Developing Linkages Between Health Researchers and Decision-Makers: The Rationale for an Institute for the Study of Health Outcomes, Services and Policy in Nova Scotia

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Purpose and Background of the Document

In January, 2006 a workshop was organized by the Associate Deans of Research in the Faculty of Health Professions and The Faculty of Medicine to explore ways to better organize and coordinate health services and outcomes research. The rational was that there are a number of researchers within the Dalhousie research community that are conducting outcomes/health services research. In addition, there are potential recruitments that will bring additional outcomes researchers to Dalhousie. At present, there seems to be little in the way of either formal or informal organization that can help facilitate our outcomes research, and there is little infrastructure to support this activity. Based on conversations with several outcomes researchers, it was decided to hold an informal workshop to:

- *Discuss the need to develop infrastructure to support outcomes research and how to achieve this.*
- *To see if there are mechanisms (formal or informal) that can be put in place that would serve to facilitate better interaction among the research community.*

More than 30 researchers attended the workshop, and strong interest was expressed in exploring working models to better coordinate and integrate the research community, and enhance research infrastructure. As an outcome of the meeting, a task group was established with the following objectives:

1. *Determine the functions of a health services/outcomes research entity (e.g., data infrastructure, networking, communications, training etc.).*
    a. *Synthesize information on possible models that could satisfy the identified functions.*
    b. *Compare models used by other health services/outcomes research entities.*
    c. *Clarify structural elements which will be needed to satisfy the identified functions (e.g., administrative support, communication, research services).*
    d. *Consider resources that will be required for the respective models.*
    e. *Identify possible models that might be feasible.*
2. *Summarize and disseminate information on models to larger group for discussion and determine next steps.*

This report presents the conclusions and recommendations of the Task Group.

1.0 Introduction[1]

1.1 Problem Statement

Nova Scotia is failing to fully capitalize on the use of health services research to inform and improve the health care system, not only to deal with acute and chronic care, but to maintain and promote health. It is also failing to fully capitalize on potential opportunities to access available national funding for health services and health policy research due to the current state of fragmentation in the research community and the lack of coordination between the researcher community, decision-makers in the health field and government.

1.2 Purpose

The purpose of this Proposal is to highlight the need to develop a supporting infrastructure to organize and facilitate and promote high caliber health services and health policy research while addressing the research needs of health care organizations (Department of Health, District Health Authorities, Long Term Care, Home Care and the Volunteer Sector), government, health professional groups and granting agencies. Furthermore, this document provides the rational for the creation of a health policy/research "institute" that is both multi-disciplinary and collaborative and that functions at "arms length" from government.

By "health services and health policy research" we mean research which focuses on the mechanisms through which health and social policy can be mobilized to promote population health. This includes research on the delivery and management of health services, as well as broader research into the ways that policy can promote health through social and economic determinants of health.

While the term "institute" will used throughout the document, the term does not imply any particular structure, but rather the focus is to identify critical success factors to support health services and policy research in Nova Scotia. The comparison of health policy research institutes outlined in Appendix One demonstrates that an "institute" or "centre" can take many forms, but that there are common elements to successful institutes/centres.

1.3 Opportunities for Linkage and Exchange

The opportunity exists to improve the health of Nova Scotians by conducting and communicating the findings of broad-based health services and health policy research to government, District Health Authorities, health professional groups, and the public. There is a need for cross-cutting, interdisciplinary research that integrates clinical (from multiple health professions), epidemiological and social science perspectives to inform health and social policy, and improve the delivery of health

[1] This document is adapted from an older document prepared by George Kephart and Victor Maddalena in 2002.

and social services. The population and geography of Nova Scotia and the Atlantic Provinces represents an ideal "laboratory" for such research.

1.4 Objectives

In general, the primary objective for creating a health research/policy institute for Nova Scotia would be to facilitate collaboration among health researchers, decision-makers and government. Specifically, the objectives would be:

1) To help establish common research priorities and develop a research agenda that is meaningful to the needs of the health field and government, while benefiting the academic community;
2) To establish a longer-term view of supporting and conducting health services and policy research as opposed to dealing only with short-term problems that require immediate solutions;
3) To help create, consolidate and communicate knowledge with the aim of improving the health of the population and improving health system effectiveness;
4) To support and enhance the research environment by:
    a) Integrating a critical mass of high quality researchers, policy makers and health practitioners from multiple disciplines and perspectives into a dynamic, cohesive research environment.
    b) Supporting the common infrastructure necessary to the conduct of high quality and innovative health services and health policy research (e.g. databases, research staff and administration)
    c) Creating partnerships to collaborate and apply for health funding.
    d) Supporting the translation of research knowledge into policy and practice.

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2.0 Background

Several reports have highlighted the need to create linkages among the health research community, organizational decision-makers and government policy makers to achieve a more cost-effective and practical use of research monies and to facilitate evidence-based decision-making in the health sector. [2][3][4]

Historically, the research community has worked in relative isolation from the day to day realities of front-line decision-makers in health organizations. Furthermore, decision-makers in health organizations tend to be preoccupied with day to day management issues and have not focused attention on the benefits of participating in research and taking a longer-term view of health problems and their solutions. Yet, it is widely acknowledged that appropriate and sound evidence is an essential

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[2] Nova Scotia Health Research Foundation (January 2001). A Critical Look at Health Research In Nova Scotia. Author.
[3] Canadian Health Services Research Foundation (May 1999). Issues in Linkage and Exchange Between Researchers and Decision-Makers. Author.
[4] Canadian Population Health Initiative (February 2001). An Environmental Scan of Research Transfer Strategies. CIHI.

component of good decision-making in the management of the health sector. In addition, the perception is that policy makers in the bureaucracies of government and health organizations act in isolation from academic researchers.
Clearly, there has been an increase in recent years in health services research in Nova Scotia that has strong links with policy. This reflects the strong incentives created by funding agencies to promote collaboration with decision-makers, and the efforts of many academic researchers and policy makers to promote linkages. It is now recognized that there are clear benefits to be realized when decision-makers and policy-makers are partners in formulating the research agenda and when they are active engaged in the conduct and dissemination of research. Participation of decision-makers enhances the meaningfulness and uptake of research and ultimately this can lead to improvements in the quality of health care.[5] However, these efforts are highly fragmented.

Most provinces in Canada with large health faculties already have one or more established health services and policy research institutes that facilitate the linkage among the various players listed above. Nova Scotia is one of the few provinces in Canada that has a large university-based health and medical research community that does not have a major health research/policy institute.

2.1 A Nova Scotia Perspective

A discussion paper released by the Nova Scotia Health Research Foundation in 2001 entitled, "A Critical Look at Health Research In Nova Scotia"[6] found that Nova Scotia is lagging behind the rest of the country in terms of collaboration between the academic community, decision-makers in the health field and government. While the report was released five years ago, it remains very relevant today. The Report cites the need to build partnerships among decision-makers in health care organizations, the research community and government departments who have an interest in health issues, with the objective of producing high quality health research that can influence health policy development and improve health care delivery in Nova Scotia. While the report did not specifically cite the need to develop and conduct research at "arms length" from government, this is considered by many as being an essential feature of a successful inter-disciplinary and inter-agency policy research initiative.

The Report also noted that most health research in Nova Scotia is developed without decision-maker involvement. Moreover, the Report found that decision-makers rarely take advantage of expertise in the health research community to facilitate decision-making and policy formulation. In addition, while there is a vibrant medical research community in Nova Scotia, the province is weak in the area of health-based (as opposed to illness-based) research.

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[5] Lomas, J. (Spring 2000). Connecting Research and Policy. ISUMA Canadian Journal of Policy Research, p. 140 – 144.

[6] Nova Scotia Health Research Foundation (January 2001). A Critical Look at Health Research in Nova Scotia. Author.

Simply stated, in Nova Scotia there exists no collective forum or infrastructure support for interested parties to work together to develop collaborative research and policy analysis initiatives. Furthermore, there is no forum for these issues to be discussed at the Maritime Provinces or the Atlantic Provinces level.

The goal of evidence-based decision-making in health care is laudable and a public demand for greater accountability will be difficult to achieve in the absence of meaningful research and a stronger link between researchers and decision-makers. Nova Scotia has been cited as an ideal research laboratory because of its size and structure, yet the province's research community remains fragmented and often separate from the needs and concerns of decision-makers.

Generally, Nova Scotia's health research sector is made up of a wide variety of players, including several disciplines in different universities and a variety of research centers and institutes. The centres, institutes and units that do exist are small with active day-to-day involvement of only a few university faculty (in many cases 1 or 2), and a small number of research staff. Sustainability has been a challenge for all centres. The general view is that the research community is fragmented and not cohesive. This is due in part to the competitive nature of research funding policies and the structure of the Universities.

The Report also noted that there are few avenues for interaction among health researchers, decision-makers and policy makers in government in Nova Scotia. Moreover, most health research is still carried out without decision-maker involvement and decision-makers often do not take advantage of expertise in the health research community for informing policy decisions.

While the Report noted that Nova Scotia is recognized as being an ideal laboratory for health research because of its stable population and relatively small size, this advantage has not been well exploited. The health research environment is less than vibrant due to four closely related challenges:

1) There is a dispersed research community (i.e. no critical mass of researchers),
2) There are difficulties attracting and retaining human resources,
3) There is limited start-up funding to support development of grant proposals and,
4) There is very little inter-sectoral collaboration.

2.1.1 Partnerships and Collaboration in Research

- Health research is described as fragmented, with little communication and collaboration, and in some instances there is noticeable hostility between sectors and individuals.
- There are no operational and infrastructure funds to support collaborative research groups.

2.1.2 Research and Economic Activity

- The Report stated that researchers are not naturally blessed with entrepreneurship. They need encouragement and assistance to put together large funding partnerships and fully exploit the economic potential of their research.
- Nova Scotia is behind the country in the development of research opportunities that bring economic benefits to the province and the region.

2.1.3 Key Issues Summary

1. The province lacks an organized critical mass of expertise in health services and policy research.
2. There are few bridges for interaction between health researchers and decision-makers in Nova Scotia, and there is inadequate collaboration between decision-makers and the research community for informing policy decisions.
3. Nova Scotia is an ideal laboratory for health services research, but this advantage has not been fully exploited.
4. The health research environment is less than vibrant due to difficulty integrating researchers, limited availability of infrastructure funding and little inter-sectoral collaboration.

3.0 Potential Benefits for Nova Scotia

There are many potential benefits to be realized by developing an appropriate infrastructure for linking health services and policy researchers, and facilitating interaction and collaboration with policy-makers and decision-makers. The following section outlines some of the benefits that can accrue to Nova Scotia by creating a health outcomes, services and policy research institute.

3.1 Health System

The health care system in Nova Scotia can benefit from a concerted effort to identify a research agenda that is meaningful to the issues faced by the front lines of health care delivery and policy-makers in government. There is a need for high quality information that can facilitate informed decision-making. Increasingly there is a need for politicians and health system administrators to justify publicly the decisions that eliminate, decrease or change publicly funded health services. A health policy research institute can assist in the process of public education regarding the rationale for decisions in health care by making relevant research findings available to the media and the public.

3.2 Building Research Capacity

Building research capacity in the province will create an environment where it will be easier to attract (and retain) researchers to the province, and will enhance the productivity and development of existing faculty. Fostering an attractive research environment will attract high caliber researchers and will increase the potential to

apply for receiving research funding from provincial, federal and international sources. By increasing the province's research capacity the University sector will also benefit by being able to be more competitive among students choosing the location for their university education. This competitive edge will also work towards building research capacity in the Province.

4.0 Structure and Organization

4.1 Lessons Learned from Other Jurisdictions - Key Features for Success

Appendix One compares several of the more prominent health policy/research institutes across Canada to the current environment at Dalhousie University. The information was collected by a search on the World Wide Web, interviews with administrators of the institutes, and a review of the relevant literature. The information contained in the survey consists of a description of the organizational Mission, reporting relationships to external agencies, structure and staffing, and the means by which the organization's research agenda is determined. The following represents a summary of the features that contributed to the success of the health policy research centres in other provinces.

A number of recurrent themes emerged. These are put under the heading of "Key Features for Success" because they are, in the literature and from the interviews with administrators of health research/policy institutes, features that seem to facilitate successful realization of their respective missions. These recurrent themes are outlined below.

4.1.1 Governance and Accountability

All of the health research/policy institutes have a strong governance structure, and most have some form of Advisory Board that serves as a forum where various stakeholders can meet and discuss matters of mutual interest. Often the work of these Advisory Boards is focused on identifying the research agendas based on the needs and interests of each party and addressing issues of funding and research dissemination.

Representation on the Advisory Boards is generally diverse and usually includes representatives from government (usually Department of Health), academic researchers, health administrators, members representing health professional interests (e.g. nursing, medicine), and in some cases non-professional and expert representation from the community (e.g. Community Health Boards, business community, etc.).

Governance structures and funding arrangements for the centres examined help to ensure accountability. Governance structures, advisory structures and contractual funding arrangements specify the mission and role of the organizations, deliverables, and ensure that output from the centre's address needs of the health care sector.

They also provide a degree of independence from political pressures, and help to ensure high academic caliber of research.

4.1.2 Critical Mass

All of the institutes examined have a large critical mass of research faculty and staff who are actively engaged in the institute on a day-to-day basis. This is despite their membership in traditional academic departments. In fact, the degree to which successful institutes have a critical mass of faculty whose research activity and academic careers are focused around the institute is striking. Indeed, successful institutes have formal membership of research scientists, and there are expectations that research scientists participate actively in the operations and functions of the institute (including the production of deliverables to funders). Most institutes also have a strong interdisciplinary involvement; although some institutes are based predominantly within a given academic department. It is also noteworthy that successful centres have their own space, and are not geographically dispersed. Indeed, location of a critical mass of researchers and staff in contiguous space is a feature common to all of the successful centres examined.

4.1.3 Infrastructure and Infrastructure Funding

The Institutes surveyed receive base or infrastructure funding from either Government or the University with which they are associated. Established centres consider infrastructure funding as an essential factor in the process of attracting and retaining high caliber researchers and administrative staff and providing a sense of stability to the organization. The majority of the funding for most of the institutes comes in the form of an annual operating grant from the Ministry of Health. There is usually a return in service commitment in the form of research reports generated at the request of the Ministry.

In several of the institutes (MCHP, CHSPR and ICES), large databases are key infrastructure that are maintained by the organization. However, other infrastructure was also common. For example, all successful institutes had communications infrastructure (internal and external), methodological/analytical research staff, and administrative staff.

It is often suggested that a potential conflict of interest exists when government is a primary funder of the organization and to a degree, academic freedom may be compromised. Generally, all the Institutes described a very cordial and positive relationship between themselves and government, but operate at "arms length" from government. The arms length relationship with government provided stability, and enhanced credibility with the public. This had benefits for all parties.

4.1.3 Communications

Increasingly, external communications and the media are seen as an important partner in the process of research dissemination and public education. Most of the Institutes have a full time Communications/Research Transfer Officer and support

staff that foster and maintain strong links to the external community and the media. Most of the Institutes produce reports for a variety of audiences, hold regular media briefings, issue press releases on new reports or studies and nurture relationships and seek to educate "health reporters" in their local community. Most of the Institutes consider media relations as an important aspect of their work and positive media coverage is seen as a measure of success for the organization in general.

In addition, internal communications are also an important component of success. Successful centres require mechanisms and infrastructure to protect and build institutional knowledge among researchers and staff, ensure quality control of research products, organize and manage preparation of deliverables, and promote cohesion.

4.1.4 Attention to Excellence

Without exception, all of the Research/Policy Institutes and Centres said that their perceived success was attributable to their commitment to maintaining a high standard of excellence in research. The production and dissemination of research, either through self-publication or dissemination through peer-reviewed journals is considered the hallmark of success.

One issue cited by the majority of Institutes, (though not all expressed this concern) is the difficulty in finding researchers who feel comfortable in the academic world of research and also feel comfortable working with administrators in the field. Simply stated, not all researchers feel comfortable presenting their research in a manner that is appropriate for the needs of bureaucrats and politicians.

4.1.5 Quality Control

Most of the centres examined have formal procedures and protocols to ensure that research products generated are of high quality. For example, they build and maintain standardized methodological/programming tools for completing common tasks such as data cleaning and constructing frequently used variables from data sets. They also have established mechanisms to train and develop staff, check results prior to release of reports, and develop new faculty.

4.1.6 Research and Administrative Staff

Recruiting, retaining and developing high quality research and administrative staff are critical components of success in the centres examined. The largest and most successful centres maintain a large contingent of contiguously located research and administrative staff. Many of these staff have been employed for long periods of time, and experience dynamic careers. They feature prominently in publications and reports from the centres, and are specialized in a variety of areas (e.g. programming, statistical analysis, data management, communications, project management). In contrast, decentralized research environments such as exist at Dalhousie have high turnover of research and administrative staff**.**

4.1.7 Cohesion, Membership and Obligations of Membership

Most of the centres examined have formal membership or appointments of researchers. These appointments are in addition to regular academic appointments. Moreover, these are not merely memberships in name. Most members use the Centre as the focal point for their research. For example, an examination of peer reviewed publications reveals that investigators typically list the Centre as their primary affiliation. Many members also have their primary research office located in the Centre.

Membership, and associated benefits and obligations of membership are important components of success. For example, members have access to extensive infrastructure and support, but are also expected to participate actively in Centre activities such as seminars, governance and production of deliverables.

4.1.8 Deliverables

Successful centres have regular research deliverables that they produce for funders. These deliverables take a variety of forms and are addressed to a variety of audiences. In addition to providing a public face to the Centres, which highlights their contributions and facilitated knowledge transfer, deliverables facilitate cohesion and collaboration. In virtually all cases, the degree of overlap and synergy between deliverables and standard academic activity was striking.

4.1.9 Financial Sustainability

While core infrastructure funding from provincial governments is critical to their financial stability, successful centres also generate large amounts of funding from peer-reviewed granting agencies and contract research. In fact, in all the centres for which data was available, the return on investment from provincial funding was more than 100%.

4.1.5 Miscellaneous

While it is acknowledged that there is a need to have senior decision-makers from government, hospitals and Regional Health Authorities collaborate on a common research/policy agenda, the current situation in management circles in Canada is presenting some unique challenges. Most prominent among these challenges is the rapid turnover of health administrators, namely Chief Executive Officers of hospitals and Regional Health Authorities and Deputy Ministers. Stability and ongoing commitment from senior leaders in the system is essential to productive meaningful relationships. Research development is not generally known for its quick turnaround; usually from conception of an idea to a published research report is often defined in years, not months.

To ensure the continuity of collaborative relationships between researchers and health organizations the tendency has been to develop relationships with middle-

management, as opposed to senior management in hospitals and RHAs to foster a seamless working relationship.

5.0 Conclusions and Recommendations:

Dalhousie University, in collaboration with CDHA and the IWK, and possibly in collaboration with other Universities in the region needs to rethink how it organizes and facilitates health services research. A review of Successful Canadian Centes in other jurisdictions has highlighted key criteria for success that we should emulate. To accomplish this task will require fresh thinking, and willingness to make some major shifts in how we have organized health services research activities in the past.

The Task Group recommends the following:

1. A meeting of the health research community to see if there is sufficient buy-in to proceed with reorganization of health services research activity into a centre or institute.

2. If there is sufficient buy-in, a task group should be established to develop a business plan for a health outcomes, services and policy research institute that could be presented to the research community, NSHRF, the provincial government and other stakeholders. The task group should include senior administration, senior health services researchers, and senior research staff from pertinent sectors of the community.

3. The development of a centre or institute needs to integrate existing infrastructure and organizations, without compromising the mandates and benefits of existing structures. The task group felt that a model that incorporates existing structures under a broader structure or umbrella may be a good way to proceed (see Figure 1). Such a model would incorporate existing research organizations and areas of strength as divisions or nodes within a larger institute.

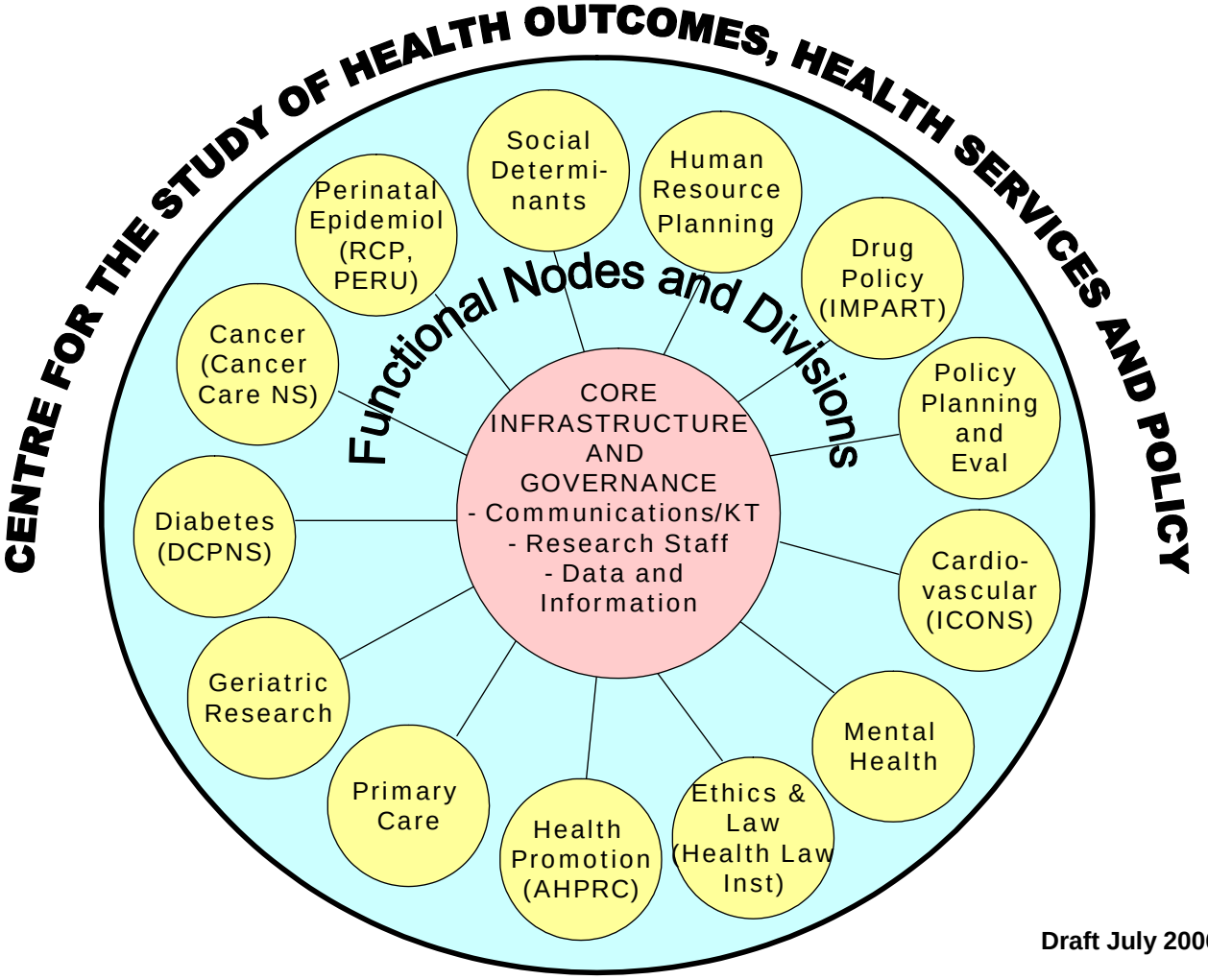
4. The data collected, assembled and maintained by the Population Health Research Unit (PHRU) and by provincial programs (e.g. the Diabetes Care Program of Nova Scotia, ICONs, the Reproductive Care Program, and Cancer Care), along with the human expertise in these organizations, are among the most valuable infrastructure which could support an Institute. Mechanisms by which this data and capacity can be incorporated as core resources, while maintaining and enhancing the current capacity and mandates or these programs, need to be explored and incorporated into the planning process.

5. Options for physical integration and space need to be identified, and incorporated into the planning process.

6. The role and structure of graduate training programs in health services and health policy needs to be reviewed and incorporated into the Institute planning process.

7. These steps should be integrated into the strategic planning processes such as those currently being undertaken by the Faculty of Medicine. Participation from the Faculties of Health Professions, Dentistry, the Department of Health and the Nova Scotia Health Research Foundation is critically important.

Figure 1. A possible structure for a health outcomes, services and policy research institute with examples of potential nodes of expertise. The nodes are intended to be illustrative only.



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Appendix

Comparison of Canadian Models for Health Services/Outcomes Research Entities

	Dalhousie	ICES: ON	CHEPA: ON	MCPH: MB	CHSPR: BC	GRIS: PQ
Functions						
Research Type & Nature • **Internal vs. client generated** • **Influence of deliverables on research agenda** • **Research programs vs. investigator-initiated** • **Grants, contracts etc.** • **Scope (e.g., clinical trials, behavioural studies, population health etc.)**	- Research topics are largely investigator driven, but new funding opportunities and incentives have resulted in an increasing volume of health services research which is responsive to client needs. - Many projects/year, but hard to count as they are produced	- 100+ projects at a time. Research output is clearly documented on website and in annual reports. Output is "branded", and thus clearly identified with ICES. - Research is both client and investigator driven. Regular deliverables are negotiated with the provincial government. There is a great deal of synergy	-# projects hard to count. - Research both client and investigator driven, but more investigator driven than in other centres. - Scope: Health Economics and Policy Analysis; evaluate systems of organization, governance, financing, funding and delivery of services of	- Research is both investigator and client driven. Agreement with Province of Manitoba to provide 6 major studies (deliverables) per year. Topics are decided by *both* Director of MCHP and Deputy Minister of Health (thus, both internal and client generated). In return, the Province provides approximately two-thirds of their operating funding ($1.85	- Research both investigator and client driven. Influence of deliverables: Goal is to encourage first class research. To this end, there is continuous communication with provincial/federal governments to ensure research agenda is relevant and timely.	-research is geared towards 3 ends: study of the determinants of health, evaluation of interventions and to analyze the organization of the system of health. Scope: Topics include financing of health system, organizational operation, behaviour of professionals, quality of care, interventions in promotion of health, care of first line, geriatric patients, maternal and infantile

	by a diverse research community that is not organized. Activities are documented in annual reports from Departments and from a variety of relatively small research groups (e.g. Atlantic Health Promotion Research Centre, IMPART, PHRU, Perinatal Epidemiology Research Group, etc.) - Very broad scope: Community outcomes, health indicators, health services research planning, peer reviewed	between client and investigator drive research. - Scope: Broad but focused on health services: Clinical Trials, Policy Relevance -care delivery, patterns of service utilization, health technologies, drug therapy, treatment modalities	health	million/year). In addition, there is a large amount of funding from grants and contracts. The return on investment (ROI) on the provincial funding is greater than 100%. - Scope: broad scope of research with focus health service organization, delivery and planning. Also have a broad population health focus.	- Provincial funding has been been cut drastically in recent years. -Grants and contracts from agencies such as Canadian Health Services Research Foundation, Canadian Institutes of Health Research, Commonwealth Fund, Health Canada, etc. comprise a large share of the funding. -Scope: inter-related activities in heath services & policy	health, oral health, international health, environmental health and more.

	abstracts, peer-reviewed journals, Pharmacoepidemiology and Pharmacoeconomics, Reports - Research & operations funded by grants and contracts. Some research infrastructure have core funding (e.g. Nova Scotia Reproductive Care Program, Diabetes Care Program, ICONS, Cancer Care Nova Scotia), but most do not. - PHRU is funded on a fee-for-service basis with fees paid by grants and contracts.				research, i.e., health policy, health human resources, health care database development (HIDU), health technology assessment & population health	

University Affiliated	Research is largely attached to existing University departments. Centres and institutes are largely research arms of Departments or researchers (in many cases individual researchers).	Arm's length from University of Toronto, but many faculty appointed at UofT	-Linked to McMaster	-Linked to University of Manitoba.	-Created by University of British Columbia.	-Linked to University of Montreal.

Service • Does the organization provide "deliverables" to funders, governments, or institutions? • How are deliverables negotiated? • How is the work for deliverables balanced with other research priorities? • How is the independence/ objectivity of researchers maintained?	Deliverables largely organized by individual researchers in return for funding (i.e contract research)	-Deliverables are determined through discussions involving key Ministry staff and Centre faculty -Scientific Advisory Committee meets yearly to review and provide advice on policies and procedures for research	- Annual workshops address topical issues, and are a key deliverable. - Have some negotiated research deliverables as well.	- Deliverables include six projects annually for next five years (for Manitoba government). - Negotiation: Topics for deliverables decided upon by Director of MCHP and Deputy Minister of Health.	-Deliverables provided. CHSPR conducts research projects for BC Ministry of Health and Long Term Care. -Negotiation: Scope and content of projects is negotiated at beginning of each fiscal year between senior officials within Ministry and administrative faculty from CHSPR. - Research priorities are based on interest of individual faculty members.	

Communications <u>External</u> • Public relations • Communicating results • Knowledge translation activities • Communicating with stakeholders <u>Internal</u> • Factors promoting cohesion • Networking	A limited number of individual research programs and centres have core communications programs. For example, the Atlantic Health Promotion Research Centre has focused on knowledge translation, and generates several reports per year. PHRU has a number of online reports. However, most dissemination is through peer-reviewed publications and reports to funders. Generally,	Practice Atlases – provide information to providers, planner and policy makers on the effectiveness of the Ontario health System Investigative Reports – provide an in-depth examination of various aspects of health care delivery in Ontario such as access, outcomes, utilization patterns, screening and treatment modalities and technology Journal Abstracts – on web At a Glance – Monthly 2 page e-bulletin Informed –	-CHEAPA in Review released annually -Workshop Series -Seminar Series -CHEAPA News Labelle Lectureship (general interest lecture in health economics or policy -Other Conferences	- Extensive website available to public. - Mission is to provide accurate, timely information to healthcare decision-makers, analysts, providers. - Results of projects available on-line, including information on projects in progress. **- Networking:** 5 Systems staff and 10 Programmers (generally have Masters Degrees) work with researchers to access and manipulate data.	-Extensive website available to public. -Knowledge translation: Disseminates findings through research summaries, reports, public seminars and discussion papers. -Faculty members frequently called on as media experts. -Hosts workshops, annual health policy conference.	Research reports are available by year on the website. Theses are also available on-line, as well as links to books.

	there is a lack of organized internal or external communications infrastructure	designed for primary care providers, peer reviewed synopsis of current information in clinical care -Formal faculty membership				
Infrastructure: What infrastructure does the center provide? • **Data** • **People** • **Finance & administration**	Provincial programs have provincial funding for some key data infrastructure (Nova Scotia Reproductive Care Program, Diabetes Care Program, ICONS, and Cancer Care Nova Scotia). PHRU provides extensive data warehousing and analytical support for administrative data and data linkage, but	-Functions as a data warehouse -Data; guided by internal Information Access and Confidentiality Committee -Researchers follow criteria and protocol -Centre and affiliated researchers have access to data Databases: OHIP, CIHI discharge data, Vital Stats. People: -100 staff -Administration, Information	-No data holding	-Functions as a data warehouse - Data: Uses Manitoba Health Research Data Repository to describe and explain patterns of care and profiles of interest. Data contains anonymized encounter-based records of individuals' interactions with provincial healthcare system. - Uses data to explore other factors that may influence health, i.e. income,	-Functions as a data warehouse Data: Home to large collection of health services utilization and population health data: the BC Linked Health Database (BCLHD). -HIDU responsible for development and updating of data sets for research purposes, data access	-No data holding -People: 9 research teams -Finance and admin: 11 administrative personnel

	lacks infrastructure funding. Atlantic Health Promotion Research Centre receives limited core funding from Atlantic Provinces IMPART receives core funding from CHSRF Chair program, and from matching provincial funds. Most researchers have to provide their own research infrastructure through grants and contracts, and some departments have hired core research staff to meet	Systems, Programming and Biostatistics, Knowledge Transfer, Research Coordination Finance and Administration: -CEO and Vice President of Corporate Services, Controller, Accountant, Coordinator of Resources Centre and 14 Administrative Support Staff		education, employment, social status. - Access to data subject to several screens/reviews: ethical, peer and Manitoba Health Access and Confidentiality Committee. - Access given to researchers who meet protocols demonstrating protection of security/confidentiality of data and who demonstrate that research is credible and contributes to expansion of knowledge for public good. -People: 50 faculty and staff Finance/ administration: Director manages MCHP in conjunction	and security and data linkage. Also serves as access point for researchers outside Centre who wish to access data for research. - Firewall controls all access to computer areas containing sensitive data. - Data is not available from internet - Successful applicants permitted access to data must write request, i.e. Access to Health Data for Research or Statistical Purposes and Confidentiality Agreement. Then	

	the needs of their faculty. The number of research staff per research unit is very small relative to centers at other institutions, and there are significant problems with recruitment, retentions and turnover.			with advice from Advisory Board, individuals from MCHP and external stakeholders. -1 Finance Officer -2 Grants Officers -1 half-time Assistant Grants Officer -1 Office Manager -1 Education Coordinator (responsible for staff training) -1 Administration Receptionist -4 Research Support staff	applicants must undergo formal, multi-step approval process. - Written authorization is required from data steward before data can be processed. -People: 45 faculty and staff. Finance/ admin: Managed by Centre's Director in consultation with an internal Management Committee comprised of senior staff. - Three administrative /support staff - One half-time librarian	

Supporting career development • Research staff • Faculty • Mentoring	Organized primarily through departments. IMPART has provided mentoring to faculty, staff and students as one of its core functions.	-15 Research Coordinators -1 Research Manager -54 Faculty with formal affiliations	-26 Staff -18 Faculty with formal affiliations -Studentships and Fellowships offered	-20 researchers/ faculty with formal affiliations. -9 research assistants. -Student research assistants.	- 12 staff researchers - Researchers generally have Master's level education in a variety of disciplines (i.e. epidemiology, statistics, sociology, health behaviour and education) - 26 faculty with formal affiliations, including 2 at post-doctorate level - Director holds appointment in Department of Health Care and Epidemiology. - Faculty involved in business meetings that deal with items such as priorities for	-70 researchers -29 professional researchers

					recruiting new faculty, sharing research, conferences, etc. -Mentoring: Offers annual internship program and postdoctoral fellowship opportunities.	
Structures						
Location/geography: Centralized vs distributed	Highly distributed with research situated in individual research programs and small centres.	Highly centralized with formal membership and governance structure. Access to data and infrastructure very limited to those not appointed to ICES. - They have centralized facilities housing most faculty and staff.	Moderately distributed, but thye have core office space with room for 10 or so faculty and research/administrative staff.	-Research unit is at University (not a government agency). They have a large amount of core space which was renovated with funding from CFI. Most faculty and staff are located in the facility.	- located in College of Health Disciplines at the University of British Columbia. - Centralized, with core space and facilities.	

Governance	-No formal governance structure for most research groups	-A Board of Directors meets quarterly to provide strategic direction in consultation with the CEO/President and senior staff -Ministry of Health and Long Term Care is not represented on the Board - Stakeholders represented include: consumer and private sector, a hospital, a university, a District Health Council, OMA, the Centre (ICES)	- Advisory Council provides CHEPA with strategic advice on research directions and partnerships, facilitate linkages with health decision-makers and stakeholders, and inform CHEPA's knowledge transfer activities. -Faculty director -Members represent key target audience for CHEPA's research	-Advisory Board meets bi-annually to assist MCHP in meeting goals and objectives and to ensure long-term viability (broad perspective). -Board Chair is independent of MCHP and Provincial government (current Chair is CEO of Winnipeg Regional Health Authority). -Faculty scientist (directory) -Representatives on Board include: government departments (health, heritage and tourism, education and training, family services and housing, government services), MCHP,	No overall external governance Board or Advisory Committee comprised of external stakeholders.	

				University of Manitoba (Head of Department of Community Health Services, former University Chancellor, Dean of Faculty of Medicine), Massachusetts Department of Public Health, CIHI, Founder's Network, a Regional Health Authority, major teaching hospitals.		
Membership • How is it determined? • Obligations and expectations of members • Benefits of membership	PHRU and most provincial programs have no formal membership of faculty. Some other Units (e.g AHPRC) have appointed members, but regular involvement of most	- Faculty have formal research appointments to ICES, and research staff work for ICES (as opposed to working for individual researchers). - Formal appointments come with privileges (access to data and infrastructure)	- Faculty have formal appointments to CHEPA, and are expected to participate in Centre activities and deliverables.	- Faculty have formal research appointments, and research staff work for the Centre (as opposed to working for individual researchers). - Formal appointments come with privileges (access to data and infrastructure)	Centre works closely with stakeholders such as BC Ministry of Health Planning & Health Authority, who are not formally represented within Centre.	

	appointed faculty is minimal.	and obligations (participation in production of deliverables) - Access to infrastructure is largely limited to members, or those collaborating with members.		and obligations (participation in production of deliverables) - Access to infrastructure is largely limited to members, or those collaborating with members.		

Financial sustainability • Sources of funding • Amount of funding • Funding for core infrastructure?	- Provincial programs (RCP, Cancer Care, DCPNS, ICONS) receive core funding from the provincial government PHRU lacks core funding, but raises approximately $500,000 per year from research contracts (85%) and charges to users of the service (15%). This model is not sustainable. Dalhousie University and CDHA provides office space and facilities, but activities are spatially distributed.	-Stakeholders -Office space is from Sunnybrook Women's College -20% of revenues from contract research -Base funding from start-up grants -$5m/year from the Ontario Ministry of Health and Long Term Care for core infrastructure	-McMaster University, Ontario Ministry of Long Term Care and other sources within and outside the health sector -1/3 of funding from non-ministry non-university sources	-Sources: Province of Manitoba -Organizations created specifically to fund research – provincial, national or international -Amount: Core funding: $1.85 million/year from Province (2/3 of funding) Base funding: $3 million in development costs to date. In kind support: Faulty salaries paid by University of Manitoba. Contract Research: $1.2 million- career awards and research grants. Infrastructure: Base funding for capacity development such as people, development of	-Sources: -Project partners -UBC and UBC College of Health Disciplines. -B.C. Ministry of Health -Funding from external grants. -Amount: Core funding: $1 million approximately per year. -Base funding: $275,000 -In-kind support: Faculty salaries paid by UBC Infrastructure: Base funding for capacity development such as people, development of expertise, equipment	-Sources: Receive funding from a large variety of organizations at the international, national, and provincial levels. Also receive funding from private donors and non-catalogued organizations -Amount: Budget exceeded $4 million in 2002-03 for over 160 projects

				expertise, equipment ($3 million to date). In-kind support for provision of office space, staff time, office support, equipment, etc.	($275 from a variety of sources). - In-kind support for provision of office space, staff time, office support, etc. Received from projects with partners, UBC.	