

# **From Molecules to Communities**

## **Ideas for Broadening Health Research in Canada**

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Summary of the Workshop on Health Institutes Design  
for the Canadian Institutes of Health Research.  
Organized by the Canadian Health Services Research  
Foundation and the Social Sciences and Humanities  
Research Council.

**Aylmer, Quebec**

**September 1999**

Additional copies of this workshop summary are available on the CHSRF Web site ([www.chsrf.ca](http://www.chsrf.ca)) under “Document Library” and on SSHRC’s Web site ([www.sshrc.ca](http://www.sshrc.ca)) in the CIHR section.

Final copies of the position papers prepared by the Health Institutes Design Grants teams are available from SSHRC as noted below:

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*“Often the most exciting developments in science arise from chance encounters between individuals struggling with the same issue from different perspectives who, together, are able to solve big puzzles. The CIHR’s challenge is to cultivate such encounters, making them happen routinely rather than by chance.”<sup>1</sup>*

<sup>1</sup> From *Integrating Health Services Research into the CIHR*,  
Jeremiah Hurley, PhD, McMaster University  
Morris Barer, PhD, University of British Columbia  
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# Message from the CHSRF

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The Canadian Health Services Research Foundation (CHSRF) welcomed the opportunity to partner with the Social Sciences and Humanities Research Council (SSHRC) to mobilize the social sciences, humanities, and health services communities in support of the Canadian Institutes of Health Research (CIHR). Appropriately, the partnership exemplifies the new spirit of collaboration and co-operation across agencies generated by the federal CIHR opportunity.

The Health Institutes Design Grants initiative was a remarkable success even before any participants arrived at the workshop or completed their position papers. The 20 funded teams galvanized our communities to engage in dialogue, build new networks, think about new ways to conduct research, and create novel ideas for institutes and cross-cutting themes. It was a remarkable demonstration of the size and diversity of our communities and their willingness to expend this potential to the benefit of the CIHR.

Participants at the workshop offered a rich array of ideas to inform the work of the Interim Governing Council (IGC) and the Government of Canada as they move toward the potential launch date of 2000 for the CIHR. From the CHSRF's perspective, the call by some participants for the CIHR to engage and serve the needs of those making decisions about health and health care in Canada—policy makers, practitioners, and the public—was a welcome and important message. The provincial perspective provided during the workshop underlined this important element of the CIHR partnership (see *A view from the provinces* page 12).

Equally important was the message that the applied aspect of health services research—the CHSRF's mandate—is crucially dependent on a feed-stock of tools and approaches emerging from “basic science” work done most often in the social science disciplines. Just as health services research is needed for evidence-based decision-making, so too are the social sciences and humanities needed for health services research.

The CHSRF also welcomed the opportunity to foster links with future colleagues in the CIHR from the biomedical and clinical research sectors. Many of the discussants and invited guests brought a valuable biomedical perspective to the emerging ideas. Finally, the attendance of many IGC members at the workshop, often in roles as session chair or discussant, contributed to a truly integrative and transformative experience.

Special thanks are due to: colleagues at SSHRC for their excellent work with award holders; colleagues in the CIHR secretariat for their co-ordination with and support of IGC members; and to Anna Garoufalis, Pierre Normand, and the CHSRF staff for magically making the workshop run so smoothly and this summary report appear on time.

Jonathan Lomas  
Executive Director

# Message from SSHRC

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The Social Sciences and Humanities Research Council (SSHRC) serves a community in excess of 18,000 university professors, more than half the professorial staff of Canadian universities. Various inquiries, using various methodologies, have led us to conclude that more than 2,000 of them are actively involved in health-related research. Health research examines the nature and determinants of health and disease, how individuals and society view health and health services and ways in which health, medical care, and relevant social services can be improved.

Several disciplines are involved in this formidable research challenge. Among the largest contributors are psychology, law, sociology, nursing, social work, economics, education, health administration, and history. In other disciplines (e.g., in most areas of the humanities) there is tangible, but embryonic, evidence of activity in health research. Roughly 35 to 40 percent of health-related research based in the social sciences and humanities takes place in universities without medical schools. It is financed largely by the provinces and the universities themselves, with the federal agencies (SSHRC, NHRDP) and the CHSRF playing a proportionately smaller role than in biomedical research.

It is against this backdrop that the Canadian Institutes for Health Research (CIHR) are being created, with the explicit intent to better integrate research efforts across disciplinary lines and across the traditional borders of the federal granting councils (SSHRC, MRC, and NSERC).

This is why SSHRC and the CHSRF asked researchers to roll up their sleeves, talk with their colleagues, and try to imagine how these institutes could be designed to bring the strengths of research in the social sciences and humanities to bear on critical health issues. How could these institutes better impact on people's health and upon their health care services? Twenty teams were financed to do this job.

The attached document is an impressionistic synthesis of a workshop SSHRC and the CHSRF hosted on September 17, 1999, in order to hear and debate the views of those teams. One person summarized the feeling of several participants when she said: "I had never realized how dynamic and how large the 'social' health research community is in Canada. This meeting is a first step towards developing more cohesion among ourselves. I am excited about the prospects for the future."

Along with the consultative activities developed by the Medical Research Council and the CIHR secretariat, this workshop was just one part of the foundation being laid for a new institution that will bring us to the forefront of world research, and through that research, improve the health of all Canadians.

Marc Renaud  
President

# I. Introduction

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On September 16 and 17, 1999, over 100 representatives from the social sciences, nursing, and health services research communities gathered in Aylmer, Quebec, with members of the Interim Governing Council (IGC) of the Canadian Institutes of Health Research (CIHR). They presented models, explored ideas, and provided advice on the design of the CIHR.

Organized jointly by the Canadian Health Services Research Foundation (CHSRF) and the Social Sciences and Humanities Research Council (SSHRC), the workshop was aimed at:

- sharing the perspectives from the CHSRF and SSHRC communities on CIHR design issues;
- exploring how the CHSRF and SSHRC communities can improve integration with other health research communities; and
- highlighting how the CHSRF and SSHRC communities can contribute to the CIHR transformation of health research in Canada.

All participants recognized that the establishment of the CIHR is an unprecedented adventure and an important crossroads in the history of Canadian research. To be successful it will need to reach beyond existing models and mechanisms, and be inclusive of a wide range of research disciplines that are helping to understand and better address the broad-ranging health needs of Canadians.

## PLACE IN HEALTH CARE— A CROSS-CUTTING THEME

Health care has undergone a radical transformation over the last 20 years that has had multiple effects on the sites of care. No longer hospital-based and physician-directed, health care sites now include virtually every setting in which people live. These changes have profound implications in areas such as clinical practice, delivery of health care, the training of health professionals, and the roles and responsibilities of patients and those who care for them.

Recent computer advances are dramatically shifting the options to health provision through tele-health applications and remote health-care interventions. Outpatient surgery and the emphasis on home care as a form of hospital replacement are bringing out new needs for information about the costs and consequences of the shift in care settings.

A proposal put forward by a team of researchers led by Dr. Peter C. Coyte, of the University of Toronto, is a good model of what the CIHR can achieve. What started as a narrow proposal for the creation of an institute of home care significantly evolved—following consultation with a broader network of clinicians, and health services and health systems researchers—to become a cross-cutting approach to research in the field.

The transformed proposal became a far more novel and innovative way of capturing the home care issue in relation to the costs and consequences of these shifting patterns of care between alternative settings. The transformed proposal recommended a broader, more creative approach better positioned to deal with health research issues of the future rather than just those of the present.

Their recommendation is to create a small research consortium that would provide direction related to theme activities and assist in implementing them within and across the various institutes. A cross-cutting theme consortium, with the specific mandate of providing a formal avenue of interaction with the CIHR governing council, would add strength to the concept of cross-cutting themes in general.

## II. The Health Institutes Design Grants process

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In June 1999, the CHSRF and SSHRC awarded 20 Health Institutes Design Grants (HIDG) to develop teams of investigators exploring how their areas of research could best be represented in, and contribute to, the emerging CIHR. Each team was invited to prepare a position paper with ideas on how to integrate various aspects of the social sciences, humanities, nursing, and health services research into the new CIHR. These final papers will be available after October 1, 1999. The workshop offered an opportunity for early presentation of ideas to members of the IGC of the CIHR, and for exchange and interaction between award holders and members of the IGC.

The joint CHSRF-SSHRC initiative represented an exercise in building networks, and bringing people and a wide range of research activities together in the spirit of the CIHR (see *Place in health care—a cross-cutting theme*). This was clearly achieved even before the workshop started. More than 500 researchers, stakeholders, and organizations had become a central part of the network of HIDG teams between June and September, and many more had been consulted.

At the workshop, the participants' challenge was to identify ways of structuring the new institutes (or suggest alternatives to institutes), and to promote and increase collaboration between disciplines, fields, and sectors. They were also presented in the context of three core values identified by the Government for the CIHR, namely that institutes be:

- integrative—of disciplines, people, and regions;
- transformative—of the health research environment and ways to conduct research; and
- evolutionary—in recognizing the changing needs of Canadians, and the importance of building research capacity over time.

Discussions focused on how the social sciences and humanities, and health services research communities could address health issues and areas of research that fall within the four cross-cutting sectors of the CIHR vision:

- basic biomedical;
- applied clinical;
- health services and systems; and
- society, culture, and the health of populations.

They also suggested types of synergies that the CIHR should foster to successfully transform the way research on health and health care is conducted in Canada.

As expected, no single or entirely new model emerged during the workshop. Rather, several issues and themes of importance were identified and deemed critical to the successful design of research institutes. Words such as **integration**, **synergy**, and **transformation** were heard often. But so were words such as **recognition**, **multi- and inter-disciplinarity**, **linkages**, **leadership**, and **priorities**.

The participants presented diverse examples of the profound and cross-cutting importance of the social sciences and health services fields to the integration, transformation, and evolution of health research in Canada. They also discussed the need for appropriate sensitivity to their particular history and structure when designing and creating institutes—in order to reflect the diversity and richness of their existing research base, and to ensure their effective contribution to a truly broadened health research agenda.

## EMERGING RESEARCH FIELDS— AN INNOVATIVE MODEL

One challenge faced by the CIHR is the identification of emerging research fields and their integration in the institutes' research agenda. A proposal put forward by a team led by Dr. Gregory Kealey, of Memorial University, addressed this issue by recommending the establishment of an "Agency for Innovation and Integration" within the CIHR framework. The mandate of the proposed agency would be to study questions related to innovation and integration in health research, and to promote their realization throughout the institutes.

The establishment of the agency would place a high premium on openness to new ideas, approaches, and fields of enquiry, as well as on interdisciplinary and multidisciplinary collaboration and integration. It would also ensure the proper integration of research effort across specialties, disciplines, fields, and diverse academic cultures. A careful design, however, would be critical to the agency's success. While designed to promote "horizontal integration," the agency would also implement strategies to ensure "vertical" and "diagonal integration" of research effort between researchers within institutes, and between researchers in various divisions of different institutes.

A key function of the proposed agency would be to act as an incubator for research in areas and fields with high potential for the CIHR. The agency would not only provide stable funding for a period of up to five years to new topics and ideas (fledgling institutes), but it would also provide leadership by ensuring the visibility of emerging areas of research at the CIHR decision-making table. In addition, the agency would address the need for the CIHR to become a "learning organization," constantly evaluating different approaches to ensure successful disciplinary integration.

### III. Institute design: the new face of health research

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Underlying the issue of institute design is a basic question: How can we shape the largest investment in research in our country's history to meet both the needs of researchers and the needs of Canadians? The workshop provided a key opportunity for the social sciences, nursing, and health services research communities and the IGC to reflect together on how best to go about answering this question.

All participants agreed that it is essential to define an approach that will give new directions to Canada's health research, strengthen Canada's leadership in research, and provide the most innovative research structure possible. Participants also agreed that the challenges associated with institute design are many and complex, including:

- Under what kind of banners should we create institutes?
- How can we make the CIHR understandable to the public and the researcher community?
- What criteria should we use in creating an institute?
- How can we ensure critical mass?
- What is Canada's unique contribution to research?
- How can we ensure true integration of disciplines?
- How can cross-cutting programs be developed and delivered?

IGC members re-asserted their commitment to delivering a high-quality product that will meet the diverse and evolving needs of the research community and of the public. They also reiterated several key

principles: institutes will be virtual. They will be substantial in scope, provide strong scientific leadership and an advisory board for direction and accountability. A central peer-review function will be established. Although no final model has been adopted, it is contemplated that budgets would be centralized and allocated to institutes that, in turn, would be responsible for developing and implementing their own strategic and business plans.

It was clear from discussion that there is no single model in creating new institutes. But it was also clear that whatever the model, the CIHR must be capable of embracing a basic paradox: At the macro level, institutes must be broad-reaching, able to encourage truly cross-disciplinary and cross-cutting interaction. At the same time, each institute must be "small" in the sense of facilitating many focused teams working on different pieces of a common agenda. As one participant, proposing an Institute of Public Health Research, put the integrative challenge: "small is beautiful, big is better."

A strong message from participants was the need to define not just full-fledged institutes, but also cross-cutting and developmental structures—variously referred to as 'Offices,' 'Agencies,' or 'Consortia.' These are seen as crucial to support important but fledgling approaches, and to nurture areas in need of development or capacity enhancement. One team proposed such a mechanism with an Agency for Integration and Innovation (see *Emerging research fields—an innovative model* on page 3).

## IV. Capacity development for emerging fields

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As noted earlier, workshop participants identified building research capacity as an important function for the CIHR. Several key questions were raised. For example, should institutes be created to build critical mass? Should institutes be created only if you have critical mass? In other words, is it the institute's function to build capacity or to culminate capacity?

Given the scope and breadth of health research, participants identified the need to establish multiple mechanisms to allow recognition of emerging fields of research and/or support the development of critical mass among researchers.

Participants noted the need for at least three different types of capacity building: training more researchers, promoting better networking of existing researchers, and broadening the reach of networks to include not just researchers but also stakeholders. Depending on the area, there may be a need to work on one, two, or all three types of capacity building.

For instance, the health-oriented environmental research community has a strong existing cadre of research and stakeholder expertise but needs to build more effective collaborative networks. The current research community examining rural health issues, to give another example, is both highly fragmented (owing to the absence of dedicated funding and infrastructure support) and underdeveloped in terms of the critical mass of researchers available.

The need to do all three types of capacity building—i.e., to train more researchers, involve stakeholders more in the research process, and integrate programs and institutions—is perhaps greatest in the field of Aboriginal health, which is not presently recognized by most institutions and universities (see *Aboriginal health—urgent needs; special consideration* on page 6).

With regard to the broadening of networks, it was stressed that the CIHR must be capable of connecting the right people across the full spectrum of stakeholders interested in health research. This type of capacity building is critical for knowledge-transfer and research results uptake—two key elements of successful health research and health systems.

The proposal for a Mental Health Research Institute provides an example of an institute that embraces all types of capacity building, including mechanisms to encourage research cutting across the four sectors. Its role would be to promote strong interdisciplinary collaboration around common themes, provide improved opportunities for training, and improve the uptake of research results by policy and decision makers.

The lesson appears to be that there should be no “one size fits all” approach to capacity building in the CIHR. Rather, the balance of activities in each research domain will vary and require careful attention in order to tailor programs and infrastructure to fit particular patterns of need.

## ABORIGINAL HEALTH—URGENT NEEDS; SPECIAL CONSIDERATION

Aboriginal people bear a disproportionate burden of illness in Canada. Life expectancy at birth is seven to eight years less for Aboriginal people than for other Canadians. The death rate among infants is about twice as high as the national average. The incidence of life-threatening degenerative conditions such as diabetes, cancer, or heart diseases is rising. Overall rates of injury, violence, and self-destructive behaviour are disturbingly high.

A proposal put forward by a team led by Dr. John O’Neil, of the University of Manitoba, builds on the development of an Aboriginal Health Institute by the national Aboriginal organizations with funding from Health Canada. This Institute will support the health information and policy needs of Aboriginal governments and organizations, and will be fully accountable to Aboriginal authorities.

The proposal recommends the development by the CIHR of a Research Consortium designed to provide a research environment for the promotion of cross-cutting research agendas that are sensitive to Aboriginal needs. The proposed consortium would be developed in full partnership with the Aboriginal Health Institute. Its membership would be determined by criteria to be established jointly by Aboriginal and university representatives.

The proposal also recommends the establishment of an Office of Aboriginal Health Research with the responsibility for developing relationships, programs, and structures to ensure that the CIHR is responsive to an Aboriginal health research agenda. In addition, the proposal recommends that the development of a national cadre of Aboriginal academic health researchers become a CIHR priority.

Finally, it is recommended that peer review in the context of Aboriginal health research includes community perspectives, policy applications, interdisciplinarity, and methodological diversity.

## V. Making choices

While many of the HIDG teams made suggestions for the creation of specific institutes, they recognized the necessity of making choices. They noted that while the naming of institutes was important, the critical thing was to ensure the ability of institutes to build inclusive research capacity rather than seeking to obtain ‘Institute’ status for particular research communities. In this context, they stressed that institutes are necessary but are not the only vehicle required to transform and integrate the evolving health research landscape. They noted that the CIHR must embrace a mix of mechanisms and approaches within and across specifically named institutes.

Participants agreed that to be relevant and successful on a continuing basis, the CIHR must be capable of creating institutes, programs, and mechanisms that are dynamic and responsive to changing needs and circumstances. Further, it was noted that institutes should not have rigid rules governing institute membership. It was suggested that incentives should be provided, through the development of progressive and flexible programming, to make sure that researchers get together and adapt the composition of research teams in light of emerging needs.

Given the varying nature and scope of research activities as well as the different states of research capacity represented at the workshop, participants noted the need to avoid an exclusively “top down” approach to institute creation and to also allow for the creation of institutes “from the bottom up.” Their concern is that if too many institutes are developed too fast from the top, based on current ideas of what is needed, then there will be little room left to construct institutes that can effectively address health challenges whose importance for the future are not yet appreciated.

The limited time available to the HIDG teams (three months) and the difficulty of mobilizing researchers, since many are away during the summer, made it difficult to achieve the desired progress on identifying specific agendas and programs within institutes. Teams were also constrained by the relative

lack of information they had on the broader CIHR framework within which institutes will operate. Further reflection within the social sciences, humanities, and health services research community is needed to fully explore the deep and far-reaching implications of the CIHR in the renewal of Canada's health research capacity. Many need time, further face-to-face meetings, initial collaborative experiences, and the general development of trust before they are ready to evolve into substantial institutes with well-described programs and agendas.

A strong message was also sent by some of the teams about the importance of involving stakeholders outside the research community in the design of new institutes. These stakeholders have the potential to contribute ideas for the design of institutes and for shaping their research agenda. In some cases, such as the proposals for a Canadian Institute on Aging, an Aboriginal Health Institute, and an Institute on the Disability Process, the role of stakeholder organizations and communities was clearly identified as critical to the success of any new institute or structure.

## IT TAKES FOUR TO TANGO—INTEGRATING RESEARCH

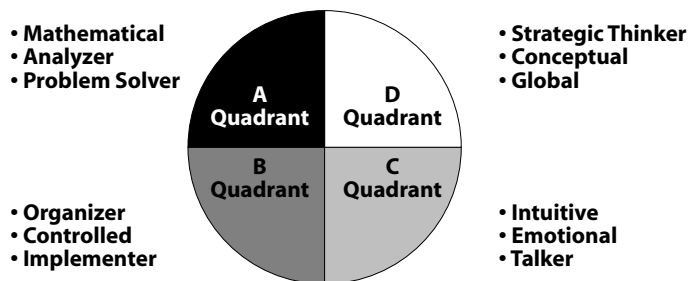
A presentation by keynote speaker Ron Yamada, Senior Vice-President, MDS Inc., addressed the issue of the integration of health research. He is a past Chair of the Health Evidence Application and Linkage Network (HEALNet)—a federal Network of Centres of Excellence.

Research results are the intellectual fuel needed to continue Canadian leadership in research, and to start new companies that are critical to Canada's successful transition to a knowledge-based economy. The creation of the CIHR constitutes an important challenge for Canada's research community and institutions. Health research not only contributes to the high quality of life of Canadians, but is also critical to the implementation of an integrated and co-ordinated decision-making process based on innovation and accountability.

Success in creating the CIHR will depend on the ability to bring together people with at least four different styles and brain preferences (see diagram) to create high-powered research teams sharing a common goal. Research in the context of the CIHR will call for all four of these complementary skills. The challenge faced by the CIHR leadership will not only be to bring together people with different approaches and styles of research, but also to ensure that their contributions are recognized by team members as well as by the "system." Winning teams exploring the intricacies of human health not only need to have strong analytical abilities, they also require insight in the intuitive and emotional side of people.

Integrating disciplines and people largely depends on the attention given to details. People need to know what the impact of the institutes will be and how it will affect them. In this context, there is a clear need to align existing incentives to gain the support and commitment of the research community for the profound transformation that will result from the establishment of the CIHR.

### Herman Brain Dominance Indicator



## VI. Health and research are both about people

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Public support in opinion polls for health research is second only to medical treatment. While Canadians have high hopes for the success of the CIHR and its ability to change health research in new and innovative ways, they also have concerns—about efficiencies and the sustainability of their investment in health research and the health system.

One of the key benefits of the HIDG process was to mobilize research communities and individuals to not only discuss the creation of structures but, more importantly, to talk about their design. During the workshop, it became clear that the vision and motivation of individuals would be a critical element in the process of establishing the CIHR and to its ultimate success. Discussions highlighted the need for the researchers and communities involved to spend more time discussing complex issues around the design of institutes.

The success of the CIHR will depend on its ability to establish structures that encourage individuals with different styles and approaches to come together around common themes. Strong teams are made up of individuals with different capabilities and preferences (see *It takes four to tango—integrating research* on page 7). For instance, researchers with strong analytical abilities often found in the natural or biomedical fields can complement social scientists with a preference for conceptual and intuitive work. The resulting synergy helps put together high-powered research teams with the range of abilities and approaches needed to undertake research in broad and innovative ways.

Participants also recognized that the leadership of institutes is critical to the CIHR's success. Institute leaders will not only have to be recognized for their ability to embrace inter- and multidisciplinary research, they will also need to have a high degree of

credibility as researchers in their own fields. These are essential conditions for ensuring that institute leaders will appreciate, understand, and encourage research and what can be done with it.

The CIHR represents a profound shift for most researchers who evolve in an environment where collaboration and interdisciplinary work are often not recognized. The current evaluation and reward systems governing academic and research careers are designed to promote excellence within disciplines. While not actively discouraged, transdisciplinary work is, at best, difficult to assess with traditional peer review. As a result, it is often counter-productive from the perspective of traditional career advancement in universities.

The CIHR will have to show strong leadership to bring about the attitude shift required to successfully undertake broader research agendas within and across institutes. It will also have to gain the support of universities and research institutions to accelerate the trend in recognizing research collaboration in the same way they recognize disciplinary work in their promotion and reward systems. Unless incentives are aligned to take into account the new landscape of Canadian health research and innovation, much of the promise of integration will not occur.

Integration means that individuals in the social sciences, law, ethics, and other underpinning disciplines will have the opportunity to have a meaningful dialogue with their colleagues from the medical community. As a result, researchers will not only learn to speak the same language, they will share the same vision and common goals for health research, and most importantly, for Canadians.

## VII. A rich breadth of research activities to support Canadian leadership

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Research in the social sciences, health services, and nursing spans a continuum of activities from basic to applied research. Their combination with biomedical and clinical research has the potential to bring important insight to the social causes and human behaviours of disease and health.

Extremely novel approaches can emerge from the juxtaposition of these often-disconnected sectors. This, of course, is the CIHR's ultimate goal. One example of such a novel approach was the proposal for a network in Consciousness, Health, and Well-being (see *Consciousness, Health, and Well-being—a case in transdisciplinarity* on this page).

A more pragmatic example is health services research—a policy-oriented field that draws on disciplines across the social sciences, health sciences, natural sciences, and humanities. Health services research is not only interdisciplinary in nature, it also complements biomedical and clinical research, and involves basic and applied research.

Another example is the proposal for an Institute on the Disability Process, aimed at creating bridges and collaboration between diverse aspects of fundamental, clinical, applied, and evaluative research on both biomedical and social facets. Finally, a proposal for a Child, Adolescent, and Family Research Institute is based on the remarkable breadth and depth that already exists among Canadian social and biomedical scientists interested in the field.

This richness in diversity and scope of activities is also a critical element in ensuring Canada's leadership in research. Individually and as a group, Canadian social science and health services researchers are among world leaders in many areas. Canadian researchers are credited for their major contributions to the understanding of the development of both mental and physical health problems.

### CONSCIOUSNESS, HEALTH, AND WELL-BEING—A CASE IN TRANSDISCIPLINARITY

The last two decades have seen a remarkable transformation as a result of the union of cognitive psychology and neuroscience. This led to the development of the field of cognitive neuroscience. This new field is uniquely suited for interdisciplinary study in the context of the CIHR, combining neurobiological research with findings from the humanities and the social sciences.

Transdisciplinary research effort in human consciousness is aimed at producing integrated knowledge. To do so, input from ethicists, anthropologists, ethnologists, neuropsychologists, and neurobiologists is necessary to create innovative approaches.

A proposal submitted by a team led by Dr. Maurice Dongier, of McGill University, is addressing this particular challenge by recommending the establishment of a strong cross-cutting network devoted to the transdisciplinary study of consciousness, health, and well-being. Their proposal is aimed at establishing a structure to actively promote transdisciplinary work by providing a way to formally evaluate and recognize such work. Their proposal was described as “an ideal model of integration with broad potential impact.”

The proposed cross-cutting network would have a strong core structure made up of a director and an advisory board with interest, expertise, and a publication record in transdisciplinary work. The membership in this network would be approximately two-thirds from the social and human sciences, and one-third from the neurobiological sciences. The role of these top-rate researchers would be to stretch the boundaries of those disciplines and promote transdisciplinary work to other researchers and students. In addition, members of the advisory board would include science communications specialists to help determine how to disseminate research results to the public.

## VIII. Ingredients for success

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During the workshop, teams of investigators presented ideas on how to support the integration of their research into the CIHR. Each identified a variety of key ingredients for success in shaping the CIHR. A selection of the ideas from these teams follows.

- Keeping an open mind and maintaining respect for the contributions of each discipline is central to collaboration and attaining true interdisciplinarity. The CIHR will need mechanisms to ensure the integration of the social sciences and humanities across all institutes.

*Integrating the Social Sciences and Humanities in the CIHR,*

Dr. Karen Grant, University of Manitoba

- An Agency for Innovation and Integration would serve as an effective incubator for new topics and new ideas within the CIHR, seeking out new sub-fields, assessing their potential, and supporting them for a maximum of five years.

*Promoting Innovation and Integration Through Northern and Rural Health Research,*

Dr. Stephen Bornstein and Dr. Gregory Kealey, Memorial University

- Greater attention to sex and gender as research variables and issues will ensure higher quality, as well as more valid and more generalizable science in the CIHR. It will also lead to more comprehensive and integrated research agendas, and better health systems and services responsive to women.

*Sex and Gender in the CIHR,*

Dr. Lorraine Greaves, B.C. Centre of Excellence for Women's Health

- The CIHR needs a cross-cutting theme to support ethical research and research on ethics. This will ensure that the background work is in place to make good decisions about health research, practices, and policies.

*Integrating Bioethics and Health Law into the CIHR,*  
Dr. Susan Sherwin, Dalhousie University

- The CIHR should evolve gradually. The creation of initial institutes should be followed by a transitional introduction of additional institutes necessary to fulfil the CIHR vision.

*An Institute for the Integration of Ethics, Law, Society, Culture and Health,*

Dr. Janet Storch, University of Victoria

- CIHR funding opportunities should be an incentive for researchers to work in more integrative ways and have stronger links to professionals in other settings.

*Child, Adolescent, and Family Research in the New CIHR,*

Dr. Richard Tremblay, Université de Montréal

- With broad issues such as aging, that cut across disciplines and diseases, ideas from stakeholders on how they might best be integrated are central to building a comprehensive and sustainable network.

*Canadian Institute on Aging,*

Dr. Neena Chappell, University of Victoria

- An integrated and intensive approach that links scientists from many different disciplines will greatly increase the probability of transformational breakthroughs and innovative insights in complex, multi-dimensional areas of health.

*New Directions and New Dimensions for Environmental-Health Research in Canada,*

Dr. John Eyles, McMaster University

- There must be a “partnership” with Aboriginal communities to develop a health research agenda that provides for the full articulation of Aboriginal interests in the CIHR research process.

*Integrating a Focus on Aboriginal Health Research in the Development of the CIHR,*

Dr. John O'Neil, University of Manitoba

- The work of an institute is not only cross-discipline, but also cross-sector. Mechanisms that specifically support collaboration among researchers and between research sectors are necessary.

*An Institute for Rural Health Research,*  
Dr. Raymond W. Pong, Laurentian University

- Strong cross-cutting networks are necessary, in particular to provide a way to formally evaluate and recognize work that is transdisciplinary in nature.

*Consciousness, Health, and Well-being: a Transdisciplinary Approach,*  
Dr. Maurice Dongier, McGill University

- Small interdisciplinary teams require stable funding to enable them to undertake innovative work that may not necessarily be recognized in larger institutes.

*Modernité, souffrance et psychopathologie,*  
Dr. Gilles Bibeau, Université de Montréal

- Research projects should be judged on the basis of their transformative and innovative potential.

*Towards a Canadian Health Research Institute on Addictions,*  
Dr. Eric Single, University of Toronto

- Stakeholder participation is critical to the success of institutes. This is achieved through participation in the governing structure, input in the development of research agendas, and active representation of stakeholder perspectives in the research programs.

*A Canadian Research Institute on the Disability Process,*  
Dr. Patrick Fougeyrollas, Université Laval, and  
Dr. Mike Mahon, University of Manitoba

- Institutes should not miss the opportunity to build on areas where Canada already has an international reputation and accomplishments in

research by bringing together researchers, decision makers, clinicians, and users of research results.

*Inégalités socio-économiques, exclusion et santé,*  
Dr. Michel Tousignant, Université du Québec à Montréal

- There will always be a need to incorporate the work of cross-cutting themes into CIHR activities; they should not be seen as transition structures.

*Place in Health Care: Sites, Roles, Rights and Responsibilities,*  
Dr. Peter Coyte, University of Toronto

- There should be a place within the CIHR to address questions and policy issues facing the health care system “as a system.”

*Integrating Health Services Research into the CIHR,*  
Dr. Jeremiah Hurley, McMaster University

- Research by, and research for, those who provide care in health systems will not only serve the ultimate objective of improved health for Canadians, but will also give this large workforce a stake in the CIHR.

*The Canadian Institute for Research in Nursing and Caregiving,*  
Dr. Katharyn May, University of British Columbia

- The CIHR programs and institutes must be dynamic and responsive to maintain their relevance, and institutes must be broad enough in scope to allow for transformation and the creation of novel links across disciplines and sectors.

*Creation of an Institute of Public Health Research Within the CIHR,*  
Dr. Raynald Pineault, Université de Montréal

- An institute has an important function as a broker, using its advocacy capacity to develop national research policies, strengthen linkages across the four cross-cutting sectors, and create opportunities for stakeholder involvement and linkages.

*Mental Health Institute,*

Dr. Heather Stuart, Queen's University

## A VIEW FROM THE PROVINCES

A presentation by Dr. Ronald J. Dyck, Chair, Health Research Working Group of the Advisory Committee on Health Services, Federal/Provincial/Territorial Conference of Deputy Ministers, brought the provincial perspective to the workshop discussions.

The provinces have an enormous investment and interest in health research. Health research consumes public infrastructure funding, uses provincial facilities, and is primarily conducted by provincially funded researchers and support staff.

The provinces also benefit from the timely, reliable, and relevant information that results from health research. Evidence-based decision-making provides insight into competing priorities and sustainable directions for health and health care.

Provincial agencies recognize the importance of health research to the health system, health services delivery, and the well-being of Canadians. The establishment of the CIHR not only represents an opportunity to increase the support of, and investment in, Canadian health research, but also opens the door to a better integration of research resources and activities. While the provinces can play a significant role in defining the research agenda, the collaboration and linkages with the CIHR offer opportunities to:

- improve the dissemination of research results to policy and decision makers;
- build the capacity needed to attract and retain competitive health researchers;
- increase collaboration among researchers; and
- recognize under-developed areas of research such as population and environmental health, health economics, and health outcomes.

While the creation of the CIHR holds exciting opportunities, it also presents the provinces with major challenges. How will they cope with the increased burden of additional indirect costs for infrastructure? Salary support? How will the CIHR ensure equitable distribution of funding to each province? How will the CIHR deal with emerging and evolving research priorities while remaining responsive to the needs of the researchers? What will be the role of the provinces in decisions on the CIHR structure and function? And finally, how will the CIHR anticipate future research needs that are relevant to the health system of tomorrow?

The provinces are active players in key sectors of health research and can bring an important contribution to the CIHR design and governance. The provinces' involvement goes beyond collaboration on specific research projects; it provides an opportunity to add strength to the development of institutes.