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Mapping and Tapping the Wellsprings of Health

Canadian Institutes of Health Research (CIHR)
Institute of Population and Public Health (IPPH)

Strategic Plan 2002-2007

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This strategic plan was written by Dr. John Frank, Scientific Director, and Erica Di Ruggiero, Assistant Director, CIHR-IPPH, under the guidance of the Institute Advisory Board.

Message from Scientific Director

As the CIHR Institute of Population and Public Health's Scientific Director, it is a great privilege to lead this innovative national health organization with a very broad mandate to support research into the complex interactions, which determine health, and its application to improve the health of individuals, communities and global populations. I bring to this role over 25 years of experience as a primary care physician, and a public health researcher and teacher, in a range of settings both nationally and internationally. This background explains my strong commitment to inter-disciplinary partnered research, with close links to those who need to use research results, for improving policies and programs that impact on our nation's health.

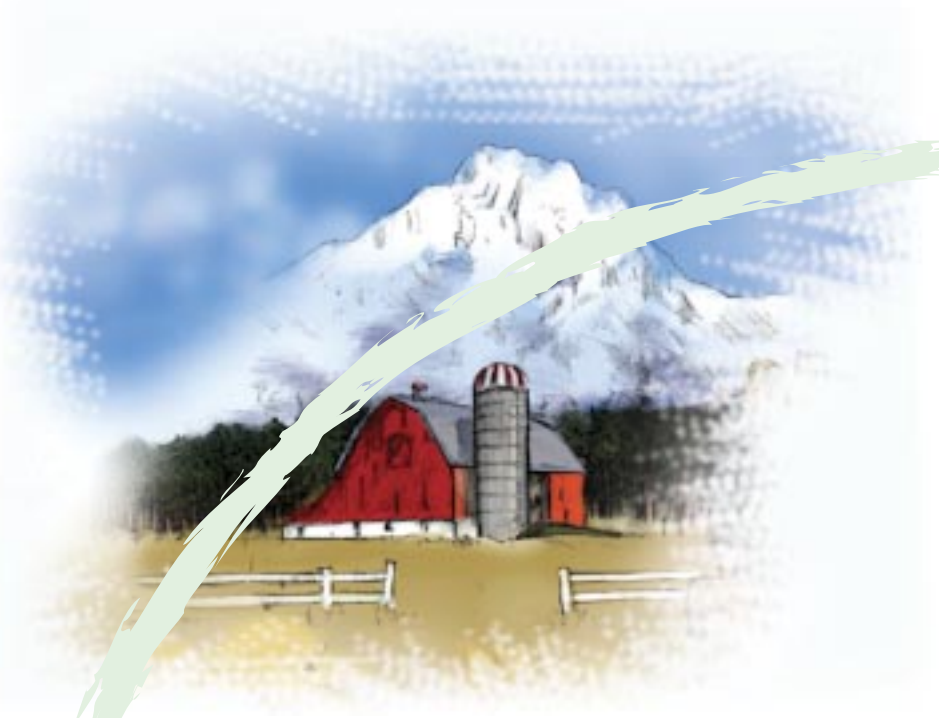
At this time, I am very pleased to introduce the Institute's first strategic plan. This document complements the Strategic Directions Outlook issued in June 2001, outlining the main priorities and activities of the Institute in its first year of operation. It is also based on the insights gained during the Institute's consultation sessions with population and public health (PPH) stakeholders across Canada, a review of the strategic plans of international research organizations with similar mandates, and a planning retreat with the Institute's Advisory Board. Although this three-to-five-year strategic plan will be revised and updated annually, it is intended as a guide for Institute activities to be pursued over the longer-term, subject to the periodic approval of the Institute Advisory Board.

The creation of such a plan could not have occurred without the guidance and thoughtful contributions of our Institute Advisory Board members, IPPH staff, as well as the comprehensive feedback from PPH stakeholders during our pan-Canadian consultation tour, conducted in partnership with the Canadian Institute for Health Information – Canadian Population Health Initiative (CIHI-CPHI).

I look forward to working with colleagues in our sister Institutes and other partners to better respond to the needs of population and public health researchers, policy makers and practitioners across the country, and to support the creation and synthesis of existing PPH knowledge, and its timely application into policy and practice. These are indeed exciting times for fostering excellence in health research in Canada.

Warm regards,

John Frank MD, CCFP, MSc, FRCP(C)
Scientific Director, CIHR - Institute of Population and Public Health
Professor, Public Health Sciences, University of Toronto
Senior Scientist, Institute for Work and Health, Toronto



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Executive Summary

Mission

The CIHR Institute of Population and Public Health (IPPH) will support:

1) research into the complex interactions (biological, social, cultural, environmental), which determine the health of individuals, communities, and global populations; and

2) the application of that knowledge to improve the health of both populations and individuals, through strategic partnerships with population and public health stakeholders, and innovative research funding programs.

Vision

Canada will be a world leader in inter-disciplinary population and public health (PPH) research and research application, fostering evidence-based policies and programs, and training in the fields of public health, health promotion, and occupational and environmental health. The Institute will also influence, through scientific consultation, the wide range of broader public, voluntary, and private sector activities that profoundly impact on the health of populations.

Strategic Research Priorities

The Institute of Population and Public Health's strategic research priorities build on the Strategic Outlook themes published in CIHR's **Towards a National Health Research Agenda** document. Each strategic research priority is explained in greater detail in the full strategic plan.

Capacity Building

Understanding and Addressing the Impacts of Physical and Social Environments on Health

Analyzing and Reducing Health Disparities

Environmental and Genetic Determinants of Disease in Human Populations

Global Health

Capacity Building

Capacity for cutting-edge and relevant PPH research, and for its use by decision-makers, needs to be strengthened, especially in certain regions of the country, by building on Canada's competitive advantages and research niche in PPH. Traditional academic departments are often too isolated from each other, and from PPH policy and program stakeholders, to facilitate integration of the necessary perspectives. Innovative institutional collaborations are required to foster active collaboration between a range of investigators and with PPH research users, and to improve career prospects for the new generation of PPH researchers committed to research and its application. These efforts are essential if the IPPH is to effectively support CIHR's overarching vision of innovative "cross-pillar" research that actually improves the health of Canadians.

Goal

To create, with the Institute's partners (researchers, research funders and users) novel funding vehicles and collaborations to pursue excellence while addressing particular PPH capacity challenges in Canada, including:

- New Programs, Centres and Networks, to reduce regional disparities in PPH training, research and research application.
- Creative inter-institutional arrangements to sustain the long-term partnerships needed for: inter-disciplinary investigation; effective research transfer; and the ethical use of Canada's rich anonymized and linkable administrative databases to study the health of entire populations.

Innovative institutional collaborations are required to foster active collaboration between a range of investigators and with PPH research users, and to improve career prospects for the new generation of PPH researchers committed to research and its application.

Understanding and Addressing the Impacts of Physical and Social Environments on Health

As individuals pass through life's stages, their health is affected by a sequence of "macro- and micro- environments" or "contexts" - both physical and social – such as home/family, daycare/school, workplace/recreation, care-settings (at home and institutional) for the disabled and elderly, "neighbourhood/community", region and society or nation-state levels. Numerous public, private and voluntary sector policies and programs are intended to improve the quality of these environments, but the effects are not always optimal in terms of human health. A major research program, led by the IPPH and partner organizations, will examine the health impacts of such policies and programs, devise improvements that should benefit population health status, rigorously evaluate the effects of those changes, and synthesize this body of knowledge for ease of use by decision-makers.

Goal To create a trans-disciplinary national network of researchers, policy-makers, program administrators and public health professionals who can identify and study these important social and physical determinants of health and their interactions, and design and carry out interventions to improve critical "life-course-environments", to achieve population-level health benefits.

Analyzing and Reducing Health Disparities

The health status of virtually all populations varies widely across subgroups, defined by socio-economic status, gender, race/ethnicity, geography (e.g. rural/urban/intra-urban), etc. In Canada, many of these disparities in health status are poorly characterized and documented. Other disparities, while documented, have remained largely unchanged over many years. Comprehensive research programs are needed to describe, investigate and especially reduce such disparities. These programs will need to utilize a trans-disciplinary approach, that acknowledges the many possible origins of health disparities, including differences in the biological, socio-economic, physical, and cultural characteristics of populations and their environments, as affected by local policies and programs that impact on health.

Goal To develop, together with partner organizations such as the Canadian Population Health Initiative of CIHI, other CIHR Institutes, and the National Institutes of Health, Canada's expertise in assessing and addressing disparities in health status across subpopulations – both nationally and globally.

Environmental and Genetic Determinants of Disease in Human Populations

Virtually all of the major diseases affecting industrialized nations are jointly determined by the interaction of our individual genetic endowments, and the complex sequence of environmental factors – physical, chemical, biological and social – to which we are exposed over the life-course. The new knowledge that is emerging from genomic research must be balanced by equally sophisticated assessments of environmental exposures (which generally change over time, unlike an individual's genome), in order to elucidate the full causal pathways leading to disease and premature death. To accomplish these goals, innovative research strategies will be required, and it may be necessary to conduct complex, large and long-term longitudinal studies that integrate these measurements and accurately link them to precisely ascertained health outcomes. Such research will require close collaboration across scientific disciplines.

The new knowledge that is emerging from genomic research must be balanced by equally sophisticated assessments of environmental exposures (which generally change over time, unlike an individual's genome), in order to elucidate the full causal pathways leading to disease and premature death.

Goal IPPH will work with other CIHR Institutes and other stakeholders to:

- Facilitate research that elucidates the interactions between an individual's genetic endowment and the complex sequence of environmental exposures – physical, chemical, biological and social – that occur over the life-course and determine health and disease.
- Promote the application of genomic methodologies and knowledge to studies of biological pathways operative in population health, and in relationship to environmental factors that operate over the life course.
- Elucidate the biological pathways through which established population health determinants and disparities operate, and whose elucidation may lead to innovative disease prevention and health promotion programs.
- Develop specific Canadian expertise in the genetic, ethical, legal and social (GELS) implications of the new molecular biology, and to explore its policy implications in the context of PPH.

Global Health

Canada's health status is increasingly affected, like that of many countries, by ecological, technological, economic, political and socio-cultural forces. Understanding these "upstream" global forces, and their health impacts, in this country and others (especially poorer nations) – is essential to ensuring the future health of Canadians. It is also ethically imperative to work on global issues, if we are to act as responsible global citizens.

Goal

To improve Canada's ability to investigate and intervene on those underlying forces that challenge global health, by enhancing, in a sustainable manner, the capacity of national and international researchers and research-users to collaboratively develop and apply global health knowledge for evidence-based public health practice.

The Institute will focus on "what we can do best with limited resources" (e.g. integrating social and biomedical science perspectives on the origins of global health problems) while collaborating with other CIHR Institutes and funding partners under the Global Health Research Initiative. Partners include Health Canada, the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC), as well as other organizations such as the Canadian Society for International Health (CSIH), the Social Sciences and Humanities Research Council (SSHRC), the Canadian Public Health Association (CPHA), the Association of Universities and Colleges of Canada (AUCC), the Pan American Health Organization (PAHO), the World Health Organization (WHO), World Bank, International Monetary Fund (IMF), and the Department of Foreign Affairs and International Trade (DFAIT).

Part 1-Institute Scope & Rationale

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Part 1- Institute Scope & Rationale

The Canadian Institutes of Health Research (CIHR) is Canada's major federal funding agency for health research. Its objective is to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system. CIHR Institutes support individuals, groups and communities of researchers for the purpose of implementing, within its mandate, the objective of the CIHR.

The Institute of Population and Public Health (IPPH) has been created by the Governing Council of CIHR with a very broad mandate, one that is inherently integrative. While there are many national Institutes of Public Health in the world, there appears to be only one "Institute of Population and Public Health". The rationale behind this dual focus is critical to this Institute's strategic plan, since the history of these two fields in Canada is not widely appreciated.

While there are many national Institutes of Public Health in the world, there appears to be only one "Institute of Population and Public Health".

Public Health-The Institute's Role

Public Health's Paramount Role in Communicable Disease Control

Public Health has a proud tradition and track record of communicable disease control (especially in outbreaks, including regulation and inspection of food handling, and water/sewage treatment facilities). Recent evidence in fact suggests that gains in life expectancy over the last century in the developed world are due more to these public health activities than to modern clinical medicine (Centres for Disease Control and Prevention (CDC) Atlanta, 1999).

Less widely known is the continuing need for these same infectious disease control services, because of new and emerging threats to the public's health globally.

Key among the new concerns of infectious disease control experts in Canada are:

- The globalization of travel and trade, facilitating widespread and rapid disease transmission far from its usual setting, where it may therefore not be recognized and dealt with properly. The new threat of international bioterrorism is but one "man-made" example of such concerns. It has been also pointed out that Nature herself has the capacity to be the "ultimate bioterrorist".

- The environmental degradation and change, including global climate change, which have both infectious and non-infectious health consequences – such as the increasing potential for contamination of ground water reservoirs by both microbes and toxins.

- The emergence of ubiquitous resistance to antibiotics and anti-viral agents – for example, tuberculosis and HIV that threaten to make our standard treatments ineffective.

- The consequences of population-level use of inadequately understood new medical treatments, vaccines, genetically modified foods, and alternative health products, sometimes leading to new and unusual disease manifestations, given that side-effects can only be detected and responded to by public health surveillance systems, typically on the alert for any new patterns of illness in the population.

The New Public Health

In addition, program and policy developments over the last twenty years have moved public health's mandate beyond this list of traditional "disease surveillance and control" responsibilities to also include initiatives aimed at individuals, families and communities, and a focus on improving the health status of the entire population and reducing inequalities between population groups. Local Public Health Departments across Canada are involved in activities such as:

- Chronic disease and injury prevention and health promotion (e.g. comprehensive "heart health" interventions that address smoking, nutrition, and physical activity).
- Addiction and mental health services (e.g. addiction prevention/ "harm reduction" strategies, involving not only substance abuse but also new challenges such as gambling addiction).
- Maternal and newborn health, healthy child development and prevention of risk behaviours in youth; decreasing social isolation in older adults.
- The promotion of safe communities (e.g. violence prevention) and environmental health protection efforts dealing with toxic substances in the community at large, whether these involve air, food, water or soil.
- In some communities (e.g. Québec) occupational health services.

What is lacking in Canada is overall direction and coordination, concerning what research evidence is particularly **missing and needed** from the world's scientific literature, for public health practice in Canada.

A number of Public Health Departments are also involved in interventions to address the broad social determinants of health, including health-impact-analysis and advocacy of various income redistribution policies, community development and sustainable development projects, as well as initiatives to promote food security and access to quality, affordable and safe housing.

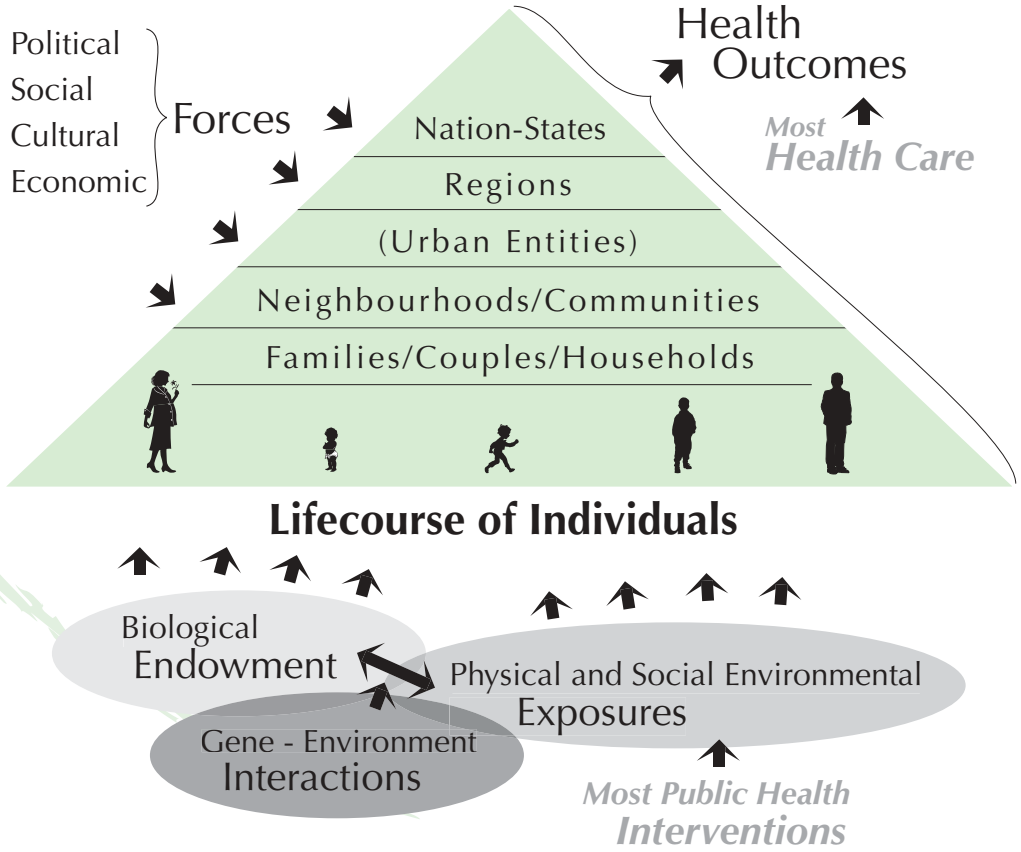
Consequently, the evidentiary research base for public health practice is now very broad indeed, as reflected above and in the extra-ordinary list of such topics found in the description of the Institute's mandate.

What is lacking in Canada is overall direction and coordination, concerning what research evidence is particularly **missing and needed** from the world's scientific literature, for public health practice in Canada. The Institute will need to work together with a wide range of partner organizations, including all levels of government responsible for Canadian public health programs and services, to strengthen the capacity for this direction and coordination. From that capacity will flow an ongoing assessment of the current needs of the public health community for scientific knowledge, including the sort of research IPPH and its partners will fund in the future.

Why "Population Health"?

The inclusion of "Population Health" in the Institute's title is no accident. Pioneered in Canada (Mustard & Frank, 1991; Evans, Barer & Marmor, 1994; Frank, 1995; Poland, Coburn, Robertson, Eakin et al., 1998), the term refers to a broad trans-disciplinary approach to understanding the fundamental determinants of human health, especially the interaction of physical and social environments with genetic predispositions, over the life-course, at both individual and community levels, in whole societies (see Figure 1 below).

Figure 1 - **Schematic Depiction of Population and Public Health**



This field has a number of key themes – hypotheses about natural phenomena that it studies:

Theme 1

The ubiquitous social ordering of health status, across many societies, health outcomes, and time-periods, provides an invaluable clue to how human health is determined.

A key feature of investigators working in this field, in line with the long-term policy goal of "reducing social inequalities in health", is an interest in **socio-economic gradients as invaluable windows on how health is fundamentally determined** (Adler, Boyce, Chesney, Cohen, Folkman, Kahn & Syme, 1994; Amick, Levine, Tarlov & Chapman-Walsh, 1995; Blane, Brunner & Wilkinson, 1996; Syme, 1996; Adler, McEwen & Stewart, 1999; Keating & Hertzman, 1999; Marmot & Wilkinson, 1999; Berkman & Kawachi, 2000). It is the pervasive, persistent and ubiquitous nature of health gradients by socio-economic status, in particular, that makes the case for their importance as clues as to basic processes underlying our health. It is precisely the pan-systemic, multi-body-system nature of the diverse diagnostic entities that demonstrate such gradients that argues so strongly for the influence of social factors on health being mediated by physiological "orchestra-leader" (regulatory) systems in the body, such as psycho-neuroendocrine and psychoneuro-immunologic cascades – as described below. This fundamental insight is common to all the writings cited above, and lies behind a great deal of current health research in Canada, the United States and the United Kingdom.

Theme 2

The macro- and micro- "social environments" around each person all contribute strongly to the social determination of health – but in fact these environments are multiple and nested within each other. These include individual, family, neighbourhood, community, region, and society or nation-state.

Recognition of the importance to the common weal of these nested social structures is not new to social geographers and sociologists. What is new is the recent re-discovery of levels of social aggregation, by social – and other epidemiologists. This has led in turn to their enthusiastic embrace of the idea, and of new biostatistical tools ("multi-level-models") to analyze such complex data in better ways, that can parse out the contribution of factors and their interactions operating at each level, to jointly influence health (Diez-Roux, 1998).

Theme 3

Above the level of individual personal characteristics influencing health, population-level patterns of socio-economic characteristics, especially the degree of inequality in income/wealth/education and perhaps political power in a society, may influence its overall average level of health, in comparison with that of other societies.

This bold hypothesis, still the subject of intense international research efforts to confirm it (Lynch, Davey Smith, Kaplan & House, 2000; Ross, Wolfson, Dunn, Bertholot, Kaplan & Lynch, 2000, Mackenbach, 2002), is generally attributed to Richard Wilkinson of the UK (see Unhealthy Societies: Afflictions of Inequality) (Wilkinson, 1996). Whether or not it proves to be entirely generalizable (what "laws of health determination" are?), this idea has stimulated a whole new approach to public health research, wherein attributes of entire population distributions of risk factors, including socio-economic ones, are linked to average health outcomes at the population level. The approach is strongly reminiscent of the late UK epidemiologist Sir Geoffrey Rose's admonition to "seek the causes of incidence (at the level of populations) rather than the causes of cases (at the level of individuals") (Rose, 1985). Thus, there is renewed interest in social determinants of health, such as income inequality, that can be defined only at the societal level. This interest has spurred social epidemiologists and policy analysts to investigate whether "social capital", "social trust", and other correlates of relative income and wealth equality across populations, help to determine overall health status, and if so, how (Kawachi, Kennedy, Lochner & Prothow-Stith, 1997; Lynch & Kaplan, 1997; Putnam, 2000; Lynch, Davey Smith, Hillemeier, Shaw, Raghunathan & Kaplan, 2001).

Theme 4

Patterns of the influence of social factors over an individual's health status develop incrementally over the life-course. Such a perspective is essential to understanding, and to probably successfully intervening on these factors in order to improve health status.

This insight, concerning the health of a species that, after all, lives over 80 years on average under ideal conditions, may at first sight seem blindingly obvious! However, the integration of such insight into actual research protocols is not so simple, since both the research granting agencies and investigators tend to have much shorter time horizons. However, recent work, especially in the United Kingdom by Barker (1997), and with the unique British Birth Cohorts (Power & Hertzman, 1997; Power & Matthews, 1997), has underscored the inadequacy of short-term studies for fully enlightening us on, for example, the delayed health sequelae of adverse perinatal exposures and early childhood experiences, including the upstream roots of many behavioural and other disease risk factors in late life.

Theme 5

The Biological Pathways that mediate the social influences on our health are very important research priorities, if we are to fully grasp how health is determined and therefore how to intervene to optimize health in our respective societies.

This view is not yet completely agreed upon by all researchers in the field. Lingering doubts remain - particularly among some social scientists. But most researchers in the field feel that failure to integrate in our approach the burgeoning knowledge-base in genetics/molecular biology, neurosciences, immunology and endocrinology, among other key laboratory specialties (Kelly, Hertzman & Daniels, 1997; Sternberg & Gold, 1997; Coe, 1999), can only weaken our potential to help shape health and social policy in the future, so as to benefit the populations whose health we study.

Thus, the CIHR-IPPH is charged with two complementary and intertwined research mandates – to catalyze investigation into the basic determinants of health, as well as into the effectiveness and efficiency of specific public health practices and programs, and broader pan-sectoral policies, that can improve population health status. Obviously, neither of these sorts of investigation can lead to actual improvements in the health of Canadians, unless they are coupled with effective knowledge exchange activities. Our approaches to the latter are outlined, particularly under the strategic area " Capacity Building".

Part 2-IPPH's Future Directions: 2002 and Onwards

Mapping and Tapping the Wellsprings of Health

Part 2-IPPH's Future Directions: 2002 and Onwards

In keeping with the mandate of CIHR, which is **"to excel, according to internationally accepted standards of scientific excellence in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system",** the Institute of Population and Public Health will respond to the population and public health challenges of the 21st century through an effective portfolio of research, capacity building, knowledge translation and strategic partnership activities.

A focus on population health draws upon established Canadian research strengths in population health determinants – understanding "upstream" forces and their health impacts.

Research

IPPH will support the development of a robust and far-sighted population and public health research agenda, which builds upon Canada's competitive advantages and unique strengths, responds to the needs of policy makers and practitioners, and fosters excellence in the creation of new population and public health knowledge.
A focus on population health draws upon established Canadian research strengths in population health determinants – understanding "upstream" forces and their health impacts.

Capacity Building

Our recent discussions with stakeholders across the country underscored the considerable regional disparities in capacity, both in terms of the creation of knowledge and its application. The very uneven nature of research capacity for creating and coordinating the sort of complex inter-disciplinary teams and community/policy-maker/decision-maker partnerships, that are now widely regarded as critical to ensuring high-quality PPH research, was particularly noted. While some of this "uneven playing field" across Canada is specific to regional and provincial/territorial comparisons, it is also evident across topic areas, and academic disciplines (some of the latter - such as the humanities and some social sciences - are far less "connected" to CIHR and to other health disciplines on campuses), as well as across universities within even the traditional "have" provinces.

IPPH, in collaboration with other Institutes and partners such as the Canadian Population Health Initiative (CPHI), will develop funding vehicles such as Research Development Grants and small Research Centre Grants to help "level the playing field" across the country, and strengthen the capacity of researchers, policy makers and practitioners, while continuing to support the pursuit of excellence in PPH research and its application. Fostering inter-disciplinarity and opportunities for knowledge exchange between different disciplines, which need to work in concert to solve complex population and public health problems, will also be a focus of IPPH's capacity building strategies.

The emphasis needs to not only be placed on building the capacity of researchers but also research users, whose ability to effectively apply research to policy and practice has been greatly hampered by insufficient development of the public health service infrastructure in Canada.

IPPH proposes to engage in a dialogue with federal and provincial/territorial partners to heighten awareness of the significant role the public health sector plays in improving the health status of the population as part of Canada's health system. Together, we will develop a concerted action plan to strengthen public health capacity in Canada.

IPPH proposes to engage in a dialogue with federal and provincial/ territorial partners to heighten awareness of the significant role the public health sector plays in improving the health status of the population as part of Canada's health system.

Knowledge Translation

The field of population and public health has a strong history in knowledge translation (or "dissemination" or "diffusion of innovations" as it is more often referred to in the health promotion literature). **CIHR defines knowledge translation as "the exchange, synthesis, and ethically-sound application of knowledge – within a complex system of interactions among researchers and users – to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and strengthened health care system".** During our consultation sessions, a number of challenges and opportunities related to the synthesis, exchange and transfer of the knowledge acquired through research initiatives were raised. Participants identified three priorities for action:

- Research on the factors contributing to effective knowledge transfer by policy makers and practitioners.
- Effective ways of communicating PPH knowledge to key stakeholder groups and the public, including effective and innovative use of various media and accessible language for different audiences.
- Greater investment in knowledge synthesis, diffusion and transfer initiatives such as the development of high quality syntheses and meta-analyzes on public health interventions.

Through strategic partnerships with the CPHI and other Institutes, and novel funding mechanisms, IPPH will integrate knowledge translation as part of all its activities, involving potential users of research at the earliest stages of research project development, which will ultimately result in health benefits for Canadians.

Part 3-IPPH's Strategic Plan 2002-2007

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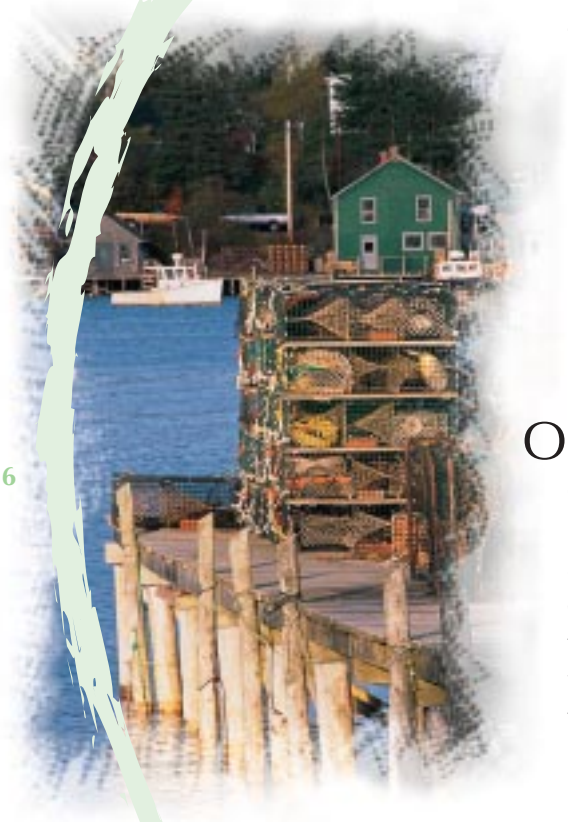
Part 3-IPPH's Strategic Plan 2002-2007

Our Mission



The CIHR Institute of Population and Public Health (IPPH) will support:

1) research into the complex interactions (biological, social, cultural, environmental), which determine the health of individuals, communities, and global populations; and

2) the application of that knowledge to improve the health of both populations and individuals, through strategic partnerships with PPH stakeholders, and innovative research funding programs.

Our Vision

Canada will be a world leader in inter-disciplinary PPH research and research application, fostering evidence-based policies and programs, and training in the fields of public health, health promotion, and occupational and environmental health. The Institute will also influence, through scientific consultation, the wide range of broader public, voluntary, and private sector activities that profoundly impact on the health of populations.

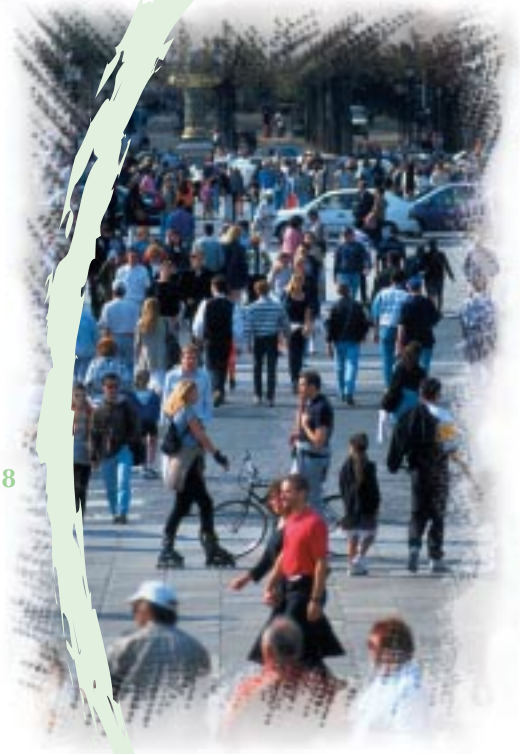
Our challenge is to identify priorities that are trans-disciplinary in nature, and foster a convergence of different disciplinary perspectives, as is normally required to solve population and public health problems.

Our Community

Addressing Canada's population and public health challenges through relevant research, policy and program interventions requires the active involvement and cooperation of many fields of practice, such as occupational and environmental health, and health promotion. A number of fields of practice have in fact contributed to the development of population health sciences. These include the basic sciences (such as various branches of human biology), epidemiology and biostatistics, social sciences, and more recently political science, law, geography and the humanities. Similarly, many disciplines are involved in population and public health research, policy and practice. Our challenge is to identify priorities that are trans-disciplinary in nature, and foster a convergence of different disciplinary perspectives, as is normally required to solve population and public health problems.

Our community consists of researchers, policy makers and practitioners working in academia, government, and non-governmental organizations, at national, provincial/territorial, regional and local levels, all working to improve the health of Canadians. A profile of selected key stakeholders and partners, some of whom were consulted during our recent pan-Canadian consultation tour with the Canadian Population Health Initiative (CPHI) can be found below. A full list of our stakeholders would be very long indeed, but among them we include:

- Schools of medicine, nursing, dentistry, rehabilitation and the PPH related departments within Canadian universities (e.g., epidemiology, nutrition, environmental and occupational health).
- Teaching hospitals affiliated with Canadian universities and the PPH relevant staff in their research institutes.
- Public and population health research institutes and centres affiliated with Canadian universities.
- Federal and provincial/territorial government departments with mandates related to public and population health research and knowledge dissemination.
- Non-profit organizations dedicated to health information research and analysis.
- Health promotion resource centres and clearinghouses.



The **policy development community** of importance to PPH includes representatives from:

- Provincial/Territorial Ministries of Health and/or Social Services.
- Regional/local community and health and social planning councils.
- Federal and provincial policy 'think tanks' focused on public and population health policy.

Lastly, **practitioners** include representatives from the following organizations:

- Public Health Departments/Regional Health Authorities.
- Community Health Centres, Centres locaux de services communautaires (CLSC) (Québec).
- Public and population health-related professional associations (e.g., Canadian Public Health Association, various provincial branches).

Partners

Internal

IPPH is committed to working collaboratively on CIHR cross-institute initiatives to serve the needs of our respective research communities. Examples of cross-cutting initiatives currently being explored by CIHR, where IPPH is involved either as a lead institute or is supporting other Institutes leading in these areas, include but are not limited to: Rural and Northern Health, Environmental Health and Health Disparities. Where possible, common funding vehicles will be employed such as research development and small Research Centre Grants, to build research and knowledge translation capacity.

External

IPPH is exploring a number of partnerships, primarily within the public sector. Collaborative efforts currently underway are briefly highlighted below. We also include our many stakeholders as partners in PPH research and knowledge exchange. Further detail is found under each relevant strategic area.

Canadian Institute for Health Information - Canadian Population Health Initiative (CIHI-CPHI):
Building on the success of a joint pan-Canadian consultation tour in the Fall 2001, IPPH is very pleased to be collaborating with the Canadian Institute for Health Information's Canadian Population Health Initiative to foster and advance a coordinated population and public health research and knowledge exchange agenda in Canada. Opportunities for jointly funding programs are already being explored.

We are pleased to be collaborating with CPHI to establish a mechanism (i.e. Roundtable Meetings) to provide a forum for ongoing dialogue and interface between Health Canada, Statistics Canada, CPHI, IPPH and other interested CIHR Institutes. This roundtable will help identify common research and knowledge-exchange priorities and opportunities for joint funding and collaboration, building on the results of the joint IPPH/CPHI pan-Canadian consultation tour. We hope to also engage other federal departments, such as Environment Canada and Human Resource Development Canada via the Roundtable.

Photograph provided by World Vision Canada

Global Health Partners:

IPPH is pleased to be the lead Institute at CIHR, who along with the International Development Research Centre (IDRC), the Canadian International Development Agency (CIDA) and Health Canada have signed a Memorandum of Understanding (MOU), which provides a framework for working together towards a coordinated global health research agenda, focussing on what Canada does best. In addition to the four MOU partners, non-governmental organizations with a history of working in the global health arena are involved – the Canadian Society for International Health (CSIH) and the Canadian Public Health Association (CPHA), as well as the Association of Universities and Colleges of Canada (AUCC), and our partners in developing countries. Together, these organizations constitute the Canadian Global Health Research Coalition. IPPH's partnership with these and other organizations will be further described in the relevant strategic area section of the plan.

Health Canada:

Forging partnerships with various levels within Health Canada is very much in keeping with the knowledge translation agenda of CIHR and its Institutes. As such, it is critical to ensure that IPPH research priorities are policy-relevant, and that relationships are forged with policy makers to ensure that they are engaged in the formulation of answerable research questions, by the Institute in its new granting initiatives, with positive effects on policy and practice.

Photograph provided by World Vision Canada

Provincial/Territorial Ministries:

We will continue to develop our relationships with Provincial/Territorial Ministries of Health and/or Social Services, to help underscore the importance of addressing population and public health problems from an "upstream" perspective, and to highlight the importance of public health as a critical infrastructure within our health system - one that needs to be bolstered to ensure effective program and policy activity at the regional and local level. We are also very cognizant that a "broad determinants of health" view necessitates the engagement of multiple Ministerial sectors such as environment and labour at all levels of government – federal, provincial/territorial and regional/municipal/local.

Statistics Canada:

We are pleased to be collaborating with Statistics Canada, given our common interest in the development, exploitation and coordination of access to existing databases. During our pan-Canadian consultation tour, researchers expressed the need to gain better access to existing databases, an interest in strengthening their capacity to better utilize Canada's anonymized and linkable databases (administrative and other), and in developing capacity in mixed research methods to fully exploit existing databases. We will explore with Statistics Canada and other interested CIHR Institutes, such as the Institute of Health Services and Policy Research (IHSPR), and partners such as Health Canada and the Canadian Institute for Health Information, the possibility of hosting joint workshops and implementing other capacity-building activities to respond to this expressed need.

It is critical to ensure that IPPH research priorities are policy-relevant, and that relationships are forged with policy makers to ensure that they are engaged in the formulation of answerable research questions.

Association of Workers Compensation Boards of Canada (AWCBC):

In Canada, occupational health, with the exception of employers and employees (which is under federal jurisdiction), is the responsibility of Workers Compensation Boards or Commissions of the provinces. Contact with researchers or research-funding organizations, such as CIHR, is very uneven across Canada but nonetheless significant and growing. The Association of Workers' Compensation Board of Canada, which represents all the boards and commissions across Canada, is strongly promoting the establishment of a national occupational health research agenda.

Through its research committee, AWCBC is committed to developing sustainable linkages with CIHR, notably IPPH, through national or multi-provincial partnership arrangements. Of note, AWCBC hosted a major conference on knowledge transfer in November 2001 and has been very supportive of the Canadian Association of Researchers in Work and Health (CARWH), who are leading the establishment of a national research agenda in work and health for Canada.

Strategic Areas

The following strategic areas are complementary to the corresponding sections of the **Strategic Directions Outlook** (SDO) issued in June 2001 by the Institute. The SDO outlined the basic rationale for all but one of the following strategic areas (Health Disparities – addressed below), and should be reviewed for this purpose. Goals, objectives and suggested activities are listed for each strategic area below.

Capacity for cutting - edge and relevant PPH research, and for its use by decision-makers, needs to be further strengthened in Canada, especially in certain regions of the country, by building on Canada's competitive advantages and developing our research "niche" in PPH.

Strategic Area 1: Capacity Building

In line with CIHR's Strategic Directions Outlook, IPPH is committed to **"Building international leadership through national excellence in health research".** However, capacity for cutting-edge and relevant PPH research, and for its use by decision-makers, needs to be further strengthened in Canada, especially in certain regions of the country, by building on Canada's competitive advantages and developing our research "niche" in PPH.

A portfolio of different capacity-building strategies is required to be responsive to the varying needs of researchers, policy makers and practitioners nationally, and to facilitate effective interactions among these players. Approaches to capacity building can range from individually focused activities such as personnel/investigator awards, to supporting the development of teams and networks, to research development grants to develop integrated programs of research and knowledge translation, to the establishment of research infrastructure ranging from small research centres to full-sized institutes. The many traditional university departments relevant to public and population health are, however, often too isolated from each other, and from PPH policy and program stakeholders, to facilitate integration of the necessary perspectives.

Goal To create, with the Institute's partners (researchers, research funders and users), novel funding vehicles and collaborations to pursue excellence while addressing particular PPH capacity challenges in Canada, including:

- New Programs, Centres and Networks, to reduce regional disparities in PPH training, research and research application.

- Creative inter-institutional arrangements to sustain the long-term partnerships needed for: inter-disciplinary investigation; effective research transfer; and, the ethical use of Canada's rich anonymized and linkable administrative databases to study the health of entire populations.

Objectives and Activities

1. Increase the Quality and Evolution of Training Opportunities in PPH

- Fund highly-ranked Training Initiative Grants, in collaboration with research funding partners (likely to span a number of sub-fields of PPH).

- Foster the development of a "networked, virtual National School of Population and Public Health" that will build relationships across Centres and small networks with training program grants.

- Host a series of national workshops/conferences that address topics of "cross-cutting interest" to PPH training programs (e.g. innovative pedagogical methods, approaches to engaging policy and program stakeholders to improve research trainees' understanding and skills in research transfer and partnership building; and, new and sustainable approaches to ongoing continuing education programs such as "Summer Institutes" for senior trainees, new investigators, practitioners and program/policy staff).

2. Strengthen Research Transfer for Public Health Practice (by working together with other stakeholders, such as Provincial/Territorial Ministries of Health and/or Social Services, Health Canada and the Canadian Public Health Association)

- Identify the key gaps in public health practice guidelines in Canada, that are not currently being filled in the way that Canadian practitioners need, through large public health practice "evidence reviews" underway in the US (for e.g. the Community Preventive Services Project at the Centres for Disease Control and Prevention (CDC) Atlanta), the UK and elsewhere.

- Create with partners, an ongoing and sustainable capacity in Canada to fund, execute and disseminate such reviews to the entire public health practice community by:
  - Conducting an environmental scan (including a review of best practice models from other jurisdictions and key informant interviews); and,
  - Developing options for establishing a permanent National Public Health Evidence Secretariat, charged with the responsibility of coordinating and disseminating systematic literature reviews in priority research areas.

- Support the uptake and dissemination of innovative approaches for building research transfer capacity in "the field", such as the Public Health Research Education and Development (PHRED) Program model, in selected parts of Canada, based on the results of a feasibility study.

- Create new mechanisms for knowledge exchange and dialogue between researchers and research users in partnership with CPHI and other organizations. For example:
  - Host a national conference of PPH researchers and research users;
  - Offer workshop funding support to help researchers and research users to fine-tune research questions; and,
  - Develop research proposals and address emerging PPH priorities.

- Analyze the feasibility and merits, and potentially support the creation of, a "Canadian National Public Health Service" by:
  - Sponsoring a "Public Health Leadership Forum", involving all major stakeholders; and,
  - Assessing the relevance of successful models from other similar countries, such as the US, UK and Sweden, and supporting their adaptation to the Canadian context.

3. Support Infrastructural Investments for PPH Research and Its Transfer

- Launch over the next two years, a Research Centre Grants Funding Program in collaboration with other interested CIHR Institutes and other partners that would:
  - Align capacity building with strategic health research themes and knowledge translation activities of participating Institutes;
  - 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 research users such as policy makers, public and voluntary sector program administrators, and clinical and public health practitioners;
  - Create a sustainable path for small centres, with committed multi-year funding; and,
  - Facilitate capacity building in regions of Canada with underdeveloped research strengths.

4. Assess Research Usage of Population-Based Health Databases in Canada and Develop an Action Plan to Address Identified Gaps (in partnership with IHSPR and other players - Provincial/Territorial Ministries of Health and/or Social Services, Statistics Canada, Health Canada, the Canadian Institute for Health Information - Canadian Population Health Initiative)

- Contract one or more small teams of consultants through a competitive process to:
  - Develop a conceptual framework that will provide a useful scope and taxonomy of the types of population-based health and health-services-research databases, and allow the systematic categorization of such databases in practice;
  - Document the status and research use of such databases, which the CIHR Institutes should be monitoring; and,
  - Develop recommendations to optimize the utilization of researchers of existing population-based health research databases.

- Develop an action plan based on the recommendations from the consultancy, with input from key players, to address the challenges and gaps in the use of and access to population-based health research databases in Canada.

Strategic Area 2: Understanding and Addressing the Impacts of Physical and Social Environments of Health

Goal To create a trans-disciplinary national network of researchers, policy-makers, program administrators and public health professionals who can identify and study these important social and physical determinants of health and their interactions, and design and carry out interventions to improve critical "life-course-environments*", to achieve population-level health benefits.

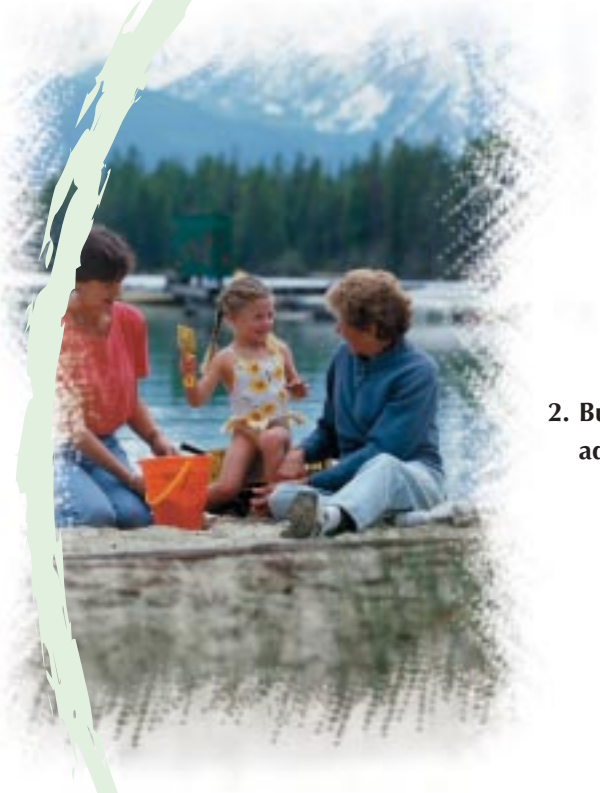
* These macro- and micro- environments or "contexts", which surround individuals, are both physical and social in nature, and are nested within each other. They include the environments at the individual and family level such as the home, as well as the neighbourhood/community, region, and society or nation-state levels.

Objectives and Activities

1. Support the identification of research needs/gaps/opportunities related to such "life-course environments" (i.e. contexts) and the interventions required to improve them

- Fund successful Needs, Gaps, Opportunities and Assessment (NGOA) grants that will integrate participatory consultation processes involving context-relevant stakeholders and achieve such outcomes as:
  - An environmental scan of current and planned research activity, and capacity in Canada; and,
  - The development of a prioritized list of each context's research needs/gaps/opportunities, using explicit prioritization criteria.

- Based on an analysis of funded NGOAs, prioritize areas requiring immediate, medium and long-term action, using such criteria as: strength of evidence; critical mass of researchers and their stakeholders in Canada ready to further study specific "contexts" and/or design interventions; and, readiness of research and research transfer community to design and carry out interventions to address priority "context" areas.



- Initiate a second round competition, using NGOA grants, or other funding mechanisms, to allow Canadian researchers and stakeholders interested in other "contexts" not already addressed, to conduct similar environmental scans.

- Support the development of multisectoral partnerships at international, national, provincial/territorial and local levels to address priority "context" areas.

2. Build national networks to link research, policy makers, program administrators and public health professionals

- Host and support consensus-building meetings/workshops involving key researchers and other stakeholders to address specific priority sub-themes within these "contexts", and increase opportunities for interaction and collaboration, in areas not systematically addressed through other funding vehicles (e.g. "early childhood" environments).

- Support networks of researchers and research users in the development of novel proposals for both observational and intervention studies. This will be done in partnership with other CIHR Institutes [such as the Institute of Human Development, Child and Youth Health (IHDCYH) and the Institute of Neurosciences, Mental Health and Addiction (INMHA), in the case of early childhood environments; as well as the Institute of Gender and Health (IGH), the Institute of Aging (IA), and the Institute of Aboriginal Peoples' Health (IAPH)]. Other funding partners such as Social Sciences and Humanities Research Council of Canada (SSHRC) should also be engaged as partners.

- Improve researcher capacity in mixed methods development in response to identified research priorities by using training and other pedagogical strategies such as Summer Institutes.

- Encourage networks to develop broad partnerships outside the traditional health research and knowledge transfer sectors (e.g. environment, labour, housing) through appropriate incentives and other strategies (e.g. ensure funding criteria specify these types of partnerships as a requirement).

3. Support consortia of stakeholders to lead national research priority-setting efforts

- Support the joint sponsorship of workshops and symposia to help develop coherent, multi-stakeholder-supported research agendas for Canada in nationally underdeveloped areas, such as "work and health" (e.g. a Canadian Association of Researchers in Work and Health has recently formed, and there is a new sense of collaboration across Canada's provincial/territorial Workers' Compensation Boards who are working to determine how to best address capacity needs in this field nationally, compared to most industrialized countries), and other areas identified as a priority through the NGOA and other environmental scanning processes.

  [Note: Similar developments are also welcome in the Environmental Health field, given its analogous and relative underdeveloped state in Canada. These advances are, however, likely to occur through the CIHR cross-cutting initiative in Environment and Health that is being spearheaded by IHDCYH].

These programs will need to utilize a trans-disciplinary approach, that acknowledges the many possible origins of health disparities, including differences in the biological, socio-economic, physical, and cultural characteristics of populations and their environments, as affected by local policies and programs that impact on health.

4. Explore the feasibility of developing collaborative funding mechanisms to support innovative multi-level interventions with interested funding agencies and relevant stakeholders

- Support consensus-building workshops involving researchers and other stakeholders to identify which multi-level interventions should be funded to address these life-course environments, building on Canada's international niche, "existing" natural experiments and partnership opportunities.
- Work with interested Institutes and external funding agencies such as SSHRC to develop options for funding intervention research that addresses life-course environments in priority "context" areas.
- Support workshops that encourage interaction and collaboration between researchers and other stakeholders to facilitate the development of intervention research proposals in "context" areas deemed a priority by IPPH and its funding partners.

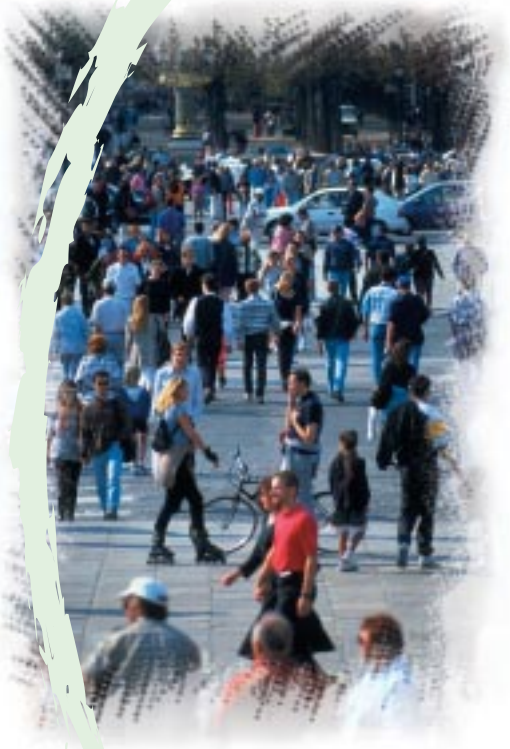
Strategic Area 3: Characterizing and Reducing Health Disparities

This is a "newly" identified theme by the Institute's Advisory Board based on the pan-Canadian consultations with the Canadian Population Health Initiative. It was therefore not discussed in the Institute's **Strategic Directions Outlook** issued in June 2001. A brief rationale is provided here for its inclusion in this Strategic Plan.

The health status of virtually all populations varies widely across subgroups, defined by socio-economic status, gender, race/ethnicity, and geography (e.g. rural/urban/intra-urban) across societies. In Canada, many of these disparities in health status are poorly characterized and documented. Other disparities, while documented, have remained largely unchanged over many years. Comprehensive research programs are needed to describe, investigate and especially reduce such disparities. These programs will need to utilize a trans-disciplinary approach, that acknowledges the many possible origins of health disparities, including differences in the biological, socio-economic, physical, and cultural characteristics of populations and their environments, as affected by local policies and programs that impact on health.

It is not surprising that the US, the UK, and other countries, are currently launching new research and policy/program initiatives in understanding and reducing disparities in health status. Whether the particular subpopulations whose health status is being compared are rural/urban, regional, gender-based, or of differing ethno-racial or socio-economic status, there is both a strong intellectual argument and a practical ethical mandate to investigate and act on health disparities.

From a research point of view, it is by the elucidation of the sources of such systematic differences in health that we often obtain the best insights as to how human health is actually determined (as argued in the section – "Why Population Health?"). From the point of view of policy makers and practitioners, paying attention to the health problems of higher-risk communities is both ethically appropriate and good public health practice. In Canada's case, the specific comparisons, which may provide the best insights into the determinants of population health, may well be across socio-economic levels in our society, where large health disparities still exist, more than thirty years after the introduction of universal Medicare. However, there is merit in also studying more systematically, the other sorts of contrasts described above such as geographic and ethno-racial disparities in health, since these may yield powerful additional insights into the origins of Canadians' major health problems.



Goal To develop, together with partner organizations such as the Canadian Population Health Initiative of CIHI, other CIHR Institutes, and the National Institutes of Health, Canada's expertise in assessing and addressing disparities in health status across subpopulations – both nationally and globally.

[Note: Health Disparities has been identified as a CIHR - wide cross-cutting initiative.]

Objectives and Activities

1. Determine the Best Means of Enhancing Health Disparities Research in Canada, and its Translation into Effective Actions to Reduce Disparities

- Based on "what has worked" internationally (e.g. research methods) and on emerging initiatives (e.g. NIH Centre Grant RFA) from other settings, identify, the potentially illuminating and reducible health disparities of importance, and foster trans-disciplinary research on health disparities in Canada.
- Provide research development grants to support the design of proposals for multi-year programs of research in this newer field.
- Based on the response to the research development grant competition, determine the best mix of funding vehicles (e.g. Operating Grants, New Emerging Teams, Research Centre Grants) for strengthening Canadian research capacity in this area.

2. Foster International Collaboration with NIH and other Interested Partners to Enhance the Generalizability of Health Disparities Research, Building on "What Canada Does Best"

- Collaborate with relevant NIHs on the launch of the Centres to Study Health Disparities RFA, building on Canada's competitive niche and strengths for anonymously linking large routinely collected datasets, such as the census and provincial health insurance data, to depict the exact shapes of gradients in health status in entire populations, including socio-economic gradients in mortality and morbidity.

- Co-host an international conference with NIH, the European Science Foundation and interested Canadian partners (e.g. Human Resource Development Canada, other CIHR Institutes) on related research and policy/program issues, with specific collaboration on actual empirical studies.

- Assist in the development of the Canadian/International liaison component of a Training and Research Centre proposal to the Robert Woods Johnson Foundation (RWJF), for a large inter-disciplinary centre (based on the US West Coast), which will identify specific opportunities for collaboration with CIHR-IPPH and its sister Institutes, including student and scientist exchanges and colloquia. (Note: RWJF only funds US-based research and training programs, but is interested in fostering international collaboration).

3. Build and Sustain a Network of Centres to Support the Transformation from Analysis to Interventions to Address Health Disparities

- Support the development of community partnerships to facilitate action and translation of health disparities research into policy and program interventions, through a variety of funding vehicles.

- Strengthen research capacity to conduct intervention studies (funded through the Operating Grants) that further our understanding of how health disparities research evidence can lead to program and policy impacts.

Strategic Area 4: Environmental and Genetic Determinants of Disease in Human Populations

Virtually all major diseases and health conditions affecting industrialized nations are jointly determined by the interaction of our individual genetic endowments and their patterns of expression, with the complex sequence of environmental factors – physical, chemical, biological and social to which we are exposed over the life-course.

In applying a broad "determinants of health" perspective to guide Canadian research, the IPPH aims to ensure that the full range of important contributors to the causation of most common causes of ill health in our society are elucidated. Virtually all major diseases and health conditions affecting industrialized nations are jointly determined by the interaction of our individual genetic endowments and their patterns of expression, with the complex sequence of environmental factors – physical, chemical, biological and social to which we are exposed over the life-course.

The new knowledge that is emerging from genomic research needs to be balanced by equally sophisticated assessments of environmental exposures (which generally change over time, unlike an individual's genome), in order to elucidate the full causal pathways leading from health to disease and premature death. To accomplish these goals, innovative research strategies will be required, and it may be necessary to conduct complex, large and long-term longitudinal studies that integrate these measurements and accurately link them to precisely ascertained health outcomes. Such research will require close collaboration across scientific disciplines.

In early 2001, the IPPH and the Institute of Genetics (IG) identified gene-environment interactions as an inter-institutional collaborative focus. Two workshops were held in June and September 2001, involving senior population geneticists and genetic epidemiologists ("the Joint IPPH-IG Core Committee"), to explore how to move forward in this area.

Deliberations at the meetings revealed some of the important inter-disciplinary communication challenges that require attention for these research communities to collaborate effectively. Furthermore, during IPPH/CPHI's cross-country consultation tour, not all population and public health stakeholders understood the merit of pursuing a thematic focus on gene-environment interactions. Thus, the Institute Advisory Board revisited and further developed this concept, which has led to the development of a series of short (less than 1 year), medium (within 2 years) and long-term (2 to 5 years) objectives and activities, aimed at both clarifying and moving this important research area forward.

Goal IPPH will work with other CIHR Institutes and stakeholders to:

- Facilitate research that elucidates the interactions between an individual's genetic endowment and the complex sequence of environmental exposures – physical, chemical, biological and social, that occur over the life-course and determine health and disease.

- Promote the application of genomic methodologies and knowledge to studies of biological pathways operative in population health, and in relationship to environmental factors that operate over the life-course.

- Elucidate the biological pathways through which established population health determinants and disparities operate, and whose elucidation may lead to innovative disease prevention and health promotion strategies and programs.

- Develop specific Canadian expertise in the genetic, ethical, legal and social (GELS) implications of the new molecular biology, and to explore its policy implications in the context of population and public health (PPH).

  [Note: This strategic area has been identified as a CIHR cross-cutting initiative].

Objectives and Activities

1. Develop a short-term, consensus-based approach to select the most promising health outcomes, among the common, largely chronic diseases (e.g. asthma, juvenile and/or Type II diabetes), and disease precursors (e.g. obesity/hypertension/hyperlipidemia) for major epidemiological studies of complex traits and gene-environment interactions, based on strategic advantages for research in Canada

- Host small workshops, with invited experts, on selected multi-factorial health outcomes and potential gene-environment interactions, to identify areas for which there are particular advantages or potential contributions from research conducted in Canada.

- Work with the Joint IPPH-IG Core Committee to engage experts in an inter-disciplinary analysis and a consensus-building process to identify the best genomic approaches and targets, environmental co-determinants to be measured, and research designs to be employed in investigations of the multi-factorial etiology of each outcome.

- Host a workshop of experts from a wide range of disciplines to explore the potential impact that genomics has on PPH policy, programs and practice, and conversely, that a PPH perspective has on genomics research.

2. **Develop a short-term consensus-based approach to facilitate in-depth examination of GELS (genetic, ethical, legal and social) implications of genomics on PPH research and policy**

   - Co-host workshops with other Institutes and the CIHR Office of Ethics, and sponsor expert panels to identify researchable questions and national research strategies in areas of program, policy and practice concerns at the interface of PPH and the new molecular biology/genomics.

3. **Develop a medium-term plan that results in a series of RFAs for research studies related to the combined effects of environmental and genetic factors in PPH**

   - In response to themes identified in the above workshops, develop funding programs to support research related to environmental and genetic determinants of health in populations.

4. **Develop a long-term plan to fund the development of research infrastructure to provide leadership and support for this emerging, inter-disciplinary research area**

   - Develop a program to request, evaluate and fund proposals for leading research.

Strategic Area 5: Global Health

Canada's health status is increasingly affected, like that of many countries, by ecological, technological, economic, political and socio-cultural forces. Understanding these "upstream" global forces, and their health impacts – in this country and others (especially poorer nations) – is essential to ensuring the future health of Canadians. It is also ethically imperative to work on global issues, if we are to act as responsible global citizens. Canadian researchers have a long-standing history of contributing to Global Health Research (GHR) that must be further supported and developed. Finally, Canada can learn from low and middle-income countries, particularly concerning health impacts of those broad social and economic policies that can only be studied by comparisons across nation-states over time.

Goal

To improve Canada's ability to investigate and intervene on those underlying forces that challenge global health, by enhancing, in a sustainable manner, the capacity of national and international researchers and research users to collaboratively develop and apply global health knowledge for evidence-based public health practice.

The Institute will focus on "what we can do best with limited resources" (e.g. integrating social and biomedical science perspectives on the origins of global health problems) while collaborating with other CIHR Institutes and funding partners under the Global Health Research Initiative. Partners include Health Canada, the Canadian International Development Agency (CIDA), and the International Development Research Centre (IDRC), as well as other organizations such as, the Canadian Society for International Health (CSIH), the Social Sciences and Humanities Research Council of Canada (SSHRC), the Canadian Public Health Association (CPHA), the Association of Universities and Colleges of Canada (AUCC), PAHO (WHO), World Bank, International Monetary Fund (IMF), and the Department of Foreign Affairs and International Trade (DFAIT).

Objectives and Activities

1. Engage in Global Health Research Coalition activities acting in the capacity of lead CIHR Institute (in collaboration with other Institutes, and MOU partners - IDRC, CIDA and Health Canada, as well as other Canadian and international non-governmental organizations)

- Participate along with other CIHR Institutes, in Coalition Working Groups and identify activities that IPPH and/or other Institutes can strategically fund. Examples include:
  - Training/Capacity-Building (e.g. support the development of training centres or consortia);
  - Communication; and,
  - Partnerships.

2. Support the Strategic Advancement of a Coordinated Global Health Research Agenda in Canada

- Commission and support the dissemination of relevant background papers that help set research priorities for funding Global Health Research. Current examples include:
  - A paper on Inherently Global Issues; and,
  - A Health Systems Paper to examine national health systems, including public health as well as clinical services, and the determinants of their "performance" internationally.

- Continue to co-host developmental activities such as workshops/symposia to bring together global health researchers and policy makers to refine GHR priorities; and, further build collective global health research capacity and competitive advantage in Canada.

- Work with MOU partners to identify funding mechanisms for jointly issuing Requests for Applications (RFA) that capitalize on the potential complementarity of participating organizations (for e.g. IDRC specializes in funding developing country researchers directly, while CIHR can currently only flow funds through accredited Canadian institutions, but together they could fund projects linking Canadian researchers with counterparts overseas).

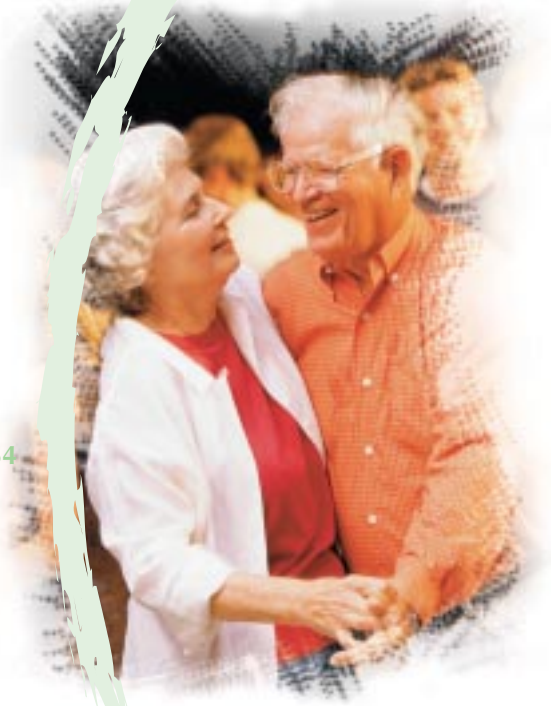
- Jointly issue an RFA for research development and planning grants (in preparation for a future Research Infrastructure Competition), with interested MOU partners and other CIHR Institutes, which balances more "upstream" and inherently global issues (of greatest interest to IPPH) with particular health problems (e.g. tobacco and HIV/AIDS) that fall within the mandates of other interested CIHR Institutes.

Part 4-Management & Evaluation

Mapping and Tapping the Wellsprings of Health

Part 4-Management & Evaluation

Management



IPPH's Scientific Director, staff and the Institute Advisory Board in accordance with its terms of reference is responsible for effectively monitoring the implementation of the strategic plan and ensuring appropriate allocation of resources, and facilitating annual updates of the plan, in response to emerging priorities, stakeholder input and other considerations.

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Evaluation

Being accountable through transparent reporting to our partners and other stakeholders in the population and public health research, policy and practice communities, as well as to the Canadian public, is key to the success of CIHR and its Institutes.

In keeping with the CIHR evaluation plan outlined in **A Performance Measurement Framework for the Canadian Institutes of Health Research,** IPPH is collaborating with other Institutes and the CIHR Evaluation Branch to develop and implement an evaluation plan to measure and report on its ongoing performance. We are working to ensure that instrument development, data collection, analysis and reporting are undertaken in a cost-effective and consistent manner, to facilitate comprehensive reporting across Institutes, where appropriate.

Following is a preliminary overview of what CIHR is proposing to measure within each outcome category, some of which will be best assessed centrally (e.g. quality of peer review process) whereas others will be more appropriately measured at the level of individual Institute(s).

The following measures are simply intended to illustrate what CIHR plans to measure within each outcome category. They do not yet reflect the evaluation plan of Institutes. More refined measures, indicators and data sources are being determined by IPPH, in collaboration with the IAB, other Institutes and the CIHR Evaluation Branch.

Measures of Outstanding Research Productivity
Examples:

- Quantity and quality of population and public health research output, and recognition by the world research community of CIHR-supported researchers and their research (such measures are typically lagged by 3-10 years after research funding commences, with "Science Citation Index" measures lagged by further 2-8 years).

- Quality and soundness of the system used to ensure high ethical standards.

- Existence of a national health research agenda and CIHR's role in its development.

Measures of People/Research Capacity - our contribution to increasing the number of trained and highly capable researchers and other research professionals in the PPH field. Examples:

- Role of CIHR and its Institutes in attracting, supporting and retaining experienced researchers (including researchers from other countries).

- Capacity of Canadian health researchers to undertake outstanding research.

Measures of Partnerships and Public Engagement -our role in developing and sustaining partnerships and linkages with researchers and research organizations, research users such as policy makers and practitioners, as well as the general public. Examples:

- Linkages, networking and collaboration among researchers, including across disciplines.

- Linkages and collaboration among researchers and research users.

- Public awareness of health research, and public engagement in the discussion of health issues.

Measures of Translation and Use of Knowledge -translation, communication and dissemination of research knowledge, and how this translates in terms of impacts on improved health and health care. Examples:

- Increased relevance and responsiveness of research (measured both directly and indirectly – by extent of user participation and involvement).
- Effective communication and dissemination of PPH research findings.
- Applications of research findings to PPH policy and practice.

Measures of Organizational Excellence - coordination role regarding national health research issues, evolutionary and learning nature of the organization and quality of the agency's management and work environment. (Note: this could readily apply at the level of the Institute, which is how the measures are described below). Examples:

- Recognition of IPPH leadership in and coordination of national PPH research issues.
- Innovation in programming, structures and review systems.
- Quality of management and program delivery.
- Quality of CIHR work environment (e.g. "continuous learning characteristics").

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