The McMaster Health Collaboration

Report of the Task Force on Integrated Health Research and Education

Task Force Members: Roy Cain
Susan Denburg
Susan Elliott
John Eyles
Mita Giacomini
Brian Haynes
Jeremiah Hurley, Chair
Brian Hutchison
Bernie O'Brien (1959-2004)

External Consultants: Lillian Bayne
Anthony Culyer

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Executive Summary

McMaster University enjoys an international reputation for health research and education that addresses the complex health challenges facing modern societies. Accordingly, the University has identified "Integrated Health Research and Education" as an area for strategic development. As a key component of Integrated Health, we propose the creation of "The McMaster Health Collaboration."

What is the McMaster Health Collaboration?

The McMaster Health Collaboration ("the Collaboration") is a dynamic, University-wide strategy to enhance McMaster's reputation as **the** Health University in Canada. The Collaboration integrates the activities of scholars whose work is health focused and is undertaken from the perspectives of the social sciences, behavioral science, humanities or business. The Collaboration's borders are defined by the nature of the questions asked, the frameworks used to answer these questions, and educational experiences created for students -- not by an individual's Faculty or departmental or disciplinary affiliation.

The Collaboration will raise the profile and impact of McMaster's health scholarship by:

- developing new knowledge about health and well-being, informed by both disciplinary and interdisciplinary concepts and approaches
- mobilizing new knowledge for the advancement of scholarship, policy-making and communities of practice, and
- preparing graduates to tackle complex health problems in Canadian society

The Collaboration will achieve these aims by building a shared infrastructure of programs, facilities and relationships designed to:

- foster mutual respect, understanding and shared learning among diverse scholars
- promote a collaborative culture in research and education
- enhance research and education productivity of both individual scholars and scholarly teams
- spark innovative interdisciplinary ventures in education and scholarship
- engage McMaster scholars and students with external stakeholders and community groups, and
- mentor and cultivate scholars for excellence

The physical centrepiece of the Collaboration will be a *Centre for Health Knowledge*. This state-of-the-art facility will support the full innovation cycle.

- *Knowledge discovery and creation* will be advanced through research facilities supporting quantitative and qualitative methodologies. The facilities will include, for example, databases and analytic tools, experimental laboratories and library and archival resources. It will also provide space to researchers and research units currently located throughout McMaster and Hamilton.
- *Knowledge transfer* between McMaster scholars, practitioners, policymakers and students will be supported through facilities to foster interaction and specialized resources. These

include, for example, space for meeting and working together, technology for connecting geographically dispersed colleagues, lecture halls, classrooms, and specialized educational facilities. Importantly, the facility will be designed to support collaborative relationships between McMaster and the surrounding community.

The Collaboration will provide funding to foster research such as:

- seed grants to support new collaborations and new research programs
- support for grant development
- visiting scholars program
- seminars and colloquia
- stipends to integrate students into research

The Collaboration will enhance health-related education through mechanisms such as:

Targeted resources to foster greater cross-program collaborations and interactions, develop strategically important new courses and related educational innovations, integrate students into faculty research programs, and establish shared learning resources (e.g. modules, course materials).

Educational program development by working with Deans, Chairs and program directors to develop new courses and degree programs especially at the graduate level (e.g., Health Policy), create community-oriented learning programs akin to Hamilton's "Science in the City", and offer summer institutes and related continuing education forums to upgrade the knowledge and skills of those working in the health field.

Advocacy to adapt McMaster's organizational structures to accommodate innovative educational experiences that span disciplines and research and education

How will McMaster be different because of the Collaboration?

The Collaboration is designed to ensure that faculty, students, the community and external organizations become more aware of – and involved in – the rich array of research and educational opportunities at McMaster. The Collaboration is engineered to promote more fruitful interactions, collaboration, exchange, and mentoring. The Collaboration will establish an intellectual atmosphere to cultivate encounters that lead to innovative, ground-breaking research programs. In a collegial, stimulating environment, researchers working either solo or in teams will be better able to address the complex social, cultural, behavioral and economic aspects of health and health care in Canada.

McMaster will offer a greater variety of educational programs that attract both greater numbers of and higher-quality students. The University will produce professionals and graduates better equipped to assume leadership positions in government, academe, and industry. Our graduates will be able to address complex health challenges, work effectively across disciplines, and work effectively with decision makers. McMaster will offer new educational programs, existing educational programs with shared interests will be better coordinated, and students will enjoy

greater flexibility in selecting appropriate courses from the spectrum of educational programs on campus.

McMaster will become a magnet for those most engaged in health system issues. The unique culture, opportunities and resources created by the Collaboration will enable McMaster to attract and retain the best faculty, researchers and students. Individuals and ideas will flow freely between McMaster and external organizations. McMaster-based researchers will have a greater impact on policy in Canada as policy and decision makers look to them for critical advice to inform policy decisions.

Why McMaster?

McMaster is uniquely suited for such an ambitious, collaborative initiative in health research. The quantity, quality, and vibrancy of health research and educational programs at McMaster provide a strong foundation upon which to build. McMaster's combination of small overall size and a critical mass of scholars in key areas make it uniquely suited among Canada's research-intensive universities for such a University-wide collaboration. McMaster already has, more than most universities, a culture of collaboration both within and across departments and faculties

Why Now?

The external environment is changing in ways that make it imperative that McMaster invest in Integrated Health if it is to continue as the pre-eminent health university in Canada. Many other Canadian universities are investing substantial resources in this area of research and education. Furthermore, the demands and expectations of external funders are changing. The Collaboration aligns well with the new strategic directions and priorities of important University and research funders:

- Health research is amongst the highest priority for government, funding agencies and foundations
- External funders stress new models of research based on collaboration, problem-oriented research, interdisciplinarity, and external linkage
- The Canadian Institutes of Health Research (CIHR) has, since its founding, embraced a broad vision of health research that stresses the integration of biomedical, clinical, health services, and health-related cultural, social and population research
- The Social Sciences and Humanities Research Council (SSHRC) is transforming itself from a granting council to a "Knowledge Council" (SSHRC 2004). SSHRC's transformation emphasizes: team research and networking; problem-driven research; collective infrastructure for data archiving and for accessing research data; interactive engagement and knowledge transfer. It stresses the need to reduce barriers to collaboration; the role of shared material infrastructure and research clusters built around major equipment and facilities; knowledge-delivery systems
- Health research and education is an area for which McMaster has been highly successful in raising private sector funds.

What Resources does the Collaboration Require?

The Collaboration is designed to be developed incrementally. The foundation for the Collaboration can be established with modest resources drawn from internal University budgets. Initial resources required will support the administrative centre of the Collaboration (Director, and associated staff), new faculty appointments in strategic areas, and the Collaboration programs. Upon this platform the Collaboration can then build elements that require substantial external funding. The most resource intensive element, requiring multi-million dollar external funding, is the Centre for Health Knowledge.

Moving to the Next Level

The Collaboration is founded on a bold conception of the University and it Faculties, of health research, and of the relationship between research and education. The Collaboration's scope -- University-wide supporting both disciplinary and interdisciplinary excellence -- goes far beyond similarly spirited efforts at other Canadian universities. It is appropriate that McMaster aim high because it is the one place in Canada with the potential to realize the full vision of integrated health research and education.

Introduction

At McMaster our purpose is the discovery, communication and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation and excellence. We value integrity, quality, inclusiveness and teamwork in everything we do. We inspire critical thinking, personal growth, and passion for lifelong learning. We serve the social, cultural and economic needs of our community and our society (Refining Directions, 2004).

McMaster University has achieved international prominence in health research and education that addresses the complex health challenges facing modern societies. To recognize and build on this strength, the University's *Refining Directions* planning process identified "Integrated Health Research and Education" as an area for strategic investment at McMaster. This Initiative calls for the University-wide integration of health research and education undertaken from the perspectives of (a) Health Sciences, Physics and Engineering and (b) Health Sciences, Social Sciences, Behavioral Sciences, Humanities and Business.

This document reports the conclusions of the Task Force on Integrated Health Research and Education, formed to address the integration of research and education in the health and human sciences – social sciences, behavioral sciences, humanities, and business.[1]

We recommend the creation of the "McMaster Health Collaboration" (hereafter, "The Collaboration") that builds on McMaster's strengths in health research and education and constructs a framework upon which to develop innovative, integrated, and outstanding research and education programs. The Collaboration will provide McMaster scholars and students with the support, facilities and intellectual environment required to advance health research and education to a new level of distinction. The Collaboration will link health scholars across the entire University, further distinguishing McMaster nationally and internationally by:

- developing new knowledge about health and well-being, informed by both disciplinary and multidisciplinary approaches
- mobilizing new knowledge for the advancement of scholarship, policy-making and communities of practice, and
- preparing graduates to tackle complex health problems in society

What is the McMaster Health Collaboration?

The McMaster Collaboration is a dynamic, University-wide strategy for securing our reputation as **the** health university in Canada. The Collaboration will be instrumental in advancing our existing strengths in health research and education undertaken from the perspectives of the social

[1] Appendix 1 presents the terms of reference for the Task Force; Appendix 2 lists the membership and key activities of the Task Force.

sciences, behavioral sciences, humanities and business to new levels of excellence and innovation.

The Collaboration will create shared infrastructure to:

- *promote mutual respect, understanding and learning*
- *foster a collaborative culture in research and education* through, for example, campus-wide colloquia and a centralized clearinghouse for information about McMaster-based colleagues, projects, publications, and courses
- *enhance research and education productivity of both individual scholars and scholarly teams* through such resources as data centres/laboratories, seed funding, reform of academic culture and incentive systems and visiting scholar programs
- *spark innovative interdisciplinary ventures in education and scholarship* through activities such as joint seminar series, more extensive program linkage, more flexible course offerings, and shared building/office space
- *engage McMaster scholars and students with external stakeholders and community groups* through such resources as facilities to support regular interchange, and by developing and promoting communication skills to translate research for lay audiences
- *mentor and cultivate scholars for excellence* at all stages, but especially at the student and junior-faculty levels

What is the essence of the Collaboration?

The Collaboration is founded on the concept of shared, common infrastructure to support a network of relationships, activities, and resources.

Nearly 250 McMaster faculty, spread across all Faculties and numerous departments, program and research groups undertake health research from a social science, behavioral science, humanities or business perspective. A remarkable amount of collaboration currently occurs but many collaborative opportunities remain unexploited. Our survey of faculty confirmed that they are willing -- indeed excited -- to work to create a better environment to foster such work.[2]

The Collaboration will include designated "theme areas," which will be clusters of individuals and activities that share a common interest. Each theme will have a theme leader and, in most cases, will include individuals from more than one Faculty. The themes will provide support to clusters of individuals and activities that will naturally form among those who share common interests (defined by topic, methodology, objectives, etc.). Explicitly identifying such clusters can facilitate linkage and collaboration. Theme leaders will be natural points of contact; they can facilitate matches between researchers who otherwise would have a hard time finding each other. Although initial theme areas will likely correspond to areas of current strength at McMaster (e.g., health economics and health policy, environmental health, HIV/AIDS research) and identified areas of emerging strength (e.g., Aboriginal Health, History of Health and Medicine, Workplace Health), the Collaboration is designed to nurture the development of new themes that respond to

[2] See Appendices 3 and 4 for details of our surveys of departments and faculty at McMaster.

the changing mix and interests of McMaster researchers, new developments in health research, and changing health system needs.

The infrastructure and the associated web of supporting programs will provide coordination, support, and collegial encounters not possible (or efficient) for individual units or scholars to create independently. Figure 1 illustrates the contours of the Collaboration, and its relationship to existing units at the University. The Collaboration will provide internal and external resources to: (1) strengthen established areas, (2) nurture emerging areas; (3) connect currently dispersed areas, and, (4) create the conditions for breakthrough work in new, unanticipated areas. The Collaboration is both integrated and integrating, creating synergistic effects among existing centres, programs and individuals at McMaster, allowing McMaster-based researchers to answer the complex, vexing challenges posed by health and health care in our modern society.

The Collaboration's infrastructure will comprise resources, information, people, and facilities. The Collaboration will sponsor McMaster health colloquia, build a web-based information centre, sponsor a visiting scholars program, provide seed monies and support for the development of research proposals, develop shared teaching materials, and be a focal point for advocacy on issues central to the Collaboration. The Collaboration will be physically centered on a state-of-the art Centre for Health Knowledge, which supports the full innovation cycle from knowledge creation, through dissemination to the scientific community, all the way to communication to policy makers, practitioners and students. The facility will house data bases and interpretative facilities, laboratories, meeting rooms, and other resources central to the Collaboration.

Who is Involved?

The Collaboration is University-wide. The Collaboration's borders are defined by the nature of the questions asked, the frameworks used to answer these questions, and educational experiences created for students -- *not by a person's Faculty, departmental or program affiliation.* It includes a wide array of scholars, with the fundamental criterion simply being that a portion of an individual's professional work shares two features: it is health focused and it is undertaken from the perspective of the social sciences, behavioral science, humanities or business. The Collaboration will engage individuals in existing interdisciplinary centres and programs already focused on such research and education, individuals in disciplinary departments, as well as individuals whose primary identity is not as a health researcher.

The key to the Collaboration is the ability to accommodate diversity of disciplinary cultures, theories, methodologies, epistemologies, funding sources, academic reward systems, research aims, research outputs, and educational imperatives. By creating an initiative that genuinely crosses all parts of the University, the Collaboration goes well beyond what is being attempted in similarly spirited initiatives at other Canadian universities[3], positioning McMaster as the true Canadian leader and innovator for such health research and education.

[3] Please see Appendix 5 for a description of initiatives at other universities.

Why this Strategy?

The Collaboration embodies a number of features essential to achieving the ambitious vision of Integrated Health.

The world does not stand still; the specific areas of strength at McMaster and the most exciting research questions change over time. The Collaboration is designed to be an incubator, to create an environment that maximizes the potential over time for new, exciting discoveries that will maintain McMaster's pre-eminent position well into the future. In this sense, the Collaboration embodies a dynamic vision that will create a virtuous cycle of mutually reinforcing activities.

The Collaboration must support the research and educational work of a diverse set of faculty, working in widely varied settings, with diverse needs and interests, many of whom already have multiple affiliations to departments, research centres and educational programs. It must support both disciplinary-based and interdisciplinary activities. The proposed infrastructure will directly support research and education central to Integrated Health's vision in a way that can be accessed by faculty and students all across the University.

The Collaboration is designed to foster connections between the two components of Integrated Health --- this component that we call the "McMaster Health Collaboration" and the second component integrating Health Sciences, Physics and Engineering. These two components can be integrated, for example, through the evaluation of the social, economic, and cultural impacts of new health technologies.

The strategy embodied by the Collaboration is distinctive in Canada. Many other universities in Canada are investing in health research, especially that done from a social science and humanities perspective. In most cases, they create new academic units within the existing University structure. Simon Fraser, for example, has created a Faculty of Health Sciences; McGill has created a Department of Social Studies of Medicine. This approach can create barriers to collaboration between the researchers in these units and their disciplinary cousins in other university departments. Our proposed Collaboration embodies a bolder, University-wide vision that nurtures disciplinary and interdisciplinary collaborations that will be the engine for innovative education, for advancing science, and for forging better relationships with external partners.

How will McMaster be different because of the Collaboration?

As a result of the Collaboration there will be:

Greater Awareness of Research and Educational Opportunities at McMaster
Faculty, students and external agencies will be more aware of the full spectrum of research and education in health at McMaster. This awareness will promote more fruitful interactions, collaboration, cross-training and mentoring, both within the McMaster community and between McMaster and external parties such as government, community groups, foundations and industry.

Increased Research Productivity and Innovation at McMaster
McMaster's intellectual atmosphere will cultivate encounters that lead to truly innovative, path-breaking research programs, including encounters between:

- individuals struggling with the same issue from differing perspectives
- a researcher and a key finding, concept or methodological approach from another field
- researchers and other organizations that can provide needed information or resources crucial to advancing the research
- researchers and decision makers, who together can shape a research program or a policy direction.

Enhanced capacity to conduct integrated and integrating health research at McMaster
A stimulating and collegial environment will enable both researchers working in teams and those working alone to address the most complex social, cultural, behavioral and economic aspects of health and health care in Canada.

McMaster will be home to more, more diverse, and more productive interdisciplinary teams of health researchers
McMaster researchers will find it easier to identify and collaborate with health researchers in other disciplines and related fields of enquiry.

McMaster researchers will submit more grant applications and will enjoy greater success in grant competition
Researchers will have access to support in developing proposals and in creating research teams.

McMaster will offer a greater variety of educational programs that attract higher-quality students
McMaster will produce professionals and graduates better equipped to:

- address the complex health challenges facing society
- work effectively across disciplines
- work effectively with decision makers.

Educational enhancement and innovation at McMaster
McMaster will offer new educational programs, existing educational programs with shared interests will be better coordinated, and students will have greater flexibility to select appropriate courses from the spectrum of educational programs on campus. McMaster will offer a larger menu of educational options targeted at community members and professionals seeking to expand their knowledge and skills.

McMaster-based research will have a greater impact on policy and practice in Canada
Policy and decision makers will more frequently look to McMaster-based researchers for critical information, analysis and advice to inform policy decisions and there will be an increased flow of individuals and ideas between McMaster and external organizations.

McMaster will attract the best and brightest faculty recruits and students.

McMaster's international reputation and profile in health research and education will be enhanced so that McMaster will be the preferred choice for faculty and students interested in integrated health research and education.

Why McMaster University?

McMaster is uniquely suited for such an ambitious initiative.

A Reputation for Excellence
The quantity, quality, and vibrancy of health research and educational programs at McMaster provide a strong foundation upon which to build.

McMaster hosts a number of internationally renowned centres that undertake integrated health research, support graduate and undergraduate educational programs, and regularly interact with policy makers and community-based organizations.

McMaster faculty across all Faculties engage in health-related research or education from a social science, behavioral science, humanities or business perspective. These faculty excel in attracting external peer-reviewed funding, publishing in the best journals in their fields, and in training students who go on to highly successful careers. Their excellence is recognized both by their peers and by external policy makers:

- Ten McMaster Canada Research Chairs already work in the area of Integrated Health
- McMaster has an established national or international reputation in a number of areas central to the Collaboration, including:
    - Social Sciences-based AIDS research
    - Environmental Health Research
    - Health Economics and Health Policy
    - Health Technology Assessment
    - Child Health and Development
    - Knowledge Transfer
    - Evidence Based Decision Making in Health
- McMaster has emerging centres of excellence in a number of areas, including:
    - Bioethics
    - Aboriginal Health
    - History of Health and Medicine
    - Workplace Health

Innovative Educational Programs
McMaster offers a rich array of health education at both the undergraduate and graduate program, an array that has grown substantially in recent years[4]. At the undergraduate level, the Bachelor of Health Science and the Bachelor of Health Studies programs exemplify McMaster's continuing educational innovation. Both programs are thriving beyond expectations and offer exciting new opportunities for undergraduates. At the graduate level, McMaster offers strong

[4] Please see Appendix 6 for a list of undergraduate and graduate courses currently offered at McMaster relevant to the Collaboration.

health education streams within disciplinary programs as well as interdisciplinary programs. Some examples include:

- the only PhD in health economics in Canada and a newly developed Master of Arts in economic policy that includes a specialization in health
- canada's largest health geography stream
- the School of Business' coop-based concentration in health services management
- the Faculty of Health Science's interdisciplinary Health Research Methodology (HRM) program
- the inter-faculty Ontario Regional Training Centre, for which McMaster is the lead university within a six-university consortium offering diplomas in health services and policy research.

Size Advantage

McMaster has the advantage of being "nimble and efficient."[5] McMaster's small size among Canada's research-intensive universities makes it particularly well-suited for such a University-wide collaborative approach to research and education. Collaborative approaches thrive best in environments with physical proximity, ease of interaction, and an absence of stultifying administrative layers, all of which are more characteristic of smaller rather than larger organizations. The Collaboration plays to McMaster's advantage, making small size an asset. While McMaster has the small size essential for University-wide collaborations, many of its Departments and research centres are large enough to contain a critical mass of individuals essential to compete with larger universities. The Collaboration is essential for investing strategically to maintain critical mass in existing areas and build critical mass in emerging areas of excellence.

Collaborative Culture

McMaster has cultivated a culture of collaboration both within and across departments and Faculties, a culture that is truly remarkable when compared with other Universities. McMaster long-ago recognized that innovation and excellence emerge from teamwork, from working in a culture in which colleagues collaborate rather than compete.

Foresight and Boldness

As emphasized in *Refining Directions*, McMaster is willing to take the risks required to move to the next level. The Collaboration is risky – as noted above, it is founded on a bold conception of the University, of health research, of the relationships among the University's Faculties and of the relationship between research and education. Its scope as a genuinely university-wide initiative that will support both disciplinary and interdisciplinary excellence goes far beyond efforts at other Canadian universities. It is appropriate that McMaster aim high because it is the one place in Canada with the potential to realize the full vision.

[5] *Refining Directions*, 2004

Why Now?

> . . . a culture of collaboration and interaction within and across academic disciplines or among researchers, communities and knowledge users . . . is the very culture we now recognize as essential to harness the full power of ideas for the benefit of all Canadians." (SSHRC, *From Granting Council to Knowledge Council*, 2004)

University-based Health Research and Education

As noted above, a number of universities in Canada are investing substantially in health research and education approached from a social science, behavioral science, humanities and business perspective. To cite just a few examples, Simon Fraser University has created a new Faculty of Health Sciences (including 14 new faculty positions) and has given its initiative high priority for external fundraising. University of Calgary has launched a Health and Society Initiative that includes new undergraduate programs akin to our Bachelor of Health Sciences and Bachelor of Health Studies, created a Centre for Health and Policy Studies, and recruited a number of health social scientists, especially in health economics. The University of Western Ontario is in the midst of a planning process that will guide strategic investments in this area. The University of British Columbia has designated Health and Society as an area of strategic investment, and McGill has established a Department of Social Studies of Medicine.

McMaster cannot afford to be complacent. Above we identified areas of existing and emerging strength at McMaster. Without investment, however, these areas are at risk of being eclipsed or never realizing their potential, as these few examples demonstrate.

- *Health Technology Assessment and Health Economics*. McMaster gave birth to one of the most important outcome measures used today in health technology assessment (Quality Adjusted Life Year). Through this and subsequent work, McMaster earned a reputation as a world leader in the economic assessment of health technologies. In recent years, however, McMaster's pre-eminence has been compromised by retirements (e.g., G. Torrance), poaching (e.g., David Feeny) and an untimely death (e.g., Bernie O'Brien) at the very time that other Universities (e.g., Calgary, Ottawa) have been building strength. This area is particularly important to the overall Integrated Health Initiative because it is a basis for integrating the two components of Integrated Health. More generally, McMaster-based health economic and health services researchers are crippled by difficulties accessing the kinds of administrative and linked data now routinely available to researchers in units such as UBC's Centre for Health Services and Policy Research, Manitoba's Centre for Health Policy, and Toronto's Institute for Clinical and Evaluative Sciences.
- *Environment and Health.* The McMaster Institute for the Environment and Health has either led or collaborated in path-breaking research on issues such as West Nile virus, the relationship between air pollution and mortality, and the public's understanding of risk related to environmental hazards. Its strength lies in its multi-Faculty approach (Science, Social Sciences, Health Sciences, Engineering) to problems and its close links with practitioner and policy communities. But its small size leaves it vulnerable as the recent

loss of a key junior faculty member to another university and the promotion of another faculty member to a Deanship make clear.

- *McMaster HIV/AIDS Research Alliance*. A small group of outstanding McMaster researchers (Cain, Health Studies; Gillette, Health Studies/Sociology; Pawluch, Sociology; Poinar, Anthropology; Rosenthal, Health Sciences; Willms, Anthropology) working on HIV/AIDS have recently formed the McMaster HIV/AIDS Research Alliance, which focuses on interdisciplinary, primarily social sciences-based research around the HIV-AIDS epidemic. They recognized that they could address complex AIDS-related research questions regarding the relationship between social, cultural and physiological factors in the dissemination of HIV/AIDS only by coming together as the Alliance. The Alliance has the potential to significantly raise McMaster's profile as a centre for HIV/AIDS research in Canada. The Collaboration will enable them to take their research to the next level through the Collaboration's networks, awareness and research support, helping to retain these outstanding young faculty members.
- *History of Health and Medicine.* McMaster's History of Health and Medicine Unit has, in recent years, formed a thriving group of scholars from across the Faculties of Health Sciences, Humanities, and Social Science. The Unit is creating a strong research program, is working with the Department of History to develop a new PhD field in "Health and Welfare", and is contributing significantly to a number of undergraduate initiatives. The Unit is poised to become Canada's premier centre in the history of health and medicine and one of the top five such units in North America, but it can only do so with investments required to reach critical mass.
- *Work and Health.* Work organization and health is a rapidly emerging area of interdisciplianry study examining how social relations at work, human resource practices, and the organization of work can affect health. McMaster researchers across the social and health sciences, working with external organizations such as the Institute of Work and Health, are emerging as a leading centre for such research and education in Canada. In recognition of this, the Workplace Safety and Insurance Board has invited a group of researchers at McMaster to establish a Centre for Research on Work Organization and Health. Strategic internal investment combined with such external funding could cement McMaster's position as the leading centre in Canada.

In the face of this competitive university environment, McMaster has three choices:

a) Status quo: continue on the current path with no strategic investment in the area. Under this option, McMaster will gradually be eclipsed by other Universities as their programs mature and as they recruit outstanding faculty away from McMaster.
b) Increased investment under the current model: this will help McMaster maintain excellence in health research, but it will neither take us to the next level nor truly distinguish McMaster
c) Invest in the Collaboration: investing now in the Collaboration is necessary to advance existing and emerging areas to new levels of excellence, and ensure McMaster's continued innovation in health research and education.

External Funding

Health research is amongst the highest priority for research funding agencies and governments. Through the Canadian Institutes of Health Research (CIHR), the Canadian Health Services Research Foundation, and other initiatives, in the last 5-7 years the Federal government has increased health research funding more rapidly than funding to other research areas.[6] Health, therefore, remains a promising area for attracting external resources.

The external funding environment, however, is changing in ways with quite important implications for the University. External funders today want to invest in new models of research, models that emphasize features such as collaboration, interdisciplinarity, problem-based research, and external linkage. They give priority to working with universities that can demonstrate an interest and ability to organize themselves along these lines. The proposed Collaboration will do this for McMaster, positioning McMaster-based researchers and research units for success in seeking external funding from important University and research funders, including the national research councils, the public sector, and the private sector

CIHR, for instance, strives to transform "the lives of Canadians and Canada's health care system . . . enriched by our growing appreciation of the interplay among genetic, psychosocial, economic and environmental factor that influence our susceptibility to disease [and] not merely to create knowledge, but to ensure its translation into application ." (CIHR 2004). It has, since its founding in 2000, embraced a broad vision of health research that stresses the integration of biomedical, clinical, health services, and health-related cultural, social and population research.

The Social Sciences and Humanities Research Council (SSHRC) is transforming itself from a granting council to a "Knowledge Council" (SSHRC 2004). SSHRC's transformation emphasizes:

- team research and networking
- problem-driven research
- collective infrastructure for data archiving and for accessing research data
- interactive engagement and knowledge transfer
- reducing barriers to people knowing each other
- the role of shared material infrastructure and research clusters built around major equipment and facilities
- knowledge-delivery systems
- the fact that "individual need not mean isolated."

At the national level, the Health and Society Research Group[7] seeks to develop a "collaborative, interagency approach to encouraging, supporting and funding Health and Society." (Health and Society Workshop 2004) The Group, which includes members of key public and private health research funding agencies, has developed a strategic work plan to develop capacity in this area,

[6] This is reflected in research funding obtained by McMaster researchers. Since 1998-99, funding from MRC/CIHR has more than doubled while funding from NSERC and SSHRC has increased far more modestly.
[7] Formerly known as the Behavioural, Social Sciences and Humanities Health Research Workshop

to increase submissions to funding agencies by researchers working in this areas, and to increase the impact of such research on health system change.

Governments at all levels provide substantial research funding for the types of activities at the core of the Collaboration. The research branch of the Ontario Ministry of Health, for example, funds individual projects, investigators and is a major contributor to a number of McMaster's health research centres. Regional and municipal governments are increasingly interested in research linkages with Universities, for example, in the area of public health (particularly in light of Walkerton, SARS, West Nile, Avian flu, etc.) and home care.

Health research and education is one of the areas for which McMaster has been most successful in raising private sector funds. The elements of the Collaboration described below can be packaged in ways that facilitate gifts of all sizes, including large multi-million dollar gifts. The Collaboration has the potential to be a catalyst around which substantial fundraising can occur.

How Should McMaster Invest in the Collaboration?

> *We must find ways to identify those who are disposed to innovation and risk-taking and provide the encouragement and support that enables new thinking. (Refining Directions, 2004)*

To be successful, the Collaboration must support the research and educational work of a diverse set of faculty, working in widely varied settings, with diverse needs and interests, many of whom already have multiple affiliations to departments, research centres and educational programs. The Collaboration must therefore be flexible and must simultaneously project multiple "faces" to serve the myriad individuals, centres and programs. And because time is one of the most valuable and limited resources of faculty and students, the Collaboration must be designed to help them work more effectively, allowing them to be more productive rather than impose new time demands.[8]

Functions and Activities of the Collaboration

Linkage – Internal

Faculty indicated in both the survey and the focus group that a significant barrier inhibiting collaboration among McMaster faculty is a lack of awareness of who else on campus shares their interests. Overcoming this informational barrier will be a central purpose of the Collaboration, one that will become even more important in the coming years as many senior faculty retire and are replaced with new junior faculty. The following components of the Collaboration will reduce this barrier.

Annual McMaster Health Colloquium.

[8] In developing this proposal for how best to invest to achieve the vision for Integrated Health, we consulted internally through the faculty survey and focus group (Appendices 6 and 7) and externally with leaders from health research, health policy and health research funding (Appendix 8).

The Collaboration should host an annual colloquium that displays the health research and education of McMaster faculty and students. The colloquium should be structured to promote maximum exposure, allowing attendees to "browse" and to discover other research, researchers and students whose work relates to their own. The colloquium should be planned by a committee with representation from different parts of the University, and can itself be a vehicle for promoting more understanding and knowledge of relevant research on campus. The colloquium will also promote McMaster's research and education programs to outside audiences.

Web-based Information Centre.
A centralized, web-based information centre could substantially reduce the challenge faculty and students (prospective and enrolled) encounter when trying to identify McMaster-based researchers, educational offerings, and scholarly activities. The web-site must be up-to-date, easy to navigate and search, and strike the right balance between holding information and providing links to other sites of direct relevance to individuals working in these areas. Its content must be designed so that a person linked to the Collaboration would feel compelled to visit it at least a few times per week.

Themes.
The Collaboration will designate and support "theme areas," which will be clusters of individuals and activities that share a common interest. Each theme will have a theme leader and, in most cases, will include individuals from more than one Faculty. The themes will serve several purposes. The themes will provide support to clusters of individuals and activities that will naturally form based on common interests (defined by topic, methodology, objectives, etc.). Explicitly identifying such clusters can facilitate linkage and collaboration. Theme leaders will be natural points of contact; they can function as a level of intelligence facilitating matches between researchers who otherwise would have a hard time finding each other. Finally, and not least, designating themes will help make the Collaboration more concrete.

The number of themes will vary over time. Although initial theme areas will likely correspond to areas of current strength at McMaster (e.g., health economics and health policy, environmental health, AIDS research) and identified areas of emerging strength (e.g., Aboriginal Health, History of Health and Medicine, Workplace Health), the Collaboration is designed to nurture the development of new themes that respond to the changing mix and interests of McMaster researchers, new developments in health research, and changing health system needs. Many will emerge as part of the natural development of the Collaboration; others may be developed strategically and intentionally. They should be allowed to flourish and disband as may be appropriate. The themes do not need to be defined in ways that make them mutually exclusive; one may be defined by methodology, another by specific area of inquiry (i.e., more problem-oriented) and others by purpose (e.g., policy research with strong link to government).

<u>Linkage – External</u>

The Collaboration must strengthen existing linkages and develop new relationships between McMaster and a variety of external organizations and agencies. Such external relationship-building will be a key responsibility of the Collaboration Director. The Collaboration would enhance these relationships by:

- acting as an information clearinghouse for external organizations seeking to link with McMaster health researchers. The web-site can help with this, but such linkage also requires an active strategy for handling and directing inquiries
- supporting researchers negotiating a relationship with an external organization
- mobilizing a McMaster response to RFAs and other requests from external agencies
- Creating facilities, resources and programs to support exchange (in SSHRC's language, Knowledge Mobilization Units) through
    - advanced communication technologies (more on this below)
    - specialized personnel
    - exchange programs with policy makers

Shared Facility: The Centre for Health Knowledge

We envision a state-of-the-art facility that encompasses the full innovation cycle from knowledge creation through application, including transmission to practitioners, policy makers, and the next generation of scholars. The facility would also be designed and managed to forge stronger links between McMaster and the surrounding community. Such community links can be forged by making the facility available to community groups as is appropriate or by creating a shared infrastructure arrangement with an external agency (e.g., Health Intelligence Unit, Social Planning and Research Council) which could be located in the facility. The facility will include:

Infrastructure to support quantitative empirical research and education

- a fully secure data library housing Statistics Canada data sets, provincial administrative data sets, other publicly available data from Canada and publicly available data sets from other countries to facilitate international research (e.g., the US National Medical Expenditure Survey, the UK Survey of Households). The data library must have the ability to link data sets where possible
- staff with expertise regarding the data and programming skills to assist researchers and students
- staff with expertise on survey design and survey methodology, who can assist researchers and students undertaking primary data collection
- computing facilities appropriate for research and education

Infrastructure to support qualitative empirical research and education

- meeting rooms appropriate for focus-groups
- staff to provide transcription services
- computing facilities appropriate both for research and education, including the analysis of text-based data and images
- staff with expertise in the analysis of qualitative data

Infrastructure to support Geographic Information Systems

- integration with the existing GIS lab on campus to facilitate geographically based health research

Experimental Laboratory for Social and Behavioural Sciences

- a computerized laboratory facility to support computer-based experimental research, which are of increasing importance in the social and behavioural sciences

Infrastructure to support collaboration with researchers outside McMaster and knowledge transfer

- video- and tele-conferencing facilities to support interaction with decision makers and policy makers
- staff with communications expertise to support the development of materials used in knowledge transfer (e.g., how best to convey key ideas to a non-expert audience)

Library and Archival staff and facilities

- staff to support systematic reviews and specialized health literature searches, especially to identify "grey" literature
- archival facilities for a wide range of data and health information

Office space and facilities to house researchers and research units now located throughout McMaster and Hamilton

Lecture halls, classrooms, meeting rooms, and specialized educational facilities

- state-of-the-art facilities for regular courses, Summer Institutes for continuing education, small conferences, and related forums.

Targeted Funding to Foster Research and Education

Seed grants

Forging new collaborations and extending research into new areas require considerable investment of time, energy and patience with highly uncertain return. These costs inhibit researchers from extending their work in such ways. Such costs, however, can be at least partially offset by seed grants targeted at new collaborations and new programs of research, especially by those who have not previously undertaken health research.

Support for the development of grants to be submitted to external agencies.

The forms and processes for completing a grant application to an external funding agency often intimidate even seasoned researchers, but they especially intimidate junior researchers and those from disciplines whose research does not rely heavily on such funding. Support to researchers wanting to submit such applications is essential. The Office of Research Services offers an expanding array of such support (e.g., internal review for CIHR grants). This Collaboration, however, can provide additional support both small (e.g., clearer and better documented guides on how to complete forms, etc.) and large (assistance from a project development officer, especially for large grants) that will make it easier for McMaster-based researchers to develop grants and increase the chances that such submissions will be funded.

Visiting scholars program

Visiting scholars can challenge, stimulate, and inspire research and education at McMaster. This becomes even more likely when multiple visitors with shared interests are engaged simultaneously. We propose a visitors program which each year brings to McMaster a set of 3-4

international-calibre visitors working in a strategically chosen area, though from differing perspectives. The visitors would interact among themselves and McMaster faculty and students, perhaps offer a series of lectures, lead a seminar (formal or informal), and related activities. Done well, such a program could entice higher-calibre individuals than could be attracted through uncoordinated visitor programs, and establish legacies lasting beyond the tenure of their visits.

Seminars and colloquia
Currently a number of centres and programs run seminar series that bring speakers to McMaster. Seminars are time-intensive, so simply adding a new seminar series is not of obvious value to people who already feel pressed for time. There is a role, however, for:

- consolidated and coordinated advertising of seminars on campus
- increased collaboration among Departments, programs, and Centres running seminar series to jointly sponsor individual speakers or even whole seminar series
- resources to more regularly bring in higher-profile speakers
- specialized, *ad hoc* colloquia areas of particular interest to McMaster researchers and students

Stipends to employ summer students
Students, especially graduate students, benefit from participating in research. Faculty frequently have opportunities to involve students but lack resources. A program of summer research stipends to be used in hiring McMaster students can further both our educational and research goals.

<u>Education</u>

The Collaboration will work with Deans, Chairs and program directors to enhance health related education through a number of mechanisms.

Targeted Funding
Targeted funds can make a big difference in some specific areas.

- cross-program collaborations and interactions are, in some instances, underdeveloped simply because insufficient resources limit the ability of programs to accept students from other departments and programs into existing courses. Targeted resources must be used to eliminate such bottlenecks. Such resources would include:
- funding to buy-out teaching time to support the development of strategically important new courses and related educational innovations
- summer grants to integrate students into faculty research programs
- funding to support the development of new learning modules that can be shared by faculty for use in different courses.

Educational Program Development
The Collaboration will create new educational programs and existing educational programs with shared interests will be better coordinated and will give students greater flexibility to select appropriate courses from the spectrum of educational programs on campus. The new educational offerings will include:

- new courses
- new degree programs, especially at the graduate level (e.g., Health Policy)
- new community-oriented learning programs, akin to "Science in the City"
- summer Institutes and related continuing education fora to upgrade the skills of those working in the public and private sectors

Advocacy
Creating change will require ongoing advocacy that challenges current structures and which support faculty and students in forging innovative educational experiences that span disciplines and research and education. Some particular issues include:

- increased flexibility for students to take courses outside their "home" discipline as part of their graduate training
- increased flexibility in the recognition given to faculty making educational contributions outside their home department/faculty
- better coordination of course offerings and learning opportunities across both graduate and undergraduate programs

Additional Tasks

A number of aspects of McMaster's administrative and organizational structures potentially inhibit the success of the Integrated Health Collaboration. They range from seemingly small issues to issues fundamental to the culture and process of McMaster as an organization. To support the Collaboration, the University will need to:

Identify and reduce administrative regulations and processes that inhibit pan-university collaboration in research and education
McMaster, like all organizations, has administrative barriers to effective collaboration (e.g., incompatible computer systems across the parts of the University; regulations that make it difficult to employ staff based in one Faculty using funds administered in a different Faculty). These must be eliminated where possible.

Address incentive and reward systems, especially as they relate to tenure and promotion processes and educational contributions outside one's home unit.
In many parts of the University, tenure and promotion criteria explicitly disadvantage those who work collaboratively and those who publish in interdisciplinary outlets. These issues are larger than just McMaster, and go to the heart of our universities, but they represent a serious barrier to achieving the aims of the Health Collaboration. Similarly, many departments' systems for assessing faculty educational contributions discourage participation in collaborative educational initiatives, especially initiative outside one's department or faculty. We must begin to break down these barriers to collaborative research and education.

Examine the relationships among health research units at McMaster and the reporting relationships between these units and the University's senior management to revise as is appropriate in the context of the Collaboration.
A number of health research centres and programs relevant to the Collaboration have developed over the years through independent initiatives. In addition, a variety of reporting relationships

currently exist for health-related research centres (e.g., some report to Chairs, others to Faculty Deans, and still others to the Office of Research and International Relations). The relationships among these units and between the units and University administration should be reviewed to ensure that their appropriateness.

How Should the Collaboration be Organized?

Two sets of considerations lead us to recommend an organizational structure in which the Collaboration overlays existing units. The first set of considerations pertains to the complex set of relationships essential to a successful initiative. The Collaboration, and its administrative manifestation in particular, must simultaneously relate to:

- both research centres and individual faculty unaffiliated with any larger research unit
- both to individuals whose primary professional activity falls squarely within the Collaboration as well as Centres and individuals whose primary professional identity is not health-related (but who engage in some health research or education)
- researchers approaching questions from different perspectives, employing different methods, who have different needs and who face different constraints.

Unlike nearly all existing Centres on campus, the Collaboration has a formal mandate for both education and research.

Second, if the Collaboration is to have a dynamic future, it must have an administrative structure and a management culture that encourages local initiative and innovation rather than one which takes this away from individuals. The key role of the initiative is to be a catalyst, to create an environment in which faculty and students more frequently exchange ideas and insights, collaborate more often and more effectively, conduct more and better research, and engage constructively with external partners.

One point deserves explicit emphasis. This organizational model embodies no concept of formal membership. The Collaboration must develop a stronger sense of community among faculty and students engaged in health research and education. Formal membership, however, which declares a person to be "in" or "out" is inconsistent with the Collaboration's objectives.

Administrative Structure

Figure 2 depicts key elements of the proposed administrative structure.

Director. The Director oversees the Collaboration and is accountable to the Provost. The Director should be a senior faculty member with strong research reputation and demonstrated administrative skills. The Directorship, especially in the early years of the Collaboration, should be a full-time position.

Associate Director. The Associate Director reports to the Director. The Associate Director will be a faculty member whose responsibilities focus on educational aspects of the

Collaboration. This is not a full-time position. To free the time required, the Associate Director will be given a reduced teaching load.

Assistant Director. The Assistant Director will be a full-time senior staff member with responsibilities for managing the day-to-day operations of the Collaboration, and reporting to the Director.

Administrative Assistant. The Administrative Assistant will be a full-time staff member providing administrative support to the office.

Project Development Officer. The project development office will be responsible for assisting the Director in developing responses to both external opportunities and internal opportunities, and for assisting faculty in the development of research, educational and other proposals.

Theme Leaders. As discussed above, the Collaboration will designate themes of conceptually related activity. Each theme will have a theme leader who will work with the Director to develop activities within the theme and linkages between members of the theme and other individuals both at McMaster and externally.

Internal Advisory Council. The Internal Advisory Council will comprise relevant individual from within McMaster. Its composition should reflect key groups with which the Director must work and should include at least one individual from each Faculty who can liaise with individuals in the Faculties. It is purely advisory; there is no accountability relationship.

External Advisory Council. The External Advisory Council will comprise relevant individuals from outside McMaster. Its composition should reflect key groups with which the Collaboration relates and the relationship is purely advisory.

Other staff. The office will retain the services of other staff as is needed to accomplish its goals, including someone to oversee the development and maintenance of a web-site, more general communications expertise, a science writer, and so forth.

Additional Accountability. Although it is not drawn as a formal accountability relationship in Figure 2, there is a vitally important way in which the Director is accountable to faculty, staff and students at McMaster with an interest in this Collaboration. An annual general meeting should be held (perhaps linked to the Research Colloquium discussed below) open to all faculty, staff and students at McMaster.

What Resources does the Collaboration Require?

Table 1 identifies key resource requirements during a phased start-up period and in a steady state. The budget includes items that require only modest resources that can be initiated with internal University budgets, as well as large-ticket items that will require substantial external funds.

The Collaboration Office

The administrative office of the Collaboration requires office space, funds to pay staff salaries, and funds to pay operating expenses.

Faculty Recruitment and Renewal
New faculty resources are required for three key purposes:

a) build in areas of emerging excellence that currently do not have sufficient critical mass to move to the next level
b) strengthen and maintain areas of existing excellence
c) fill gaps and support areas of innovation that will emerge as the Collaboration develops

Such faculty will be appointed to an appropriate department. A portion of their educational commitment, however, will be reserved to participate in educational initiatives associated with the Collaboration.

The required positions include ten regular tenure-track faculty positions as well as five endowed chairs. The senior endowed chairs, who must be international leaders in their fields, will play pivotal roles in leading the development of targeted areas of research and education.

Programs
These are the anticipated costs of the full set of program activities discussed above.

Facilities
The Centre for Knowledge Creation and Transfer is the physical centerpiece of the Collaboration, central to realizing the goals of the Collaboration.

What are the Next Steps and Initial Timeline?

The proposed Collaboration includes a mixture of activities. Some low-resource, simple elements could be implemented almost immediately; others can develop only over time with the infusion of substantial new external resources. We recommend a staged approach, focusing initially on those elements that can be implemented with internal University resources but which have potentially large impacts, while laying the foundation for realizing the larger, full vision for the Collaboration.

First Steps (July 2004-June 2005)

The activities for the immediate future must:

- signal concretely to the McMaster community that the initiative is underway
- implement feasible aspects that are highly valued by McMaster Faculty
- secure the future for the Collaboration
- lay the groundwork for a Director

Some specific activities required over the next 12 months include:

- move the proposal for the McMaster Health Collaboration through relevant University approval processes

- appoint an Acting Director and constitute a Steering Committee to oversee the development of the initial activities. The composition of the Steering Committee should be as follows:
    - Directors of existing senate-approved research centres whose mandate falls predominately in areas centre to the Collaboration
    - Directors of the bachelor of Health Science and Bachelor of Health Studies Programs
    - The Faculty Deans and Dean of the School of Graduate Studies
    - Faculty Liaisons from each of the Faculties
- activities designated for immediate development should be chosen based on three criteria: (1) they will signal concretely to the relevant community that the initiative is under way; (2) they can be done relatively quickly with modest resources; (3) they do not preempt activities most appropriately designed and led by the incoming Director. A provisional list includes:
    - the first McMaster Colloquium, to be held in early 2005
    - web-site development
    - program of summer stipends to facilitate hiring of graduate students for summer research experience
    - teaching buy-outs to support promising research and course development
- recruit Director to begin July 2005

Medium-term Activities (July 2005 – June 2008)

The medium-term, which we define as the initial 3 years of the Director's term, constitutes the period over which the Director must develop the programs and activities of the Collaboration. At the end of three years it would be appropriate to conduct a process-centred review to ensure that the Director has created the desired programs and structures associated with the Collaboration. Some of the key accomplishments will include:

- naming the Associate Director, Assistant Director, an initial set of themes, internal advisory board, external advisory board and key staff positions
- fully functioning information infrastructure (e.g., Web-site, newsletters, coordinated seminar series, etc.)
- development of key programs to support integrated research and education
- development of fundraising approach in consultation with the Development office and initial fundraising undertaken.
- development of relationships with relevant external organizations and agencies
- work with Deans and Department Chairs to recruit new faculty to McMaster

Long-Term Activities

- continued development of programs
- successful fundraising for endowed chairs and Visiting Scholars program
- successful fundraising for construction of the Centre for Health Knowledge

Conclusion

Addressing the health and health care challenges confronting Canadian society requires an integrated approach to health research and education that incorporates the best insights from the health, social and behavioral sciences, the humanities and business. Many of the most difficult health challenges we face are fundamentally social, political cultural and economic.

The realization of a truly integrated health research and education collaboration at McMaster University confirm McMaster's status as the premier health university in Canada. Realizing this vision will not be easy and is not without risks. However, the strategy proposed in this report --- The McMaster Health Collaboration – offers a clear set of ideas and mechanisms to achieve the required integration. It will take sustained commitment, effort, energy and resources, but it will pay large dividends for McMaster, its faculty and students, and for health policy makers and practitioners working to improve the health and well-being of Canadians.

References

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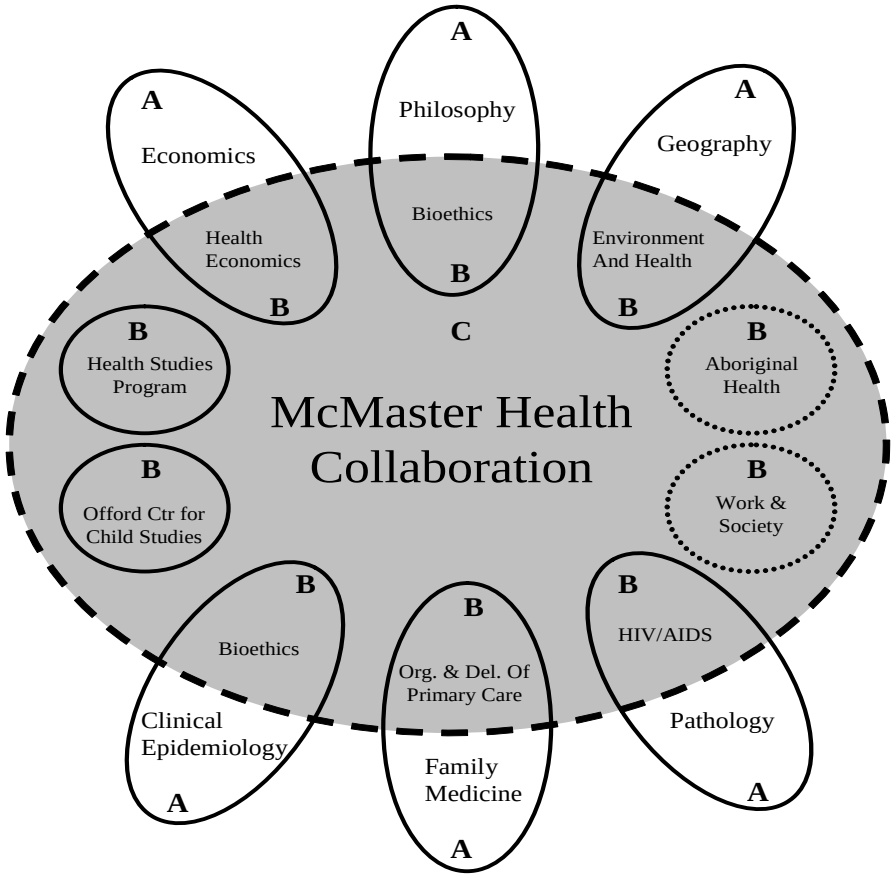
Figure 1: The McMaster Health Collaboration



The large, shaded oval in the centre of the figure represents the McMaster Health Collaboration. The smaller, partially overlapping ovals distributed around the perimeter represent existing departments and programs for which a portion of their activity falls within the Collaboration. Lastly, the ovals entirely within the large oval represent existing departments and programs whose activities are fully encompassed by the Collaboration. The figure reflects a number of important features of the Collaboration. First, as emphasized above, it cuts across all academically oriented units on campus. Second, it will support health-related research and education activities in units and programs that are not primarily health-oriented (e.g. philosophers working in bioethics), scholars in units whose mandate is fully encompassed by the Collaborative (e.g., Centre for Health Economics and Policy Analysis; Bachelor of Health Studies), and scholars in health science units for which only a portion of their activity is approached from a social science, behavioral science, humanities or business perspective.. Lastly, the Collaboration will fill the space among existing units (area C). Existing units will continue, but the Collaboration will create new programs and units, themes areas (e.g., Work and Society), and foster better connections among existing units and programs, transforming "C " into a dense web of threads connecting health-related research and education all across the University.

Figure 2: Organization Chart for the McMaster Health Collaboration

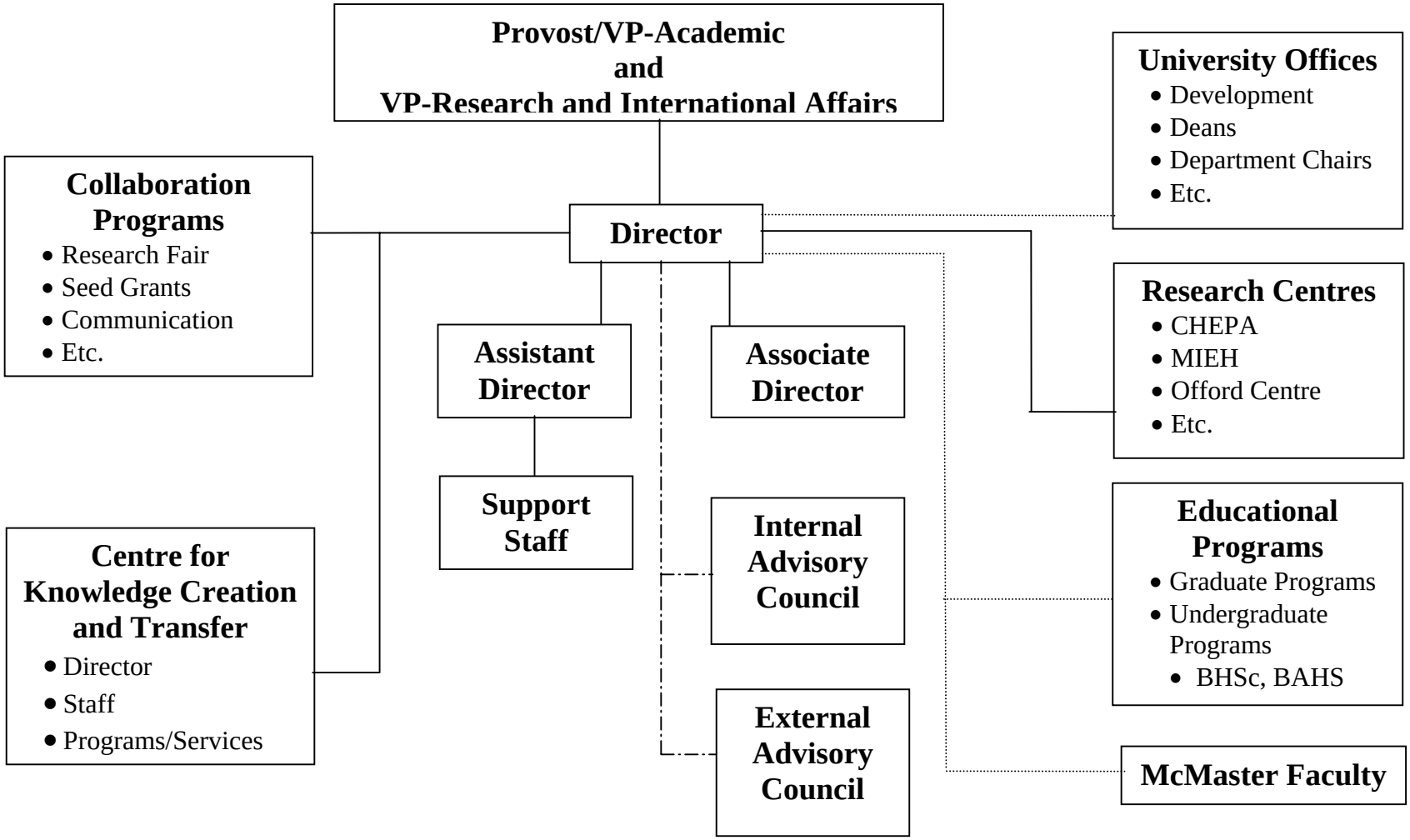


Table 1: Resource Requirements, McMaster Health Collaboration

	Annual Operating Expenditures				Endowment
	FY 2004/05	FY 2005/06	FY 2006/07	On-going	

Administrative Office

Personnel

Director+	$40,000	$180,000	$180,000	$180
Associate Director		$20,000	$20,000	$20
Assistant Director		$72,000	$72,000	$72
Administrative Assist	$20,000	$48,000	$48,000	$48
Project Development Officer		$70,000	$70,000	$70
Operating Costs	$3,000	$30,000	$30,000	$30

Faculty Positions

Ten Tenure-track positions		$200,000	$500,000	$1,000
Five Endowed Chairs				

Programs

Annual Research Colloquium	$20,000	$20,000	$20,000	$20
Web-Site				
Start-up	$20,000	$30,000		
Annual			$20,000	$20
Seed Grants	$20,000	$100,000	$100,000	$100
Speakers Program	$5,000	$20,000	$20,000	$20
Visitors Program				
- initial years		$150,000	$250,000	
- on-going from endowment				
Teaching buy-outs for research, course development, etc.	$20,000	$50,000	$100,000	$100

Facilities

Centre for Health Knowledge

Building and Facilities				
- annual operating costs*				$1,500
Personnel (Director, Support staff)*				$500
Data Acquisition*				$75
Total	$148,000	$990,000	$1,430,000	$3,755

+FY2004/05 includes stipend and teaching buy-out for Acting Director and recruitment costs for Director

* some of these costs will be recovered from faculty research funds and/or the endowment funding

APPENDIX 1

TERMS OF REFERENCE

Terms of Reference

McMaster University is undertaking a planning exercise (Refining Directions) to define its priorities and focus. Identifying areas of strategic priority is a major part of the planning process. During the deliberations of the various committees associated with the planning process, Integrated Health Research and Education emerged is an area of strategic priority for McMaster University. It is felt that McMaster University is uniquely positioned to assume national leadership in integrated health research and education by building on its proven strength in health sciences and related basic and social sciences.

Building on existing programs in Health Sciences, Social Sciences, Business, Humanities, Geography and the associated research centers/institutes and on existing partnerships with external institutions and agencies, the proposed task force's mandate is concerned with the development of an integrated plan for research and education in health. The important area of biomedical sciences and engineering is outside the scope of this mandate. The deliberations of the task force will be informed by the guiding principles and objectives set out in Refining Directions.

The terms of reference of the task force are:

- Articulate a vision and objectives for integrated health research and education at McMaster University consistent with goal of making McMaster University the premier Canadian academic institution in this field.
- Recommend institutional mechanisms and structures:
    - To continue to grow the quality and profile of health research and education at McMaster University.
    - To facilitate effective coordination of integrated health research and education, both graduate and undergraduate, across faculties.
    - To identify research and educational opportunities consistent with the overall objectives.
    - To encourage and strengthen partnerships between McMaster University and policy/decision makers at the local, provincial and federal levels.

To increase McMaster's profile nationally and internationally as the preeminent Canadian institution in health research.

APPENDIX 2

TASK FORCE ACTIVITIES AND MEMBERSHIP

Task Force on Integrated Health Research and Education: Key Activities

Date(s)	Activity
December 2003 – January 2004	Meetings to discuss Integrated Health Initiative and key strategic issues for the Task Force; identify external consultants
February 12, 2004	Lillian Bayne, external consultant, meets individually with Task Force members
February 18, 2004	Task Force Meeting with VP-Research and VP-Academic to discuss vision for Integrated Health and Finalize roles of external consultants
March 4, 2004	Full Day Retreat
March 4 – onward	▪ Survey of all McMaster Departments, Programs and Centres to identify individuals and initiatives relevant to Integrated Health ▪ External Environmental Scan
March 25 - onward	Survey of individual faculty involved in research or education relevant to Integrated Health
April 8, 2004	Task Force Teleconference
April 8 - onward	Key Informant Survey
April 15, 2004	Full Day Retreat
May 6, 2004	Full Day Retreat
May 25, 2004	Submission of final report

Task Force on Integrated Health Research and Education: Members

Jeremiah Hurley (Chair)	Professor, Departments of Economics and Clinical Epidemiology and Biostatistics; Member, Centre for Health Economics and Policy Analysis
Roy Cain	Professor, Departments of Social Work and Sociology; Chair, Bachelor of Health Studies
Susan Denburg	Professor, Department of Psychiatry; Associate Dean, Education (FHS)
Susan Elliott	Professor, School of Geography & Geology; Dean, Faculty of Social Sciences
John Eyles	Professor, School of Geography & Geology; Director, McMaster Institute of Environment and Health
Mita Giacomini	Associate Professor, Clinical Epidemiology and Biostatistics; Member, Centre for Health Economics and Policy Analysis
Brian Haynes	Professor and Chair, Department of Clinical Epidemiology and Biostatistics; Professor, Department of Medicine
Brian Hutchison	Professor, Departments of Family Medicine and Clinical Epidemiology and Biostatistics; Director, Centre for Health Economics and Policy Analysis
Bernie O'Brien* *(1959-2004)	Professor, Department of Clinical Epidemiology and Biostatistics, Member, Centre for Evaluation of Medicines and Centre for Health Economics and Policy Analysis; Director, Program in the Assessment of Technology in Health

Task Force on Integrated Health Research and Education: External Consultants

Lillian Bayne	Lillian Bayne & Associates
Tony Culyer	Department of Economics, University of York (on leave); Director of Research, Institute for Work and Health

Task Force on Integrated Health Research and Education: Staff and Research

Michael Mercier	School of Geography & Geology
Lydia Garland	Centre for Health Economics and Policy Analysis

APPENDIX 3

INTERNAL ENVIRONMENTAL SCAN: DEPARTMENTAL SURVEY

An internal environmental scan of all Departments/Programs/Units on campus was conducted. Through this scan we determined, wherever possible, the members of each Department that were involved in health research and education (from the social science, humanities, business and behavioural perspectives), as well as the undergraduate and graduate courses that contained a substantial health component. Department Chairs/Directors were asked to confirm the information that we had uncovered, and to update it where necessary. The tables below indicate those Departments, by Faculty, that were contacted, and whether we received a response or not (in some cases multiple follow-ups were undertaken). We believe this is a comprehensive list of Departments/Programs.

Faculty of Social Science

Department/Program/Unit:	Response?
Department of Anthropology	✔
Department of Economics	✔
Department of Gerontology	✔
Health Studies Programme	✔
Department of Kinesiology	✔
Department of Labour Studies	✔
Department of Political Science	✔
Department of Religious Studies	✔
Department of Social Work	✔
Department of Sociology	✔

Faculty of Humanities

Department/Program/Unit:	Response?
Department of Classics	✔
Communication Studies Programme (& Modern Languages)	✔
Department of English (& Cultural Studies)	✔
Department of French	✔
Department of History	✔
History of Health and Medicine Unit	✔
Department of Philosophy	✔
Interdisciplinary Studies - Comparative Literature	✔
Interdisciplinary Studies – Peace Studies	✔
Interdisciplinary Studies – Women's Studies	✔

Faculty of Science

Department/Program/Unit:	Response?
Department of Biology	✗
Department of Biochemistry	✔
Department of Chemistry	✗
Department of Computing and Software	✗
School of Geography & Geology	✔
Department of Mathematics and Statistics	✔
Department of Medical Physics and Applied Radiation Services	✔
Department of Physics and Astronomy	✔
Department of Psychology	✔
Institute for Environment and Health	✔

Faculty of Engineering

Department/Program/Unit:	Response?
Department of Chemical Engineering	✔
Department of Civil Engineering	✔
Department of Electrical and Computer Engineering	✔
Department of Engineering Physics	✔
Department of Materials Science and Engineering	✔
Department of Mechanical Engineering	✔
Engineering and Management Program	✔
Engineering and Society Program	✔

Degroote School of Business

Department/Program/Unit:	Response?
Business Administration	✔

Faculty of Health Sciences

Department/Program/Unit:	Response?
Department of Anesthesia	✔
Department of Family Medicine	✔
Department of Medicine	✔
Department of Obstetrics and Gynecology	✔
Department of Pathology and Molecular Medicine	✘
Department of Pediatrics	✔
Department of Psychiatry	✔
Department of Radiology	✘
Department of Surgery	✔
Midwifery Program	✔
School of Nursing	✔
School of Rehabilitation Science - Occupational Health	✔
School of Rehabilitation Science - Physiotherapy	✔
School of Rehabilitation Science - Rehab Science	✔
Undergraduate Health Sciences	✔
Graduate Health Research Methodology	✔
Graduate Medical Sciences	✔
Graduate Clinical Medicine	✔
Department of Clinical Epidemiology and Biostatistics	✔
Centre for Health Economics and Policy Analysis	✔
- Centre for Evaluation of Medicines	✔
- Henderson Research Centre	✔
- St. Joseph's Health System Research Network	✔
- Program in Policy Decision-Making	✔
- Central West Health Planning Information Network	✔
- Supportive Cancer Care Research Unit	✔
- System Linked Research Unit of Health and Social	✔
- Service Utilization	✔
- Centre for Studies of Children at Risk	✔
- CanChild	✔
- Child Life Studies Program	✔
- Centre for Research and Education in Aging and Health	✔
- Health Information Research Unit	✔
- Health-Related Quality of Life	✔
- Ontario Health Care Evaluation Network	✔

The names of McMaster researchers and educators that were identified in the environmental scan, and later confirmed by Departments/Programs, comprise the list of persons contacted for the individual survey (see Appendix 4).

In addition to asking Departments about their course offerings (see Appendix 6) and their health-related researchers and educators, we asked them to respond to two supplemental questions about their Human Resources plan and any other internal initiatives that may be of interest to the Task Force.

Question 1**: Does the Human Resource plan of your Department/Unit include as a priority a health-related researcher who would undertake research from a Social Science, Behavioural Science, Humanities or Business perspective?**

Question 2**: Are there any initiatives underway in your Department/Unit pertinent to the work of this Task Force that you would like to bring to our attention?**

Note: Not all Departments/Programs/Units chose to respond to these questions. Below is a summary of the responses we received.

A large number of the Departments, Programs and Institutes that responded to our questions indicated that a health-related researcher or teacher was among their human resource priorities. The list below shows those Departments/Programs/Institutes that indicated this as a priority area and, where possible, the specific area of health that the appointment would be made.

Department/Program/Institute	**Area of Concentration (where indicated)**
Anesthesia	
Clinical Epidemiology and Biostatistics	
Nursing	
Pediatrics	Developmental Pediatrics
Psychiatry	
Rehabilitation Sciences	
Anthropology	Medical Anthropology
Economics	
Gerontology	several joint appointments
Health Studies	
Kinesiology	Health Psychology
Political Science	Global Health and Environmental Policy
Religious Studies	Religion, Health and Society
Social Work	
Sociology	Social Inequalities and Health
History	Health and Welfare
History of Health and Medicine	History of Science, Medicine & Technology
Peace Studies	Peace Through Health
Environment and Health	
Geography and Geology	

In response to our inviting Department Chairs to bring to our attention any initiatives underway in their Department/Program many responded about plans to introduce new courses, or other small initiatives. The summary below provides some examples of larger educational and research initiatives already underway (or in the planning stages). In most cases these are initiatives that extend beyond current strengths.

Education:

- Clinical Epidemiology and Biostatistics is leading a re-design initiative for the Health Research Methodology Program that will probably propose the creation of "fields" of specialization within the HRM-PhD Program to the OCGS.

- Nursing is currently conducting a complete review of their curriculum with a perspective on ethics and caring. Behavioral and social aspects of health are a major focus in nursing. They are also looking at inter-professional learning opportunities with health sciences but also would be interested in expanding beyond health sciences to the broader university community.

- In 2003 OCGS approved an Anthropology of Health PhD Program, which is now being advertised.

- The Department of Economics is developing a proposal to offer an MA in Economic Policy. This new degree programme will include three fields. One field is Health Economics, one is Human Resources Economics, and the third is Public Economics.

- Gerontology plans to propose a graduate program in 2005. Areas of study may include health policy and aging; health services and aging; and health promotion and aging.

- Health Studies is planning to introduce an MA over the next year or two.

- Political Science has modified their entry requirements into the MA program in order to facilitate the entry of students from the Bachelor of Health Sciences programme. Both Julia Abelson and John Lavis are now part of the Political Science PhD core group, which means they are able to supervise PhD students in the Department.

- Social Work is proposing the introduction of a PhD program. Many of the students, no doubt, will have an interest in health related questions.

- The Department of History is having preliminary discussions about a possible new PhD field in "Health and Welfare" to complement new thematic fields in "Gender" and "War and Society".

Research:

- Psychiatry has numerous interdisciplinary initiatives in children's mental health, mood, anxiety, and mental health and primary care, as well as the early detection of mental health problems and research into evaluating outcomes and mental health policy.

- Rehabilitation Sciences is conducting research evaluating the effects of social, institutional, policy and physical environments on the participation of persons with disabilities in community life; the integration of persons with HIV into work and community life; a community capacity building approach to support the transition of youth with disabilities into adulthood; social supports and mental health influences or independent living for older adults; the influence of stigma on quality of life of persons with mental illness.

- The Communication Studies program submitted to the Dean of Humanities a list of desired faculty positions for the period from 2004 to 2007. Among those wishes is a position (possibly an endowed chair) in Medical Communication. Ideally, we would like to share this position with the School of Medicine.

- The Centre for Peace Studies has been invited to cooperate with IPPNW (International Physicians for the Prevention of Nuclear War) in the area of Peace through Health. A draft agreement has been approved, and it is expected that it will soon be signed by both organizations. IPPNW is a Nobel-Prize-winning organization with more than eighty affiliated medical organizations worldwide.

APPENDIX 4

SURVEY OF FACULTY AT McMASTER IDENTIFIED AS UNDERTAKING RESEARCH OR EDUCATIONAL ACTIVITIES RELEVANT TO INTEGRATED HEALTH

In total 237 Individual Surveys were distributed to faculty members across campus. Candidates for the survey were identified through our internal environmental scan, and/or by their Departmental Chair/Program Director. The distribution, by faculty, is as follows.

	Researchers
Faculty of Health Sciences	158
Faculty of Social Science	42
Faculty of Humanities	20
Faculty of Science	9
Degroote School of Business	8
Faculty of Engineering	0

We received responses from 160 individuals (68% response rate). The tables below indicate the number of responses (and response rates) by Faculty and Department.

	Responses	Response Rate
Health Sciences	98	62%
Social Science	30	71%
Humanities	9	45%
Science	7	78%
Business	5	63%
Engineering		
Anonymous	11	
TOTAL	160	68%

	Responses		Responses		Responses
Anthropology	5	Business	5	Anesthesia	3
Economics	8			CE&B	25
Kinesiology	2	English	3	Family Medicine	9
Political Science	3	French	1	Medicine	2
Religious Studies	1	History	4	Nursing	34
Sociology	6	Philosophy	1	Obstetrics	1
Social Work	5			Pediatrics	7
- Gerontology	3	Geography	5	Psychiatry	12
- Labour Studies	2	Psychology	2	Rehabilitation	5
- Health Studies	17				

The survey consisted of 12 questions (a copy of the survey is included at the end of this appendix). **Questions 1-7** asked respondents to indicate the potential value (to them) of a number of proposed initiatives, ranking them on a scale of 0 (no value) to 3 (large value). The mean score for each initiative is indicated in the table below. As well, the differences between responses from Health Science respondents and all others on campus are indicated (the sample sizes for Business, Science, Social Science and Humanities are too small to report separately).*

Proposed Initiative	Mean Score (n=160)*	Mean Score - Health Science (n=98)	Mean Score - non-Health Science (n=51)
1. A ***Quantitative Data Centre***	2.21	2.31	2.06
2. A ***Qualitative Data Centre***	2.11	2.18	1.90
3. ***Specialized health-related library resource support***	2.33	2.44	2.04
4. ***Seminar speaker series***	2.03	1.95	2.22
5. ***Resources for developing grant proposals***	2.47	2.45	2.52
6. ***Seed funding***	2.61	2.69	2.46
7. ***Opportunities to develop collaborative links***	2.48	2.56	2.30

* - The eleven anonymous responses are included in the aggregate scores, but not for the analysis by Faculty because we were unable to attribute them to either Health Sciences or non-Health Sciences.

Question 8 asked those respondents that would welcome opportunities to develop collaborative links, to indicate what the critical barriers to developing such links are?

Barriers:	% of Respondents
Lack of time	77 %
Difficulty balancing research and teaching commitments	43 %
Lack of information about who at McMaster shares your research interests	58 %
Lack of resources to conduct research	26 %
Other reasons? (See Below)	10 %

- the University rewards independent Principal Investigators rather than collaborations
- there is an insufficient number of researchers in my area of interest
- it is difficult to determine who on campus shares similar interests

Questions 9 through 12 were more open-ended. The following pages summarize the main themes that emerged from the open-ended responses.

Support for the initiative and response to survey. Most respondents are very supportive of the initiative; one noted the "pre-eminence of this initiative in Canada." A small minority is not certain about participating; the rest say "yes." We were not able to analyze whether enthusiasm varies with the respondent's home discipline, faculty, or other features. Of 183 individuals surveyed, 124 (68%) responded. We don't know whether the non-respondents are unsupportive of the initiative, uninterested in health, or unable to respond for some other reason. In the answers to the open-ended questions there are probably more suggestions and comments regarding integrated health *research* than integrated health *education*. I suspect this is due to the framing effect of questions 1-7 which seem to focus primarily on resources for research.

Collaboration. The bulk of comments address the nature of collaboration, the need for collaborative links among McMaster health faculty, and ideas for bringing faculty together for more integrated research and teaching. The majority of those who commented seem keen to consider new collaborations with colleagues at McMaster. Collaboration is appealing for a variety of reasons: fresh ideas, creative brainstorming, filling a specific knowledge gap in a research program, training in new methodologies, peer review of work in progress, enriched course development, team teaching, returning to disciplinary roots, embracing non-traditional approaches, mentoring in general, mentoring in specific areas, cultivating "keen young investigators to replace retirees," etc. Many find the idea of multidisciplinary or interdisciplinary research and education exciting. Enthusiasm for interdisciplinarity is based on a number of features. Some point to the creation of new knowledge or relevance to complex problems in health. Some are attracted to a culture of diversity and inclusiveness, not only within academia but also between the university and its external communities.

Interaction. Getting people face to face – "into the same room" – is a persistent theme. Many feel we currently lack effective forums for networking. Faculty suggest launching campus seminars, colloquia, mini-courses, think tanks, conferences, continuing education, retreats, or other meeting venues for sharing work, making acquaintances, and sparking joint ventures. These are envisioned as both research and educational opportunities. Cross-department appointments may help. Also popular is the idea of a centralized, accessible clearinghouse of information about who is doing what. This may be particularly valuable for new faculty. Some suggest an active matchmaking role for the university in bringing together faculty targeted around specific topic areas -- and providing necessary support and recognition for these ventures. Many respondents encourage closer links between specific faculties, disciplines, or schools, including: biomedicine & humanities, social sciences & humanities, business & social sciences, sciences & humanities.

Costs of collaboration. New collaborations are not always appropriate, however, and many faculty raise cautions about pursuing integration for its own sake. A few note that they are already collaborating satisfactorily (with McMaster faculty or others); we should avoid "reinventing the wheel" and appreciate the integration already achieved by some groups. Others feel that their own research programs are not conducive to collaboration, and that the value of solo research must be recognized. In a small and specialized field, the ideal coinvestigators may be found outside of McMaster. Some believe that no colleagues at McMaster address their own field of theory, methods, or topics. The costs of collaboration concern many respondents. There is resistance to adding new activities or obligations

to existing responsibilities. Large interdisciplinary teams exact a high tax on time, energy, and resources. While some specialty areas mesh together in principle, the actual individuals involved may not work well together in practice, or the relationship may not benefit both sides. Conflicting responsibility and reward systems of different departments may create unequal capacities between cross-faculty partners. Collaborations should involve a "natural" fit between individuals as well as interests; forced integration could create problems. Even if relationships are successfully established, ventures may lack an interdisciplinary intellectual framework within which to make sense of findings and contribute meaningfully to knowledge or policy.

Mutual learning. Respondents suggest a variety of ways in which faculty members could learn from each other. The initiative could support an institute for learning "mixed" research methods, or informal assistance for researchers to share particular methodologies or instruments with each other. Mini courses could address specific skills. Mentoring and peer feedback could be useful for grant proposal development as well as dealing with unfamiliar funding agencies. Several faculty are engaged in research programs that address education in health fields, and their knowledge base may offer a special resource for launching innovative educational programs under integrated health initiatives.

Coordinated training. Several faculty emphasize the importance of administrative coordination for integrated health education initiatives. For example, coordination is needed across faculties to train interdisciplinary graduate students, and in particular, to facilitate enrolment in the courses of other faculties. Education coordinators might also help with innovative but "resource intensive" education projects such as the development of team-taught, interdisciplinary courses.

External relationships. Several respondents note the importance of relationships between University faculty and members of the community beyond, including policy makers, funding agencies, lay audiences, and marginalized or vulnerable communities. One respondent suggests that a lack of trust between government and academics (as well as within government) gets in the way of meaningful collaboration. Others suggest that the University's relationships with community groups could improve through more committed and genuine research collaborations. Several advocate that the initiative include explicit mechanisms for both research collaboration and knowledge transfer between the University and relevant communities. Concrete suggestions include staff to write plain language materials, liaisons with the media, help in identifying external funding sources for research, involvement of community members in research projects, liaisons with community agencies, and offering research skills training for community members. There is also interest in supporting long-term visiting scholars, and supporting McMaster faculty to travel for networking and learning.

Institutional incentives. Organizational and cultural issues arise in comments about both opportunities and barriers to integration. Numerous faculty point to a need for incentives, recognition, and rewards that align better with the objectives of integration. For example, in a context where a first authored publication is considered a prime accomplishment, collaborative activity that detracts from this (e.g., sharing authorship more widely, or spending more time interacting and less writing) is unattractive. Pressures for lead authorship, solo authorship, large numbers of publications, principal investigator status on grants, and so forth may be forces working against new, large, or novel collaborations.

Asymmetrical responsibilities and cultures. Several faculty point out that the different disciplines, departments, and faculties at McMaster evaluate productivity and assign responsibilities according to different rules. These differences make cross-faculty collaboration less appealing and fruitful in some

cases. For example, teaching outside of one's department may be seen as "voluntary" and not really "counting" as meeting teaching obligations. Some complain that the University undervalues various types of faculty, e.g., part time faculty, qualitative researchers, or clinicians. Some worry that the integrated health initiative might exclude e.g., qualitative researchers or clinical researchers. A greater number, however, comment that the initiative is a promising vehicle for fostering respect between scholars working with diverse epistemologies, methods, and concepts of health. This mutual regard is seen as crucial for new interdisciplinary ventures. One suggestion is that the University recognize research, not just teaching, as a valid contribution toward part-time faculty status. Another is that annual reviews or tenure and promotion processes give due credit for cross-disciplinary research or teaching contributions, which are more difficult or time consuming than traditional approaches. The balance of teaching and research responsibilities is another issue: different faculties have different expectations of their faculty members with regard to time spent teaching, research productivity, peer-reviewed research funding, etc. There is perhaps a tendency for members of each faculty to caricature the burdens and rewards in other faculties, and as one respondent puts it, the integrated health initiative presents "and opportunity to move beyond the 'two sides of campus' crutch."

Senior leadership. A number of faculty suggest that overcoming institutional barriers, and creating institutional incentives for successful integration, is the responsibility of senior leadership at McMaster. Many are interested in seeing tangible incentives and concrete support before signing on, e.g.: "Leadership at the senior level needs to be instrumental in facilitative cross-discipline interaction – not leaving it to happen at the individual faculty member level – tangible incentives should be offered for faculty to engage in linkage and exchange across disciplinary boundaries to overcome systemic barriers and individual factors (time, energy, and comfort level)." Another sees the key attraction of the proposal as: "an infrastructure/leadership that understands what I am doing." Such leadership is desired at both the department and faculty levels. A number of respondents comment that they would spend more time doing grantwriting, research, or collaborative research in particular, if their teaching time could be "bought out" or more faculty could be hired to share teaching loads. Some counsel a supportive culture, e.g.: "Keep everything as open and as inclusive as possible. People need a comfortable environment in which to talk, to share interests and identify possibilities." A generally collegial and collaborative atmosphere at McMaster is seen by some as an asset we already possess, and by many as a resource to cultivate further. The appearance (and reality) of a "critical mass" of integrated scholars and groups, well supported by appropriate infrastructure, would help attract excellent students and colleagues.

New positions. Several respondents suggest that the initiative include new faculty positions, to attract new faculty as well as to secure existing faculty. New positions are seen as helpful to both research and education innovations. As well, many note the importance of supporting staff and students working within the initiative. Faculty respondents suggested including support for graduate students, minimal secretarial staff, research assistants, data analysts, and post-doctoral fellows. Support for start-up costs of new initiatives is valued, including for example funding of student research projects (graduate and undergraduate), pilot projects, grant proposal development, and the development of new courses or team-taught courses. Several point to a need for consistent staff support for routine duties such as courseware preparation, CV maintenance, and so forth (noting that coinvestigators on team grants and junior faculty are less likely to have steady secretarial and research support). Some are interested in the idea of developing a shared pool of expert research staff (avoiding the costs of training and re-training), or sharing summer students who can help with course material development.

Centralized information. Many suggestions relate to the need for better information, both administrative information to support collaboration and substantive information to inform research or teaching. Many respondents simply lack knowledge about who is doing what on campus. A new faculty member notes that it has been difficult to determine who on campus shares similar interests. There is strong interest in a centralized and standardized source of basic information regarding faculty interests, research (areas, projects, publications), and teaching (interests, courses, course outlines). One suggestion is to hire a "research & education broker" who could seek and match colleagues to each other, or to each other's work, on request. Another is to maintain a website designed for networking and collaboration purposes, e.g.: "it is difficult to access information re: who at McMaster shares research interests; one usually meets these folks at other events or hears of them by word of mouth (eg. the McMaster website does not even have the names of people I know who have the same research interests as myself)."

Quantitative data centre. There is wide support for a quantitative data centre for research. Some would like to see clinical and health service data included (e.g., a link up with the hospital system), and note that these data would require "extreme security" systems as well as sophisticated information technology support. Improved security for data storage, communication and file exchange is recommended. Both the range of data available and timely access to data are important. It is noted that the Research Data Centre at Mills library could be expanded to fill the need for an integrated health data centre. While the storage of data is important, access to it is crucial and this requires effective data processing. Support staff for data analysis would make the resources more accessible and useful to both faculty and students. General information technology support is also requested, including IT consultants, statistical consultants, data handlers, programmers, network specialists, and others. A link with computer engineering or software development groups on campus might help.

Qualitative data centre. There is mixed support for the idea of a qualitative data centre. Some respondents believe this would be useful, others do not believe that a centre (as described in the survey) would meet the needs of most qualitative researchers. This issue should probably be explored further.

Library. Library resources could be improved to support integrated health research and education. Coverage across disciplines could be more comprehensive, and assistance with identifying and collecting "grey" literatures and other traditionally obscure sources would be welcomed.

Centralized teaching resources. Many suggest the consolidation of and central access to teaching resources. A popular idea is centralized and searchable course outlines. Some also suggest greater sharing of teaching materials such as videos, fact sheets, teaching cases, access to experts, and so forth. Shared research resources may also be used for training students (tape recorders, transcription, data analysis software, etc.)

Research project development. Support for grant proposal development and pilot projects are probably the two most popular features of the initiative (as presented in the survey, questions #5 & 6). There is great enthusiasm for grant proposal writing support in general, and particularly in cases of innovative interdisciplinary fields, unfamiliar granting agencies, or large and complex projects. Support might take many forms, including grantwriting assistance, expertise in a substantive area, expertise in grantwriting skills, knowledge about specific funding agencies (including help interpreting RFAs), or liaisons with funding agencies. Funds for conference travel (whether related to research or not) and conference organizing would also be welcome.

Places and spaces. A number of respondents cite geography as a barrier to collaboration. Some faculty with offices off campus feel that the distance inhibits getting to know and work with colleagues. Some find this difficult even *on* campus, given the situation of, for example, Health Sciences "across" from Social Sciences: "It is true that we are spread across campus. We need a common space." Once within collaborating distance, however, space remains an issue. It may seem easier to get peer reviewed grant funding for staff and students than it is to get space to house them in at the University; lack of space is a disincentive to expanding research programs and funding. Interactions require meeting rooms and even perhaps accommodations such as food service on weekends to accommodate teams with scheduling conflicts. Students, too require office space.

The Title. Of the faculty who commented on the title (around 3/4 of respondents), opinions are almost evenly split between those who like the title (or at least think it is acceptable), and those who do not like it. One respondent suggests that it is too early in the strategic planning process to choose a title; premature efforts may be divisive. A slight majority dislikes the title. A frequent objection is that "*Human Sciences*" does not describe the initiative adequately, for many reasons: too vague, connotes biology or medicine, implies Faculty of Health Sciences, excludes the humanities or the social sciences, too epistemologically narrow (even disrespectful of particular communities or disciplines), lacks specific knowledge content, lacks an institutional locus (centre, initiative, etc.) etc. Many find the title dull or uninspiring: "lacks punch and appeal," "sounds kinda boring," "doesn't say anything," "has no hook," and, "not fresh or indicative of the new energy this initiative brings." And furthermore: "sounds more like the title of a kinesiology program," "sounds good in French, but not in English," and, "I hate it." Following is a list of suggested alternatives (including fragments); there is no consensus and few suggestions arose more than once.

Suggested alternatives -- full titles:

Centre for the Study of Health, Culture, & Society
Discovering the Determinants of Health
Exploring Socio-Cultural Frameworks of Health
Health & Human Development
Health & Human Knowledge
Health & Human Sciences Development
Health & Human Understandings
Health & Humanities
Health & Humanities: An Integrated Perspective
Health & Humanity
Health & Social Sciences
Health & Society
Health in Social Context
Health in Society
Health Sciences Support Network
Health, Behaviour, & Human Sciences
Health, Culture & Society
Health, Human Sciences, & Management,
Health, Human Sciences, & the Health Consumer
Health, Humanity, & Society
Health, Participation, & the Human Sciences

Health, Well-Being, & the Human Condition
Health, Work, & Society
Human Sciences & Health
Initiative in Sociobehavioural Sciences & Humanities for Health
Initiatives of Improving Health Care in Canada
Institute for Integrated Health Studies
Integrated Health Research & Education Programme
Interdisciplinary Health Research & Education Programme
Interfaculty Initiative in Sociobehavioural Sciences & Humanities for Health
McMaster Health Research & Education Initiative
McMaster Integrated Health Initiative
Policy, Health, & Society
Psychosocial Health Initiative
Social Sciences & Humanities for Health
Social Sciences for Health
Societal Influences on Health
Sociobehavioural Sciences & Humanities for Health
Transdisciplinary Health Research & Education Programme

Suggested alternatives -- fragments:

All personal & environmental factors influencing health
Behaviour
Centre
Cross-faculty
Education and Research
Functioning
Health and Well-being
Human
Human Condition
Initiative
Institute
Integrated
Interdisciplinary
Interfaculty
Methodologies
Outcomes
Participatory Methodology
Patient
Research
Social
Social and Cultural
Social Perspectives on Health
Social Sciences
Social Sciences & Humanities
Sociobehaviour Sciences & Humanities
WHO definition of health

The Survey

Listed below are ideas the Task Force is considering as ways to support the kinds of research and educational activities outlined above. Please indicate how valuable each suggested element would be to you (in terms of your health-related research and educational efforts) by putting an "x" below the number that corresponds to your response.

Item	**Potential Value to You** 0 = no value 1 = little value 2 = moderate value 3 = large value
1. A ***Data Centre*** that houses health-related administrative and survey data, maintains support staff expert on using the data, supports quantitative data analysis, etc.	0 1 2 3
2. A ***Data Centre*** that supports qualitative research, including for example, rooms with one-way mirrors, rooms suitable for focus groups, support for the analysis of qualitative data, transcription services, etc.	0 1 2 3
3. ***Specialized health-related library resource support*** (e.g., expert in searching health-related databases, expert in locating "grey" literature, etc.), as well as specialized archival material (e.g., archives of media images or other cultural representations of health and illness) to support relevant research and education.	0 1 2 3
4. ***Seminar speaker series*** as well as resources for occasional speakers, colloquia on specific issues, etc.	0 1 2 3
5. ***Resources*** to support you in ***developing grant proposals*** for external funding (SSHRC, CIHR, etc.). Such support could run the gamut from nothing more than assistance in filling out the forms, to assistance in developing and writing a proposal, to money to buy release time to develop a proposal.	0 1 2 3
6. ***Seed funding*** of pilot research projects and to develop collaborative teams.	0 1 2 3
7. ***Opportunities to develop collaborative links*** with other researchers at McMaster who share your research interests.	0 1 2 3

Below are five open-ended questions. Please type (or write) your response in the space provided. If you want to expand on any particular item, please use the space at the end – we would welcome more extensive feedback.

8. If you would welcome opportunities to develop collaborative links, what are the critical barriers to developing such links? (please mark all relevant responses with an "x")

    a. Lack of time
    b. Difficulty balancing research and teaching commitments
    c. Lack of information about who at McMaster shares your research interests
    d. Lack of resources to conduct research
    e. Other reasons? Please indicate:

9. Can you see yourself participating in such an Initiative as outlined above?

10. What aspects of the Initiative are most attractive to you?

11. What other kinds of support would both help you in your research and educational activities and make the overall Initiative more valuable to you as a McMaster faculty member with interests in the area of health?

    a. Research:

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    b. Educational:

12. One suggested title for the initiative is, "Health and Human Sciences". What is your reaction to this possible title? Do you have an alternative suggestion?

END OF SURVEY

Thank you for your time

APPENDIX 5

EXTERNAL ENVIRONMENT SCAN

The External Environmental Scan is comprised of two parts. The first component is a survey of recent health research policy statements by the federal government and health research granting agencies. Such documents include:

- *From Granting Council to Knowledge Council* – A Consultation Framework on SSHRC Transformation
- *Investing in Canada's Future: CIHR's Blueprint for Health Research and Innovation* – A status report on the vision, mandate and strategic directions for CIHR
- *Building on Values: the Future of Health Care in Canada* – the Final Report of the Romanow Commission
- *The Health of Canadians – the Federal Role* – the Final Report of the Senate's Standing Committee on Social Affairs, Science and Technology (Hon. Michael Kirby, Chair)

A number of critically important ideas and challenges emerge from these reports. First, the importance of population health and the determinants of health perspective to future health research is recognized and emphasized time and again. Second, each report highlights the need for greater multi-disciplinary, inter-sectoral and "integrated" research. Third, and perhaps most importantly is the issue of knowledge transfer. Among these reports is a strong sense that no longer can researchers simply create knowledge without better disseminating it to society and making it more responsive to stakeholders' needs.

The second component of the External Environmental Scan includes a comprehensive survey of websites for all sixteen Canadian "Medical/Doctoral" Universities (those encompassing a broad range of graduate and medical programs) along with a number of other, so-called 'Comprehensive' Universities (schools with extensive research activity and a wide range of undergraduate and graduate programs). We sought education and research initiatives that demonstrated elements of the integration of health, from the social science, humanities, business and behavioural science perspectives.

PART I – POLICY STATEMENTS

SSHRC's Transformation: *From Granting Council to Knowledge Council*

This document represents a starting point for nation-wide discussion as SSHRC begins to chart the future for Social Sciences and Humanities research in Canada. Implicit among this is the recognition that there is a need for change since Canada is now faced with both new university and social landscapes. In addition, there is a recognition that university research (the bulk of research funded by SSHRC is university-based) must become more 'in tune' with societal demands, i.e. there is a need for research to be more socially relevant.

Some of the issues that SSHRC wants to address stem from a greater emphasis being placed on both team research and research contributions from non-traditional organizations (non-university). In addition to this there is a greater emphasis being placed on collaboration between partners from the natural and health sciences with those from the traditional SSHRC participants.

An important element of SSHRC's transformation is the recognition that the researcher's role is not only to develop knowledge, but also to move that knowledge from research to action.

As part of SSHRC's transformation, they have adopted the use of the term Human Sciences to include both social science and humanities. In so doing, they have reclaimed the term "science" as a 'structured way of knowing' rather than a limited set of methods such as those used in the natural sciences.

Traditionally, SSHRC has been structured based on the following five core values:

- Research excellence
- Competitive funding
- Inclusiveness and openness
- Innovative continuity
- Accountability

While they have no intention of abandoning these values, the SSHRC transformation has recognized two additional core values, both of which have strong connections to the Integrated Health Initiative at McMaster:

- Interactive engagement – ongoing linkages through partnerships spanning the spectrum of researchers, students, institutions, communities, etc.; larger and longer-term grants (not necessarily team grants though); there will always be room for individual scholars but individual does not mean 'isolated'
- Maximum knowledge impact – build greater capacity for understanding and applying knowledge; a need for the dissemination of research to lay audiences in society; there is a need for human sciences research to move from disciplinary silos and disconnected from users to research integrated across disciplines and integrated with decision-making, policy and practice

Among the nine solutions to improve SSHRC for the future are four that both directly relate to the Integrated Health Initiative and are consistent with the two new SSHRC core values (above):

- Confederations of Learning: groupings of people who share research interests beyond their disciplines, scholarly associations, universities and regions – 20-30 researchers under the direction of a scientific director (i.e. CIAR)
- Formal Institutes: focus on cross-cutting issues of major and immediate social or political importance – 200-300 researchers under the direction of an academic director (i.e. CIHR)
- Knowledge Mobilization Units: mechanism for getting research findings "out there" and "made use of", in similar ways to technology-transfer offices among the natural sciences
- Scholarly Based Journals for Lay Audiences: render highly specialized knowledge into accessible prose for citizens and stakeholders.

CIHR's Blueprint: *Investing in Canada's Future: CIHR's Blueprint for Health Research and Innovation*

This document is a 'taking stock' of CIHR's success through its first four years of existence, and presents a blueprint for its next four years.

CIHR's success is built upon its integrative vision in which members of all sectors of the health research enterprise participate (i.e. individual researchers, universities, hospitals, health organizations, government (all levels) health charities, industry, the public etc.

Historically (the MRC days), biomedical research was conducted by individuals or small teams in isolated laboratories. Today, the complexity and scale of research challenges increasingly require that researchers and funding agencies reach out beyond their own areas of expertise and experiment with new models to bring people together.

CIHR grants/awards increased from $275 million in 1999/2000 to $580 million in 2003/2004. Health services research has seen the highest relative gain in funding (16 fold increase), followed by population health research (6 fold increase). Despite this, biomedical sciences still receive the majority of research funding under CIHR.

CIHR's broadened, problem-based mandate reflects a deliberate strategy to reach out to all disciplines and research approaches that are relevant to the challenges of human health and disease and the efficient delivery of effective and appropriate health care services.
Among the CIHR's nine Values are two with direct linkages to the Integrated Health Initiative at McMaster:

- Collaboration - positive and mutually respectful relationships with partners and stakeholders who are committed to openness, responsibility and fairness and are mutually respectful of each other's priorities and objectives.
- Innovation - new ideas and creative approaches to addressing health and health system challenges in Canada and worldwide.

Key to the success of the CIHR Institute framework is:

- a growing understanding of the multi-factorial nature of health problems
- the involvement and recognition of, and respect for, the contributions of health researchers from all disciplines and of researchers from outside traditional health research areas
- the involvement and coordination of a wide range of partners from all relevant sectors
- the development, attraction and retention of the best possible health researchers
- the creation of knowledge based on health research that meets the highest standards of excellence
- the application of that knowledge to the development and implementation of innovative policy and practice

Under CIHR's blueprint for the future, the Institutes will continue to develop program tools that encourage collaborative, multidisciplinary, problem-based research. As such, CIHR will focus its efforts around five key strategic directions:

- Strengthen Canada's health research communities
- Address emerging health challenges and develop national research platforms and initiatives
- Develop a balanced research agenda that includes research on disease mechanisms, treatment, prevention and cure, and health promotion
- Harness research to improve health of vulnerable populations
- Support health innovations that contribute to a more productive health system and prosperous economy

Of fundamental importance to the success of CIHR is an integrative approach that brings together all members of the health research enterprise.

The Romanow Commission: *Building on Values: the Future of Health Care in Canada*

Romanow's report emphasizes the importance of a population health approach to the practice of health care. Taking a broad definition of health to include the social, economic and physical environment in which we live, Romanow concludes that spiritual, emotional and physical health are inextricably linked. Keeping people well rather than treating them when they are sick makes sense, and so Romanow envisions Canadians gaining a greater understanding of the determinants of health.

The Kirby Report: *The Health of Canadians – the Federal Role*

According to the Senate Committee, health research is "about creating and applying new knowledge with respect to health and health care." Such research ranges from biomedical and clinical research to population health and health services research.

In the Committee's view, complementary and collaborative approaches to health research are not only feasible and cost-effective, but also contribute to better research outcomes.

Among the many recommendations of the Senate Report, are a number that relate directly to integrated health research.

- The federal government take a leadership role, through the CIHR and Health Canada, in developing a strategy to encourage the interchange of research scientists between government, academia, and the private sector, including national voluntary organizations
- The federal government, through Health Canada and CIHR, coordinate and provide research to ensure that Canada contributes to and benefits from the scientific revolution to maximize the economic, health and social gains for Canadians
- The CIHR play a leadership role in establishing best practices for addressing the complex ethical issues raised by the use of new technology in health research and health care

PART II – INTEGRATED HEALTH RESEARCH AND EDUCATION INITITAIVES IN CANADA

Primarily Undergraduate Education:

University of Calgary – **O'Brien Centre for the Bachelor of Health Sciences**

Located within the Faculty of Medicine, the BHS programme offers a research-intensive undergraduate honours degree designed to engage students in all aspects of health and health research. Central to the organization of the programme is the idea that contemporary health issues need to be examined in a broad-based interdisciplinary manner. The programme is comprised of three streams:

- Bioinformatics
- Biomedical Sciences
- Health in Society

The first two streams are comparable to McMaster's Bachelor of Health Sciences Programme, while the Health in Society is similar to the Bachelor of Health Studies Programme. Students are linked to one of the three streams as well as one of the related cognate fields and so get training in both a disciplinary field and a focus on health issues.

McGill University - **Department of Social Studies of Medicine**

The Department of SSM is an interdisciplinary teaching and research unit housed within the Faculty of Medicine. Fields of history, anthropology, sociology and medical science are represented. Teaching and research focus on the institutional, cultural and technological determinants of medical knowledge and practices. Subject areas include contemporary biomedicine, pre-modern scholarly medical traditions, and indigenous non-Western systems.

Queen's University – **Health Studies Program**

The Health Studies Program, based within the School of Physical and Health Education, maintains a multidisciplinary perspective that spans the physical, biological, epidemiological, and psychosocial dimensions of health.

Health Studies is a social science concentration focusing on the enhancement of health and wellness from an individual and population perspective. The program is interdisciplinary, with option courses from a variety of Departments including the School of Physical and Health education, Women's Studies, Nursing Science, Psychology, Philosophy, and Sociology.

Research Only:

Dalhousie University – **Population Health Research Unit**

The PHRU is a university-based research and support group conducting systematic research into population health, health services and their inter-relationships. Efforts support both individual researchers and research teams addressing larger projects.

University of Ottawa – **Institute of Population Health**

The IPH is building an academic program of excellence in population health research and training, and plays a leadership role in developing effective population health strategies and policies in Canada. The IPH is a consortium of the nine faculties of the University of Ottawa, and in so doing coordinates, initiates, and supports interfaculty, and multiparty, transdisciplinary research in population health.

The IPH is driven by three priority themes:

- Interactions of the Physical and Social Environment
- Evaluation of Health Interventions and Decision-Making
- Working with Special Subpopulations

Four other themes have been identified:

- Public Policy for Population Health
- E-Learning for Population Health
- Chronic Conditions
- Global Population Health

Comprehensive Education and Research:

Simon Fraser University – **Faculty of Health Sciences**
- formerly, Institute for Health Research and Education

The FHS/IHRE promotes research collaborations that bridge the biomedical, health systems, health services, and population health research sectors. All SFU faculty engaged in health-related research are invited to participate – so far 120 are committed.

The FHS/IHRE promotes collaborations, develops linkages among Departments and Schools, develops partnerships with other non-University agencies, disseminates research results, organizes workshops, speaker series, seminars, and attracting and supporting graduate students.

While the IHRE did not comprise an educational component, the newly approved FHS does, a graduate program leading to an MSc.

FHS/IHRE educators and researchers are grouped into five major themes

- Social roots of disease
- Organization and social dynamics of clinical practice
- Factors that control health-related institutions
- Systems and policies
- Population health outcomes based on factors such as health education, socio-economics, genetics, biomedicine

Graduate training is focused around five-overlapping areas:

- population and public health
- infectious disease
- aging and chronic illness
- brain function and development
- biomedical interactions

The IHRE will remain as the campus-wide research engine for health-related research, and will be housed within the FHS. The FHS will be the locus for graduate education in this area. The FHS will also house the population data warehousing and analysis centre. Up to 14 new appointments will be made in the following areas: Epidemiology, qualitative research methods, public health/community health, Biostatistics, and health economics.

University of Toronto – **Department of Public Health Sciences**

The Department of PHS emerged from the merger of the Department of Behavioural Science and the Department of Preventative Medicine and Biostatistics.

Graduate students pursue degrees (MSc/PhD) in Behavioural Science; Biostatistics; Epidemiology; Occupational and Environmental Health; and professional degrees (MHSc) in Community Health and Epidemiology; Health Promotion; Occupational and Environmental Health; Community Nutrition; Family and Community Medicine.

Research is conducted among the following five areas:

- Centre for Health Promotion
- Cancer Epidemiology
- Gage Occupational and Environmental Health

- HIV, Social, Behavioural and Epidemiological Studies
- Ontario Tobacco Research Unit

Research is conducted according to three broad themes:
- Urban Health Improvement
- Gene-Environment-Society
- Global Public Health

University of Waterloo - **Department of Health Studies and Gerontology**

The Department of Health Studies and Gerontology, located within the University's Faculty of Applied Health Sciences is at the forefront of challenging the incidence of disease in society by contributing to the development of effective intervention and prevention strategies that ultimately will lead to an improved quality of life for individuals and communities. Professors with backgrounds in biology, biostatistics, health, epidemiology, gerontology, nursing, nutrition, pharmacy, physiology, psychology and sociology focus their research development, teaching and community outreach initiatives on health promotion, disease prevention and the optimal delivery of health services. These activities involve studying the causation, prevention and management of major health problems and the development and evaluation of health programs. A special emphasis is placed on the study of modifiable biological, behavioural and socio-cultural factors which influence health status and aging and on the development of interdisciplinary research methodology involving statistics, research design, epidemiology, health risk assessment and program evaluation. The incorporation of the biological perspective and the emphasis on methodology are features that distinguish the department from other health promotion/education programs in Canada.

York University – **Health Studies**

York has recently initiated an aggressive national (and local and regional) advertising campaign to sell itself as **the** interdisciplinary university in Canada. Regular front-page advertisements in the *Globe and Mail*, in addition to a Toronto (TTC) and GTA transit "domination" advertising campaign positions York as a different kind of academic institution, offering a modern, interdisciplinary approach to study and research. The print advertisements in major daily newspapers and education publications, explain the significance of interdisciplinary research to address complex societal issues. This is a unique advertising approach because it does not focus on a specific program (such as the MBA-type advertising that most universities undertake), rather it highlights a specific approach to teaching and research – interdisciplinarity – which is currently in vogue.

York currently offers several interdisciplinary options for students interested in pursuing a BA in Health Studies, or more broadly, the study of health. York has instituted a number of different programs (full-time, part-time) at different campuses (main campus, Glendon). From among these programs students can choose to focus on:
- Environment and Health

- Health Administration/Management
- Health Informatics
- Health Policy
- Health Studies
- Health and Society
- Kinesiology and Health Science

In each program, the goal is to go beyond tradition departmental disciplinary boundaries and to engage in truly interdisciplinary education.

For example, in the School of Kinesiology and Health Science students and researchers engage in interdisciplinary problem solving with like-minded scholars from the disciplines of sociology, history and the behavioral, health and pure sciences.

Additionally, York's School of Health Policy and Management offers a "unique approach to health systems education. Focusing on the *determinants of health*, the programs offered in the School emphasize social policy directions, diversity, the role of communities and social justice issues as integral considerations in the development of effective health care models."

The Health and Society Program is an interdisciplinary field of study that draws on concepts and tools from many social scientific disciplines to explore the ways in which social conditions influence health and that health, in turn, shapes social relations and institutions. Housed in the Division of Social Science, the Health and Society Program aims to meet the needs of students who wish to go on to work in health-related occupations, to pursue graduate programs in health studies, or simply to enrich their knowledge of health-related issues. The Program's broadly interdisciplinary approach to health in its social context makes an excellent foundation for graduate training in fields such as public health, community health, health promotion and health administration.

In addition to undergraduate education in Health Studies, York established (in 1990), the York University Centre for Health Studies (YCHS). The YCHS is a university-based research unit that fosters interdisciplinary health research. Drawing together faculty from the social, health, environmental and pure and applied sciences, and from nursing and law, mathematics, psychology and informatics, the research undertaken at YCHS proceeds from the assumption that the health of individuals and communities reflects a host of interacting variables - social, political, behavioural, economic, biological, cultural and historical.

APPENDIX 6

CURRENT UNDERGRADUATE AND GRADUATE COURSE OFFERINGS RELEVANT TO INTEGRATED HEALTH

Below is a list of the health-related courses McMaster currently offers at the undergraduate and graduate levels. Three things are striking. First, the shear number of offerings across the various Departments and programs. Second, is the extent of formal linkage among them, as exhibited, for instance, by cross-listings, which are a conservative measure of such activity. Third, is the potential for innovative collaborations that will enrich the educational offerings at both levels.

TABLE 6.1: Undergraduate - Recently Offered – Non-Cross-Listed Courses

Course Code(s)	Department(s)/Program(s)	Course Title
FACULTY OF SOCIAL SCIENCE		
ANTH 2AN3	Anthropology	The Anthropology of Food and Nutrition
ANTH 2U03	Anthropology	Plagues and People
ANTH 3C03	Anthropology	Health and Environment: Anthropological Approaches
ANTH 3Y03	Anthropology	Aboriginal Community Health and Well-Being
ANTH 3Z03	Anthropology	Medical Anthropology: The Biomedical Approach
ANTH 4S03	Anthropology	Infectious Disease and Human Evolution
ANTH 4R03	Anthropology	Skeletal Biology of Earlier Human Populations
ECON 3Z03	Economics	Health Economics
ECON 3Q03	Economics	Economics of Aging
ECON 4A03	Economics	Research Seminar (incl. Health topics)
GERO 1A03	Gerontology	Aging and Society
GERO 2B03	Gerontology	The Aging Body
GERO 2D03	Gerontology	Social Aspects of Aging
GERO 2E03	Gerontology	Communication and Counseling
GERO 2P03	Gerontology	Professional Development
GERO 3B03	Gerontology	Gerontology Field Observation
GERO 3BB03	Gerontology	Advanced Placement
GERO 3D03	Gerontology	Aging Mind

GERO 3H03	Gerontology	Diversity and Aging
GERO 3L03	Gerontology	Issues in Long-Term Care
GERO 3N03	Gerontology	Aging and Mental Health
GERO 3I03	Gerontology	Special Topics: Health Care Systems
GERO 4I03	Gerontology	Aging and Health
GERO 4S03	Gerontology	Social Policy and Aging
H-ST 3D03	Health Studies	Disabilities and Chronic Illness
H-ST 1A03	Health Studies	Introduction to Health Studies
H-ST 2A03	Health Studies	Models of Health and Illness
H-ST 2B03	Health Studies	Research Methods in Health Studies
H-ST 2D03	Health Studies	Mental Health
H-ST 3A03	Health Studies	Health Issues
H-ST 3B03	Health Studies	Health Knowledge
H-ST 3E03	Health Studies	Ethical Issues
H-ST 3F03	Health Studies	Selected Topics in Health Studies I
H-ST 4A03	Health Studies	Health Studies Inquiry
H-ST 4B03	Health Studies	Critical Perspectives on Consuming Health Research
H-ST 4C03	Health Studies	Representations of Health and Illness
H-ST 4D03	Health Studies	Health in Cross Cultural and International Perspectives
H-ST 4G06	Health Studies	Independent Study
H-ST 4H03	Health Studies	Directed Research in Health Studies
KINE 2G03	Kinesiology	Health Psychology
KINE 4S03	Kinesiology	Physical Activity in Chronic Health Impairments
KINE 4SP0	Kinesiology	Health Promotion and Rehabilitation Theory and Practice
KINE 4X06	Kinesiology	Health Promotion and Rehabilitation Theory and Practice
POSC 3YY3	Political Science	Topics in Public Policy: Health Policy
R-ST 2M03	Religious Studies	Death and Dying: Comparative Views
R-ST 2N03	Religious Studies	Death and Dying: The Western Experience
R-ST 2WW3	Religious Studies	Health, Healing and Religion
SOWK 3C03	Social Work	Social Aspects of Health and Illness
SOCI 3HH3	Sociology	Sociology of Health
SOCI 3G03	Sociology	Sociology of Health Care

FACULTY OF HUMANITIES		
ENG 4AR3	English (& Program in Cultural Studies)	Rhetoric, Culture, Catastrophe: AIDS and Its Representations
ENG 4AS3	English (& Program in Cultural Studies)	The Aesthetics of Sex in the 1890s
ENG 4EL3	English (& Program in Cultural Studies)	Environmental Literature
ENG 4ID3	English (& Program in Cultural Studies)	Dislocation and Belonging: Canadian Writings of Immigration and Diaspora
ENG 4WL3	English (& Program in Cultural Studies)	Globalization and Postcolonial Fiction
HIST 4F06	History	History of Health and Medicine in the Modern Western World
HIST 3V03	History	Madness in the Age of Reason
P-ST 3B03	Peace Studies	Peace Building Through Health Initiatives
PHIL 3C03	Philosophy	Advanced Bioethics
W-ST 2HH3	Women's Studies	Women's Health: A Socio-cultural Perspective
FACULTY OF HEALTH SCIENCES		
H-SC 1E06	Health Sciences	Inquiry
H-SC 2E03	Health Sciences	Inquiry
H-SC 2G03	Health Sciences	Health Concepts
H-SC 2J03	Health Sciences	Health Psychology
H-SC 3D03	Health Sciences	Genetics in Health Sciences
H-SC 3E03	Health Sciences/History of Medicine	Humanities Perspectives on Health
H-SC 3G03	Health Sciences	Health Interventions
H-SC 3GG3	Health Sciences	Health Systems and Health Policy
H-SC 3H03	Health Sciences	Inquiry Project
H-SC 3J03	Health Sciences	Health, Injury and Pathology
H-SC 3L03	Health Sciences	Bioethics
H-SC 4D03	Health Sciences	Special Topics in Health Sciences
H-SC 4F03	Health Sciences	Clinical Practice
H-SC 4N03	Health Sciences	Health Measurement
H-SC 4T03	Health Sciences	Research Initiatives
H-SC 4U03	Health Sciences	Research Initiatives
H-SC 4V03	Health Sciences	Human Movement
NURS 1F04	Nursing	Introduction to Nursing and Health I

NURS 1G04	Nursing	Introduction to Nursing and Health II
NURS 2L03	Nursing	Guided Nursing Practice I
NURS 2M03	Nursing	Nursing Concepts in Health and Illness I
NURS 2N03	Nursing	Nursing Concepts in Health and Illness II
NURS 2P03	Nursing	Guided Nursing Practice II
NURS 2Q03	Nursing	Population Health
NURS 3AA3	Nursing	Oncology Health Assessment
NURS 3B03	Nursing	Health, Science and Society
NURS 3C04	Nursing	Introduction to Research and Critical Appraisal
NURS 3CC3	Nursing	Concepts and Theories in Adult Oncology Nursing I
NURS 3DD3	Nursing	Concepts and Theories in Adult Oncology Nursing II
NURS 3E03	Nursing	Concepts and Theories in Psychiatric-Mental Health Nursing I
NURS 3F03	Nursing	Concepts and Theories in Psychiatric-Mental Health Nursing II
NURS 3G03	Nursing	Selected Topics in Psychiatric-Mental Health Nursing
NURS 3H03	Nursing	Therapeutic Use of Self in Psychiatric Nursing
NURS 3LL3	Nursing	Client Health Assessment
NURS 3MM3	Nursing	Communication Skills for Individuals, Families and Communities
NURS 3P03	Nursing	Nursing Concepts in Health and Illness III
NURS 3Q03	Nursing	Concepts and Theories in Paediatric Oncology Nursing
NURS 3S03	Nursing	Nursing Concepts in Health and Illness III
NURS 3T03	Nursing	Nursing Concepts in Health and Illness IV
NURS 3VV3	Nursing	Community Health
NURS 3X04	Nursing	Guided Nursing Practice III
NURS 3Y04	Nursing	Guided Nursing Practice IV
NURS 4D03	Nursing	Top Quality Management in Nursing
NURS 4E03	Nursing	Advanced Nursing Concepts I
NURS 4F03	Nursing	Advanced Nursing Concepts II
NURS 4G03	Nursing	Poverty and Homelessness
NURS 4I03	Nursing	Leading Effective Teams in Health Care Organizations
NURS 4AA5	Nursing (Nurse Practitioner)	Advanced Health Assessment and Diagnosis I
NURS 4AB5	Nursing (Nurse Practitioner)	Advanced Health Assessment and Diagnosis II
NURS 4C13	Nursing (Nurse Practitioner)	Integrative Practicuum
NURS 4R03	Nursing (Nurse Practitioner)	Nurse Practitioner Roles and Responsibilities
NURS 4TA5	Nursing (Nurse Practitioner)	Therapeutics in Primary Health Care I
NURS 4TB5	Nursing (Nurse Practitioner)	Therapeutics in Primary Health Care II

FACULTY OF SCIENCE		
GEO 3HH3	Geography & Geology	The Geography of Health and Health Care
GEO 4HH3	Geography & Geology/ Environment and Health	Environment and Health
MDPH 4SI3	Medical Physics	Inquiry in Science II (Radiation and Life)
PSYC 2F03	Psychology	Fundamentals of Neuroscience
PSYC 2H03	Psychology	Human Learning and Cognition
PSYC 2TT3	Psychology	Animal Learning and Behavior
PSYC 3J03	Psychology	Visual Neuroscience
PSYC 3N03	Psychology	Abnormal Psychology
PSYC 4C03	Psychology	Language Disorders in Childhood
DEGROOTE SCHOOL OF BUSINESS		
BUSM 3L03	Business (Applied Bus. Management)	Canadian Occupational Health and Safety

TABLE 6.2: Undergraduate - Recently Offered – Cross-Listed Courses

Course Code(s)	Department(s)/Program(s)	Course Title
ANTH 3Q03 GEROL 3Q03	Anthropology Gerontology	Anthropological Approaches to the Study of Aging
ECON 2CC3 H-ST 2C03	Economics Health Studies	Health Economics and its Application to Health Policy / Introduction to Health Economics
H-ST 3Y03 H-SC 3Y03 HIST 3Y03	Health Studies Health Sciences History	Death, Disease and Degeneration: A History of Health and Health Care in Canada
H-ST 4E03 GEO 4HH3	Health Studies Geography & Geology	Environment and Health
H-ST 3C03 L-ST 3D03	Health Studies Labour Studies	Occupational Health and Safety
H-ST 2H03 H-SC 2I03 W-ST 2H03 NURS 2I03	Health Studies Health Sciences Women's Studies Nursing	Social Aspects of Reproduction
NURS 4B03 H-SC 4B03	Nursing Health Sciences	Introduction to Nursing Leadership and Management
NURS 4H03 H-SC 4H03	Nursing Health Sciences	Issues in International and Intercultural Health
C-ST 4G03 LING 4B03	Communication Studies Linguistics	Applied Linguistics
PHIL 2D03 R-ST 2C03	Philosophy Religious Studies	Moral Issues
ENG 3A03 C-LIT 3RR3 P-ST 3A03 W-ST 3H03	English (& Program in Cultural Studies) Comparative Literature Peace Studies Women's Studies	Critical Race Studies
ENG 3AA3 C-LIT 3AA3 W-ST 3HH3	English (& Program in Cultural Studies) Comparative Literature Women's Studies	Theories of Gender and Sexuality

TABLE 6.3: Undergraduate – Not Recently Offered (past 2 years)

Course Code(s)	Department(s)/Program(s)	Course Title
FACULTY OF SOCIAL SCIENCE		
ANTH 3ZZ3	Anthropology	Medical Anthropology: Symbolic Healing
H-ST 4F03	Health Studies	Selected Topics in Health Studies I
H-ST 4I03	Health Studies	Theorizing Health and Illness

TABLE 6.4: Graduate - Recently Offered – Non-Cross-Listed Courses

Course Code(s)	Department(s)/Program(s)	Course Title
FACULTY OF SOCIAL SCIENCE		
ANTH 705	Anthropology	Advanced Skeletal Biology
ANTH 709	Anthropology	Medical Anthropology
ANTH 711	Anthropology	Advanced Topics in Physical Anthropology: Biocultural Synthesis
ANTH 715	Anthropology	Readings in Physical Anthropology: The Anthropology of Infectious Diseases
ANTH 718	Anthropology	From Cradle to the Grave: Anthropological Demography
ANTH 728	Anthropology	Applied Anthropology
ECON 710	Economics	Population Economics
ECON 771	Economics	Analytical Approaches to Economic Policy
ECON 781	Economics	Labour Economics I
ECON 782	Economics	Labour Economics II
SOWK 710	Social Work	Health and Medical Care
KINE 710	Kinesiology	Exercise and Skeletal Development: A Lifespan Perspective
KINE 713	Kinesiology	Directed Readings in Human Biodynamics
KINE 715	Kinesiology	Selected Topics in Health Psychology
FACULTY OF HUMANITIES		
ENG 700	English	Emotion and Culture
ENG 702	English	The Third Sex
ENG 712	English	Childhood in Cultural Theory and Popular Culture
ENG 713	English	Contemporary Memoirs: Theory and Practice
ENG 787	English	Postcolonial Ecologies
ENG 788	English	Writing Diaspora: Literature, Community and Displacement
ENG 793	English	Queer Matters: Theory and Critical Practice
ENG 795	English	Living with HIV/AIDS: On the Discourses of the Pandemic
ENG 796	English	Bodies/Spirits: Post-Enlightenment Subjectivities
ENG 799	English	What is Place: Ecocriticism and Bioregionalism

HIST 759	History	Public Health and Medicine in Nineteenth Century Canada and the United States
HIST 760	History of Medicine	Topics in the History of Health and Medicine
FACULTY OF SCIENCE		
GEO 6HH3	Geography & Geology/ Environment & Health	Environment and Health
GEO 727	Geography & Geology	Disability and Space
GEO 736	Geography & Geology	Environment and Health
MDPH 772	Medical Physics	Medical Health Physics
MDPH 773	Medical Physics	Basic Clinical Radiobiology
MDPH 776	Medical Physics	Principles of Radiation Protection
MDPH 779	Medical Physics	Radiation Health Risks and Benefits
MDPH 780	Medical Physics	Radiation Effects in Plants and Animals
FACULTY OF HEALTH SCIENCES		
CHS 601	Clinical Health Sciences	Spiritual Work Life: Applied to Health Care
HRM 701	Health Research Methodology	Introduction to Health Care Biostatistics (Problem-Based)
HRM 702	Health Research Methodology	Introduction to Health Care Biostatistics (Lecture-Based)
HRM 713	Health Research Methodology	Health Quality Improvement
HRM 714	Health Research Methodology	Methods for the Analysis of Longitudinal Data
HRM 722	Health Research Methodology	Selected Topics in Clinical Epidemiology and Population Health Research Methods
HRM 737	Health Research Methodology	Economic Analysis for the Evaluation of Health Services
HRM 745	Health Research Methodology	Qualitative Research Methods
HRM 751	Health Research Methodology	Observational Research Methods
HRM 762	Health Research Methodology	Evaluation of Health and Health Care Programs
HRM 787	Health Research Methodology	Principles of Health Economics
NURS 6H03	Nursing	Issues in International and Intercultural Health
NURS 700	Nursing	Philosophical Basis of Nursing Research
NURS 703	Nursing	Independent Study in Nursing
NURS 706	Nursing	Research Issues in the Introduction and Evaluation of Advanced Practice Nursing Roles

NURS 707	Nursing	Theoretical Foundations of Leadership and Management
NURS 708	Nursing	Information and Communication Technology Applications in Health: Theory and Practice
NURS 720	Nursing	Advanced Nursing Care of High Risk Infants and Families
NURS 721	Nursing	Advanced Neonatal Nursing Clinical Practice
MS 714	Medical Sciences	Industrial and Environmental Toxicology
MS 746	Medical Sciences	Exercise Physiology in Health and Disease
MS 756	Medical Sciences	Human Nutrition and Metabolism
OCTH 617	Occupational Therapy	Wellness, Health and Occupation: Inquiry and Integration
OCTH 618	Occupational Therapy	Wellness, Health and Occupation: Professional Roles and Application
OCTH 627	Occupational Therapy	Person, Environment and Occupation: Inquiry and Integration
OCTH 637	Occupational Therapy	Disability, Development and Occupation: Inquiry and Integration
OCTH 717	Occupational Therapy	Transition to Practice: Inquiry and Integration IV
OCTH 727	Occupational Therapy	Transition to Practice: Inquiry and Integration V
OCTH 737	Occupational Therapy	Transition to Practice: Inquiry and Integration VI
PHTH 721	Physiotherapy	Community-Based Physiotherapy: Problem-Based Course V
PHTH 722	Physiotherapy	Community-Based Physiotherapy: Laboratory Course V
PHTH 731	Physiotherapy	Community-Based Physiotherapy: Problem-Based Course VI
PHTH 732	Physiotherapy	Community-Based Physiotherapy: Laboratory Course VI
PHTH 735	Physiotherapy	Professional Transition
REHA 702	Rehabilitation Science	Occupation and Occupational Performance
DEGROOTE SCHOOL OF BUSINESS		
BUS P726	Business (Environment and Policy)	Critical Issues in Health Services Management
BUS P736	Business (Environment and Policy)	Quality Management in Health Services
BUS B720	Business	Pharma/Biotech Business Issues
BUS	Business	Health Marketing

TABLE 6.5: Graduate - Recently Offered – Cross-Listed Courses

Course Code(s)	Department(s)/Program(s)	Course Title
ANTH 700 GERO 700 SOWK 700 KINE 700 NURS 700	Anthropology Gerontology Social Work Kinesiology Nursing	Multidisciplinary Perspectives on Aging
ANTH 701 GERO 701 SOWK 701 SOCI 701 KINE 701 NURS 701	Anthropology Gerontology Social Work Sociology Kinesiology Nursing	The Health Care System and the Older Person
ANTH 796 R-ST 796	Anthropology Religious Studies	Ritual and Symbolic Healing
ANTH 799 R-ST 799	Anthropology Religious Studies	Death: Rituals and Meanings in Cross-Cultural Context
ECON 788 HRM 788	Economics Health Research Methodology	Health Economics
ECON 791 HRM 791	Economics Health Research Methodology	Topics in Advanced Health Economics
HRM 721 STAT 721	Health Research Methodology Statistics	Fundamentals of Health Research and Evaluation Methods
HRM 700 PSYC 700	Health Research Methodology Psychology	Philosophy of Science for Health Research
HRM 727 PSYC 727	Health Research Methodology Psychology	Theory and Practice of Measurement
HRM 731 STAT 731	Health Research Methodology Statistics	Special Topics in the Analysis of Health Data
HRM 734 STAT 734	Health Research Methodology Statistics	Data Management in Health Research
HRM 735 GEO 736	Health Research Methodology Geography & Geology	Theories and Methods in Environment and Health
CHS 600	Clinical Health Sciences	Spirituality in Health Care

REHA 600 NURS 600	Rehabilitation Science Nursing	
CHS 700 REHA 700 NURS 700	Clinical Health Sciences Rehabilitation Science Nursing	Spirituality and Health: The Nature of the Wounded Spirit – Implications for Clinical Management
CHS 701 REHA 701 NURS 701	Clinical Health Sciences Rehabilitation Science Nursing	The Wounded Spirit in the Secular World: Implications for Health
CHS 702 REHA 702 NURS 702	Clinical Health Sciences Rehabilitation Science Nursing	The Wounded Spirit: The Impact of Spiritual and Religious Traditions on Health
CHS 703 REHA 703 NURS 703	Clinical Health Sciences Rehabilitation Science Nursing	The Wounded Spirit: Applied Contemporary Health Practice Issues
CHS 719 NURS 719	Clinical Health Sciences Nursing	Foundations of Education in the Health Sciences
CHS 730 BUS 730 NURS 730	Clinical Health Sciences Business Administration Nursing	Determinants of the Health of Populations
HRM 738 BUS 738	Health Research Methodology Business Administration	Health Policy Analysis
HRM 789 BUS 789	Health Research Methodology Business Administration	Health Economics for Health Care Managers

TABLE 6.6: Graduate – Not Recently Offered (past 2 years)

Course Code(s)	Department(s)/Program(s)	Course Title
FACULTY OF SOCIAL SCIENCE		
SOWK 723	Social Work	Policy and Practice for an Aging Population
SOWK 725	Social Work	Policy and Practice with Indigenous Communities
SOWK 733	Social Work	Social Work Practice in a Health Context
SOCI719	Sociology	Issues in the Sociology of Health and Health Care
FACULTY OF HUMANITIES		
PHIL 759	Philosophy	Feminist Bioethics

APPENDIX 7

SUMMARY OF FOCUS GROUP DISCUSSION

Support for Integrated Health Initiative

- There was strong support for the initiative at McMaster, which will build on strengths
- Mac is ahead of other places in terms of support of collaborative, interdisciplinary
- size of the university allows for connections
- city health department is interested in getting involved, opportunities
- a number of successful examples already exist across campus
- Examples of successes - Ecowise, CHEPA, Ctr for Women's health promotion, BHSc, Health Studies

Challenges/Obstacles to achieving goals

1. Time

- this is the biggest issue: not enough time for research, collaborative teaching
- some faculty might like to make a choice in their career to focus more on teaching or research
- tension between time for research and having high quality researchers in classes

2. Interdisciplinary work/collaborative work is not always valued

- many in humanities are anxious of the move in SSHRC to collaborative, larger groups, interdisciplinary
- collaborative work can be a particular problem for new faculty, as it takes time to develop new collaborations
- journal choice in interdisciplinary work - colleagues ask is it a quality journal?
- T&P expectations - value on sole authored publications, large grants
- also need to support lone researchers
- Integrated Health initiative risks creating have/have-nots

3. Inter-faculty differences & tensions

- tensions exist between faculties over teaching load disparities, which creates resentments, competition
- teaching load disparities: some teach 15 units, others 12 or 9, flex arrangement in FHS
- within faculties, there are faculty members who mostly do research versus others who mostly teach
- In Humanities a $10K may be need from SSHRC grant versus CIHR big grants, are both valued?
- interdisciplinary efforts are sometimes seen to take away from the disciplinary core
- faculty members are discouraged from hiring students from other faculties - take care of your own students first

- hospital/university systems don't work together well: IT, software, support, WebCT, if computer comes from hospital account, you can get a licence for SPSS

4. Apprehensions

- University says it values interdisciplinary/collaborative work, but does not always reward efforts (e.g., inter-university course on occupational health - End up doing it as a labour of love).
- Is the university really serious, when it doesn't adequately fund things that are already set up
- The deans know the problems around time, but they don't want to deal with it; sessionals will have to pick up the slack, so Macleans rating goes down.
- Dean will support teaching release, only as long as I come up with the money myself
- what happens to overhead money from grants?
- membership of the task force (imbalance in numbers across faculties, absence of business rep) sends out a message to the university

Despite such apprehensions, the group suggested a good number of strategies that would be helpful in reaching the goals of the Integrated Health initiative.

Suggested Strategies:

- infrastructure to know who is doing what – who is here and what are they doing
- hire someone who knows what's going on, who can actively work at linking people, promoting people's work, coordinating work, help develop networks for new people, and also for more established faculty
- project management clearinghouse, ideas for grant proposals, support, advice, where should I apply, what's been successful and why?
- research support unit - pool of skilled research assistants for short term support
- fund new faculty positions for more research and spread out teaching demands
- set up money for new faculty
- travel money that is easily accessed
- larger PDA to support teaching/research without requiring application
- strategic funds to support key individuals, initiatives in line with objectives of initiative identify key activities, people
- student support - for recruitment, research support
- faculty research support
- post-docs
- ensure better rewards and recognition:
- colloquia - coordinated promotion of colloquia across campus
- release time, buy outs (even during grant writing)
- half course release to hire grad students as co-instructor, mentorship
- hiring 4th year summer students
- guest speakers
- McMaster annual conference
- visiting scholars
- sabbatical at year 3 rather than 6
- library resources

- rethink approach to teaching, virtual, inter-faculty teaching, inter-professional education efforts, like population health course in previous years
- Mac does a terrible job promoting itself
- we need excellent websites
- advertise its great depth in health research
- publicity unit promoting departments and programs
- advertise in newspapers
- PR work with papers, TVO to promote activities

Conceptual Plan

- many suggestions are small operational things, but they are significant
- we also need to think conceptually, identify key areas/players/gaps and use funds strategically
  What will really make a difference
  what is the dream for 5 years
  think conceptually, and then sell the idea
- Advocacy role of task force - to promote a new way of looking at reward structures

APPENDIX 8

KEY INFORMANT SURVEY

Below is a list of key informants (and affiliations) who were contacted for advice and guidance during various stages of our deliberations about Integrated Health and the development of the Collaboration.

Arthur Frank
Professor Department of Sociology
University of Calgary

John Frank
Scientific Director, Institute of Population and Public Health
Canadian Institutes of Health Research

Clyde Hertzman
Director, Human Early Learning Partnership
University of British Columbia

John King
Vice President, St. Michael's Hospital, Toronto

Steven Lewis
Public Representative
Health Council of Canada

Jonathan Lomas
CEO, Canadian Health Services Research Foundation

Ted Marmor
Professor Public Policy and Management
Yale University