Analysis of Strategic Research Plans

Prepared for:
Nova Scotia Health
Research Foundation

October 2009

Final Report

Pyra
Management
Consulting
Services Inc.

Executive Summary

Introduction

The NSHRF is updating its health research priorities. The objective of this initiative is to maximize the impact of the health research enterprise on informed decision making through the focused and efficient use of NSHRF resources. The research priorities process has four phases: Process Identification and Information Gathering, Consultations, Priority Identification and Priority Implementation. This process is designed to be inclusive, respectful, fair, and transparent in order to respect the diversity of constituents that the NSHRF serves.

As part of the Information Gathering phase a number of background documents are being prepared. These documents are considered "living documents" and are posted on the NSHRF website as they are completed for your information, feedback, input and suggestions. If readers feel that information is missing, incorrect or misrepresented from any of the background documents, or the process, they are asked to submit that information to the NSHRF up to and including November 9, 2009 for consideration as priorities are established. Please email any comments or additional information to Linda Waterhouse (Linda.Waterhouse@gov.ns.ca).

In support of the process to identify research priorities, NSHRF contracted Pyra Management Consulting Services Inc. to conduct a three-step analysis, including:

- The alignment, overlap and/or duplication of the research plans of Nova Scotia's universities, Capital Health and the IWK Health Centre;

- The relationship of these areas of alignment to Nova Scotia government priorities as articulated in the Social Prosperity Framework and the business plans of the Departments of Health, Health Promotion and Protection (HPP), and Community Services; and

- The alignment of the research plans of the Canadian Institutes of Health Research (CIHR) and its member institutes, and compare and contrast these findings to those of the above noted Nova Scotia analysis.

Findings

Several health research themes emerge from the analysis of Nova Scotia university, Capital Health and IWK Health Centre research plans. The research plans identify numerous additional health research priorities, but none frequently enough to be considered a theme. Government business plans and frameworks display the strongest alignment with two of these themes in particular; the population health approach and the determinants of health, and the health of special and/or marginalized populations.

Within the CIHR and its many Institutes, there is strong alignment related to investing in world class research, which will be achieved through attracting, retaining and training researchers, working collaboratively and innovatively with other researchers around the world. The CIHR and most of its Institutes' research priorities state the importance of expediting the use of research findings to impact the health of Canadians through knowledge translation activities and research collaborations that engage users of research in the research process. The research priorities of more than half of the reviewed Institutes identify chronic disease/illness and mental health as part of their research plans. However, these are not research priorities of the CIHR itself.

CIHR and Nova Scotia's research priorities align in the same two areas as the university and government level analyses; the population health approach and the determinants of health, and the health of special and/or marginalized populations. There appears to be little alignment with the other research themes that were identified by the university and Nova Scotia government level analyses.

Several limitations were identified in relation to this analysis and as such, caution should be used in the interpretation of the findings. Based on these analyses, it appears that the Nova Scotia research community could benefit from support in coordinating their research planning efforts across the province to avoid duplication and build on existing capacities.

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Introduction

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As part of the Information Gathering phase a number of background documents are being prepared. These documents are considered "living documents" and are posted on the NSHRF website as they are completed for your information, feedback, input and suggestions. If readers feel that information is missing, incorrect or misrepresented from any of the background documents, or the process, they are asked to submit that information to the NSHRF up to and including November 9, 2009 for consideration as priorities are established. Please email any comments or additional information to Linda Waterhouse (Linda.Waterhouse@gov.ns.ca).

The Nova Scotia Health Research Foundation (NSHRF) was created by the Health Research Foundation Act and is required under this act to foster health research throughout the province by assisting, collaborating with and funding individuals and organizations conducting health research. According to its legislated mandate the NSHRF must support research that is consistent with the priorities identified by health boards, government, institutions and individuals. Previous priorities of the NSHRF focused on capacity building and support for students. Recent changes in both the internal and external environments have led to the need to establish new priorities to address these challenges and as a result, the NSHRF plans to establish new health research priorities.

In support of the process to identify research priorities, NSHRF contracted Pyra Management Consulting Services Inc. to conduct a three-step analysis, including:

- Analyze the alignment, overlap and/or duplication of the research plans of Nova Scotia's universities, Capital Health and the IWK Health Centre;

- Analyze the relationship of these areas of alignment to Nova Scotia government priorities as articulated in the Social Prosperity Framework and the business plans of the Departments of Health, Health Promotion and Protection (HPP), and Community Services; and

- Analyze the alignment of the research plans of the Canadian Institutes of Health Research (CIHR) and its member institutes, and compare and contrast these findings to those of the above noted Nova Scotia analysis.

This report is not intended to identify all areas of research being undertaken by the selected organizations and institutions, nor is it intended to identify gaps in strategic research plans. Rather, it is intended to identify high-level alignment, overlap and/or duplication of the *health-related* research. NSHRF will use the findings of this report to inform the identification of its research priorities.

Methodology

A list of university, District Health Authority (DHA) and health care organizations' strategic research plans was identified by NSHRF for review and analysis. In addition, NSHRF identified for review strategic research plans from CIHR and CIHR's Institutes as well as a list of institutes' research priorities provided by CIHR. The strategic research plans for the Nova Scotia Universities, the DHA and health care organizations were reviewed for the purpose of identifying alignment, overlap and/or duplication of research priorities. The Government of Nova Scotia's Social Prosperity Framework and business plans of the Departments of Health, Health Promotion and Protection, and Community Services were then reviewed and areas of alignment with the research plan analysis were identified. Finally, the strategic and research plans of CIHR and ten of its 13 Institutes, as well as the list of institutes' research priorities, were reviewed for alignment and then they were compared and contrasted to the findings of the above noted Nova Scotia analysis. The findings of each step in the analysis were captured in table format and are included in this report. A complete list of the documents reviewed can be found in Appendix 1.

Limitations

University level analysis

There are several limitations to note regarding this analysis. Of particular importance is the fact that the categories of research themes/priorities identified by each organization are different and each organization's plan is written at a different level, making comparison and analysis difficult. Some identify a small number of categories for their research themes yet provide little detail about each. Others identify several categories for research and provide a greater deal of information about each. Some are written for the purpose of directing and/or supporting the organization's overall research services in general, whereas others are very specific in terms of identifying specific research topics. In the absence of

consistency and greater detail in the strategic research plans, the determination of alignment versus overlap and/or duplication is somewhat subjective. As such, this report will indicate, for instance, if an alignment "appears to exist", "suggests alignment" or where there "may be a potential alignment".

It should also be noted that in some cases, research plans identify areas of *research interest*, compared to other plans that identify areas where research either has or will be conducted. Areas of research interest have been indicated as such. Even though it includes Capital Health and the IWK Health Centre's research plans, throughout the report, this analysis is referred to as the university level analysis.

Government level analysis

Similar limitations exist with the analysis of the various government business plans and the Framework for Social Prosperity. The Framework is written at a very high level to the point that all of the health-related strategic research identified in the university level analysis could be seen to align with or support it. The departmental business plans provide clear information about each strategic priority, area of core business and/or goals for that department. But because the strategic research plans are not written at the same level or for the same purpose, it is difficult to identify the relationship and/or areas of specific alignment between the government documents and the university strategic research plans. The intention is to identify those areas within the government business plans that relate to or align with the university level general research themes.

CIHR analysis

Several similar limitations also exist with the analysis of the CIHR and CIHR Institute strategic plans. The Strategic Research Priorities List document, which was provided by CIHR and appears to summarize the strategic priorities and direction of each Institute's strategic plan, is, in some cases incongruent with the strategic priorities and directions that are actually outlined in each Institute's strategic/research plan. In response to this, the most up to date strategic plan and/or research plan available on the Institute's web site was used for purposes of this analysis. In some cases, current strategic plans were not available. Therefore, the most recent available was used. In addition, the Institutes' strategic/research plans are more detailed that the overall CIHR Strategic Plan and therefore, the identification of alignment, overlap and/or duplication is limited to high level analysis.

For purposes of presenting the analysis of the plans of the CIHR and its Institutes, the four strategic directions of the CIHR were used to organize the analysis.

Findings

Nova Scotia Universities, Capital Health and the IWK Health Centre

Several common areas, themes or categories of research are identified in the university level analysis of strategic research plans. These include:

- Population health approach and/or the determinants of health;

- The health of specific and/or marginalized populations;

- Health and the environment;

- Information and communications technology in health;

- Health care and health services; and

- Health policy.

While each of these categories could be considered areas of alignment in and of themselves, a closer look shows that this is not always the case, as there is great variety within some of these categories of research.

Two of the above categories of research stand out as displaying alignment; the population health approach and/or the determinants of health, and the health of specific or marginalized populations. Seven of the eight research plans reviewed include research related to the population health approach and/or the determinants of health. A wide variety of general descriptions of the research are provided in the research plans. Details regarding the specifics of the research are not consistently available, and therefore any additional alignment and/or overlap or duplication cannot be identified. Six of the eight strategic research plans reviewed include research into specific or marginalized populations. Among these, children and youth, women, the aged/elderly/frail are frequently identified as priority populations for research. Insufficient detail regarding the specifics of this research is available. Therefore, more detailed alignment, overlap or duplication cannot be identified.

One category where possible duplication may exist is related to health and the environment. Four of the eight strategic research plans identify work related to the impact of the environment on human health. Insufficient details are provided to determine whether the specific areas of research align, overlap and/or duplicate each other.

Three of the eight organizations identified research in the area of information and communication technology. There appears to be no duplication of research in this category. However, there is insufficient information to determine whether they align or overlap.

Four of the eight organizations identified health policy in general or some type of health policy as a research topic. No particular alignment, overlap or duplication appears to exist among those topics that are identified.

Two of the eight organizations identified a number of health care and/or health services research topics. If there is any alignment or overlap among these it is regarding care for the aging. Similar to the other categories, lack of information makes it difficult to accurately determine if there is alignment, overlap or duplication among the remaining research topics that are identified in the research plans of the universities, Capital Health and the IWK Health Centre.

The findings of the university level analysis strategic research plans are summarized in Table 1.

Table 1

Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans						
Category of Research	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
Summary of Findings	General alignment, but not enough information to determine overlap or duplication.	General alignment (women, children, youth, elderly), but not enough information to determine overlap or duplication.	Apparent duplication but not enough information to confirm this.	No duplication but not enough information to determine if there is alignment or overlap.	Possible alignment among two institutions regarding health care for the aging.	No particular alignment, overlap or duplication.
1. Acadia University	Under the "Health and Wellness" research theme, undertaking initiatives that examine the complexity of the independent and interdependent variables that influence health and wellness, including nutrition, kinesiology, medicinal chemistry, physical and biophysical science, behaviour, biochemistry, aging, immunology, recreation, health literacy, education, psychology, sociology, and the environment.	N/A	Under the "Health and Wellness" research theme, examining the influence of the environment on health and wellness. Under the "Environment" research theme, examining the impact of humans on the environment including the relationship between human health and wellness in a changing natural environment.	Under "Information Technology and Society" research theme, the role of technology in the engagement of diverse individuals and groups (such as First Nations people) in public policy and political debate.	N/A	N/A

Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans						
Category of Research	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
2. Cape Breton University	Under the "Determinants of Health" research thrust, the population health approach is a focus for research. Four categories of development have been identified: 1. Socio-cultural Determinants; 2. Psychological/ Psychosocial; Determinants; 3. Behavioural Determinants; and 4. Material Determinants Several areas of current research interest within each of these categories are identified in the research plan.	N/A	Under the "Environment, Natural History and Biodiversity" research thrust, research related to the impact of toxins on the biological processes of plants, animals and humans.	N/A	N/A	N/A

Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans						
Category of Research	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
3. Capital Health	One of the foci of "Health Services Innovation & Outcomes" area of research strength and excellence is about understanding how care delivery in hospitals and communities can be optimized to improve patient outcomes and population health.	Under its "Health and Aging" research theme, evaluation of improvements in care for the aging population.	N/A	N/A	Under "Health and Aging" research subtheme, care for the aging, management of palliative and end-of-life care.	Under "Health Services Innovation & Outcomes" research subtheme, providing a foundation for evidence-based practice and health policy.
4. Dalhousie University	Within the "Health Studies" subtheme of "health, environment and society", identifies social, cultural and environmental determinants of health as an area of research.	Under its "Health Studies" research theme, children, youth, women, the aged or frail.	"Environmental Studies" is identified as a cross-cutting theme for all areas of research. It considers the effect of the changing environment on many issues, such as health related issues.	Under the "Health Studies" research theme, research into the development of web-based patient programs. Under the "Information and Communication Technology" research theme, research into networking as it relates to e-health and tele-medicine. "High Performance Computing" is	N/A	N/A

Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans						
Category of Research	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
Dalhousie University continued…				identified as a cross-cutting theme for all areas of research. Although not specifically stated as such, research related to the analysis of massive data sets may be relevant to health. "Informatics" is identified as a cross-cutting theme for all areas of research. Specifically informatics related to rural areas is identified.		
5.IWK Health Centre	N/A	Under its "Build Capacity in Program-based Research", women and newborns, children and youth.	N/A	N/A	N/A/	N/A

	Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans					
Category of Research	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
6.Mount Saint Vincent University	Under its "Gender" area of research, research related to women, gender and equity, including the relationship of each of these factors to health care. Under its "Human Development" area of research, studies services that support development across the life course, which include family support, child/ family development, community-based services, health and social policy, all of which impact on health.	Under its "Human Development" area of research, children and the elderly.	N/A	N/A	Under the "Human Development" area of research, long term care, support for disabilities, family support, community-based services, child and family development and care, aging.	Under the "Human Development" area of research, health and social policy (family policy).
7.Saint Mary's University	Under its "Research for Atlantic Canada Communities" research thrust, Atlantic Canada Studies, research supporting the development of community-based health promotion programming,	Under its "Research for Atlantic Canada Communities" research thrust, health issues of Atlantic Canada and helping victims of crime manage stress and	Under the "Environmental Research and Sustainable Development" research thrust, research interest in community-based approaches to health promotion, in particular the	N/A	N/A	Under the "Research for Atlantic Canadian Communities" research thrust, research supporting the development of healthy environments

Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans						
Category of Research	**Population Health Approach, Determinants of Health**	**The Health of Specific or Marginalized Populations**	**Health and the Environment**	**Information and Communication Technology in Health**	**Health Care and Health Services**	**Health Policy**
Saint Mary's University continued...	contributing to the development of health policy at the local, federal and global level. Under its "Research for Atlantic Canada Communities" research thrust, Criminology, research into women battery and gambling and its health and other social impacts.	overcome trauma.	relationship between health and the environment.			has contributed to health policy at the local, federal and global level.
8.St. Francis Xavier University	Under its "Health and Human Activity" major research cluster, hosts the National Collaborating Centre for Determinants of Health, which involves transferring and exchanging knowledge about the determinants to public health policy and practitioners, health professionals and the public.	Under its "Health & Human Activity" major research cluster, the health of rural Nova Scotians. Under its "Economy, Government and Human Development" major research cluster, Indigenous peoples; social issues related to Indigenous peoples.	N/A	Under its "Health and Human Activity" major research cluster, the development of advanced and innovative health informatics systems (case management software platform) and opportunities to development software for health diagnostic and treatment data to improve decision making.		Under its "Economy, Government and Human Development" major research cluster, public participation in policy (through the National Collaborating Centre for Determinants of Health)

Areas of Alignment/Overlap/Duplication among University, Capital Health and IWK Health Centre Research Plans						
Category of Research	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
St. Francis Xavier University continued...	Under its "Economy, Government and Human Development" major research cluster, infant and child development and public participation in policy and politics as areas of research.					

Nova Scotia Government Priorities

The following section identifies where the strategic directions outlined in Government Business Plans and the Framework for Social Prosperity suggests some degree of, or potential alignment with the major categories of alignment (or duplication) that were identified in the university level analysis. Insufficient information exists in the university strategic research plans to determine whether or not they directly align with, overlap or duplicate the direction and priorities set out in the government business plans and framework.

Framework for Social Prosperity

The Nova Scotia Government's Framework for Social Prosperity, "Weaving the Threads: A Lasting Social Fabric", sets the province's vision for social and economic prosperity. It identifies five goals that are intended to help reach the province's vision for social prosperity. These goals are:

- Goal 1 - Health, Well-being;

- Goal 2 - Lifelong Learning;

- Goal 3 - Access, Inclusion;

- Goal 4 - Citizenship, Development, Engagement; and

- Goal 5 - Safety and Security.

Of these five goals, Goal 1 exhibits the most potential for alignment with the themes that emerged from the university level analysis of research plans. Goal 1 appears to align best, at a high-level, with the theme of population health approach and the determinants of health" identified through the university level analysis. The Framework for Social Prosperity's planning context is that "people increasingly understand the importance of and the relationships between the many factors that make people healthy…", further supporting that alignment exists.

Goal 4 may align with the university level strategic research theme category of Health Policy, involving research related to increasing people's participation in making public policy. However, the lack of details in the university level strategic research plans and the very different level at which the Framework is targeted and written, makes it difficult to confirm the degree of alignment with or relationship between the university level strategic research plans and the Framework for Social Prosperity.

Several government strategies that are currently underway, support the goals and direction of the Framework for Social Prosperity. Health-related examples include the Continuing Care Strategy, Strategy for Positive Aging, Public Health Renewal, and Primary Health Care Renewal. It is outside the scope of this review and analysis to identify how each of these specific strategies is aligned with or relates to the analysis of the strategic research plans.

Departmental Business Plans

Health

The Nova Scotia Department of Health's 2009-2010 Business Plan identifies seven strategic priorities, with related goals. These include:

- Lead Health Transformation (over-arching priority);

- Strategic Priority 1 – Enhance the quality-focused integrated service delivery system;

- Strategic Priority 2 - Develop a comprehensive primary health care system for all;

- Strategic Priority 3 - Ensure a high quality health system workforces;

- Strategic Priority 4 - Strengthen governance and accountability across the continuum;

- Strategic Priority 5 - Create comprehensive IT/IM systems; and

- Strategic Priority 6 - Engage Nova Scotians in the health system.

The Department of Health's research priorities align with most of the research themes identified in the university level analysis, as outlined in Table 2.

Health Promotion and Protection

The Department of Health Promotion and Protection's 2009-2010 Business Plan identifies nine Core Business Areas and four Strategic Outcomes and Priorities. The Strategic Outcomes and Priorities include:

- Improved health outcomes for children and youth;

- More Nova Scotians taking an active role in promoting and protecting the health of individuals, families and communities;

- Safer citizens, populations and communities; and

- Reduced health disparities.

The Department of Health Promotion and Protection's business plan suggests alignment across many of the research theme identified by the university level analysis. This is outlined in Table 2.

Community Services

The Department of Community Services' 2009-2010 Business Plan identifies four areas of priority. These include:

- Employment support and income assistance;

- Housing;

- Housing authorities and property operations; and

- Family and community supports.

Alignment with the university level analysis appears to be limited to the theme of the health of specific and/or marginalized populations as shown in Table 2.

Table 2

Relationship of Government Framework/Departmental Business Plans to Themes Identified Across University Research Plans						
	Population Health Approach, Determinants of Health	**The Health of Specific or Marginalized Populations**	**Health and the Environment**	**Information and Communication Technology in Health**	**Health Care and Health Services**	**Health Policy**
Framework for Social Prosperity	Planning Context recognizes the determinants of health					
Department of Health Business Plan	Strategic Priority 2: Develop a comprehensive primary health care system for all. Goal: Supporting Individuals and Families through Primary Health	Strategic Priority 1: Enhance the quality-focused integrated service delivery system. Goal: Progress on Continuing Care (commitment to respond to the changing needs of the growing senior population)		Strategic Priority 5: Create comprehensive Information Technology and Information Management systems. Development of the Telehealth Network relates to Dalhousie University's research into e-health and tele-medicine. Continued implementation of the Primary Healthcare Information management Program may relate to e-health.	Lead Health Transformation – outlines numerous area of health services that will be impacted by Health Transformation Strategic Priority 6: Engage Nova Scotians in the health system may provide opportunities for the public to become involved in the development of health services.	Strategic Priority 6: Engage Nova Scotians in the health system may provide opportunities for the public to become involved in providing input into health policy development.

Relationship of Government Framework/Departmental Business Plans to Themes Identified Across University Research Plans						
	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
Department of Health Promotion and Protection Business Plan	Planning context includes health disparities, social determinants of health and the population health approach. Strategic outcomes include reduced health disparities, which requires population health approach. Population Health Assessment and Surveillance Responsibility Centre continues to expand its ability to understand population health determinants.	One core business area is Healthy Development including children and youth, and seniors. Strategic outcomes include improved health outcomes for children and youth. Strategic outcomes (reduced health disparities) includes supporting under-represented populations such as youth.	One core Business Area is Environmental Health. Not enough information to determine alignment, overlap or duplication with university strategic research plans.	One of the enablers of HPP's Strategic outcomes is their emergency management workforce, which needs to be supported by E-Learn capabilities. There may be a potential alignment here with Dalhousie's e-health or tele-medicine research.		

Relationship of Government Framework/Departmental Business Plans to Themes Identified Across University Research Plans						
	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology in Health	Health Care and Health Services	Health Policy
Department of Community Services Business Plan		Planning context for business plan includes the Child and Youth Strategy. Under its Housing Authorities and Property Operations Priority, one priority in the "Aging in Place Plan", which will include physical improvements to seniors public housing.				

CIHR and CIHR Institute Strategic/Research Plans

Created in 2000, the Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency responsible for funding health research in Canada. Its purpose is to transform health research by:

1. funding more research on targeted priority areas;

2. building research capacity in under-developed areas such as population health and health services research;

3. training the next generation of health researchers; and

4. focusing on knowledge translation, so that the results of research are transformed into policies, practices, procedures, products and services.[1]

CIHR is made up of thirteen "virtual" Institutes, each of which supports research in its topic area(s) and, in consultation with its stakeholders, sets priorities for research in those areas. CIHR's 2009/10 to 2013/14 Strategic Plan outlines four strategic directions, which are outlined in Table 3. An analysis of the alignment, overlap and/or duplication among the strategic and/or research plans of CIHR's thirteen institutes is summarized in Table 3.

Eleven of the thirteen Institutes' strategic research priorities suggest some degree of alignment with CIHR's Strategic Direction of investing in world-class research excellence, which involves:

1. Training, retraining and sustaining a healthy research foundation;

2. Selecting and sustaining research excellence; and

3. Promoting interdisciplinary and international innovation.

The Institutes most commonly outlined intentions to increase capacity for research through attracting, retaining and/or training researchers, connecting with national and international researchers, supporting international innovation, working in a multi-disciplinary and/or interdisciplinary collaborative manner.

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[1] From CIHR's web site, page http://www.cihr-irsc.gc.ca/e/7263.html

Nine of the thirteen Institutes' strategic research plans, to some degree, align with CIHR's Strategic Direction of addressing health and health system research priorities, which involve:

1. Enhancing patient-oriented care by targeting science and using new technologies;

2. Supporting a high quality accessible, and sustainable health care system;

3. Ameliorating the effects of health inequities of Aboriginal people and other vulnerable populations;

4. Prepare for and respond to existing and emerging global threats to health; and

5. Promoting health and reducing the burden of chronic disease and mental illness.

All nine Institutes that align with this CIHR Strategic Direction identified priorities related to reducing the burden of chronic disease and/or mental illness. Health equity for Aboriginal people and/or vulnerable populations was identified by two Institutes, and preparing for and responding to emerging global health threats were also identified by one Institute. Most Institutes identified very specific health issues as research priorities that did not explicitly align with the CIHR strategic directions, because the CIHR document is written at a higher level. These are identified in the "other" column in table 3.

Twelve of the thirteen Institutes identified research priorities related to CIHR's Strategic Direction of accelerating the capture of the health and economic benefits of health research. The alignment largely relates to the importance of knowledge translation. Many also identified citizen/public engagement and creating new partnerships as an important area for their research.

Seven of the thirteen Institutes demonstrated some degree of alignment with CIHR's Strategic Direction of achieving organizational excellence, fostering ethics and ensuring transparency and accountability. In four cases, the alignment was related to the issue of ethics. In two cases, the alignment was related to accountability.

Nine of the Institutes' strategic research plans identify chronic disease/illness and/or mental illness, not as research priorities per se, but as sub-themes or sub-objectives within strategic research priorities. Chronic disease/illness was identified six times and mental health/illness was identified four times. While chronic disease appears to be a theme among the strategic research plans of the Institutes, chronic disease and/or mental health/illness are not identified as high

level priorities within the overall CIHR Strategic Plan, but are identified as components within sub-themes of the CIHR Strategic Plan.

There does not appear to be any particular areas of explicit duplication and/or overlap of the research proposed among the thirteen CIHR institutions. However, confirmation of this would require further investigation, which is outside the scope of this review and analysis.

Table 3 summarizes the analysis of the strategic plans and strategic research plans of CIHR's thirteen Institutes. For purposes of tracking back to each of the overall CIHR Strategic Plan priorities, each Institute priority, direction and/or research area is named by the Institute's acronym and is numbered. Where elements of an Institute's strategic research plan/priorities directly or explicitly align with the CIHR's strategic directions, the specific area of alignment with the CIHR strategic direction is noted in parenthesis. Where strategic directions/priorities/research areas of an Institute's strategic research plan do not appear to directly or explicitly align with the CIHR's strategic directions, this is captured in the "other" column. It should be noted that research priorities that appear in the "other column" may, upon analysis of additional information, be deemed to align with the CIHR strategic directions. However, this is outside the scope of this analysis. Only cases of what appears to be relatively clear alignment, based on the information reviewed for this analysis, are identified as being aligned with the CIHR strategic directions.

Table 3

	Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans				
CIHR Institute	**CIHR Strategic Directions**				**Other (Institute SDs that do not explicitly align with CIHR SDs)**
	Invest in World-Class Research Excellence	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	
Aboriginal People's Health (5 Strategic Directions)	APH-SD1-Develop Strategic Regional, National and International Partnerships to Advance Aboriginal Health Research (CIHR-connecting with other international scientists) APH-SD3 – Enhance Capacity and Infrastructure to Advance Aboriginal Health Research (CIHR –training, attracting, retaining researchers)	APH-SD4-Resolve Critical Aboriginal Health Issues (CIHR-ameliorate the health inequities of Aboriginal peoples; reduce burden of chronic disease and mental illness)	APH-SD1-Develop Strategic Regional, National and International Partnerships to Advance Aboriginal Health Research (CIHR – knowledge transfer, partnerships) APH-SD5-Facilitate and Evaluate Translation of Aboriginal Health Knowledge into Policy and Practice (CIHR-knowledge transfer)		APH-SD2-Ensure Inclusion and Recognition of Aboriginal Values and Cultures in Health Research APH-SD4-Infectious Disease (HIV/AIDS; tuberculosis); Children and Youth Health Issues.

	Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans				
	CIHR Strategic Directions				
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	**Other (Institute SDs that do not explicitly align with CIHR SDs)**
Aging (5 Strategic Outcomes-SO; 3 Key Initiatives-KI; 5 Priorities-P)	A-SO1-Oustanding Research (CIHR-breaking sectoral barriers in health research; interdisciplinary innovation) A-SO2-Outstanding Researchers in Innovative Environments (CIHR-training, attracting, retaining researchers) A-SO5-Organizational Excellence A-KI3 CLSA (Cdn Longitudinal Study on Aging)	A-P5-Health Services and Policy Relating to Older People (CIHR-growing prevalence of chronic disease, mental illness and neurodegenerative diseases in an aging population)	A-SO3-Translating Health Research into Action (CIHR-knowledge translation; enhancing the application of research) A-SO4-Effective Partnerships and Public Engagement	A-SO1-Oustanding Research (CIHR-fostering culture of ethics) A-SO5-Organizational Excellence (CIHR-accountability)	A-KI1-Mobility in Aging A-KI2-Cognitive Impairment A-P1 Healthy and Successful Aging A-P2-The Biological Mechanisms of Aging A-P3-Cognitive Impairment in Aging A-P4-Aging and Maintenance of Functional Autonomy

	CIHR Strategic Directions				Other (Institute SDs that do not explicitly align with CIHR SDs)
CIHR Institute	Invest in World-Class Research Excellence	Address Health and Health System Research Priorities	Accelerate the Capture of the Health and Economic Benefits of Health Research	Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability	
Cancer Research (8 Research Priority Areas)	CR-RPA1-Training a New Generation of Cancer Researchers (CIHR-training)	CR-RPA3-Access to Quality Cancer Care (CIHR-accessible health care system) CR-RPA4-Risk Behaviour and Prevention (CIHR-chronic disease)	CR-RPA1-Training a New Generation of Cancer Researchers (CIHR-knowledge translation)	CR-RPA1-Training a New Generation of Cancer Researchers (CIHR- ethics)	CR-RPA2-Molecular Profiling of Tumours CR-RPA5-Clinical Trials CR-RPA6-Molecular and Functional Imaging CR-RPA7-Palliative and End-of-Life Care CR-RPA8-Early Detection of Cancer

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
	CIHR Strategic Directions				
CIHR Institute	Invest in World-Class Research Excellence	Address Health and Health System Research Priorities	Accelerate the Capture of the Health and Economic Benefits of Health Research	Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability	Other (Institute SDs that do not explicitly align with CIHR SDs)
Circulatory and Respiratory Health (8 Strategic Research Themes-SRT)		CRH-SRT1-Obesity, Diabetes and Cardiovascular Complications (CIHR-chronic disease) CRH-SRT3-Psychological, Social, Behavioural and Environmental Determinant s of At Risk Behaviour for Chronic Disease, and Means of Effective Interventions (CIHR-chronic disease)			CRH-SRT2-Technology for Diagnostic and Therapeutic Advances, including Imaging and Technologies for Early Detection of Disease CRH-SRT4-Sleep: Circadian Impact on Respiratory and Cardiovascular Diseases, Metabolism and Obesity, and means of Diagnosis, Treatment and Prevention

	CIHR Strategic Directions				
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	**Other (Institute SDs that do not explicitly align with CIHR SDs)**
Circulatory and Respiratory Health (8 Strategic Research Themes-SRT) **continued…**		CRH-SRT5-Biomarkers for Chronic Disease, including Genetic, Proteomic and Phenotypic markers for Prevention, Diagnosis and Guidance for Therapy (CIHR chronic disease) CRH-SRT7- Injury Repair and Inflammation: Mechanisms leading to the Development of Chronic Diseases and their Potential Prevention (CIHR chronic disease)			CRH-SRT6-Aging and the Cardiorespiratory System: Changing Epidemiology, Physiology and means to Healthy Aging and Disease Prevention (possible alignment with chronic disease) CRH-SRT8-Transplantation-Regeneration-Cellbased Therapies to Effect cure rather than Palliation, including Relevant Bioethics aspect (CIHR-targeting science and using new technologies)

The title "**Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans**" appears above the table.

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
	CIHR Strategic Directions				**Other (Institute SDs that do not explicitly align with CIHR SDs)**
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	
Gender and Health (2 Strategic Directions-SD; 4 Priority Topic Areas-PTA)	GH-SD2-Building Partnerships in Gender and Health (CIHR-working in collaboration) GH-SD1-Advancing Methods and Measures (CIHR-training)		GH-SD2-Building Partnerships in Gender and Health (CIHR-knowledge transfer and partnerships)		GH-SD1-Advancing Methods and Measures (approaches, procedures and rules to reliably and validly collect and analyze data to address research questions) GH-PTA1-Violence and Health GH-PTA2-Sexual and Reproductive Health GH-PTA3-Enhancing Effectiveness of Clinical Interventions GH-PTA4-Work and Health

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
CIHR Institute	**CIHR Strategic Directions**				**Other (Institute SDs that do not explicitly align with CIHR SDs)**
	Invest in World-Class Research Excellence	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	
Genetics (4 Strategic Goals- SG; 5 Research Priority Themes - RPT)	G-SG1-Supporting Individual Investigators and Strengthening the IG Research Community (CIHR- training, international innovation, working collaboratively) G-SG2-Advancing Research and Building Capacity in areas of Strategic Priority (CIHR-attracting, training researchers) G-SG3-Establishing Strategic Partnerships- (CIHR-international collaboration and innovation)		G-SG3-Establishing Strategic Partnerships- (CIHR-facilitation of knowledge transfer, public engagement) G-SG4-Facilitating the Knowledge Transfer of Genetic and Biochemistry Discoveries, and the Examination of their Ethical, Legal and Social Implications (CIHR-knowledge transfer)	G-SG4-Facilitating the Knowledge Transfer of Genetic and Biochemistry Discoveries, and the Examination of their Ethical, Legal and Social Implications (CIHR-fostering a culture of ethics) RPT6-Genetics and Ethical, Legal and Social Issues (CIHR- ethics)	RPT1-Inegrating the Physical and Applied Sciences into Health Research RPT2-Proteomics and Bioinformatics RPT3-From Genes to Genomic Medicine RPT4-Population Genetics, Genetic Epidemiology, and Complex Diseases RPT5-Health Services for Genetic Diseases
Health Service and Policy Research (3 Strategic Priority Research Areas- SPRA)		HSPR-SPRA1- Access to Appropriate Care across the Continuum (CIHR- mental health, chronic disease prevention and management)	HSPR-SPRA1-Access to Appropriate Care across the Continuum (CIHR- citizen engagement)		HSPR-SPRA2- Drug Policy HSPR-SPRA3- Health Information

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
	CIHR Strategic Directions				
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	**Other (Institute SDs that do not explicitly align with CIHR SDs)**
Human Development, Child and Youth Health (5 Strategic Research Goals-SG; 11 Research Priorities-RP)	HDCYH-SG1-Support Excellent and Innovative Research that will Advance Knowledge in the Research areas within IHDCYH's Mandate. HDCYH-SG2-Increase and Sustain the Number of Highly Qualified Researchers in all Disciplines related to IHDCYH's Mandate (CIHR- training, retain) HDCYH-SG4-Develop Effective Partnerships as a Major Enabling Tool to Support the Other Strategic Goals of IHDCYH. (CIHR-partnerships, collaboration, international innovation)	RP3-Causes, Prevention and Treatment of Major Chronic Illnesses in Children (CIHR-prevent and reduce chronic disease)	HDCYH-SG3-Faciliate the Application of Research Findings in the Form of Health Policies, Interventions, Behaviours, Services and Products in all Fields and Sectors related to IHDCYH's Mandate. (CIHR – knowledge translation; application of research findings HDCYH-SG4-Develop Effective Partnerships as a Major Enabling Tool to Support the Other Strategic Goals of IHDCYH. (CIHR-partnerships)	HDCYH-SG5-Build and Maintain an Excellent Organization to Fulfill our Mission, Pursue our Vision and Achieve our Strategic Goals	RP1-Causes and Prevention of Congenital Anomalies RP2-Fetal Growth and Pre-term Birth RP4-Healthy Developmental Trajectories RP5-Effects of the Physio-chemical Environment on Reproductive and Child Health and Development RP6-Improving the Health, Development and Quality of Life of Children and Youth with Chronic Illnesses and Disabilities RP7-Health of Aboriginal Mothers, Children

	CIHR Strategic Directions				
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	**Other (Institute SDs that do not explicitly align with CIHR SDs)**
Human Development, Child and Youth Health continued…					and Youth RP8-Maternal Health and Lifestyle RP9-Childhood Injury and Maltreatment RP10-Indicators of Maternal and Child Health, and access to and Quality of Reproductive and Child Health Care Services RP11-Mental Health and Addiction of Children and Youth
Infection and Immunity (5 strategic goals-SG; 5 priority research themes-PRT) **Infection and**	II-SG1-Outstanding Research II-SG2-Outstanding Researchers in Innovative Environments	PRT4-Pandemic Influenza Preparedness (CIHR-prepare/respond to existing /emerging global threats) PRT5-Vaccines of	II-SG3- Transforming Health Research into Action (CIHR-knowledge translation) II-SG4-Effective Partnerships and Public Engagement (CIHR-partnerships, engage	II-SG5-Organizational Excellence	PRT1-Emerging Infections and Microbial Resistance PRT2-HIV/AIDS (potentially aligns with CIHR chronic disease)

	CIHR Strategic Directions				Other (Institute SDs that do not explicitly align with CIHR SDs)
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	
Immunity (5 strategic goals-SG; 5 priority research themes-PRT) continued...		the 21st Century (CIHR-prepare for/respond to existing /emerging global threats to health)	citizens)		PRT3-Immunotherapy
Muskuloskeletal Health and Arthritis (3 Strategic Directions – SD; 3 Research Priority Areas-RPA)	MHA-SD1-Promote and support continued research excellence in the three research priority areas. (CIHR-attract, retain researchers, etc) MHA-SD2-Address Canadian health research challenges in oral health, skin and musculoskeletal health and arthritis with solution-driven initiatives (CIHR-international collaboration)	MHA-SD2-Address Canadian health research challenges in oral health, skin and musculoskeletal health and arthritis with solution-driven initiatives (CIHR-increase and support health system research) RPA3-Pain, disability and chronic disease (CIHR-chronic disease) RPA2-Tissue injury, repair and replacement (CIHR-vulnerable, at-risk populations)	MHA-SD2-Address Canadian health research challenges in oral health, skin and musculoskeletal health and arthritis with solution-driven initiatives (CIHR-engage new partners) MHA-SD3-Advance IMHA's vision through research that sustains health and quality of life for all Canadians (CIHR-knowledge translation; engage citizens/stakeholders)		RPA1-Physical Activity, mobility and health RPA2-Tissue injury, repair and replacement

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans

	CIHR Strategic Directions				Other (Institute SDs that do not explicitly align with CIHR SDs)
Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	
Neurosciences, Mental Health and Addiction(5 Strategic Priorities-SP;4 Strategic Research Priorities)	NMHA-SD1-Increase the capacity of the Canadian health research community in neurosciences, the sensory systems, mental health and addiction through innovative, transdisciplinary training program (CIHR-increasing capacity, training) NMHA-SD2-Foster and develop excellence in transdisciplinary research in neurosciences, sensory systems, mental health and addiction (CIHR-building capacity for research, supporting multi-disciplinary research) NMHA-SD5-Foster CIHR-INMHA's presence and impact of Canadian scientists on the international stage (CIHR-international	NMHA-SD2-Foster and develop excellence in transdisciplinary research in neurosciences, sensory systems, mental health and addiction (CIHR-mental illness)	NMHA-SD3-Promote effective knowledge translation of innovative research findings and improve best practices (CIHR-knowledge translation; evaluation) NMHA-SD4-Pursue and sustain creative partnerships (CIHR-knowledge translation; partnerships; engagement of citizens) NMHA-SD2-Foster and develop excellence in transdisciplinary research in neurosciences, sensory systems, mental health and addiction (CIHR-knowledge translation)		NMHA-SD2-Foster and develop excellence in transdisciplinary research in neurosciences, sensory systems, mental health and addiction (addiction and cross-addiction; regenerative medicine and nano-medicine; early life events and first episodes in brain disorders; co-morbidity and co-occurrence of brain disorders with other health problems)

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
	CIHR Strategic Directions				
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	**Other (Institute SDs that do not explicitly align with CIHR SDs)**
Neurosciences, Mental Health and Addiction continued…	innovation; support training at international level)				
Nutrition, Metabolism and Diabetes (5 Strategic Outcomes - SO)	NMD-SO1- Outstanding Research (CIHR-team research; innovative projects) NMD-SO2- Outstanding Researchers in Innovative Environments(CIHR-training, recruitment)	NMD-SO3- Transforming Health Research Into Action (CIHR-promote health; chronic disease) NMD-SO4- Effective Partnerships and Public Engagements (CIHR-promote health; chronic disease)	NMD-SO3- Transforming Health Research Into Action (CIHR-knowledge translation; application of findings to policies, programs) NMD-SO4-Effective Partnerships and Public Engagements (CIHR-develop partnerships) NMD-SO5- Organizational Excellence (CIHR-engagement of stakeholders)	NMD-SO5- Organizational Excellence(CIHR-assessing progress and impact; accountability)	

Analysis of CIHR and CIHR Institute Strategic Plans/Strategic Research Plans					
	CIHR Strategic Directions				**Other (Institute SDs that do not explicitly align with CIHR SDs)**
CIHR Institute	**Invest in World-Class Research Excellence**	**Address Health and Health System Research Priorities**	**Accelerate the Capture of the Health and Economic Benefits of Health Research**	**Achieve Organizational Excellence, Foster Ethics and Ensure Transparency and Accountability**	
Population and Public Health (4 Strategic Research Priorities-SRP; 1 Overarching -OA)	OA-Knowledge translation, partnerships and capacity building (CIHR-capacity building)		PPH-SD4-Theoretical and methodological innovations (knowledge generation, synthesis and integration) OA-Knowledge translation, partnerships and capacity building (CIHR-knowledge translation; partnerships)	PPH-SRP2-Population Health Interventions (CIHR-ethics)	PPH-SRP1-Pathways to Health Equity PPH-SRP2-Population Health Interventions (yet to be identified by partners) PPH-SRP3-Implementation systems for population health interventions in public health and other sectors

CIHR and Nova Scotia Research Priorities

A high-level analysis of the strategic research plans and priorities within Nova Scotia and those of CIHR and its Institutes was conducted. Five of the CIHR Institutes' research plans/priorities displayed some alignment with the population health approach and the determinants of health theme of the university level analysis. Three of the five Institutes where this alignment exists are Determinants of Health; Gender, Genetics, and Human Development, Child and Youth Health. The CIHR's Institute for Aboriginal Health's research promotes determinants of health approach and the Institute of Population and Public Health Research also focuses on the population health approach.

Six of the CIHR Institutes' research plans/priorities also display some level of alignment with the Nova Scotian theme of "The Health of Specific or Marginalized Populations". Specifically, the Institute of Human Development, Child and Youth Health and the Institute of Aging demonstrate alignment with the Nova Scotia research priority populations of children, youth and seniors. While Aboriginals are identified as a specific research population by CIHR and the Institute for Cancer Research, Aboriginals did not emerge as a priority population within Nova Scotia university research plans, being identified by only one university as a research theme. Other specific populations, including women and "at-risk" populations" were identified by CIHR Institutes, but those populations do not align with the Nova Scotia research priorities.

While Health and the Environment emerged as a strong theme among Nova Scotia research plans, this does not align with CIHR research, where the issue was identified clearly only by the Institute for Human Development, Child and Youth Health. Information and communication technology is another area that emerged as a research theme within Nova Scotia research plans. However, aside from the overall CIHR strategic plan, the only identification of information and/or communications technology as a research priority came from the Institute of Health Services Research and Policy. Very little alignment emerges related to the Nova Scotia research themes of Health Care and Health Services, and Health Policy.

The analysis of the strategic research plans and priorities of CIHR and its Institutes with those of Nova Scotia universities and government departments is summarized in Table 4.

Table 4

Alignment of CIHR and Nova Scotia Research Priorities						
	Themes from Nova Scotia Research Plans					
CIHR/Institute Strategic Directions	**Population Health Approach, Determinants of Health**	**The Health of Specific or Marginalized Populations**	**Health and the Environment**	**Information and Communication Technology**	**Health Care and Health Services**	**Health Policy**
CIHR Strategic Plan				Possible alignment with Strategic Direction "Accelerate the Capture of the Health and Economic Benefits of Health Research"		
Aboriginal People's Health	APH-SD4- resolve critical Aboriginal health issues (promote a health determinants focus) APH-SD2-recognize Aboriginal culture and values in research	Aboriginals are a specific population for research identified by CIHR. Only one Nova Scotia university identified this population as a target population for research				APH-SD5- translate Aboriginal health knowledge into policy and practice
Aging		General overall alignment because aging and seniors are identified as a specific target population for research in Nova Scotia			AKI1 – mobility in aging AKI2-cognitive impairment	AKI4-knowledge translation

	Alignment of CIHR and Nova Scotia Research Priorities					
	Themes from Nova Scotia Research Plans					
CIHR/Institute Strategic Directions	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology	Health Care and Health Services	Health Policy
Cancer Research		Risk Behaviour and Prevention-Tobacco use and abuse by Aboriginal Peoples			Palliative and End-of-Life Care	
Circulatory and Respiratory Health						
Gender and Health	General overall alignment because gender is one of the determinants of health	GH-PTA1-Violence and Health (focus on women)				
Genetics	General overall alignment because genetics is one of the determinants of health. However, the specific areas of research identified by the institute don't align with NS research priorities					
Health Services Research and Policy				HSRP4-Health information, specifically electronic patient records and the linkage of datasets across jurisdictions		

	Alignment of CIHR and Nova Scotia Research Priorities					
	Themes from Nova Scotia Research Plans					
CIHR/Institute Strategic Directions	Population Health Approach, Determinants of Health	The Health of Specific or Marginalized Populations	Health and the Environment	Information and Communication Technology	Health Care and Health Services	Health Policy
Human Development, Child and Youth Health	General overall alignment because childhood development is a determinant of health	Alignment because of focus on the specific populations children and youth	Effects of the physio-chemical environment on reproductive and child health and development			
Infection and Immunity						
Muskuloskeletal Health and Arthritis		The tissue injury, repair and replacement research priority includes a focus on vulnerable/at risk populations, but those populations are not named				
Neurosciences, Mental Health and Addiction						
Nutrition, Metabolism and Diabetes						
Population and Public Health	General overall alignment due to focus on population health and population health approach					

Summary

Several areas of potential alignment emerged from the analysis of Nova Scotia university, Capital Health and IWK Health Centre research plans, including:

- Population health approach and/or the determinants of health;

- The health of specific and/or marginalized populations;

- Health and the environment;

- Information and communications technology in health;

- Health care and health services; and

- Health policy.

The research plans identify numerous additional health research priorities, but none frequently enough to be considered a theme of potential alignment. Government business plans and frameworks display the strongest alignment with two of these themes in particular; the population health approach and the determinants of health, and the health of special and/or marginalized populations.

Within the CIHR and its Institutes, there is strong alignment related to investing in world class research, which will be achieved through attracting, retaining and training researchers, working collaboratively and innovatively with other researchers around the world. The CIHR and most of its Institutes' research priorities state the importance of expediting the use of research findings to impact the health of Canadians through knowledge translation activities and research collaborations that engage users of research in the research process. The research priorities of half of the reviewed Institutes identify chronic disease/illness and mental health as part of their research plans. However, these are not identified research priorities in the CIHR Strategic Plan.

Themes identified in CIHR and Nova Scotia university plans align in the same two areas as the university and government level analysis: the population health approach and the determinants of health, as well as the health of special and/or marginalized populations themes. There appears to be little alignment with the other themes that emerged from the university and Nova Scotia government level analyses.

Several limitations were identified in relation to this analysis, related in large part to inconsistencies in the way research plans are written by different universities. As a result, caution should be used in the interpretation of the findings. Based on

these analyses, it appears that the Nova Scotia research community could benefit from support in coordinating their research planning efforts across the province to avoid duplication and build on existing capacities.

Appendix – Documents Included in Analysis

University and Health Organization Strategic Research Plans reviewed:
- Acadia University
- Cape Breton University
- Capital District Health Authority
- Dalhousie University
- IWK Health Centre
- Mount Saint Vincent University
- Saint Mary's University
- St. Francis Xavier University

Government Frameworks and Business Plans reviewed:
- Weaving the Threads: A Lasting Social Framework (Our Framework for Social Prosperity)
- NS Department of Health
- NS Department of Health Protection and Promotion
- NS Department of Community Services

CIHR Documents reviewed:
- CIHR's Strategic Plan (provided by NSHRF)
- Institutes Strategic Research Priorities List (compiled by CIHR; provided by NSHRF)
- Aboriginal Peoples Health: http://www.cihr.ca/e/9188.html
- Aging: http://www.cihr.ca/e/10532.html
- Cancer Research: http://www.cihr-irsc.gc.ca/e/36886.html
- Circulatory and Respiratory Health: http://www.cihr-irsc.gc.ca/e/36396.html
- Gender and Health: http://www.cihr.ca/e/38770.html
- Genetics: http://www.cihr.ca/e/28731.html
- Health Services and Policy: http://www.cihr.ca/e/35337.html
- Human Development Child and Youth Health: http://www.cihr.ca/e/31147.html
- Infection and Immunity: http://www.cihr.ca/e/35161.html
- Musculoskeletal Health and Arthritis: http://www.cihr.ca/e/27042.html
- Neurosciences, Mental Health and Addiction: http://www.cihr.ca/e/27126.html
- Nutrition, Metabolism and Diabetes: http://www.cihr-irsc.gc.ca/e/23421.html
- Population and Public Health, Executive Summary (provided by NSHRF)