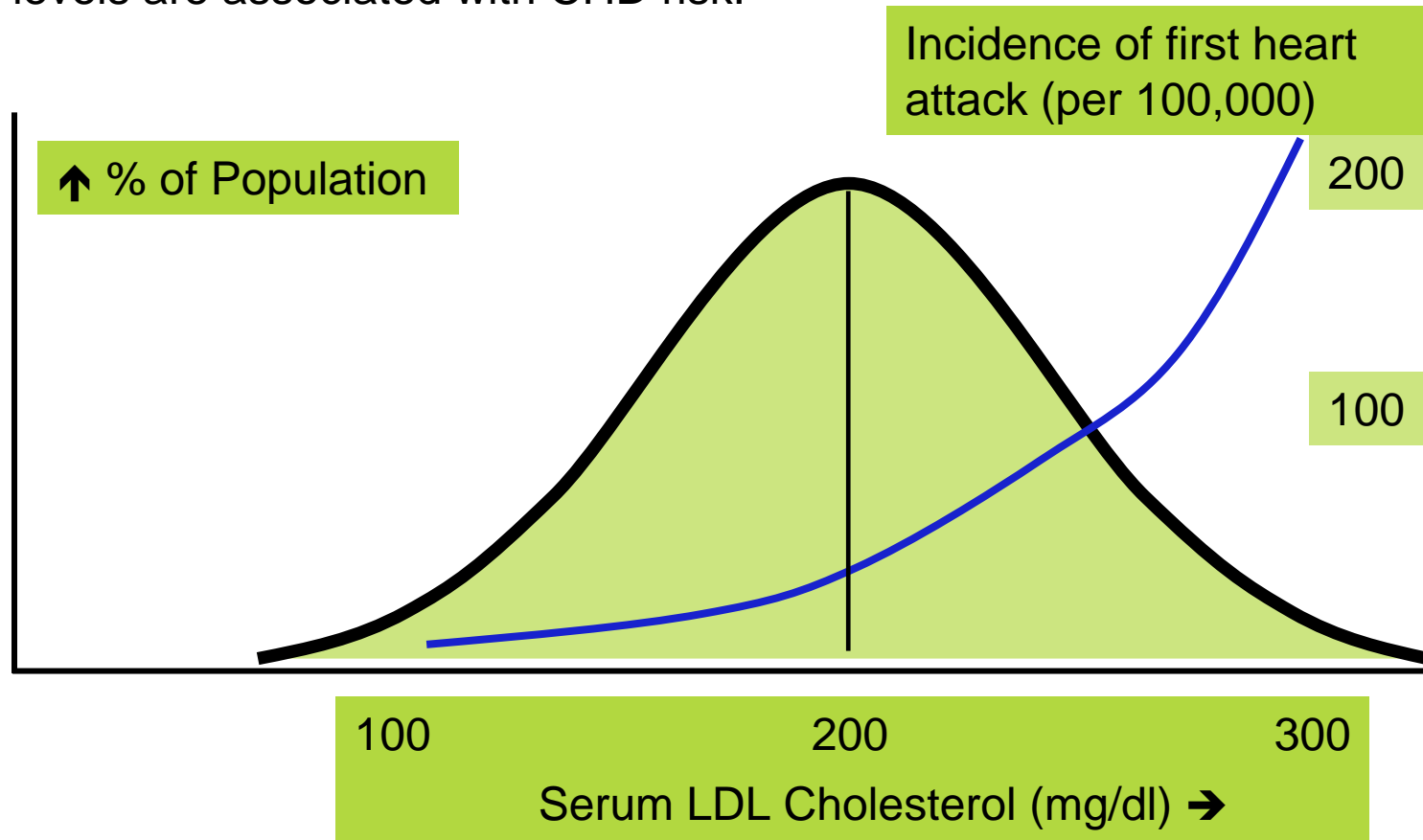
Public Health Capacity Challenges in the New Millennium

- World Class skills, theory and competencies
- Organization, role and capacity varies across regions and jurisdictions
- We have not done a good job of educating others about role and functions of PH
- Personal health culture dominates thinking to the detriment of other views, evidence and solutions.

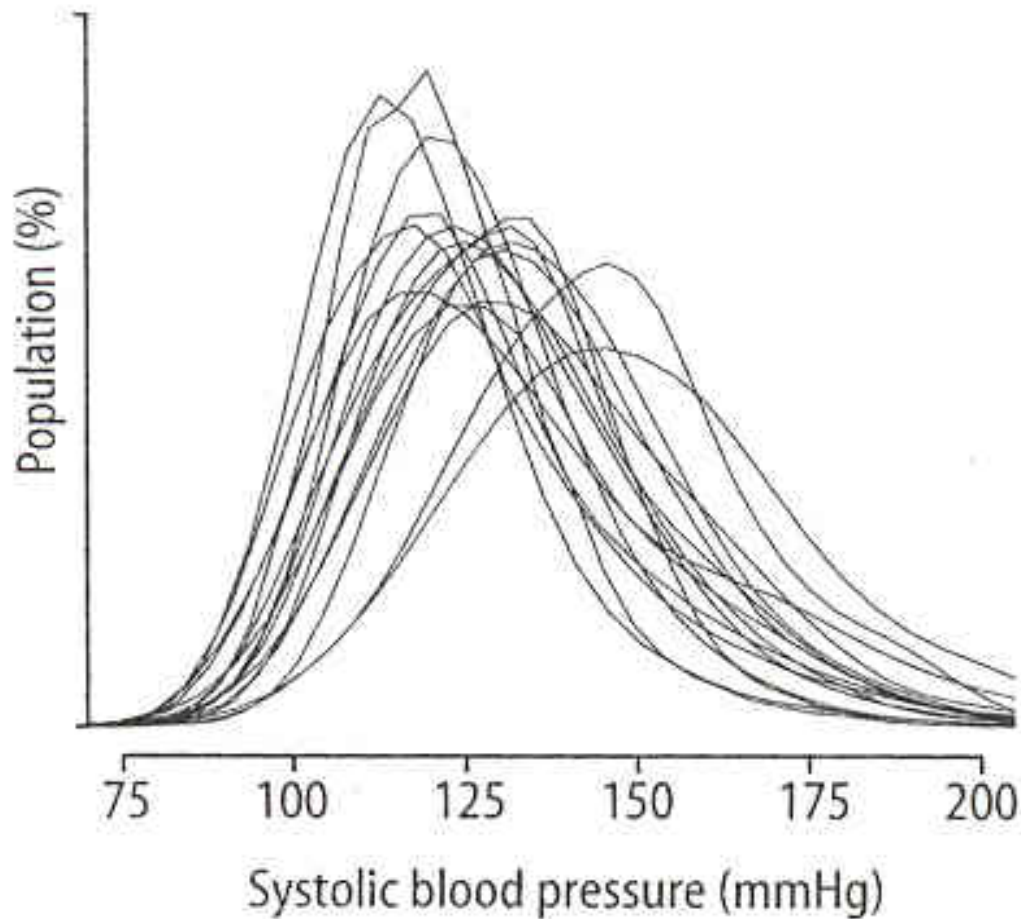


Sick Individuals & Sick Populations: Sir Geoffrey Rose

In any given population, one will observe a normal distribution of any given risk factor. In the case of serum LDL cholesterol, increasing levels are associated with CHD risk.



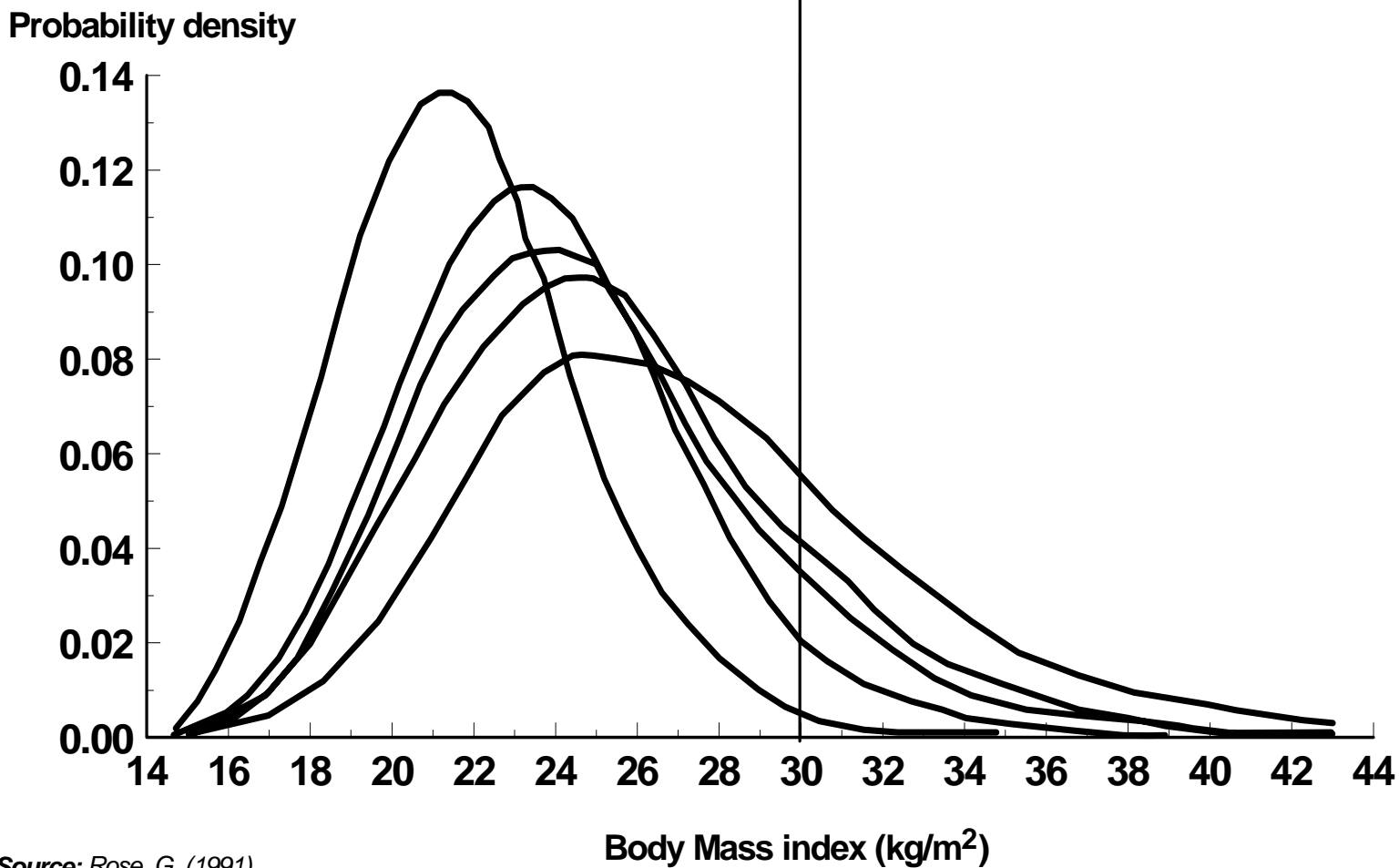
The Importance of Population Distributions of Exposure



Source: The World Health Report : 2002. Reducing Risks, Promoting Healthy Life. Chapter 2, Figure 2.3



The shifting distributions of BMI of five population groups of men and women aged 20-59 years derived from 52 surveys in 32 countries.



Source: Rose, G. (1991).



Public Health Capacity Challenges (cont.)

- Loss of capacity at all levels, both in terms of human and financial resources.
- Lack of attention to longer term health promotion and disease prevention strategies are increasing threats to the health of Canadians and the sustainability of the health care delivery system.
- Lack of long term planning for public health



Public Health Capacity Challenges (cont.)



- Lack of staff development and recruitment/retention strategies
- Demonstrated ability to deal with public health emergencies but
- Lack of capacity to deal with more than one emergency at a time, or even to deliver some core programs, particularly in some northern and aboriginal communities.



Public Health Capacity Challenges (cont.)



- Gaps and deficiencies with regard to the collection, analysis and interpretation of population health determinants data.
- Decrease in resources available at the provincial/territorial level has affected ability to coordinate and support regional efforts through knowledge and skill development, provision of health data, and leadership on key public health issues.



Future of Public Health in the 21st Century – Project Context

- ❖ Widespread concern regarding system infrastructure;
- ❖ “Response” to the capacity report;
- ❖ CD Outbreaks
- ❖ Continuing challenges for chronic disease and injury prevention;



What Can We Learn from Others?

- ❖ Review international models for organizing and funding public health programs and services;
- ❖ Sought information on several infrastructure elements;
- ❖ Initial examination of four countries:
 - USA, England, Australia, New Zealand.



Key Elements in a National Public Health System

- Defined Essential Functions of Public Health;
- Modern Enabling Legislation, Organization and Governance Structures;
- Performance Accountability Mechanisms;
- Professional Workforce Planning and Development – “Lifelong Learning”;
- Modern Information Systems and Surveillance;
- Integration of Research/Development with Practice/Programs – no academic silos;
- Supporting Capacity of Smaller/Remote Agencies – equitable distribution of essential public health services: *federal* budget allocations for Public Health are essential

Source: B Moloughney, JW Frank, E Di Ruggiero. “The Future of Public Health in Canada: Developing a Public Health System for the 21st Century.”



“BUT...Canada is still blinded by the care-system’s needs”

- ❖ Due to Canada’s decades-long federal/provincial/territorial squabble over “who will pay for medicare” – *many genuine health (sick-)care system problems need urgent attention (ergo Romanow’s focus)*

RESULTING IN...

- No national *paying* champion for, and little public understanding of, *upstream public/population health thinking*, to intervene upstream via healthy public policies and community action
- Recent investments in public health are step in right direction – for e.g. Canadian Public Health Agency, but MORE is needed to strengthen the ‘front line’



RESEARCH CHALLENGES

- Research training programs still very traditional – little “management” content
- Disciplinary “silo-ing” of trainees still commonplace – “overprotected”
- Lack of sustainable funding for trainees
- Lack of concerted efforts to develop and sustain, in the long-term, new investigators, especially in certain regions
- Interaction with research users still rare during training; few *Knowledge Translation* (KT) skills transferred



RESEARCH CHALLENGES (cont'd)

- Lack of incentives for new investigators to engage in KT, especially while in tenure track positions
- “Old rules” of evaluating researcher productivity only by grants and publications
- Inadequate “career ladders” for research leadership candidates: human capital lost

➡ **SOME SUGGESTIONS FOR CHANGE**



New Research Funding Opportunities to Build Capacity:

Training, Teams, Centres, Networks

- **CIHR:**
 - ❖ Training Initiatives
 - ❖ Centres for Research Development
 - ❖ Community Alliances for Health Research
 - ❖ New Emerging Teams
- Canadian Foundation for Innovation:
Infrastructure proposals (e.g. recent funding of
Population Health Observatory)
- (Some) Provincial health research funding
agencies (e.g. FRSQ): Networks/Réseaux



Strategic Training Initiatives in Health Services and Policy Research and Population & Public Health Research

(9 Programs largely funded by IPPH since 2002;
6 more co-funded)

- Build capacity within Canada's health research community through the training and development of researchers, and fostering the development and ongoing support of the research careers of women and men in health research.
- Support training programs which embrace shared core training opportunities at the interface of Population and Public Health (PPH) Research, and Health Services/Policy (HSP) Research; involve policy and other stakeholder participation in the training experience; and give attention to regional disparities in training capacity.



Centres for Research Development: Building Linkages between research and policy/practice

Centre Objectives:

- ❖ Better position teams of researchers, in newly emerging and less developed fields, for accessing open-competition (investigator-initiated) research funding;
- ❖ Promote **networking** and mentoring across researchers and existing institutions;
- ❖ Foster **meaningful interactions** with policy makers, public and voluntary sector program administrators, and clinical and public health practitioners;
- ❖ Create a sustainable path for the activities of Centres for Research Development, with committed multi-year funding; and, facilitate capacity building in regions of Canada with underdeveloped research strengths.

Seven Centres for Research Development

1) Public health: Canadian centre for health and safety in agriculture (CCHSA)	Univ. of Sask.
2) Centre for urban health initiatives (CUHI)	Univ. of Toronto
3) Asthma in the workplace	Hôpital du Sacré-Coeur de Montréal
4) International collaborative centre for the study of social and physical environments and health	Univ. of Calgary
5) The changing physical and social landscape in Atlantic rural Canada	Univ. of Calgary
6) Centre d'études et d'interventions sur les inégalités sociales de santé de Montréal	Université de Montréal
7) Reconfiguring physical and social environments to improve health: Research infrastructure development in Atlantic Canada	Dalhousie

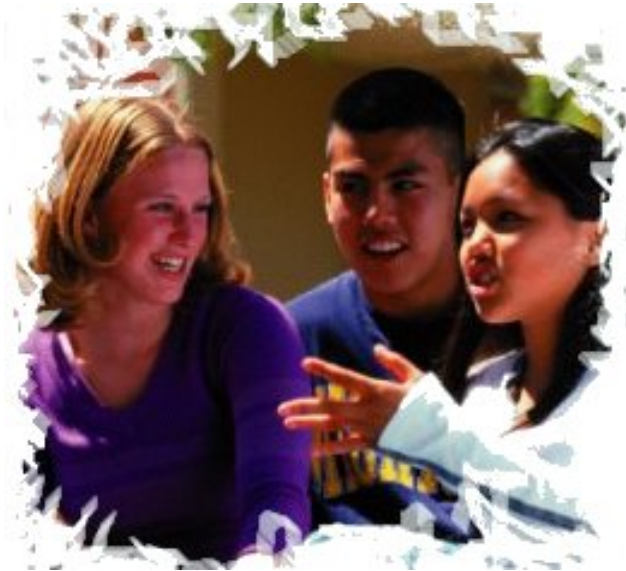


Capacity Building for the Future Generation of PPH Researchers

Summer Institutes (2002, 2003, 2004)

Selected Objectives

- ❖ Foster the creation and maintenance of complex interdisciplinary research teams and their community/policy-maker/practitioner partners;
- ❖ Provide a complementary training environment that is respectful of the perspectives, tools, and approaches of all disciplines;
- ❖ Increase participants' understanding of different theoretical and methodological approaches to interdisciplinary and applied health research.
- ❖ Summer Institute 2004 being planned in B.C. for Masters and PhD students in health services and policy and population and public health.



Building the Evidence Base to Inform PPH Practice

➤ **Two structures needed to meet needs in Canadian context:**

- ❖ **1) National Centre of PPH research evidence** with a mandate to:
 - Register, collate, coordinate and commission relevant research evidence (primary and synthesis research)
 - Facilitate knowledge exchange (KE) of evidence
 - Support and coordinate shared expertise in KE and uptake – with focus on developing and evaluating strategies relevant to PPH policy and program environments



Building the evidence base to inform PPH practice (cont'd)

- ❖ **2) Support a Nation-Wide Network of:**
 - PPH practitioners and research experts to identify and address evidence gaps, foster ongoing improvement of methods to create, synthesis and facilitate its uptake



Next Steps

- Build a national popular movement to continue to push for a strengthened Canadian public health system (health protection, health promotion/ disease prevention, surveillance/ outbreak control, etc.)
- Work with F/P/T, local government and NGO stakeholders to further *modernize national public health system* (à la Naylor and Kirby reports), building on provincial/territorial and regional strengths
- Continue to invest in the structures necessary to foster collaborative PPH research with research users
- Invest in the evidence underlying public health practice, especially action and intervention research, as rapidly as possible – CIHR will help , but “KTE” cannot occur in the absence of adequate *absorptive capacity* in the system!



There Couldn't Be a More Opportune Time for Population and Public Health...

