NATIONAL COLLABORATING CENTRE
FOR ABORIGINAL HEALTH

CENTRE DE COLLABORATION NATIONALE
DE LA SANTÉ AUTOCHTONE

LANDSCAPES OF INDIGENOUS HEALTH:

AN ENVIRONMENTAL SCAN BY THE NATIONAL COLLABORATING CENTRE FOR ABORIGINAL HEALTH

PRODUCED BY

THE NATIONAL COLLABORATING CENTRE FOR ABORIGINAL HEALTH
MARGO GREENWOOD, ACADEMIC LEAD
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UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

3333 University Way, Prince George, BC V2N 4Z9 Canada www.nccah.ca
Tel 250.960.5986 Fax 250.960.6722 E-mail info@nccah.ca

TABLE OF CONTENTS

EXECUTIVE SUMMARY

LANDSCAPES OF INDIGENOUS HEALTH EXPLORES the current work being performed in the field of Aboriginal health in Canada. This environmental scan identifies national organizations working in First Nations, Inuit, and Métis public health in Canada, examines the input of key informants in the field, and reviews the current literature and research. Overall, this document charts the key themes in the field as part of the National Collaborating Centre on Aboriginal Health's (NCCAH) work to establish priorities, future directions, and partners in collaboration.

NATIONAL ORGANIZATIONS WORKING IN FIRST NATIONS, INUIT, AND MÉTIS PUBLIC HEALTH IN CANADA

A total of 19 organizations with a national scope were identified. These organizations fall into three categories: Aboriginal organizations, government organizations, and professional organizations.

Aboriginal Organizations

- Assembly of First Nations (AFN)
- Aboriginal Healing Foundation (AHF)
- Congress of Aboriginal Peoples (CAP)
- Inuit Tapiriit Kanatami (ITK)
- Métis National Council (MNC)
- National Aboriginal Health Organization (NAHO)
- Native Women's Association of Canada (NWAC)
- Pauktuutit – Inuit Women of Canada

Government Organizations

- First Nations & Inuit Health Branch, Health Canada (FNIHB, HC)
- Institute of Aboriginal Peoples' Health, Canadian Institutes of Health Research (IAPH, CIHR)
- Aboriginal Capacity and Development Research Environments, Institute of Aboriginal Peoples' Health (ACADRE, IAPH)
- Indian and Northern Affairs Canada (INAC)
- Public Health Agency of Canada (PHAC)

Professional Organizations

- Aboriginal Nurses Association of Canada (ANAC)
- Canadian Aboriginal AIDS Network (CAAN)
- National Aboriginal Diabetes Association (NADA)
- National Association of Friendship Centres (NAFC)
- National Network for Aboriginal Mental Health Research (NAMHR)
- National Indian and Inuit Community Health Representative Organization (NIICHRO)

KEY INFORMANT INTERVIEWS

Key informant interviews were completed with public health practitioners, researchers, health professionals, and health advocates. The goal of these interviews was to elicit knowledge on critical issues in Aboriginal public health, the design and operation of the NCCAH, and the Centre's relationship with key stakeholders. Five key themes emerged from the interviews.

Understanding Collaboration

Key informants suggested the need for the NCCAH to conceive of collaboration in complex terms. While relationships with the academy, practitioners, and other stakeholders were deemed important, it was community collaboration that emerged most strongly in the interviews – one of the tasks of the NCCAH, key informants suggested, is to foster culturally appropriate work that shows tangible results for individuals and communities. Key informants also noted the challenges facing the NCCAH, and suggested the Centre's future should be founded upon avoiding competition and overlap with other organizations, work with the Public Health Agency of Canada and other National Collaborating Centres, being mindful of multi-jurisdictional collaboration, and fostering a seamless public health system for Aboriginal people in Canada.

Foregrounding Geography and Culture

Both culture and geography played a crucial role for key informants. Community driven processes, culturally appropriate strategies, considerations of Indigenous knowledge, Aboriginal influence in decision-making, and facilitation of the transition to Aboriginal responsibility for public health were all seen as important. Informants suggested that the NCCAH should be diligent about facilitating communication with communities, and in actively engaging communities with its work. Both the diversity of and commonalities between Aboriginal peoples in Canada emerged as themes. A "Pan-Aboriginal" approach was warned against: Aboriginal people in Canada live on and off reserves, in and out of their communities, in rural and urban settings, and in a variety of regions. Culturally appropriate strategies must, therefore, balance diversity with commonality, the local with the national.

Focus and Balance: The Future of the NCCAH

Both focus and balance emerged as themes when key informants discussed the future role of the NCCAH. Interviewees suggested that the Centre must have clarity in terms of its mandate, role, and focus, while ensuring that its work does not overlap with other organizations. Priorities should be set on both health issues and knowledge translation activities. Overall, there was a call for a stronger presence of evaluation and applied research, as well as suggestions about the need for more work on the social determinants of health. Poverty, family violence, chronic care management, addictions (including harm reduction), mental health, and tobacco were all raised as key areas for the NCCAH to consider. Finally, key informants also suggested the need for vigilance on the part of the Centre: while the NCCAH should act as an important resource for policy analysis, it should never come to substitute for consultations with representative Aboriginal groups or Aboriginal governments.

Getting It Right: Knowledge Translation, Synthesis, and Exchange

Knowledge exchange, the key informant interviews suggest, is crucial: community input at all points in the NCCAH's processes is key, as is the integration of "lessons learned" from such input back into the continuum of research, policy, and practice. Respect for Indigenous knowledge should be foregrounded in the field of public health in Canada. Interviewees suggested that the Centre should take into account the extant research, organizations, and researchers producing work on knowledge translation, and address the need for the development of improved processes, models, and practices in Aboriginal public health knowledge translation activities. Tangible results should be a watchword: too often, interviewees suggested, knowledge translation has little impact.

The Importance of Strong Data and the Social Determinants of Health

The social determinants of health emerged strongly as a priority for key informants – these matters, they argued, require increased attention. At the same time, social determinants need to be understood as being intimately bound to issues of culture and equity: race, power, systemic inequalities, and social justice all play a role in the landscape of social determinants for Aboriginal health in Canada. The availability of data was also raised as an issue: population-specific data is needed so that work can be planned for maximum efficacy. At the same time, although there are difficulties associated with measuring the effectiveness of public health activities, health indicator data should, ideally, be tied to such work.

REVIEW OF LITERATURE AND RESEARCH

This review is comprised of three main sections. The first two sections review literature specifically: peer-reviewed literature is addressed first, and grey literature second. The third section of this review is a scan of the research on Aboriginal health in Canada currently being funded by the Canadian Institutes for Health Research (CIHR). Taken together, these three sections give a clear view into the most recent published research, the literature produced by Aboriginal and government organizations, and a preliminary view into the research "pipeline."

Peer-reviewed Literature

A total of 649 documents were reviewed and grouped, using non-mutually exclusive codes, into the following main subject areas: addictions; chronic disease; environment and toxicology; genetics; health care research, policy, programming, and delivery; infectious disease; injury and violence; maternal and early childhood health; mental health, including suicide; and social determinants of health. In addition to grouping documents by main subject area, each document was assigned narrative descriptors (e.g. "diabetes, prevention" or "suicide, risk factors") in order to clarify the key themes emerging in the current research in each area. Table 1 details the main subject areas in the peer-reviewed literature.

TABLE 1
PEER-REVIEWED LITERATURE, BY MAIN SUBJECT AREA
n=649

SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Health care research, policy, human resources, programming, and delivery	208	32.0%
Social determinants of health	188	29.0%
Chronic disease	165	25.4%
Infectious disease	101	15.6%
Mental health, including suicide	79	12.2%
Maternal/early childhood health	74	11.4%
Environment and toxicology	65	10.0%
Addictions	57	8.8%
Injury and Violence	29	4.5%
Genetics	25	3.9%

As Table 1 suggests, the health care continuum of research, policy, programming, and delivery receives the most attention (32.0%), followed by the social determinants of health (29.0%). Questions of housing, poverty, and colonization are infrequently mentioned in the literature, and overall, the literature touching upon social determinants involves more general (and, indeed, sometimes only passing) considerations of matters involving social inclusion and exclusion: the importance of culture and Indigenous knowledge, for example, are commonly broached within this category. The relatively high level of interest on social determinants suggests not adequate study of social determinants themselves, but rather a thematic recognition in the research of the importance of such determinants. Chronic disease (25.4%), Infectious disease (15.6%), mental health, including suicide (12.2%), and maternal and early childhood health (11.4%) also emerge strongly in the peer-reviewed literature, as do questions of environment and toxicology (10.0%), addictions (8.8%), injury and violence (4.5%), and genetics (3.9%).

In terms of specific topics covered in the literature, issues of culture, health care, and chronic disease were most commonly discussed. Table 2 articulates the ten most common specific topics covered in the peer-reviewed literature.

TABLE 2
PEER-REVIEWED LITERATURE, TEN MOST COMMON TOPICS
n=649

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Indigenous communities, knowledges, and cultures (including community involvement and culturally appropriate strategies)	153	23.6%
Diabetes	82	12.6%
Health care programming and delivery	61	9.4%
Health human resources (including education and capacity building)	46	7.1%
Environmental contamination (mercury, lead, PCBs, and/or other persistent organic pollutants)	43	6.6%
Health promotion, including knowledge translation	41	6.3%
Equity of access to health care	38	5.9%
Nutrition, fitness, obesity, and metabolic syndrome	35	5.4%

Cardiovascular disease	34	5.2%
Health research	34	5.2%

Indigenous communities, knowledges, and cultures (including questions of community involvement and culturally appropriate strategies) were commonly addressed in this body of literature: 23.6% of all journal articles touch upon these matters. Diabetes emerges strongly as a theme, with just over one in ten articles (12.6%) dealing specifically with this chronic condition. Issues clinically related to diabetes were also addressed: cardiovascular disease (5.2%) and nutrition, fitness, obesity, and metabolic syndrome (5.4%) both made a strong appearance in the peer-reviewed literature. Matters relating to health care are also a common theme in the literature: health care programming and deliver (9.4%), health human resources (7.1%), health promotion and knowledge translation (6.3%), equity of access to health care (5.9%), and health research (5.2%) were all amongst the ten most commonly addressed topics. Environmental contamination, and in particular studies of mercury, lead, PCBs, and other persistent organic pollutants were discussed in 6.6% of the literature.

Grey Literature

A total of 242 reports, studies, and discussion papers published since 2001 by Aboriginal organizations, federal and provincial governments, health regions, professional organizations, and other NGOs were reviewed and grouped by subtopic. Overall, the grey literature shows a great divergence from the types of issues dealt with in peer-reviewed health literature: there is much less focus in the grey literature on specific diseases and more concentration upon health research, policy, and delivery, community wellness, and the social determinants of health. Considerations of research form the most common category, with 61 documents (25.2%) giving some attention to this topic. Health services (16.5%), health policy (12.8%), health systems (12.0%), health promotion and education (9.5%), and programs and services (9.5%) all receive strong attention as well. Data is also a key concern in the grey literature: statistics (12.8%), health surveillance (7.0%), and demographics (7.4%) play a key role in this body of work. Human resources issues are key to the continuum of health care, and a number of documents take up these topics; health careers are addressed in 6.2% of the literature, while capacity building is touched upon in 6.6% of the documents under review. Capacity building, however, is a human resources issue that is intimately tied to questions of community and culture. Indigenous knowledge makes an appearance in the literature, with just over 1 in 20 (5.8%) addressing this topic. Community wellness figures large in this body of literature: 33 documents (13.6%) discuss this issue. Similarly, community development also receives some attention (8.7%).

The grey literature also addresses itself to a number of populations characterized by geography, age, and gender. Both youth and women are specifically discussed in just under 10% of the literature (9.1% and 8.3%, respectively). Specific populations delineated by geography are also addressed: Northern communities (10.3%), urban communities (9.9%), Inuit residing in Inuit communities (5.4%), and remote and rural health (5.4%) all make strong appearances in the literature.

Although demographics constitute an important focus of the grey literature, so too do other matters that impact health. Health determinants, broadly construed, are discussed in 7.0% of the literature. More specifically, this body of literature overall shows a clear interest in a series of issues that have a relationship to the health of Aboriginal peoples in Canada. Governance, government, and law and legislation are all discussed in the literature (5.4%, 7.0%, and 6.2%, respectively), as are a series of more specific topics of concern, including the following: the legacy of residential schools (5.8%), housing (7.0%), education systems (5.8%), and schools (5.4%). Those areas of research that emerge so strongly in the peer-reviewed literature (e.g., chronic and infectious diseases) make only minor appearances here: mental health (5.8%) receives some attention, as does HIV/AIDS (5.0%).

Overall, the grey literature suggests a more thoroughgoing concern with all Aboriginal populations in Canada, while it is, at the same time, less concerned with disease than with wellness. For example, diabetes – a crucial issue in the peer-reviewed literature – does not appear amongst the 30 most common subtopics here. Instead, the grey literature is more concerned with particular populations, with social determinants of health, and with the continuum of health care from research to service delivery.

Canadian Institutes of Health Research Funding

The Canadian Institutes of Health Research (CIHR) are the major source of federal funding for work in health-related fields. Consequently, a review of CIHR's funding database, detailing research recently and currently funded by the organization, is crucial to articulating an up-to-date scan of research pertinent to Aboriginal health. Between 1999 and the present, a total of $74,967,451 (243 projects) has been devoted to the study of Aboriginal health. Of the 243 projects, 138 (57%) have been completed, while another 105 (43%) remain ongoing.

The largest number of funded projects take in social/societal determinants of health: 64 projects (26.3%) address these concerns, with nearly one-quarter of these (23.4%) looking specifically at Diet/Nutrition/Obesity. Health Research Infrastructure (36 projects, or 14.8%), Chronic Diseases (35 projects, or 14.4%), and Infectious/Communicable Diseases (31 projects, or 13.2%) also receive intensive attention from the funding agency. It is important to note, however, that both Chronic Disease and Infectious/Communicable Disease projects are dominated by study of a very few topics: over two-thirds (71.4%) of Chronic Disease projects deal specifically with diabetes, while a similar proportion (71.8%) of projects dealing with Infectious/Communicable Disease address HIV/AIDS and hepatitis C. Relatively less funding attention has been directed to the remaining categories. Mental Health and Addictions projects comprise only 7.8% (19) of the overall number of funded research projects, while Health Care Access/Service (6.2%, or 15 projects) and Environment/Toxicology/Food Security (4.5%, or 11 projects) are even less commonly funded. Other types of studies comprise 12.8% (31) of the total.

A significant proportion of the total funded projects relate to three specific topics: diabetes (10.3%), HIV/AIDS and Hepatitis C (9.5%), and diet, nutrition, and obesity (6.2%).

Including an analysis of level of funding complicates this landscape somewhat. Although Health Research Infrastructure projects make up just 14.8% of the total projects, these projects receive, on average, a large amount of funding: this category of projects represents 41.7% of total expenditures ($31,233,456). The most commonly addressed area, Social/Societal Determinants of health (26.3% of the total number of projects), receives, relatively lower levels of funding. Taken together, all of the projects in this category receive $10,423,175 in funding, or 13.9% of total funding. Research into Infectious Disease (13.2% of total projects), Environment/Toxicology/Food Security (4.5% of total projects), and other studies (12.8% of total projects) are also funded at a relatively lower rate: Infectious diseases receive 5.5% of the total funding ($4,160,257), while Environment/Toxicology/Food Security receive 1.8% ($1,320,005) and other studies receive 6.5% ($4,850,804). Chronic Disease projects (14.4% of the total number) average a larger amount of funding per project (16.7% of the total expenditures on Aboriginal health projects, or $12,492,853). Health Care Access/Service (6.2% of total projects) and Mental Health and Addictions (7.8% of total projects) receive a level of funding that is in proportion with the number of projects funded: the former comprises 6.5% ($4,882,009) of total expenditures and the latter 7.5% ($5,604,892).

In summary, Health Research Infrastructure and Chronic Diseases receive the highest average level of funding per project, while Social/Societal Determinants of health represent the largest number of funded research projects. All of the other categories of research receive either a proportional or lower level of average per project funding. This data indicates that investments in future research (i.e. Health Research Infrastructure) have been a priority, as has large-scale funding for Chronic Disease research. Further, because such a large proportion of Chronic Disease research addresses itself specifically to diabetes (71.4%), the relatively high per project average funding indicates the extent to which research on diabetes is a clear priority.

CONCLUSION: KEY THEMES AND FUTURE DIRECTIONS

In charting its future, the NCCAH has a number of key issues to take into consideration. *Landscapes of Indigenous Health* articulates the lessons learned from this scan of organizations, key informant interviews, and literature and research. A number of themes and possible directions emerge from this scan, both of which will allow the NCCAH to fill existing gaps while simultaneously capitalizing on existing strengths.

The Health Care Continuum

Health research, policy, programming, human resources, and service delivery emerge as strong themes throughout the environmental scan. The overall interest in the continuum of health care is clearly a function of the discursive boundaries of the environmental scan, but also signifies something more: the overall interest in these matters points to the self-reflexive nature of the field of Aboriginal health at this historical moment. Researchers, Aboriginal organizations, Aboriginal communities, governments, and other stakeholders in the field clearly place crucial priority on considerations of the "how" and "what" of Aboriginal public health.

Community, Culture, and Public Health

All aspects of this environmental scan point up the importance of community and culture to Aboriginal public health in Canada. Considerations of Indigenous communities, knowledges, and cultures (including community involvement in research and the use of culturally appropriate strategies) are apparent in the literature and research. Key informants point to similar concerns, emphasizing the intellectual – and, indeed, tangible at the community level – poverty of "Pan-Aboriginal" approaches while expressing simultaneously the need for improvements in this area and recognition of the growing body of knowledge and resources that can be brought to bear.

Indigenous Knowledge Translation: Current Practices, Best Practices

The NCCAH's challenge in performing knowledge translation work involves the navigation of complex terrain. The NCCAH should be attentive to the concerns raised in the grey literature, which shows an interest in specific populations delineated by age, gender, community, geography, and economics. The grey literature emphasis on community wellness might thus serve as a multivalent watchword, signifying not just the importance of healthy communities but a need for attentiveness to the constitution of those communities.

Future Directions 1: Knowledge Translation and the Experiences of Aboriginal Communities

While questions of knowledge translation, culture, community, and Indigenous knowledge clearly emerge as topics of some import in this scan, not enough is known about the experiences of communities. The NCCAH might, therefore, plan to clarify these experiences, finding out what kinds of materials communities receive after participating in health research, and what kinds of materials they would like to receive – from the scholarly research community as well as from Aboriginal, governmental, and professional organizations. Such an endeavour would increase the NCCAH's own knowledge of what, at the community level, Aboriginal people throughout Canada view as important, and would be a key step for the NCCAH in working towards an overall strategy for undertaking effective Indigenous knowledge translation activities.

How much of this research makes its way back into communities? What form do such materials take? Do these materials aid the community in seeing tangible differences in health? If there is a disconnection between community and research, how do communities understand the substance of this disconnection, and what do they envision as a meaningful solution for such disconnection? More information on Aboriginal communities' experiences with knowledge translation would provide crucial insight into the balance that must be struck by the NCCAH between local/community knowledge and the shared health experiences of Aboriginal populations in Canada.

Future Directions 2: Existing Research on Indigenous Knowledge and Indigenous Knowledge Translation

There is a growing body of research that addresses itself to questions of Indigenous knowledge and to the practices of Indigenous knowledge translation in Canada, but much might be gained from an interdisciplinary and international review of these topics. Although the diverse contexts of this body of literature will require considered attention, shared international histories of colonization and social exclusion are likely to yield important insights for the future of the NCCAH's work.

Future Directions 3: Gaps and Consensus in the Overall Priorities for Specific Health Topics

This environmental scan has identified both consensus and gaps in the priorities for specific health topics in Aboriginal public health in Canada. In charting future directions on specific health topics, the NCCAH should consider both consensus in the literature and gaps: the Centre will need to assess the most appropriate way to situate its work, whether it should address gaps in the existing literature and/or knowledge translation of health topics that have been shown in this scan to be of clear priority. What emerges clearly, however, is the extent to which mental health (including suicide), maternal and early childhood health (especially early childhood development and FAS/FAE), injury and violence, addictions (including tobacco and harm reduction), and the social determinants of health are key priorities for Aboriginal organizations and key informants, while there remains a relatively low level of research and/or research funding addressing these priorities.

Future Directions 4: Social Determinants of Health

The social determinants of health receive some attention in both the grey literature and in key informant interviews. However, while much of the peer-reviewed literature discusses the resources and needs involved in the construction of a culturally appropriate health continuum, and thus implicates issues of social inclusion and exclusion, very little scholarly work appears to take up more specific social determinants of health. However, the NCCAH could consider the appropriateness of performing an interdisciplinary review of the social determinants of health as they pertain to Aboriginal peoples: some literature touching upon the social determinants of Aboriginal health (e.g., housing, poverty, or racism) is likely to be found in disciplinary journals not traditionally indexed by health-related databases. An interdisciplinary review of the social determinants of health for

Aboriginal people in Canada could, therefore, help to correct a substantial knowledge gap.

Future Directions 5: Opportunities for Collaboration

The NCCAH has a number of possible options for meaningful partners in collaboration: groups with strong connections to communities, organizations responsible for health research, policy, programming, and delivery, and organizations devoted to advocacy, research, and services specific to the needs of the diverse Aboriginal populations in Canada. Engaging with these potential collaborators will be invaluable, since doing so will function to address a broad range of issues discussed in this document: partnering in knowledge transfer activities, addressing specific topics in the field of Aboriginal health, and attending to the organizational development of the NCCAH itself. Certainly the NCCAH is positioned to take advantage of existing knowledge and to participate in the creation of new knowledge with Aboriginal peoples and communities in Canada.

I

INTRODUCTION

The National Collaborating Centre on Aboriginal Health (NCCAH) was established under the rubric of the six National Collaborating Centres for Public Healh (NCCPH), which were announced in May 2004 by Health Canada. The NCCAH is

- National in its scope
- Oriented toward increasing community capacity for action on or across the determinants of health
- Concerned both with developing community-based models for applying the population health approach and with increasing the knowledge base for program and policy development on population health partnerships
- Interested in inter-sectoral collaboration to address specific or combinations of determinants of Aboriginal health and well-being.

With these mandates in mind, the NCCAH undertook the study that follows, an environmental scan of entities, literature and research, and key informants operating in the arena of Indigenous peoples' health. The goal in this environmental scan is to ensure the relevancy of the Centre's research directions and to construct an evidence-based research foundation. The environmental scan is comprised of multiple layers, including an overview of organizations involved in Aboriginal health research and policy, an intense evaluation of research and literature (including grey literature, peer-reviewed literature, and research currently being undertaken), and a consultation with key informants in the area of Aboriginal health. The result is a compilation, evaluation, and synthesis of existing knowledge and directions in Indigenous peoples' health in Canada.

For the NCCAH, this document provides insight into the dynamic world of Aboriginal people's health and well-being, particularly from a population health perspective. In addition to providing an overview of knowledges and directions, *Landscapes of Indigenous Health* is also designed to orient a reader to understanding gaps and shortfalls which require ongoing and future attention so as to produce research and knowledge that will meaningfully translate into the betterment of Indigenous health in Canada. In other words, in addition to being an environmental scan of "what's out there," this document is also designed both to critically evaluate the knowledge landscape for spaces which require the attention of the NCCAH and to translate these findings into practical suggestions for attention.

The year 2006 marked the 60th anniversary of the adoption of the World Health Organization's *Constitution*, a document containing one of the most influential modern definitions of health: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." While this definition has been called both inflexible and unrealistically utopian, while it has been criticized for failing to account, on one hand, for personal responsibility and, on the other, for the impact of social justice issues, it remains instructive.[1] It can still suggest to us its vision, that health is not simply freedom *from* something, but a cornerstone in having freedom *to* fully participate in a culture. Health is not the absence of negatives, not a neutral condition: it is a form of capital that is crucial to positive forward motion for individuals, communities, and nations. Utopian or not, the adoption of the World Health Organization's *Constitution* remains an important moment for those working in the field of public health. As the National Collaborating Centre for Aboriginal Health charts its future, it seems an important moment to revisit this definition – the force of its legacy, its vision, and its goals continues to reverberate. *Landscapes of Indigenous Health* begins from this same premise: health is not absence, but presence.

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[1] For a concise overview of the debates surrounding recent definitions of health in relation to that of the World Health Organization, see Awofeso (2005).

For Indigenous peoples in Canada, this presence is inextricably tied to the idea of holistic community wellness. The 1996 *Royal Commission on Aboriginal Peoples* identifies health as both a crucial and a complex issue, and recommends the following four items as part of an overall health strategy:

- Equitable access to health services and equitable outcomes in health status
- Holistic approaches to treatment and preventive services
- Aboriginal control of services
- Diversity of approaches that respond to cultural priorities and community needs

In addition, the Commission notes that “the factors contributing to ill health of Aboriginal people stem not from bio-medical factors, but from social, economic and political factors” (3: n.p.). Another key document in public health makes a similar argument: the 1986 *Ottawa Charter for Health Promotion*, now an international cornerstone document in health policy and research, has important implications for health-related work done in and with Aboriginal communities. The *Charter* argues that “health promotion is the process of enabling people to increase control over, and to improve, their health” and views health holistically, as “a state of complete physical, mental and social well-being” (p. 1). The *Charter* suggests that the baseline foundation for health requires the following: peace, shelter, education, food, income, a stable eco-system, sustainable resources, and social justice and equity. Health promotion is, the *Charter* argues, fundamentally about “achieving equity in health” based upon “a secure foundation in a supportive environment, access to information, life skills and opportunities to make health choices” as well as “control of those things which determine their health” (p. 2). A key plank in the document’s health promotion action imperatives is “to respond to the health gap within and between societies, and to tackle the inequities in health produced by the rules and practices of these societies” (p. 4). *The Ottawa Charter*’s goals foreground the need for culturally appropriate work in health promotion: tackling inequities and providing access to information in Aboriginal communities and for Aboriginal peoples therefore means respecting cultural difference, taking seriously the priorities and needs of Aboriginal peoples, *and* performing evidence-based work in the field of health.

Landscapes of Indigenous Health is alive to multiple concerns: the production of health equity; the importance of social, economic, and political determinants of health; and the crucial role culturally appropriate models of research and policy have to play in the overall betterment of Indigenous peoples' health in Canada.

II

PURPOSE

THE PRIMARY PURPOSE OF THIS scan is to situate the strategies and directions of the National Collaborating Centre on Aboriginal Health within existing frameworks and considerations of Aboriginal health in Canada. In other words, the document responds to a number of broad questions

- What organizations exist in Canada that work in the area of Aboriginal health? What do these organizations do?
- What are the current priorities in the field of Aboriginal health?
- Do key informants and existing literature suggest gaps in the relationship between existing health knowledge and Aboriginal communities?
- How can the National Collaborating Centre on Aboriginal Health work to meet its overall mission, of increasing Aboriginal capacity for action on their determinants of health?

The NCCAH has undertaken this environmental scan as a cornerstone in its institutional planning. Its overall mission will be accomplished by acting as a resource and facilitating the development of ideas and information to support and inform future public interventions, and by supporting the development of practices and policies through knowledge synthesis, knowledge translation, and knowledge exchange. The fundamental role of the NCCAH will be to build bridges between Aboriginal people's approaches to public health and existing research centres, repositories of public health related information and service delivery agencies. The NCCAH will also collaborate with the other National Collaborating Centres (NCCs) on joint projects and initiatives. The NCCs are already taking initial steps to ensure collaboration amongst the centres, including the sharing of work plans to address national priorities in a coordinated manner. The work undertaken in *Landscapes of Indigenous Health* will help guide the decision-making processes currently before the NCCAH.

III

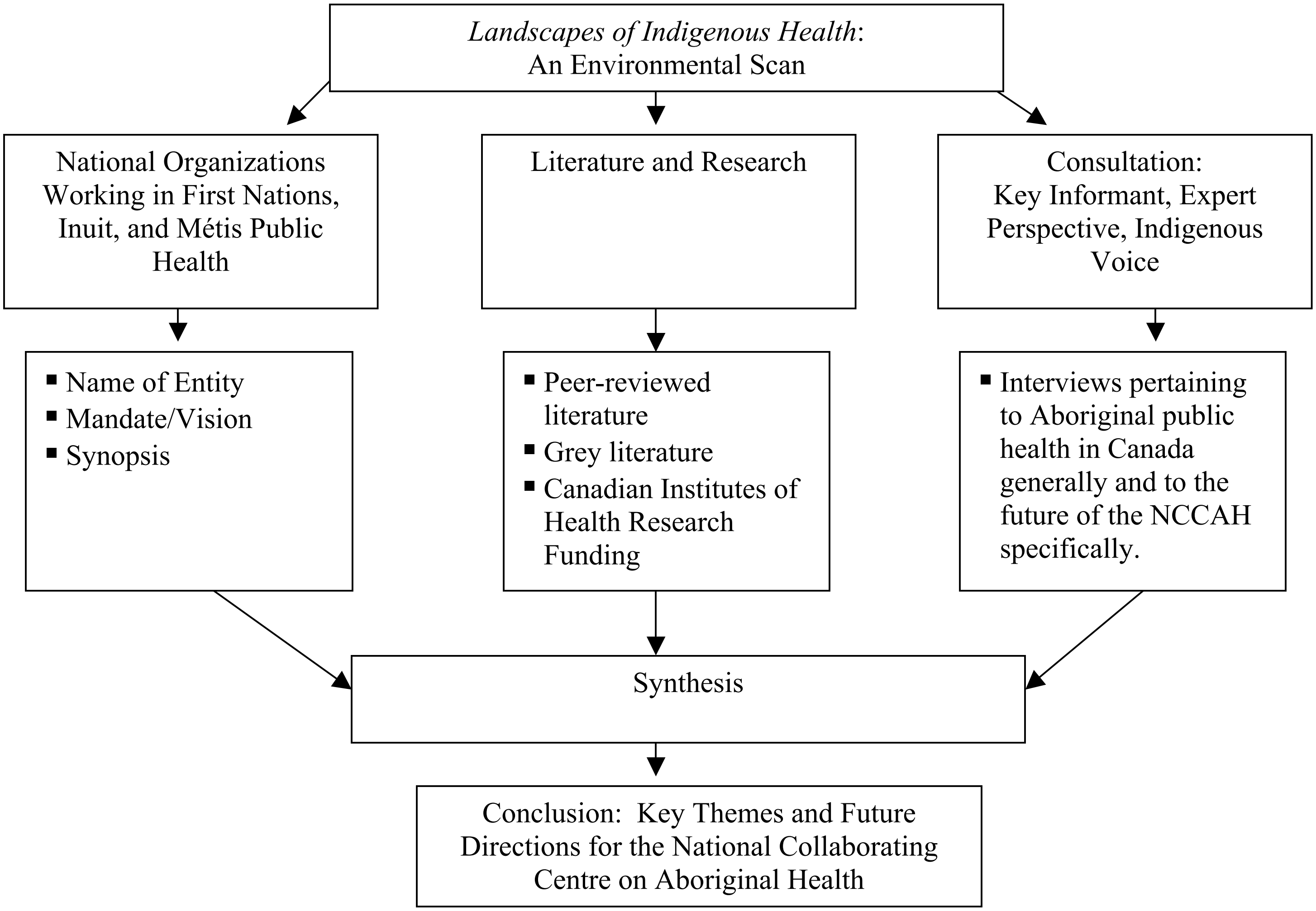
METHODOLOGY

LANDSCAPES OF INDIGENOUS HEALTH BRINGS together the following three types of evidence-gathering methodologies: a scan of national organizations working in First Nations, Inuit, and Métis public health in Canada, key informant interviews, and a review of literature and research. Chart 1 provides an overview of the processes involved in the production of *Landscapes of Indigenous Health*, and the methodology section following provides the details of how each type of information was gathered, and how results were synthesized for the production of this document.

NATIONAL ORGANIZATIONS WORKING IN FIRST NATIONS, INUIT, AND MÉTIS PUBLIC HEALTH IN CANADA

A matrix has been produced detailing the national organizations who perform work relating to First Nations, Inuit, and Métis public health in Canada. The goal of this matrix is to provide a map of national organizations and their mandates. Its purpose is to establish a concise document that provides information on the vision, mandates, and objectives of these organizations. The broader goal of the creation of this document is to locate the current projects and strategies that are priorities for organizations working in Aboriginal public health in Canada. In terms of scope, the matrix is comprised of brief descriptions of each national organization. Organizations have been divided into three categories: national Aboriginal organizations, government organizations, and professional organizations. While it would be beneficial in future to expand the matrix to include provincial, local, and other relevant organizations, for present intents and purposes the matrix is confined to national organizations. With respect to structure,

Figure 1: Environmental Scan Schematic



information is provided in a compact chart format in order to provide a quick visual overview of organizations and mandates. The terms "Vision," "Mission," "Mandate," and "Objectives" are combined into a single category in order to accommodate the varied terminology utilized by organizations.

In preparing the matrix, an internet search was conducted and information was collected from organization websites. The matrix included in the current document (see Appendix B) will, in future, be supplemented; through contact with representatives from the organizations, the NCCAH will gather more specific information, as well as validate overall content. A copy of the final draft will be shared with participating organizations and be made available on the NCCAH website.

KEY INFORMANT INTERVIEWS

The NCCAH undertook a series of interviews in order to secure the advice and positions of respected and knowledgeable individuals involved with public health insofar as it affects First Nations, Inuit, and Métis populations in Canada. *Landscapes of Indigenous Health* provides a summary of the interview findings. The interviews form a cornerstone in the NCCAH's initial efforts to identify priorities for the next three-to-five years, as well as to develop the Centre's strategic plan and consultation strategy. Interviews were sought with eighteen respondents, and completed with thirteen, in the following professional categories: public health practitioners, researchers, and health professionals/advocates.

- Health practitioners working in the public health system
- Members of agencies that set guidelines, provide programs, and/or fund research
- Professionals involved in devlopment and/or delivery of programs and/or tools to address specific public health issues
- Working in a role involving the guidance of research and/or building research capacity

- Developers of information collection and dissemination processes, including regional level data
- Advocates for Aboriginal recognition, informed participation, and decision making within the health system overall and within specific community- or Nation-based contexts

The interview materials were designed to elicit comments on a number of key areas: Aboriginal public health, the design and operation of the NCCAH, and the Centre's future relationship with key informants. An interview question form was used as a guide (see Appendix A). Interviews were done either over the telephone or face-to-face, and each interview took approximately 90 minutes. Responses were grouped in an anonymous aggregate form, and these consolidated results, along with written summaries of each area under discussion, were provided to the NCCAH by the interviewer. The NCCAH maintains secure confidential copies of individual interviews.

REVIEW OF LITERATURE AND RESEARCH

Peer-reviewed Literature on Aboriginal Health in Canada

A review was made of peer-reviewed literature on Aboriginal Health in Canada. The following databases were searched, and results were collated into one master document.

- Ovid MEDLINE, 1966 to present and Ovid MEDLINE In-Process & Other Non-Indexed Citations
- PubMed
- Native Health Database
- PsycINFO

All databases are indexed in English (but some include translations from French). Each database was searched for the years 2001 to 2006, using the following combined search terms: "(Aboriginal or Indigenous or Native or Indian or Inuit or Métis or First Nation or

First Nations or Innu or Eskimo or Dene) and Canada." Duplicates and entries not relating to Aboriginal peoples or to health were removed. Opinion-based articles were removed (e.g. letters and editorials). Almost all articles examined in this section were published in peer-reviewed scholarly journals. There are, however, a few exceptions. The PsycINFO database also indexes books and doctoral dissertations, and, consequently, a small number of these types of documents – primarily dealing with mental health issues – have been included in the review.

The resulting 649 references were coded by population, by main subject area, and by more specific descriptors. Non-mutually-exclusive codes in each of these three categories were assigned to each entry. Population information was gathered from titles and abstracts, and is as precise as possible. Where a particular nation, reserve, settlement, city, etc. is mentioned, this information has been recorded in order to construct collapsible and expandable demographic information on the current research.

This review sought to cast an inclusive net: up to four subject areas and six qualitative descriptors were assigned to each document. Although the overwhelming majority of documents were assigned only one or two main areas and the same number of descriptors, the ability to assign such a large number of multiple codes provides a more accurate view into the ways in which current research in Aboriginal health in Canada often lies at the intersection of main areas (e.g. such a strategy allows for an examination of the intersections between addictions and infectious disease, maternal and early childhood health and environmental health, etc.). Main subject areas assigned included the following:

- Addictions
- Chronic disease
- Environment and toxicology
- Genetics
- Health care research policy, programming, and delivery
- Infectious disease

- Injury and violence
- Maternal/early childhood health
- Mental health, including suicide
- Social determinants of health

In addition to these main subject areas, each entry was assigned a number of descriptors, and these were employed to group together documents within the same main subject area. For example, a document might be assigned the main subject areas of "Health care research, policy, human resources, programming, and delivery" and "Chronic disease," with the following descriptors: "Diabetes," "Prevention programming," and "Health promotion."

Grey Literature on Aboriginal Health in Canada

A broad review of documents pertaining to Aboriginal health in Canada has been gathered for this portion of the literature review. The documents are of varying genres: those under consideration here range from Health Canada reports to community-based considerations of Two Spirit youth. A total of 242 documents published between 2001 and the present were reviewed. The National Aboriginal Health Organization's online database, the Information Centre on Aboriginal Health (ICAH), was the source for these documents. The NAHO database represents the best source for grey literature pertaining to Aboriginal health – the ICAH indexes reports and discussion papers produced under the auspices of a wide variety of organizations: Aboriginal organizations, federal and provincial governments, research centres, professional organizations, health regions, etc. Each document is thoroughly indexed, both by population addressed and by subtopic. NAHO's cataloguing data has been used to compile a profile of the key issues being addressed in the current grey literature.

Canadian Institutes of Health Research Funding

A search was made of the Funding Database of the Canadian Institutes of Health Research. The purpose of this search was to determine what research projects touching upon Aboriginal health have been funded since 1999. This review seeks to survey the

CIHR-funded research relating to Aboriginal people; it provides a view into the topics and themes receiving significant attention and is one tool in identifying the current gaps in Aboriginal health research in Canada. The goal of this search was to scan the database for the following information:

- The total number of approved and funded research projects engaged with some aspect of Aboriginal health
- The amount of monies devoted to such projects
- The proportion of research that has been completed, in comparison with the work that is ongoing
- The distribution of monies between awards, grants, and clinical trials
- The target populations of research (e.g. First Nations, Inuit, Métis)
- The area of research

Keyword searches of the CIHR database were used in order to capture as many entries as possible with relevance for Aboriginal health. A total of seven separate searches were performed. Four of the seven searches specifically focused on the Institute of Aboriginal Peoples' Health, while the remaining three were performed across the whole of the database's resources. The keywords, used in varying combinations, were as follows: Aboriginal, Inuit, Innu, Dene, Indigenous, Indian, First Nation, First Nations, Métis, and Health. After results for each search were collated to remove duplicates, a total of 243 final results were obtained. These results reflect information available on the database between May 17, 2006 and June 5, 2006.[2] The database is updated weekly.

The scope of information available for each database entry varied. For each entry, the investigator(s), institution (i.e. location of research), funding program, project title, and grant/award amount were provided. In many, but not all, cases, descriptive keywords were available, along with an abstract, which provided more specific details about the

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[2] The *CIHR Funding Database* is updated weekly, and can be accessed at the following location: http://www.cihr-irsc.gc.ca/e/826.html.

scope and content of the project. This resulting information is represented in a series of charts and tables.

- Chart 1: CIHR Funding Database: Number of Projects, by Category (Grant, Award, Clinical Trial)
- Chart 2: CIHR Funding Database: Proportion of Completed and Ongoing Projects
- Chart 3: CIHR Funding Database: Areas of Research, by Number of Projects and Monetary Value
- Table 30: CIHR Funding Database: Areas of Research, by Specific Topic
- Chart 4: CIHR Funding Database: Target Populations

Chart 1 details the number of projects and the type of funding provided to each (grant, award, or clinical trial), while Chart 2 breaks down CIHR-funded Aboriginal health research by the proportion that has been completed. Chart 3 and Table 30 provide insight into the areas of research recently and currently being funded by CIHR monies. The former expresses the number of projects and monetary value of funding accorded each research area, while the latter breaks these research areas down into specific fields of inquiry (e.g., Chart 3 provides information on chronic disease, and Table 30 provides information on asthma and diabetes, two fields within the larger area of chronic diseases). Titles, keywords, and abstracts (where available) were used to broadly categorize the results into groupings pertaining to public health. Two levels of this categorization were conducted. Initial categorizations created groupings by frequent topics (e.g. HIV/AIDS, tobacco use/reduction, knowledge translation). These categories were then merged into eight more broadly defined categories:

- Chronic Diseases
- Infectious/Communicable Diseases
- Mental Health and Addictions
- Social/Societal Determinants

- Environment, Toxicology, and Food Security (Including Knowledge and Preservation of Traditional Foods)
- Health Care Access and/or Service
- Health Research Infrastructure
- Other

The resulting information is represented in Chart 3 and Table 30. There are, however, some important limitations to the information provided in these charts. Each database entry was assigned a mutually exclusive classification, and while the information represented in these charts certainly provides a view into the key fields of inquiry being funded by CIHR, this representational method does somewhat obscure overlaps between fields.

Chart 4 outlines the available information on the target populations of CIHR-funded research. For the purposes of this analysis, “First Nation” refers to specific nations (e.g., Moose Cree), communities (e.g., East Vancouver), or, more broadly, regions (e.g. Northern Manitoba). In most cases, “Inuit” and “Métis” do not refer to specific communities, but rather to more broad populations. “Indigenous” is used to describe those projects that are generically described as “Aboriginal.” These projects may be national in scope, or it may not be evident from the title or abstract of the database entry if the research is concerned with specific communities or First Nations. There are significant limitations to the representation of CIHR-funded research by its target population. Almost all projects indicate “Aboriginal” peoples as the target population. The designations contained in Chart 4 should, therefore, be understood as “descriptors” rather than as “identifiers”: it is unclear from the information currently available how many projects are specific to particular First Nation, Inuit, or Métis communities or populations, or whether a more broadly defined “Aboriginal” population was the subject of research.

IV

SUMMARY OF FINDINGS

THE FOLLOWING SECTION DETAILS THE key findings of *Landscapes of Indigenous Health*. The details of a scan of national organizations working First Nations, Inuit, and Métis public health are discussed first, and is followed by a summary and analysis of key informant interviews. A review of current literature and research closes this section – peer-reviewed literature, grey literature, and the funding patterns of the Canadian Institutes of Health Research are the constitutive parts of this review. Overall, this section provides a view into opportunities for collaboration, clarity on the current landscape of research on Aboriginal health in Canada, and insight into the gaps that might be filled by the NCCAH.

A. NATIONAL ORGANIZATIONS WORKING IN FIRST NATIONS, INUIT, AND MÉTIS PUBLIC HEALTH IN CANADA

A scan was completed of national organizations that have some involvement in First Nations, Inuit, and Métis public health in Canada. The following section provides an overview of national Aboriginal, governmental, and professional organizations in the field. For more detailed information on each organizations, see Appendix B.

1. ABORIGINAL ORGANIZATIONS

Eight Aboriginal organizations with a national scope were identified:

- Aboriginal Healing Foundation (AHF)
- Assembly of First Nations (AFN)
- Congress of Aboriginal Peoples (CAP)

- Inuit Tapiriit Kanatami (ITK)
- Métis National Council (MNC)
- National Aboriginal Health Organization (NAHO)
- Native Women's Association of Canada (NWAC)
- Pauktuutit – Inuit Women of Canada

Nearly all of the national Aboriginal organizations undertake advocacy, representation, or lobbying work: health is, for even those organizations with a broad mandate, a clear priority.

Aboriginal Healing Foundation

The Aboriginal Healing Foundation's (AHF) work is broad in scope, but has its origin in the necessity of addressing the effects of Residential Schools on Aboriginal peoples and communities. Because the AHF's mission is to "encourage and support Aboriginal people in building and reinforcing healing processes that address the legacy of Physical Abuse and Sexual Abuse in the Residential School system, including intergenerational impacts" (AHF, 2004a), the organization sees its work in terms of facilitation of healing using holistic approaches. Research funded and/or completed by the Foundation includes the following (AHF, 2004c):

- Aboriginal Domestic Violence in Canada (2003)
- Aboriginal Elder Abuse in Canada (2002)
- Aboriginal People, Resilience, and the Residential School Legacy (2003)
- Aboriginal Sex Offending in Canada (2002)
- Examining HIV/AIDS Among the Aboriginal Population in Canada in the Post-Residential School Era (2003)
- Historic Trauma and Aboriginal Healing (2004)
- Fetal Alcohol Syndrome Among Aboriginal People in Canada: Review and Analysis of the Intergenerational Links to Residential Schools (2003)
- Mental Health Profiles for a Sample of British Columbia's Aboriginal Survivors of the Canadian Residential School System (2003)

The AHF has extensive links to communities across Canada: as of April, 2005, the Foundation had 1,345 active grants to organizations undertaking community-based work fulfilling the AHF's mission (AHF, 2004b).

Assembly of First Nations

The Assembly of First Nations (AFN) is a national representative body for the First Nations in Canada and a member organization of NAHO (discussed above). The AFN has a broad range of concerns, with health among them (AFN, n.d., Description). The Assembly's work in the area of health involves both advocacy and policy. The AFN, working with other national Aboriginal organizations and the First Ministers, is involved in the drafting of the *Blueprint on Aboriginal Health*. Within the AFN, health issues are largely the responsibility of the Health and Social Secretariat, whose mandate is as follows: "We are responsible to protect, maintain, promote, support, and advocate for our inherent, treaty and constitutional rights, (w)holistic health, and the well-being of our nations" (AFN, n.d., Health and Social). In undertaking this mandate, the Health and Social Secretariat's activities include the following types of work, intended to "ensure properly funded services and programs [for First Nations people and communities] are delivered at the same level enjoyed by all Canadians" (AFN, n.d., Health and Social):

- Policy analysis
- Communications
- Lobbying, representation, support, and defense of First Nations people and communities

In support of this work, the Health and Social Secretariat publishes the *First Nations Health Bulletin*, recent issues of which have included publications on First Nations housing and health, as well as diabetes, health service delivery and information management, HIV/AIDS, Tobacco, programming for First Nations youth, autism and health funding models. Overall, the *First Nations Health Bulletin* disseminates information on programmes and policy initiatives, but also provides information on service gaps being identified and success stories.

The Health and Social Secretariat has identified a number of health policy areas (AFN, n.d., Health Policy):

- Diabetes
- Early Childhood Development
- HIV/AIDS
- First Nations' Research and Information Governance
- Health Renewal
- Home and Community Care
- Injury Prevention
- Non-insured Health Benefits
- Public Health Advisor
- Suicide Prevention and Mental Health
- Tobacco Control Strategy
- AFN Health and Social Communications

Work in these health policy areas varies; however, the AFN has produced policy documents addressing many of these issues.

Congress of Aboriginal Peoples

The Congress of Aboriginal Peoples (CAP) represents Aboriginal peoples living off-reserve. Health is one of CAP's long-term concerns, and they have undertaken extensive work on the issue, including participation in the ongoing creation of the *Blueprint on Aboriginal Health*. The Congress also publishes the *CAP Diabetes Newsletter*, which provides health promotion/educational information on diabetes prevention and management, from direction on accessing community-based programming to recipes.

Inuit Tapiriit Kanatami

Inuit Tapiriit Kanatami (ITK) represents Inuit peoples from four regions in Canada: the Inuvialuit area of the Northwest Territories, Nunavut, Nunavik (northern Quebec), and Nunatsiavut (Labrador). ITK's work is primarily in the area of advocacy (ITK, 2005c). The recently struck Health Committee of ITK addresses itself first and foremost to the issue of accessibility of adequate health care for Inuit peoples, but is also concerned with a variety of other issues: diabetes, Fetal Alcohol Syndrome/Fetal Alcohol Effects, home care, cancer, accident prevention, nutrition, non-insured health benefits, and other issues. ITK is committed to collaborative work on programming and policy that will improve the access Inuit peoples have to all health services (ITK, 2005c). The Health Department of ITK currently works on a number of initiatives: the Inuit Health Information Initiative, part of the development of the First Nation and Inuit Health Information System (ITK, 2005b); the Aboriginal Diabetes Initiative; the First Nations and Inuit Home and Community Care Initiative; the Health Renewal process (as a member of the federal Joint Committee on Health Renewal); an injury prevention initiative, which includes an environmental scan, production of a manual, and workshops (2005a); a nutrition initiative; and the Canadian Prenatal Nutrition Program/Fetal Alcohol Syndrome and Fetal Alcohol Effect.

Métis National Council and Métis Women's Secretariat

Health is a key plank of the Métis National Council's (MNC) work, and is one of the national Aboriginal organizations participating in the creation of the *Blueprint on Aboriginal Health*. The MNC's website provides an extensive set of links to resources and services pertaining to health, and the Council publishes *Tawnshi-Kiya: Métis Nations Health Information Newsletter*, primarily intended to report on the health-related activities of the MNC and to provide information about health policy, programming success stories, and accessing resources, both old and new (Métis National Council, 2005). Particular health topics receiving the MNC's attention include the following: diabetes, HIV/AIDS, hepatitis C, early childhood development, and health policy. Health-related activities within the MNC fall under the responsibility of the Métis Nation Health Committee, but the Métis Women's Secretariat also takes on a leading role in working in the area of health (Morrisseau, 2005).

National Aboriginal Health Organization

The National Aboriginal Health Organization (NAHO) is one of the most pertinent organizations to the concerns of Aboriginal health in Canada. NAHO aims to fulfill a number of different functions and to be inclusive of the diversity of Aboriginal peoples while also foregrounding a commitment to unity. The makeup of NAHO's board suggests the practice of this principle; besides five directors elected from Aboriginal communities, NAHO's board is also comprised of directors from five member organizations: the Assembly of First Nations, the Congress of Aboriginal Peoples, Inuit Tapiriit Kanatami, the Métis National Council, and the Native Women's Association of Canada. NAHO is, however, organized to function at an arm's length from political organizations and from the federal government. Its mandate is "to improve Aboriginal peoples' physical, intellectual, emotional and spiritual health" ("The National," 2002).

Knowledge transfer is key to fulfilling this mandate. To this end, the organization undertakes a number of knowledge-based activities, including the following:

- Collecting and producing research reports
- Analyzing events and developments
- National conferences
- Regional gatherings
- Special topic seminars and workshops
- Publication of newsletter
- Publication of the *Journal of Aboriginal Health*
- Website
- Information clearinghouse

NAHO's activities (gathering, creating, interpreting, disseminating, and using knowledge [NAHO 2005, *About*]) foreground the importance of communities to their vision: NAHO "[v]iews community as the primary focus and views research methodologies as tools for suporting Aboriginal communities in managing health" (NAHO 2005, *About*). The organization houses three centres (First Nations Centre, Métis Centre, and Ajunnginiq Centre for Inuit Health), each of which has a focused research and dissemination programme. In terms of the content of NAHO's work, the organization places a "particular emphasis on traditional health and healing; health research and health information and policy, capacity building and public education" (Canada. Health Canada, 2000).

Native Women's Association of Canada

The Health Department of the Native Women's Association of Canada (NWAC) focuses on adopting a holistic approach to health, one concentrating on "the spiritual, emotional, mental and physical health and well-being of First Nations and Métis women and their communities" (NWAC, n.d.). NWAC receives funding for work on the Aboriginal Diabetes Initiative and Early Childhood Development; however, they also participate in a number of health agendas and organizations (NWAC, n.d.):

- Aboriginal Early Childhood Development Network and Clearinghouse (FNCFCS)
- Aboriginal Diabetes Initiative (ADI)
- Aboriginal Healing Foundation (AHF)
- Aboriginal Health Reporting Framework (AHRF)
- Aboriginal Peoples Roundtable
- Centre for Chronic Disease Prevention and Control (CCDPC) (PPHB – Health Canada)
- Coordinating Committee on National Diabetes Strategy (CCNDSS)
- Council of Federations, Premiers Meeting on Aboriginal Health Priorities
- Early Childhood Development (ECD)
- Fetal Alcohol Spectrum Disorder (FASD)
- Healthy Canada Initiative - Healthy Living (Health Canada)
- International Right to Health of Indigenous Women (United Nations)
- Métis, Off-Reserve Aboriginal and Urban Inuit Prevention and Promotion (MOAUIPP) (FNIHB – Health Canada)
- Maternal & Child Health (FNIHB - Health Canada)

- National Aboriginal Health Organization (NAHO)

In addition to this work, the Health Department of NWAC also collects and distributes as much health-related information as possible (from educational to policy materials) to its 13 member organizations. NWAC's Health Advisory Circle, formed in July of 2004, is a group of Aboriginal women in health services/health sciences who advise the NWAC on community health concerns and keep the organization up to date on current issues in health (NWAC, n.d.).

Pauktuutit

Pauktuutit is the representative organization for Inuit women in Canada. Health is among Pauktuutit's main concerns; most of the organization's areas of focus touch upon health. These include the following: abuse, early childhood development, fetal alcohol syndrome, home and community caregivers, teen pregnancy, tobacco reduction, and sexual health. Other programming and policy areas also have a connection to health: economic development, the environment, and youth rights and issues (Pauktuutit, 2004).

2. GOVERNMENT ORGANIZATIONS

Six organizations with a national scope were identified for the purposes of this environmental scan:

- First Nations & Inuit Health Branch, Health Canada (FNIHB, HC)
- Indian and Northern Affairs Canada (INAC)
- Institute of Aboriginal Peoples' Health, Canadian Institutes of Health Research (IAPH, CIHR)
- Aboriginal Capacity and Development Research Environments, Institute of Aboriginal Peoples' Health (ACADRE, IAPH)
- Public Health Agency of Canada (PHAC)

First Nations and Inuit Health Branch, Health Canada

Health Canada is responsible for providing health services to First Nations people on reserve and Inuit people. The First Nations and Inuit Health Branch (FNIHB) of Health Canada (Canada. Health Canada. First Nations and Inuit Health Branch, 2005b) carries out a broad range of activities, encompassing the following categories:

- Diseases and health conditions, especially diabetes, heart disease, HIV/AIDS, tuberculosis, and West Nile virus infection
- Family health, including healthy child development and healthy pregnancy and babies
- Health care services, including eHealth, home and community care, improving access to services, Indian Residential Schools, and nursing
- Non-insured health benefits
- Substance use and treatment of addictions
- Funding
- Reports and publications (including general overviews of First Nations and Inuit health and documents pertaining to all of the above-mentioned topics)

The Community Programs Directorate (Canada. Health Canada. First Nations and Inuit Health Branch, 2005a) offers programming within three broad rubrics:

- The Children and Youth Division includes the Canada Prenatal Nutrition Program, Aboriginal Head Start on Reserve, Fetal alcohol syndrome and fetal alcohol effects, and Maternal Health programming.
- The Chronic Disease Prevention Division is comprised of the Aboriginal Diabetes Initiative, Injury Prevention program, Chronic Disease Prevention program, and Nutrition program.
- The Mental Health and Addictions Division is constituted by the Tobacco Control Strategy, National Native Alcohol and Drug Abuse Program, and the Indian Residential Schools Mental Health Support Program

Indian and Northern Affairs Canada

Indian and Northern Affairs Canada (INAC) is “the principal federal department responsible for meeting the federal government’s constitutional, political and legal responsibilities in the North.” INAC has “legislative and policy authority over most of the North’s natural resources” and “is the custodian and resource manager for an area occupying 40 percent of Canada’s land mass” (Canada. Indian and Northern Affairs Canada, Mandate, 2004). Health is central to INAC’s mandate: “In Indian and Inuit Affairs, the department’s primary role is to support First Nations and Inuit in developing healthy, sustainable communities and in achieving their economic and social aspirations” (Canada. Indian and Northern Affairs Canada, Mandate, 2004).

The Strategic Research and Analysis Directorate (SRAD) of Indian and Northern Affairs Canada is mandated to perform three main tasks (Canada. Indian and Northern Affairs Canada, Strategic, 2004):

- Policy support to the Federal Government, through policy research, analysis, and resultant advice
- Production of research materials (demographic and socio-economic research into issues and conditions facing First Nations, Inuit, and northern peoples)
- Support of evidence-based policy development processes (analysis of policy research issues and production of research reports, journal articles, textbooks, workshops, and conferences; defining and fostering research needed to support Department priorities)

SRAD has taken a leading role in organizing the 2006 *Aboriginal Policy Research Conference* at the University of Western Ontario, and has undertaken and disseminated a wide variety of research, some of which touches upon health issues. Most recently, a number of studies, employing either the United Nations Human Development or the Community Well-Being indices for the measurement of well-being in Aboriginal communities and among Aboriginal peoples, have been produced under the auspices of SRAD (Canada. Indian and Northern Affairs Canada, 2005):

- Cooke, M., Beavon, D., & McHardy, M. (2004, October 25). *Measuring the Well-Being of Aboriginal People: An Application of the United Nations Human Development Index to Registered Indians in Canada, 1981-2001.*
- McHardy, M. & O'Sullivan, E. (2004, October 25). *First Nations Community Well-Being in Canada: The Community Well-Being Index (CWB), 2001.*
- O'Sullivan, E. & McHardy, M. (2004, October 25). *The Community Well-Being (CWB) Index: Disparity in Well-Being Between First Nations and Other Canadian Communities Over Time.*

In the past, other research touching upon health and disseminated by SRAD has included work on public health policy in Canada, the impacts of social security reform on Aboriginal peoples, and factors indicative of success in the welfare-to-work transition (National Aboriginal Health Organization, 2002).

Institute of Aboriginal Peoples' Health, Canadian Institutes of Health Research

The Institute of Aboriginal Peoples' Health (IAPH) funds health research aimed at improving the health of Aboriginal peoples in Canada. The IAPH takes seriously both the health inequalities experienced by Aboriginal people and the gaps in knowledge about the causes of and solutions to these gaps, but focuses not just on disease, but also on wellness. IAPH sees itself as taking national leadership in advanced health research, and does so through the application of its vision to "[support] innovative research programs based on scientific excellence and aboriginal community collaboration" (Canada. Canadian Institutes of Health Research, 2005). The core values IAPH bases its work upon focus on equity, collaboration, transparency, and knowledge translation (Canada. Canadian Institutes of Health Research, 2005). With these values and vision in mind, the IAPH undertakes activities aimed at the following goals:

- Building capacity for research within First Nations, Inuit, and Métis communities
- Supporting partnerships/alliances, at all levels, between Aboriginal communities and non-Aboriginal health research entities

- Supporting health research that is simultaneously respectful of Aboriginal cultures while also producing innovative knowledge that will improve both the well being and health of Aboriginal people.

The IAPH's research areas fall into a number of categories, as follows:[3]

- culturally relevant health promotion strategies
- identification of health advantage and health risk factors in aboriginal populations related to the interaction of environments (cultural, social, psychological, physical, genetic)
- health determinants - to elucidate the multi-dimensional factors that affect the health of populations and lead to a differential prevalence of health concerns
- disease, injury and disability prevention strategies
- social, cultural, and environmental research that will contribute to the development of appropriate health policies and health systems
- addiction and mental health strategies from prevention to intervention to policy formation
- psychosocial, cultural, epidemiological and genetic investigations to determine causal factors for increased prevalence of certain conditions (e.g. diabetes, heart disease, cancer, infectious diseases)
- clinical trials or other methodologies to determine the most effective interventions with aboriginal populations in order to address a variety of health needs (e.g. assessment of alternative and complementary medicine)
- health services research to address the unique accessibility and provider issues such as funding and continuity of care and with particular regard to issues of child and elder care
- international research recognizing and exploring the commonalities among indigenous populations worldwide with respect to health concerns

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[3] The following list is quoted directly from IAPH documentation: (Canada. Canadian Institutes of Health Research, 2005).

- ethics issues related to research, care strategies, and access to care (e.g. community consent, sensitivity to culture)

All proposed research programs are peer-reviewed.

In addition, one of IAPH's key activities has been the establishment of Aboriginal Capacity and Developmental Research Environments (ACADREs), discussed below.

Aboriginal Capacity and Developmental Research Environments, Institute of Aboriginal Peoples' Health

As discussed above, the Aboriginal Capacity and Developmental Research Environments (ACADREs) were founded as an initiative of the Institute of Aboriginal Peoples' Health. ACADRE centres fulfill two important functions: increasing capacity for Aboriginal research to be done *by* Aboriginal people and the completion of health research itself. Each centre develops up to three major research themes, and must undertake its work with a high level of both community partnership and scientific merit. The centres have four main objectives:[4]

- to pursue scientific knowledge based on international standards of research excellence
- to provide the appropriate environment for scientists from across the four themes of CIHR to pursue research opportunities in partnership with aboriginal communities [in order] to provide opportunities for aboriginal communities and organizations to identify important health research objectives in collaboration with aboriginal health researchers
- to facilitate the rapid uptake of research results through appropriate communication and dissemination strategies
- to provide an appropriate environment and resources to encourage aboriginal and non-aboriginal students to pursue careers in aboriginal health research

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[4] The following list is quoted directly from ACADRE documentation: (Canada. Canadian Institutes of Health Research, 2005. "Aboriginal Capacity").

The eight ACADRE centres currently funded through the Institute of Aboriginal People's Health, along with their research interests, are as follows:

- Alberta ACADRE Network, Edmonton ("traditional knowledge and ethics; northern community environmental health; and community access to health services")
- Anisnawbe Kekendazone, Ottawa ("perinatal health; youth at risk and resilience; and knowledge translation")
- Atlantic Aboriginal Health Research Program, Halifax ("prevention research, such as reducing smoking and alcohol consumption; mental health and addictions research; and enhancing the understanding of health determinants, such as housing conditions, income, and cultural and spiritual factors")
- British Columbia ACADRE, Vancouver ("developing health assessments that are ethical and respect community values; ensuring aboriginal health researchers act responsibly; holistic wellness in mental health and addictions; and community motivated research themes")
- Centre for Aboriginal Health Research, Winnipeg ("population health; health services; child health and development; ethical issues in aboriginal health research")
- Indigenous Health Research Development Program, University of Toronto/McMaster University (prevention and control of chronic diseases; mental health of women and children; and culture, health, and healing")
- Indigenous Peoples' Health Research Centre, Regina ("chronic diseases, nutrition, and lifestyle; indigenous/traditional healing methods; health delivery and control")
- Nasivvik Centre for Inuit Health and Changing Environments, Quebec City (environmental change and influences on Inuit health; environmental public health surveillance and monitoring; and Inuit scientific knowledge in environmental health research") (Canada. Canadian Institutes of Health Research, Institute of Aboriginal Peoples' Health, 2005).

Public Health Agency of Canada

The Public Health Agency of Canada's (PHAC) various Centres and Directorates, while not specifically focused on Aboriginal health, undertake work that most certainly relates to and/or impacts the health of Aboriginal peoples. PHAC's Centres and Directorates are as follows:

- Centre for Chronic Disease Prevention and Control
- Centre for Emergency Preparedness and Response
- Centre for Health Human Development
- Centre for Infectious Disease Prevention and Control
- Centre for Surveillance Coordination
- Business Integration and Information Services Directorate
- Management and Program Services Directorate
- Strategic Policy Directorate

In addition to PHAC's subsidiary Centres and Directorates, the Agency's *Population Health Approach*, with its attendant initiatives (through the regional Population and Public Health branches as well as The Canadian Health Network and Population Health Fund), is undertaking groundbreaking work to "address the entire range of conditions and factors that determine health [and] the complex interactions among them" (Canada. Public Health Agency, 2005).

3. PROFESSIONAL ORGANIZATIONS

A number of national professional organizations were identified; each of the following six organizations undertake work in the field of Aboriginal health in Canada:

- Aboriginal Nurses Association of Canada (ANAC)
- Canadian Aboriginal AIDS Network (CAAN)
- National Aboriginal Diabetes Association (NADA)

- National Association of Friendship Centres (NAFC)
- National Network for Aboriginal Mental Health Research (NAMHR)
- National Indian and Inuit Community Health Representative Organization (NIICHRO)

Aboriginal Nurses Association of Canada

Affiliated with the Canadian Nurses Association, the Aboriginal Nurses Association (ANAC) recognizes that Aboriginal nurses are an important resource, both for providing culturally appropriate services and for contributing crucial knowledge to health policy and services. In order to fulfill its mission of improving the health of Aboriginal peoples, the ANAC "promot[es] the development and practice of Aboriginal Health Nursing" (ANAC, 2005b): education, research, recruitment and retention, support for members, and consultation are all emphases of the ANAC. To date, the ANAC's publications have focused on two issues: education for Aboriginal Nursing and tobacco (ANAC, 2005a). The Association organizes an annual national conference, a scholarship program, and with a variety of partner organizations and initiatives.

Canadian Aboriginal AIDS Network

The Canadian Aboriginal AIDS Network (CAAN) provides advocacy and support services for Aboriginal people living with or affected by HIV/AIDS. CAAN has a number of ongoing projects, including the following (CAAN, n.d., Projects):

- Aboriginal HIV/AIDS Anti-Discrimination (AHAAD)
- HIV/AIDS Prevention Messages for Canadian Aboriginal Youth
- WebLibrary
- Strengthening Aboriginal Community Based HIV Research Capacity
- Diagnosis and Care of HIV Infection in Canadian Aboriginal Youth
- "Joining the Circle": Aboriginal Harm Reduction
- Aboriginal Strategy on HIV/AIDS

Along with these projects, CAAN also maintains the site *LinkUp Connexion: An Online Aboriginal HIV/AIDS Information Network*. The aforementioned WebLibrary is housed on this site; it includes a broad range of materials, from educational information to policy documents. The site also includes a discussion area, which promotes organizations and individuals to connect and share information.

National Aboriginal Diabetes Association

The mission of the National Aboriginal Diabetes Association (NADA) is to "be the driving force in addressing diabetes and Aboriginal people as a priority health issue by working together with people, Aboriginal communities and organizations in a culturally respectful manner in promoting healthy lifestyles among Aboriginal people today and for future generations" (NADA, 2005). The Association has five stated goals, which highlight the organization's overall commitment to collaborative work (NADA, 2005):

- Support for communities, families, and individuals for diabetes prevention, education, research, and surveillance
- Creating and maintaining working relationships with people and organizations committed to work in the field of diabetes
- Health promotion to in communities, with the goal of reducing the incidence and prevalence of diabetes
- Effective and efficient management of the organization
- Advocacy in keeping diabetes and Aboriginal people at the forefront of the health agenda in Canada

National Association of Friendship Centres

The National Association of Friendship Centres (NAFC) primarily aims its services at Aboriginal people living in urban environments. Friendship Centres offer a wide variety of programming, from child care to youth drop-in centres to skills development and nutrition programs (NAFC, n.d., Friendship). According to NAFC policy documents, the national organization concentrates its health-related programming on the following issues (NAFC, n.d., National):

- Prevention (sexuality, food and nutrition, tobacco, family violence, mental health)
- Promotion (of better health in general, but the following issues specifically: healthy pregnancies, children's health, mental health, physical activity, and seniors' health)
- Accessibility of primary health care (poverty and accessibility)
- Addictions (treatment programs, aftercare, and acute care facilities)
- Other programming (Fetal Alcohol Syndrom/Fetal Alcohol Effects, residential school issues, family violence, diabetes, and justice transition)

National Network for Aboriginal Mental Health Research

The National Network for Aboriginal Mental Health Research "develop[s] research and training to address the mental health needs of Aboriginal people in Canada, in both urban and rural settings" (NAMHR, 2006b). NAMHR's goals involve collaboration, knowledge transfer, and capacity building: they "conduct research in partnership with Aboriginal organizations/communities, and coordinate research collaborations among academics across Canada; train new researchers to develop capacity for mental health research in Aboriginal communities; disseminate research methods and findings to Aboriginal groups and communities, health practitioners and planners" (NAMHR 2006a).

National Indian and Inuit Community Health Representative Organization

Aboriginal Community Health Representatives in Canada are represented nationally by the National Indian/Inuit Community Health Representatives Organization (NIICHRO). Projects being undertaken by the NIICHRO include the Aboriginal Injury Prevention Conference, the Aboriginal Contraception Awareness Project, design of the Tobacco Demonstration Project, and the Coming Full Circle (for Frail and Elderly) Project (NIICHRO, n.d., Projects). Recent research produced for the Organization includes the 2004 document, by Karen McCulla, *A Comparative Review of Community Health Representatives Scope of Practice in International Indigenous Communities* (NIICHRO, 2005). NIICHRO publishes *In Touch*, a magazine with Indigenous health as its focus, along with educational materials on HIV/AIDS (NIICHRO, 2004).

B. KEY INFORMANT INTERVIEWS

The NCCAH undertook a series of thirteen interviews with key informants: public health practitioners, researchers, and health professionals and advocates. The goal of these interviews was to elicit knowledge on critical issues in Aboriginal public health, the design and operation of the NCCAH, and the Centre's relationship with key stakeholders. The following section summarizes the responses to each interview question; an analysis of the key themes arising from the interviews follows.

1. SUMMARY OF INTERVIEWS

Participant Background and Work Practices

Interviewees work within a broad range of institutional situations:

- Health practitioners working in the public health system
- Members of agencies that set guidelines, provide programs, and/or fund research
- Professionals involved in devlopment and/or delivery of programs and/or tools to address specific public health issues
- Working in a role involving the guidance of research and/or building research capacity
- Developers of information collection and dissemination processes, including regional level data
- Advocates for Aboriginal recognition, informed participation, and decision making within the health system overall and within specific community- or Nation-based contexts

In the process of discussing this information, an important theme emerged: many interviewees expressed both their commitment to collaborative work practices, but also noted the challenges involved in collaborating both within their own organizations and with other stakeholders. The challenges to collaboration, which was seen, overall, as a crucial strategy for improving effectiveness in Aboriginal public health, were multiple. Interviewees cited the paucity of supports (e.g., time, mandates, human and financial resources, and date) along with the following limitations to collaboration: defensiveness about addressing gaps and inefficiencies within the system; lack of accurate population-specific data; reporting burdens; and the relative lack of understanding of public health at the community level.

Key Issues in the Aboriginal Public Health Context

This section of each interview dealt with both the general contexts of public health in Canada and the key issues that interviewees viewed as crucial for NCCAH consideration. Interviewees stressed the importance of the following issues:

- Respecting diversity within the Aboriginal population as opposed to 'pan-aboriginal' approaches, and understanding that the application of the definition of public health has distinct aspects for First Nations, Inuit and Métis (e.g. see emerging First Nation, Inuit and Métis public health frameworks).
- Finding ways to ensure that the Canadian Public Health System recognizes and respects local indigenous knowledge.
- Focusing on approaches that are holistic, address the determinants of health and stress a social justice and equity framework as well as other supportive frameworks (e.g. human rights).
- Supporting the development of the infrastructure (e.g. legislation, capital, expertise) necessary for distinct Aboriginal peoples to participate in a seamless, coordinated, and comprehensive public health system.
- Determining the degree to which the NCCAH is to be involved in addressing the issue of jurisdiction will be critical. Interview responses suggest jurisdiction be addressed in a manner that supports the ability of all governments (i.e., federal, provincial, territorial, Aboriginal) to work collaboratively to: address gaps (e.g., ability to contain an "outbreak"); create a comprehensive public health system;

and support the transition to First Nations, Inuit, and Métis jurisdiction/responsibility (e.g., support First Nations health authorities, build capacity in health intervention).

- Supporting the ability of all stakeholders to collect and apply reliable, applicable, quality data to the development of First Nations, Inuit and Métis public health systems, institutions and interventions.
- Ensuring that the various organizations (e.g. health, research, education, policy, political, etc.) involved in public health as it affects the distinct Aboriginal peoples are not overly competitive.
- Understanding that international comparisons continue to provide support for new ideas and approaches (e.g. more culturally appropriate approaches) and finding ways to apply lessons learned within the Canadian context.

The concerns raised in this section of the interview generally circulated around issues of organizational development. Culture and existing strengths were key issues for interviewees: the need for diversity, respect for Indigenous knowledge, culturally appropriate and equitable systems, and the leveraging of existing international and Canadian knowledge were emphasized, as were support both for building capacity within Aboriginal populations and transformation of systems to increase Aboriginal responsibility for public health. Other issues addressed included the importance of relationships between organizations concerned with Aboriginal public health; interjurisdictional collaboration is needed, while competition between organizations and disciplines should be avoided.

Knowledge Synthesis, Translation, and Exchange

Interviewees understood knowledge translation in a broad sense, that is, as any of a range of interventions in which information moves between communities, practitioners, and researchers. Exchange was seen as key to the overall process: knowledge translation activities create new and culturally informed knowledge that can then be implemented in the development of policy, research, programs, and practice. Interviewees spoke with clarity about current needs in these areas, noting the following:

- Greater input from the communities, greater cooperation amongst organizations and results that demonstrate real changes in the way we reach people and change their perceptions of public health interventions/activities;
- Ensuring the contribution of traditional knowledge/practices is recognized and incorporated within ‘mainstream’ knowledge and practices (e.g. holistic and determinants of health) ;
- Contributing to the connection between researchers/research agencies and the community level (input, partnerships, capacity building);
- Generating scientific and community based information that increases the ability for the results of research to be translated into policy, programs and services;
- A focus on community based approaches and community impact (e.g. changed behavior) from the results;
- Approaches to community driven public health that are flexible enough to be adapted to differences between individual First Nation, Inuit or Métis communities;
- Someone to build models that take into local systems, support the assertion of indigenous frameworks and approaches, and that keep with the best in current public health knowledge; and
- Someone to do the actual plain language translations.

The overall premise of all of these comments had to do with improving the relationship between those producing research and the communities under consideration in the research. Interviewees called for an increased focus both on the interests and knowledge of communities: seeking more community input, valuing constructive knowledge exchange between researchers and communities, respecting diversity through flexible practices, and integrating Indigenous knowledge with best practices in public health were all seen as priorities. At the level of research design and dissemination, interviewees argued that plain language translations should be a priority and that research design should take into account knowledge translation and exchange. Another key theme that emerged in this area of discussion was the importance of creating tangible results at the community level. One respondent articulated what she or he feels is most crucially at stake in doing so: translating knowledge in a way that creates "real" results at the community level is important in and of itself, but it is also likely to increase community will for increased participation in public health generally.

Interviewees also expressed their views on effective knowledge translation processes. A number of suggestions, concerns, and limitations were expressed:

- The importance of decision makers in the institutions of power being advocates for these types of processes;
- The differences involved depending on what you're trying to communicate and to whom (e.g. to physician by PDA, reaching policy people is much more difficult);
- The need for providing supports at the community level (accessible language, manuals, regional support workers);
- An emphasis on community understanding, community participation, and multiple delivery methods/interventions;
- A role for existing groups/methods in communities in the distribution of information (NIICHRO);
- New Zealand's experience with using the notion of cultural safety to address power differentials between providers and clients; and
- The process of translating knowledge and supplying alternative formats costs money.

Discussion of this topic circulated around effective ways of operating within existing constraints. Leveraging existing structures was one focus. One interviewee called on organizations and individuals with pre-existing power in the field of Aboriginal public health to take a leadership role in advocating for improvements to knowledge translation activities, while another suggested the wisdom of employing existing methods, networks, and organizations to help with the dissemination of knowledge. Other interviewees addressed themselves to the material practice of knowledge translation activities:

financial limitations were raised as a possible concern, as were the diverse needs of the audiences of knowledge exchange.

Current Public Health Research

In the course of the interviews, several challenges relating to research processes and quality of findings were mentioned: interviewees noted situations in which researchers are insufficiently connected to communities, research and data become compromised by politicization, root causes are inadequately addressed, or culturally/geographically inappropriate methodologies are employed. At the same time, interviewees also cited a number of examples of strong research in Aboriginal public health:

- RHS [i.e., *First Nations Regional Longitudinal Health Survey*] is widely seen as an example of quality health surveillance, capacity building and involvement in decision making;
- Kahnawake Diabetes Initiative (Alex McComber and Anne McCauley);
- Mcgill University work with the Dene and northern communities;
- ACADRE at Laval University;
- Prince Albert Tribal Council (Bonnie Jeffries); and
- Sandy Lake Diabetes project

Beyond the Canadian context, interviewees also mentioned important work being conducted internationally: researchers in the United States, Australia, and New Zealand were all mentioned (Papaarangi Reed, Sue Cringle, Reese Jones, Mason Drurie, and Sonia Crandell). Interviewees noted also the difficulty involved in tracking Aboriginal public health: when research moves beyond a very specific health area, it is more likely to be framed for publication or other dissemination within the larger field of population health or determinants of health: “critical thinking,” one respondent suggested, is key to managing this situation.

Use of Research Findings in Policy and Practice

Key informant interviews did not yield a consensus on preferred processes or formats for using research in the development of policy and practice. Interviewees suggest that, in general, research findings are currently being applied in the context of a variety of policy and programming processes. The following examples were mentioned:

- Using international research in development of policies and cultural competency training;
- Developing ‘role modeling’ of ‘best practices’;
- Involving policy makers throughout the process;
- Requiring both community involvement and a presence in the community;
- Establishing working groups with key stakeholders; and
- Convening forums to generate input and disseminate results;

Overall, interviewees did not emphasize preferred models of knowledge translation – either in terms of its application to practice or policy. Several respondents, however, argued that existing work on knowledge translation and exchange should be accorded increased attention. At the same time, the lack of consensus on this issue did indicate that more needs to be done in this area: some participants noted that there simply is not enough research available for them to form solid conclusions about effective knowledge translation tactics, especially in the context of Indigenous health.

Gaps in Research Policy and Practice

Key informant suggested that health professionals enjoy a more thorough knowledge of public health programs affecting Aboriginal people than do individual Aboriginal people or communities. They also argued that there is diversity in knowledge: different regions and communities have different levels of knowledge. Much of the focus, they argued, appears to be on primary health care, and provincial responsibilities thus come into play in this context. Interviewees noted the following extant challenges:

- Gaps resulting from less emphasis on the Aboriginal components of a public health system;
- Focus of activity on activities not supported by research;

- Lack of population specific data;
- Extrapolation of data from small samples to national level analysis;
- Unwillingness to adjust and apply non-aboriginal based research;
- Need for more researcher accountability for involving communities, particularly within the university environment;
- Reliance/requirement for university based ethics review committees;
- Providing supports that allow the accepted principle of community involvement to be implemented;
- Developing and testing 'Aboriginal State of the Art Knowledge Translation' process(es) or model(s);
- Limited impact of knowledge when it gets to the community level; and
- Difficulty in measuring the impact of public health activities (e.g. are people making better choices about what to eat?).

The challenges noted by participants were various. In the context of community-level practice, interviewees noted both the relative marginalization of specifically Aboriginal components of the public health system and a prevalence of activities being undertaken that are not well-supported by research. Difficulties relating to data were a key theme: participants noted concerns with measuring the impact of programs, and of the multi-faceted challenges presented by the lack of population-specific data. At the level of institutional research, interviewees noted the constraints placed on researchers by university ethics review boards and insufficient support for meaningful community involvement. In terms of knowledge translation, interviewees located several challenges. The construction of a fulsome Aboriginal knowledge translation strategy was advocated for, as was an increase to the impact of knowledge translation activities at the level of the community – two issues that are intimately connected. One interviewee also argued that politicization continues to play a role in this issue: there is, this respondent suggested, a continued unwillingness to leverage the knowledge created in a non-Aboriginal context in order to make it culturally and geographically appropriate for Aboriginal peoples.

Respondents spoke with clarity in identifying gaps in research policy and practice, and in locating the areas of greatest need for Aboriginal public health research. Several expressed the view that the development of First Nations, Inuit, and Métis public health (i.e., overcoming jurisdictional boundaries and implementing delivery methods) was a pre-requisite to making meaningful progress on specific public health issues. Some interviewees felt a clear distinction between research, policy, and practice, but the majority saw these holistically. There was, overall, a call for more evaluative and applied research. In the opinion of key informants, the following were areas in need of additional research:

- Securing better data (e.g. enumeration) relevant to the specific Aboriginal population under consideration in order to more effectively provide care, develop and implement programs and understand disparities;
- Understanding the affects of individual and institutional racism on health outcomes;
- Developing practices in the area of cultural competence, cultural safety, and the ability to have influence over decisions;
- Addressing disparities;
- Community capacity building;
- Participating in partnerships;
- Sharing research;
- Developing best practice guidelines, and building best practices in Addictions, Tobacco, Mental Health and Social determinants;
- Supporting infrastructure;
- Increasing the number of public health practitioners in Aboriginal communities;
- Addressing broader issues (e.g. Housing, Nutrition and Food security, Education and employment) that get at the underlying causes and have a positive affect on such issues as suicide, injury prevention tobacco use, etc.;
- Addressing the assumption that models that work in a non-indigenous context will work in an indigenous context (i.e. understanding why non-aboriginal community interventions aren't working in Aboriginal communities);

- Determining preference levels for traditional vs ‘western’ practices for health and healing at the community level;
- The requirement for community driven processes in order to be effective; and
- Validating the evidence needed to affect policy (e.g. paying traditional practitioners through Health Canada, over-reliance on pan-aboriginal approaches).

A series of suggestions were made that fit broadly within a rubric of cultural concerns about research policy: addressing the impact of racism; assessing community-level desire for “traditional” and “western” medical practices; ensuring research processes are community driven; addressing health disparities; and employing approaches that effectively respect the diversity of Aboriginal peoples living in Canada. At the same time, key informants also suggested the pre- and co-requisites for such changes: reliable population data is a priority, as are partnerships, community-level capacity building, research sharing, infrastructural support, and the development of best practices in key public health areas. One interviewee suggested that human resources were in need of an overhaul – there should be an increase in the number of public health practitioners in Aboriginal communities. Another focused on social determinants of health: action needs to be made, this respondent argued, on issues that influence health status.

The NCCAH’s Initial Priorities

In response to the question about an initial list of 8 ‘priorities’ (e.g. Children’s Health, Suicide, Injury prevention, Wellness and Resiliency, Aboriginal practices - including traditional healing/medicines, Tobacco, Women, and Social Determinants) the interviewees saw a real overlap with the stated priorities of other organizations and questioned whether this number or range of issues represented a real prioritization of NCCAH efforts given its resources and mandate. The responses suggested that the priorities of the NCCAH needed to be refined and focused. Several noted that the social determinants were critical in terms of looking at traditional practices and community circumstances and seemed to reflect the intent of the other seven issues.

In terms of current priority areas the NCCAH's will need to consider how to balance activity in specific public health issues, improving the process and environment for Knowledge Translation, and supporting the building of skills in the area of collaboration. While some of the suggestions could be addressed within specific project activities over the 3-5 years, from a priority setting point of view it may be more important to focus on how the NCCAH could serve a facilitative function in improving the process of knowledge translation within the scope of social determinants.

Responses also contained general guidance about developing priorities and specific suggestions of areas to focus upon such as:

- These priorities are going to vary according to regions – need ability to set these at regional level applying reliable data;
- NCCAH has to recognize the multiple gaps and priorities and may have to pick the one its going to deal with first, and what is going to be dealt with second even if not everyone is going to be happy with it (e.g. smoking and tobacco);
- Probably want to tackle the ones that best fit your mandate and where there isn't necessarily someone else doing the same work;
- Maybe it's the gaps in terms of networks and efforts and innovative work;
- Concentrate on building relationships and access within PHAC and the NCCs;
- Don't get too caught up in the research and instead focus on developing issues and supporting the bringing of issues to the table;
- What is your KT priority vs. this list of health priorities;
- A key role is to really understand the main five organizations visions, hopes and issues so that when there is a chance to influence its not done just on the NCCAH's own beliefs;
- Developing a framework for how Academic Institutions can undertake research (qualitative);
- Meeting the needs of First Nations not in their communities;

- Need something more around what is culturally sensitive care, chronic care management, and addiction issues (drugs, alcohol issues/behaviors) which are the number one risk factor for ill health/death;
- Look at the common requirements between communities – i.e. the building blocks of a system;
- Like to see that this is tied to actual indicators such as years of life lost; and
- Other areas could include Addictions, Harm reduction, Family violence, Mental health, Poverty.

Workplan

In terms of its emerging workplan the key issues will be to ensure that there is communication and community engagement from the beginning and throughout the process. This will be necessary if the results of NCCAH's efforts are to be useful, usable, and acted upon. Caution was advised regarding the proposed pilot project on FASD particularly in terms of ensuring that a public health focus is pursued and that the results make an effective contribution to the extensive work already going on in this area. Networking and creating regional and national networks were seen as positive roles with interviewees stressing the need to have multiple stakeholders (e.g. researchers, policy makers, and consumers/beneficiaries) involved.

This was particularly important in terms of ensuring that the other five National Collaborating Centres are inclusive of indigenous participation and contribute to work of, rather than abdicate responsibility solely to, the NCCAH. In some respects collaboration and referrals between NCCAH's and the other NCC's can be seen as contributing to the foundation for indigenous participation in a responsive, seamless public health system.

As NCCAH develops its multi-year workplan it will also need to determine whether and how it will address other pressing issues mentioned throughout the interviews. For example:

- Developing the Aboriginal public health system (jurisdiction vs infrastructure for a seamless system);
- Contributing to the number of Aboriginal public health practitioners;
- Advocating for increased sensitivity within the Academic environment;
- Advocating for the inclusion of indigenous knowledge;
- How it incorporates First Nation, Métis and Inuit specific approaches throughout its workplan;
- How to address the public health needs of Aboriginal peoples in urban/off-reserve environments;
- Analysis to determine what constitutes a “culturally sensitive” “best practice”;
- Work with such groups as the infectious diseases groups who won’t necessarily have the insight or expertise;
- Finding an appropriate role regarding the need for quality surveillance data;
- Perhaps having planning tools (e.g. pandemic influenza planning) to fill gap of public health expertise at the community level;
- Bring together public health information that pertains to First Nations, Inuit and Métis populations;
- Pushing PHAC to create targets for Public Health professional development (Masters and Phd level); and
- Develop partnerships with ACADRES to be their official Knowledge Translation agency to provide the analysis – and readily identify the implications.

Developing Policy and Practice

NCCAH could contribute to the development of public health policy by carefully positioning itself so that it is seen as a “go to” resource for policy analysis, but not seen to be a tool for the government to circumvent consultation with the representative Aboriginal organizations on policy making. NCCAH could also ensure that Aboriginal protocols are part of the process and there is a flow of communication throughout all levels of the Aboriginal community. NCCAH could also engage a mix of community, academic, practitioners and other stakeholders in its processes.

To work with PHAC on the national public health strategy NCCAH will be well advised not to be seen as providing advise and consultation on policy which PHAC and the government can use as an alternative to consultation with Aboriginal governments and representative organizations. NCCAH's involvement should be focused on providing the lessons learned from its work, applying Aboriginal specific perspectives, encouraging broader and direct Aboriginal participation in the process, and emphasizing that input from the Aboriginal community be responded to within the policy.

Role of Epidemiologists

When asked about working with epidemiologist the responses suggested that depending on the work being done it may be more important to involve a range of health professionals rather than just epidemiologists. In terms of epidemiologists it is important to recognize that they have different roles depending on where in the public health system (national, provincial, local). The interviews suggest various ways to involve them in the work of the NCCAH (e.g. on staff, on workgroups as needed, a scientific committee, evaluating health information) and ways in which NCCAH could promote increasing numbers of epidemiologist with an understanding of the Aboriginal context (creating or linking with other networks, advocating Aboriginal hiring preferences, and encouraging academic institutions to establish career development targets/programs).

Collaboration Opportunities

The respondents expressed a willingness to collaborate with the centre, although some wanted issues relating to NCCAH's mandate and the advisory committee to be clarified early on if not before engaging in collaborations. The NCCAH would be well advised to begin to contribute available resources to current collaborative opportunities in the public health arena.

Current opportunities where collaboration is possible were suggested in the areas of:

- Visioning on public health;
- Learning institutes;

- Joint strategic planning;
- Identifying gaps in research and effectiveness of current responses;
- Identifying research priorities;
- Conducting research (cultural safety, addictions, social determinants);
- Exploration of the jurisdictional issue about who is responsible for public health;
- Environmental health/economic development assessments;
- Working with regional organizations and local communities on identifying public health needs;
- Training of public health researchers;
- Improving university research environments;
- Keeping everyone informed on NCCAH efforts;
- Influencing PHAC and the work of the other NCCs;
- Creating research networks; and
- Using the Internet to keep people informed on research and collaboration opportunities.

Other Challenges

While challenges were essentially identified throughout the interview several respondents did take a final opportunity to restate some of them:

- Trying to satisfy certain groups around the credibility of the NCCAH;
- Overcoming issues arising from the process through which the NCCAH was created
- All of the duplication, especially with NAHO;
- Establishing the initial linkages that allow for work to progress;
- Building relationships and working within the incredible diversity of each Aboriginal group/community;
- Working with the process and constraints of research within a university environment;
- Securing a mandate and role where their advice is listened to;

- Finding a 'niche' where its efforts will make a real, measurable difference;
- Maintaining a communications capacity that continuously gets information to people in the appropriate language;
- Working within and promoting cultural sensitivity;
- Reflecting and respecting the contributions from community traditions;
- Determining its role relating to data surveillance; and
- Being realistic about what can be achieved with available resources.

2. KEY THEMES EMERGING FROM THE INTERVIEWS

A number of key themes emerged from the key informant interviews. These themes represent both opportunities and challenges for the NCCAH as it charts its course in the coming years. The following themes emerged most strongly:

- Understanding Collaborating
- Foregrounding Community, Geography, and Culture
- Focus and Balance: The Future of the NCCAH
- Getting it Right: Knowledge Translation, Synthesis, and Exchange
- The Importance of Strong Data and Social Determinants of Health

Understanding Collaboration

Giving consideration to meaningful collaboration was a key issue for interviewees. Despite the multiple challenges entailed in collaboration, interviewees noted the importance of involving multiple stakeholders in the work of the NCCAH, including communities, the academy, practitioners, and other stakeholders, as appropriate. Improved collaboration with communities was seen as absolutely crucial: too often, it was argued, research begins from a position of being either insufficiently connected with the community, or geographically and/or culturally inappropriate. But collaboration was, for interviewees, also tied to the organizational development of the NCCAH. Competition and overlap (including on areas of research) should be avoided. The strategies suggested to ensure productive collaboration included the following: sharing research; creating partnerships; engaging with the academy in terms of both ethics review and educational targets (for example, interviewees noted that there could be more public health practitioners at the community level, and that there could be more Aboriginal practitioners); and fostering culturally sensitive work with tangible results for communities and individuals. As discussed above, interviewees noted potential sites (e.g., organizations, initiatives, and researchers) for NCCAH collaboration. Interviewees also emphasized the role of collaboration in the context of fostering a seamless public health system for Aboriginal people in Canada; multi-jurisdictional collaboration is required for such an endeavour. At the same time, collaboration between the NCCAH and PHAC and other National Collaborating Centres was advocated for – the NCCAH is situated to play a key role in advocating broad attention for indigenous issues in the larger context of public health in Canada.

Foregrounding Community, Geography, and Culture

Interviewees recommended that the NCCAH undertake community-driven processes, be diligent about facilitating communication, and actively engage communities throughout its processes: Aboriginal influence in decision-making processes should be vigilantly foregrounded and facilitating the transition to Aboriginal responsibility for public health should be a working premise. The diversity of Aboriginal populations in Canada was a constant concern for those interviewed. Effective public health, they argued, must consider both culture and geography in order to meet the needs of Aboriginal people living on- and off-reserve, in or out of their communities, and in rural and urban settings. Regional diversity should be a touchstone, as should avoiding a “Pan-Aboriginal” approach that lumps together Métis, Inuit, and First Nations populations. At the same time, however, it was argued that a respect for diversity should be balanced with consideration of commonalities between regions and communities.

The importance of Aboriginal cultures to the work of the NCCAH was made clear by interviewees. Indigenous knowledge should be accounted for; local knowledge systems, holistic sensibilities, and traditional methodologies form an important part of what interviewees saw as a broader program of culturally appropriate public health. Cultural competence, cultural safety, culturally appropriate practices (and Best Practices), and healing were all mentioned in the interviews. Without a concerted effort in these areas, it was argued, work in public health risks being unsuccessful: one interviewee argued that there is an assumption that non-Aboriginal research, policy, and practice are too often applied – ineffectively – to Aboriginal contexts. Evidence-based public health in Aboriginal communities should not be sought through a "one size fits all" application of non-Aboriginal research. At the same time, however, the strong and growing body of national and international research should be consulted – and translated for the diverse Aboriginal contexts in Canada.

Focus and Balance: The Future of the NCCAH

In contemplating the future of the NCCAH, interviewees recommended both focus and balance. Setting a clear mandate and a clear role to play in the larger field of Aboriginal public health was seen to be key. Some interviewees advocated for the NCCAH to have a sharp focus in order to avoid overlap with existing organizations and entities, but also to ensure tangible results, given the resources available. Arguing for a stronger presence of evaluative and applied research, key informants cited a number of possible areas for focus:

- Social determinants of health
- Poverty
- Family violence
- Chronic care management
- Addictions (including harm reduction)
- Mental Health
- Tobacco

Social determinants of health, one interviewee argued, were most critical because of their impact on other more specific health concerns.

An interest in focus was, however, met with concern over balance. It was recommended that the NCCAH find an appropriate balance between work on health issues with both knowledge translation processes/facilitation and related skill-building and collaborative endeavours. Setting clear priorities for both health issues and knowledge translation was recommended: it was argued by some that the NCCAH might focus less on research and more on playing a facilitative role in knowledge translation activities. One interviewee suggested that perhaps the NCCAH should partner with the ACADRE network to facilitate knowledge translation work for research produced under the auspices of the ACADREs.

Considerations of the NCCAH's future also prompted interviewees to note what they perceive to be significant challenges to improving health disparity. While many view research, policy, and practice in a holistic relationship with each other, some argued that service delivery is a pre-requisite to improving public health. In addition, some concerns were raised about the overall role that the NCCAH will play in the field of Aboriginal public health: more than one interviewee expressed a need for vigilance on the part of the NCCAH in order to ensure that the Centre act as a key resource for policy analysis, but *never* as a site that substitutes for consultation with representative Aboriginal groups or Aboriginal governments.

Getting It Right: Knowledge Translation, Synthesis, and Exchange

A number of interviewees suggested that a focus on knowledge exchange is crucial. Community input at all points in the NCCAH's processes is key, as is the integration of "lessons learned" from such community input into the continuum of research, policy, and practice. Indigenous knowledge should be foregrounded. One interviewee, for example, spoke of the need to increase Aboriginal knowledge amongst epidemiological researchers. Both leveraging and investing were seen as important to the NCCAH's knowledge translation work; the extant research, organizations, and researchers producing work on knowledge translation should be consulted, but there is also a need for the development of processes, models, and best practices in Aboriginal public health knowledge translation. There should, it was argued, be tangible results from these activities: too often, one person suggested, knowledge that reaches communities does not have the desired impact.

Interviewees also offered both challenges and suggestions: some research that is pertinent to Aboriginal peoples is framed and disseminated outside the scope of the field of Aboriginal public health – care needs to be taken to ensure relevant research is gathered. Financial resources were also mentioned – knowledge translation activities, it was argued, can be expensive. The importance of maintaining appropriate translation services capacity was also mentioned.

The Importance of Strong Data and Social Determinants of Health

The social determinants of health were mentioned several times by participants. Root causes, some argued, are, too often, being overlooked, and these require increased attention. This area is intimately bound to both culture and equity: work in the field of Aboriginal public health needs to reckon with the complexities of race, power, systemic inequalities, and social justice on the health outcomes of individuals and communities.

The importance of strong data also emerged as a key issue for interviewees. There is a need for population-specific data so that work can be planned for maximum efficacy. Key informants pointed to other data challenges; specifically, it was argued that although there are difficulties associated with measuring the effectiveness of public health activities, health indicator data should, ideally, be tied to such work.

C. REVIEW OF LITERATURE AND RESEARCH

A review was completed of current literature and research in the field of Aboriginal health. This review is comprised of three main sections. The first two sections review literature specifically: peer-reviewed literature is addressed first, and grey literature second. The third section of this review is a scan of the research on Aboriginal health in Canada currently being funded by the Canadian Institutes for Health Research (CIHR). Taken together, these three sections give a clear view into the most recent published research, the literature produced by Aboriginal and government organizations, and a preliminary view into the research "pipeline."

1. PEER-REVIEWED LITERATURE

A review was completed of recently published peer-reviewed literature (2001—October 2006) focusing on Aboriginal health in Canada. The following section details the findings of this review, and includes demographic information for each section, examinations of the intersections between main subject areas (e.g. infectious disease and addictions), and a discussion of the key themes emerging from the review. A total of 649 documents were reviewed and grouped, using non-mutually exclusive codes, into the following main subject areas: addictions; chronic disease; environment and toxicology; genetics; health care research, policy, human resources, programming, and delivery; infectious disease; injury and violence; maternal and early childhood health; mental health, including suicide; and social determinants of health. In addition to grouping documents by main subject area, each document was assigned narrative descriptors (e.g. "diabetes, prevention" or "suicide, risk factors") in order to clarify the key themes emerging in the current research in each area. Each document was also assigned multiple demographic descriptors. These descriptors are as precise as possible, but should also be read with some caution: the collected demographic information is entirely reliant on the terms used by the publishing authors.

Overall, the demographics of the literature overwhelmingly addressed “Aboriginal peoples,” but was often more specific. Table 3 details the broad demographic breakdown of the literature under review.

TABLE 3

PEER-REVIEWED LITERATURE, DEMOGRAPHIC BREAKDOWN

n=649

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	357	55.0%
First Nations	207	31.9%
Inuit	112	17.3%
Métis	20	3.1%

As Table 3 demonstrates, 357 (55.0%) of the literature addresses itself to Aboriginal peoples. In some cases, this descriptor is used because the document in question deals with issues of broad interest to the entire population of Aboriginal peoples in Canada; however, in other cases, the use of Aboriginal as a descriptor simply means that the particular community or nation addressed in the research has not been named. First Nations peoples also receive strong attention in the literature, with 207 documents (31.9%), as do Inuit peoples, with 112 documents (17.3%). Métis populations are rarely named in the literature, with only 20 documents (3.1%) addressing Métis populations specifically.

In terms of coverage of main subject areas, health care research/policy/programming/ delivery, social determinants of health, chronic disease, and infectious disease receive the most attention, while work on injury and violence, along with genetics, are published on less frequently. Table 4 illustrates the main subject areas arising from the peer-reviewed literature.

TABLE 4

PEER-REVIEWED LITERATURE, BY MAIN SUBJECT AREA

n=649		
SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Health care research, policy, human resources, programming, and delivery	208	32.0%
Social determinants of health	188	29.0%
Chronic disease	165	25.4%
Infectious disease	101	15.6%
Mental health, including suicide	79	12.2%
Maternal/early childhood health	74	11.4%
Environment and toxicology	65	10.0%
Addictions	57	8.8%
Injury and Violence	29	4.5%
Genetics	25	3.9%

Health Care Research, Policy, Human Resources, Programming, and Delivery

Not surprisingly, health care itself emerged strongly in the extant literature, with 208 (32.0%) of published articles addressing some aspect of these issues. Consideration of the continuum of health care provision included the following themes: human resources issues (recruitment, retention, education, and capacity-building), health research, health policy, service delivery, health promotion, equity of access, and health service quality, usage, and cost.

Service delivery was a key concern in this section of the literature (29.3%), but human resources issues also played a strong role, with 22.1% of articles addressing such issues: both Aboriginal content in the education of nurses, physicians, and other health care professionals and capacity building within Aboriginal communities emerged as a key theme. Health promotion and knowledge translation activities received some attention (19.7%) as did studies involving equity of access to health services (18.3%). Both health research (16.3%) and policy (12.5%) were addressed in the literature, while quality, usage, and costs of health services received relatively less attention (7.7%). Overall, this subsection of the literature often gave consideration to the importance of community involvement, cultural appropriateness, and Indigenous knowledge in the continuum of health care – from research methodologies and ethics to delivery of services.

Health care research, policy, programming, and delivery also overlaps with a number of other main subject areas. Tables 5, 6, and 7 demonstrate the types of topics and subject areas that have yielded reflections upon research, policy, programming, and delivery, as well as the overall demographics of the literature in this area.

TABLE 5

PEER-REVIEWED LITERATURE, HEALTH CARE RESEARCH, POLICY, HUMAN RESOURCES, PROGRAMMING, AND DELIVERY, BY TOPIC

n=208

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Health care programming and delivery	61	29.3%
Human resources	46	22.1%
Education	12	5.8%
Capacity building	11	5.3%
Health promotion, including knowledge translation	41	19.7%
Equity of access	38	18.3%
Health research	34	16.3%
Health policy	26	12.5%
Health care quality, usage, and/or cost	16	7.7%

TABLE 6

PEER-REVIEWED LITERATURE, HEALTH CARE RESEARCH, POLICY, HUMAN RESOURCES, PROGRAMMING, AND DELIVERY AND OTHER MAIN SUBJECT AREAS

n=208

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Chronic disease	37	17.8%
Diabetes	17	8.2%
Cancer	8	3.8%
Kidney disease	6	2.9%
Infectious disease	18	8.7%
HIV/AIDS	9	4.3%

Maternal/early childhood health	11	5.3%
Mental health	10	4.8%
Addictions	8	3.8%

TABLE 7

PEER-REVIEWED LITERATURE, HEALTH CARE RESEARCH, POLICY, HUMAN RESOURCES, PROGRAMMING, AND DELIVERY, BY POPULATION

n=208

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	143	68.8%
First Nations	60	28.8%
Inuit	17	8.2%
Métis	5	2.4%

Social Determinants of Health

A total of 188 (29.0%) of the peer-reviewed literature touched upon some aspect of the social determinants of health. The overwhelming majority of documents in this section (153, or 81.4%) dealt with a number of issues not easily disentangled from each other: Indigenous communities, Indigenous knowledges, and Indigenous cultures. Community, knowledge, and culture cannot be disarticulated from each other in the field of health – indeed, they are intimately connected concepts, reliant upon each other. A number of documents called for improved attention to these matters (for example, in questions of human resources issues, health research methodologies and ethics, health promotion, and mental health). While this large subsection of literature on the social determinants of health might be loosely grouped under the rubric of social inclusion and exclusion – certainly, matters of colonization, discrimination, inequity, and residential school are broached in the literature – this rubric does not perfectly fit the thrust of the current research. Calls for improved community participation and culturally appropriate research and programs (matters signifying, sometimes indirectly, social exclusion of Aboriginal populations) are well-represented here; however, documents identifying gaps are also met with considerations of models of wellness, resiliency, strength and healing. In short, the literature touching upon the social determinants of health for Aboriginal people in

Canada provides insight into needs and gaps, to be sure, but also into the growing field of research delineating the existing cultural resources Aboriginal peoples in Canada possess in the field of health.

Other social determinants made an appearance in the literature. Most notably, housing (including homelessness) received attention in 9 (4.8%) of the articles in this area. Economic issues, including poverty, made a minor appearance, as did general studies on the complex relationships between health and other inequities Aboriginal people in Canada navigate. Overall, however, these social determinants of health make a very minor appearance in the literature.

Overall, the literature touching upon social determinants involves more general (and, indeed, sometimes only passing) considerations of matters involving social inclusion and exclusion. The relatively high level of interest on social determinants suggests not adequate study of social determinants themselves, but rather a thematic recognition in the research of the importance of such determinants. Discussion of the social determinants of health overlap with a number of other areas, and address a broad range of the population. Tables 8 and 9 describe this data.

TABLE 8

PEER-REVIEWED LITERATURE, SOCIAL DETERMINANTS OF HEALTH AND OTHER SUBJECT AREAS

n=188

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Mental health	44	23.4%
Health care service delivery	32	17.0%
Chronic disease	26	13.8%
Health human resources, including education	23	12.2%
Health promotion	18	9.6%
Infectious disease	16	8.5%
Health research methodologies and ethics	16	8.5%
Addictions	15	8.0%
Maternal and early childhood health	13	6.9%
Capacity building	9	4.8%

Equitable access to health care	9	4.8%
Health policy	9	4.8%

TABLE 9

PEER-REVIEWED LITERATURE, SOCIAL DETERMINANTS OF HEALTH, BY POPULATION

n=188

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	111	59.0%
First Nations	66	35.1%
Inuit	24	12.8%
Métis	15	8.0%

Chronic Disease

A total of 165 (25.4%), or about one-quarter of the research deals with chronic disease. Type 2 diabetes figures largely in this subject area, with 82 studies (49.7%) touching upon this issue. Cardiovascular disease also receives a great deal of attention (20.6% of articles), as do nutrition, fitness, obesity, and metabolic syndrome (21.2%). There is some overlap between these three categories because of their clinical connections to one another. Considerations of diabetes also overlap with other key themes emerging in the chronic disease literature, namely genetics, kidney disease and transplantation issues. Tables 10, 11, and 12 describe the landscape of recent research into chronic disease.

TABLE 10

PEER-REVIEWED LITERATURE, CHRONIC DISEASE, BY TOPIC

n=165

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Diabetes	82	49.7%
Nutrition, fitness, obesity, metabolic syndrome	35	21.2%
Cardiovascular disease	34	20.6%
Cancer	20	12.1%
Cervical cancer	8	4.8%
Kidney disease	15	9.1%
Tobacco use	7	4.2%
Organ transplantation issues	7	4.2%

TABLE 11

PEER-REVIEWED LITERATURE, CHRONIC DISEASE AND OTHER MAIN SUBJECT AREAS

n=165

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Health care research, policy, programming, and delivery	42	25.5%
Health promotion	13	7.9%
Health care service delivery	11	6.7%
Equitable access to health care	10	6.1%
Maternal and early childhood health	12	7.3%
Genetics	11	6.7%
Infectious disease	6	3.6%

TABLE 12

PEER-REVIEWED LITERATURE, CHRONIC DISEASE, BY POPULATION

n=165

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	90	54.5%
First Nations	66	40.6%
Inuit	20	12.1%
Métis	3	1.8%

Infectious Disease

Infectious disease is covered by 101 (15.6%) documents in the peer-reviewed literature. HIV/AIDS, Tuberculosis, and Hepatitis figure strongly in the research. Not unexpectedly, given modes of transmission for these diseases, addictions (and injection drug use) and immunization also play a strong role in the literature. In terms of crossover with other main subject areas, addictions makes a strong showing here with 19 documents (18.8%), as do considerations of health care delivery, access, cost, usage, and human resources (15 documents, or 14.9%). Maternal and early childhood health are also considered within the rubric of infectious disease. Documents dealing with this area include considerations of immunization, prenatal testing for infectious disease, and relationships between social determinants (e.g., housing) and infant and early childhood health. Tables 13, 14, and 15 provide an overview of the research on infectious disease.

TABLE 13

PEER-REVIEWED LITERATURE, INFECTIOUS DISEASE, BY TOPIC

n=101

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
HIV/AIDS	23	22.8%
Tuberculosis	21	20.8%
Drug use, including injection drug use	13	12.9%
Immunization	11	10.9%
Hepatitis C	9	8.9%
Early childhood respiratory disease	8	7.9%
Hepatitis A	7	6.9%
Housing	7	6.9%
Sexually transmitted infections (not including HIV/AIDS or hepatitis)	7	6.9%

TABLE 14

PEER-REVIEWED LITERATURE, INFECTIOUS DISEASE, AND OTHER MAIN SUBJECT AREAS

n=101

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Addictions	19	18.8%
Health care delivery, access, cost, usage, and human resources	15	14.9%
Maternal and early childhood health	9	8.9%

TABLE 15

PEER-REVIEWED LITERATURE, INFECTIOUS DISEASE, BY POPULATION

n=101

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	62	61.4%
First Nations	26	25.7%
Inuit	24	23.8%
Métis	3	3.0%

Mental Health, Including Suicide

Documents pertaining to mental health issues totaled 79, or 12.2% of the peer-reviewed literature. This subject area broached a broad range of concerns – few key themes can be noted – but overlap was identified between mental health and addictions, chronic disease, and health care. In terms of key themes, the most common "problem" addressed in the mental health research is suicide; however, a strong number of articles also explore the notion of culturally appropriate care – from the concept of healing lodges for Aboriginal offenders to increasing attention to Indigenous knowledges in the delivery of Inuit counseling services. In addition, a number of articles focus on concepts of strength, wellness, and resilience. While colonial histories are not often mentioned in the abstracts for this literature, the strong focus in the mental health literature on culture and wellness speaks to these histories. Tables 16, 17, and 18 demonstrate the most common areas of research in the field of mental health.

TABLE 16

PEER-REVIEWED LITERATURE, MENTAL HEALTH, BY TOPIC

n=79

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Culturally appropriate care, community involvement, and Indigenous knowledge	20	25.3%
Suicide	14	17.7%
Strength, wellness, and resilience	6	7.6%

TABLE 17

PEER-REVIEWED LITERATURE, MENTAL HEALTH AND OTHER MAIN SUBJECT AREAS

n=79

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Addictions	7	8.9%
Health care delivery, access, usage, and human resources	6	7.6%
Chronic disease	5	6.3%

TABLE 18

PEER-REVIEWED LITERATURE, MENTAL HEALTH, BY POPULATION
n=79

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	48	60.8%
First Nations	22	27.8%
Inuit	11	13.9%
Métis	7	8.9%

Maternal and Early Childhood Health

About one-tenth (74, or 11.4%) of the peer-reviewed literature is concerned with maternal and early childhood health. In general, this subject area is comprised of literature that overlaps with other main subjects – few discrete key themes emerge from this body of literature. In particular, environment and toxicology are most commonly considered – especially studies of environmental contaminants like PCBs, lead, and mercury. Chronic disease, health service delivery, access and promotion, infectious disease, and addiction also receive attention. Of particular note in terms of populations addressed in studies of maternal and early childhood health is the prevalence of studies touching upon Inuit populations (21 documents, or 28.4%, as opposed to 17.3% in the literature as a whole). Tables 19 and 20 describe the literature on maternal and early childhood health.

TABLE 19
PEER-REVIEWED LITERATURE, MATERNAL AND EARLY CHILDHOOD HEALTH AND OTHER MAIN SUBJECT AREAS
n=74

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Environment and toxicology	16	21.6%
Chronic disease	12	16.2%
Health services delivery, access, and promotion	11	14.9%
Infectious disease	9	12.2%
Addictions	5	6.8%

TABLE 20

PEER-REVIEWED LITERATURE, MATERNAL AND EARLY CHILDHOOD HEALTH, BY POPULATION
n=74

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	36	48.6%
First Nations	23	31.1%
Inuit	21	28.4%
Métis	4	5.4%

Environment and Toxicology

A total of 65 articles, or 10.0% of the total peer-reviewed literature, are concerned with matters of environment and toxicology as they relate to health. The only notable crossover in this area relates to maternal and early childhood health. Nearly one-quarter of articles (16, or 24.6%) in environment and toxicology overlap with maternal and early childhood health. While matters such as water quality and watershed management are touched upon in this body of literature, the only notable trend is studies of environmental contamination (primarily of mercury, lead, PCBs, and other persistent organic pollutants). Two-thirds (43, or 66.2%) of the articles in this subject area deal with these and similar pollutants. Contamination as it relates to the use of traditional foods also figures largely in this area: 19 of the studies (29.2%) fall into this category. Table 21 details the demographic coverage in this area of research. Notable in this table is the relatively small number of articles addressing the general Aboriginal population (27.7%), and the relatively large number (38.5%) focusing on Inuit peoples.

TABLE 21
PEER-REVIEWED LITERATURE, ENVIRONMENT AND TOXICOLOGY, BY POPULATION
n=65

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	18	27.7%
First Nations	25	38.5%
Inuit	25	38.5%
Métis	4	6.2%

Addictions

A total of 57 articles, or 8.8% of the total peer-reviewed literature, address addictions issues, including tobacco. Key themes emerging in this area of literature include considerations of tobacco use (16 documents, or 28.1%), and HIV/AIDS and injection drug use in relation to addiction: 15 documents, or 26.3%, particularly mention HIV/AIDS, while 11, or 19.3%, discuss injection drug use. Culturally appropriate and/or community involved strategies receive coverage in 15.8% (9 documents) of the literature. Alcohol also receives some coverage (7 documents, or 12.3%), as do hepatitis B and C (5 documents, or 8.8%). Treatment programming receives minor coverage: only 8.8% of the addictions literature (5 documents) address treatment. In terms of overlap with other main subject areas, infectious disease presents the most clear overlap. Health care, mental health, maternal and early childhood health, and chronic disease also emerge in the addictions literature. The demographics of the addiction literature speak to the focus, mentioned above, on HIV/AIDS and injection drug use. A large proportion (75.4%, or 43 documents) specify Aboriginal populations, with 19.3% of the total addictions literature focusing on Aboriginal people in Vancouver, BC. Inuit populations, conversely, receive a very low level of attention – only two articles, or 3.5% of the addictions literature, concerns Inuit populations. Tables 22, 23, and 24 detail the landscape of literature touching upon addictions.

TABLE 22
PEER-REVIEWED LITERATURE, ADDICTIONS, BY TOPIC
n=57

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Tobacco	16	28.1%
HIV/AIDS	15	26.3%
Injection drug use	11	19.3%
Culturally appropriate care, community involvement, and/or traditional practices	9	15.8%
Alcohol	7	12.3%
Hepatitis B and C	5	8.8%

Treatment programming	5	8.8%

TABLE 23

PEER-REVIEWED LITERATURE, ADDICTIONS AND OTHER MAIN SUBJECT AREAS

n=57

MAIN SUBJECT AREA	NUMBER OF DOCUMENTS	PERCENTAGE
Infectious disease	19	13.3%
Health care access, delivery, policy, and programming	8	14.0%
Mental health	7	12.3%
Maternal and early childhood health	5	8.8%
Chronic disease	4	7.0%

TABLE 24

PEER-REVIEWED LITERATURE, ADDICTIONS, BY POPULATION

n=57

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	43	75.4%
Vancouver, BC	11	19.3%
First Nations	14	24.6%
Inuit	2	3.5%
Métis	2	3.5%

Injury and Violence

Approximately 1 in articles (4.5%, or 29) deal with the issues of injury and violence. A few key themes emerge from this literature. Injury forms the main theme in this area, with 18 (62.1%) of documents touching upon the theme, while violence appears in just over one-third of the documents (34.5%, or 10 documents). Of those articles discussing violence, almost all deal with the issue of spousal/domestic violence. Mental health, addictions, and motor vehicle accidents are also prominent themes in this literature. Both specific topics and crossover with other major subject areas are displayed in Table 25. Demographic information is presented in Table 26.

TABLE 25

PEER-REVIEWED LITERATURE, INJURY AND VIOLENCE, BY TOPIC AND MAIN SUBJECT AREA

n=29

TOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Injury	18	62.1%
Violence	10	34.5%
Mental health	8	27.6%
Motor vehicle accidents	5	17.2%
Addictions	4	13.8%

TABLE 26

PEER-REVIEWED LITERATURE, INJURY AND VIOLENCE, BY POPULATION

n=29

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	22	75.9%
First Nations	5	17.2%
Inuit	2	6.9%

Genetics

The 25 completed genetic studies (3.9% of the literature) address themselves to a variety of topics, from the genetics of Cree encephalitis to North American Indian childhood cirrhosis. However, the most common types of genetic studies are those connected to diabetes (9 documents, or 36.0%) and studies of genetic ancestry pertaining to Aboriginal peoples (8 documents, or 32.0%). Table 27 details the demographic populations addressed in the literature.

TABLE 27

PEER-REVIEWED LITERATURE, GENETICS, BY POPULATION

n=25

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
Aboriginal	13	52.0%
First Nations	10	40.0%
Inuit	3	12.0%

2. REVIEW OF GREY LITERATURE

A total of 242 reports, studies, and discussion papers published since 2001 by Aboriginal organizations, federal and provincial governments, health regions, professional organizations, and other NGOs were reviewed and grouped by subtopic. Overall, the grey literature shows a great divergence from the types of issues dealt with in peer-reviewed health literature: there is much less focus in the grey literature on specific diseases and more concentration upon health research, policy, and delivery, community wellness, and the social determinants of health. Table 28 lists the 30 most common subtopics appearing in the grey literature.

TABLE 28

GREY LITERATURE, 30 MOST COMMON SUBTOPICS

n=242

SUBTOPIC	NUMBER OF DOCUMENTS	PERCENTAGE
Research	61	25.2%
Health services	40	16.5%
Community wellness	33	13.6%
Health policy	31	12.8%
Statistics	31	12.8%
Health systems	29	12.0%
Northern communities	25	10.3%
Aboriginal peoples in urban communities	24	9.9%
Health promotion and education	23	9.5%
Programs and services	23	9.5%
Youth	22	9.1%
Community development	21	8.7%
Women	20	8.3%
Demographics	18	7.4%
Government	17	7.0%
Health determinants	17	7.0%
Health surveillance	17	7.0%
Housing	17	7.0%
Capacity building	16	6.6%
Health careers	15	6.2%
Laws and legislation	15	6.2%
Education systems	14	5.8%
Indigenous knowledge	14	5.8%
Mental health	14	5.8%
Residential school legacy	14	5.8%
Governance	13	5.4%
Inuit in Inuit communities	13	5.4%
Remote and rural health	13	5.4%
Schools	13	5.4%
HIV/AIDS	12	5.0%

As Table 28 demonstrates, the grey literature on Aboriginal health in Canada shows an interest in the continuum of health care – from research to program delivery. Considerations of research form the most common category, with 61 documents (25.2%) giving some attention to this topic. Health services (16.5%), health policy (12.8%), health systems (12.0%), health promotion and education (9.5%), and programs and services (9.5) all receive strong attention as well. Data is also a key concern in the grey literature: statistics (12.8%), health surveillance (7.0%), and demographics (7.4%) play a key role in this body of work. Human resources issues are key to the continuum of health care, and a number of documents take up these topics; health careers are addressed in 6.2% of the literature, while capacity building is touched upon in 6.6% of the documents under review. Capacity building, however, is a human resources issue that is intimately tied to questions of community and culture. Indigenous knowledge makes an appearance in the literature, with just over 1 in 20 (5.8%) addressing this topic. Community wellness figures large in this body of literature: 33 documents (13.6%) discuss this issue. Similarly, community development also receives some attention (8.7%).

The grey literature addresses itself most commonly to a number of populations characterized by geography, age, and gender. Both youth and women are specifically discussed in just under 10% of the literature (9.1% and 8.3%, respectively). Specific populations delineated by geography are also addressed: Northern communities (10.3%), urban communities (9.9%), Inuit residing in Inuit communities (5.4%), and remote and rural health (5.4%) all make strong appearances in the literature.

Although demographics constitute an important focus of the grey literature, so too do other matters that impact health. Health determinants, broadly construed, are discussed in 7.0% of the literature. More specifically, this body of literature shows a clear interest in a series of issues that have a relationship to the health of Aboriginal peoples in Canada. Governance, government, and law and legislation are all discussed in the literature (5.4%, 7.0%, and 6.2%, respectively), as are a series of more specific topics of concern, including the following: the legacy of residential schools (5.8%), housing (7.0%), education systems (5.8%), and schools (5.4%). Those areas of research that emerge so strongly in the peer-reviewed literature (e.g., chronic and infectious diseases) make only minor appearances here: mental health (5.8%) receives some attention, as does HIV/AIDS (5.0%).

The overall demographics of the populations addressed by the grey literature is suggestive of its difference from peer-reviewed journal articles. As discussed above, the latter is more likely to address a very specific population (e.g. Métis people in Alberta); grey literature is more likely to be inclusive of all Aboriginal peoples living in Canada. Table 29 shows the demographic scope of the grey literature.

TABLE 29

GREY LITERATURE, BY POPULATION

n=242

POPULATION	NUMBER OF DOCUMENTS	PERCENTAGE
First Nations	223	92.1%
Inuit	179	74.0%
Métis	182	75.2%

Almost all of the grey literature is connected to First Nations (92.1%), while approximately three-quarters addresses Inuit and Métis populations (74.0% and 75.2%, respectively).

Overall, the grey literature suggests a more thoroughgoing concern with all Aboriginal populations in Canada, while it is, at the same time, less concerned with disease than with wellness. For example, diabetes – a crucial issue in the peer-reviewed literature – does not appear amongst the 30 most common subtopics here. Instead, the grey literature is more concerned with particular populations, with social determinants of health, and with the continuum of health care from research to service delivery.

3. CANADIAN INSTITUTES OF HEALTH RESEARCH FUNDING

The Canadian Institutes of Health Research are the major source of federal funding for work in health-related fields. Consequently, a review of CIHR's funding database, detailing research recently and currently funded by the organization, is crucial to articulating an up-to-date scan of research pertinent to Aboriginal health. Between 1999 and the present, a total of $74,967,451 has been granted or awarded by the Canadian Institutes of Health Research for studies related to Indigenous health in Canada. The following section details the findings of a review of research funded by CIHR since 1999.

Chart 1, *CIHR Funding Database: Number of Projects, by Category (Grant, Award, Clinical Trial)*, details the breakdown of projects by category. Of a total of 243 entries in the database, 194 (79.8%) were research grants, while 44 (18.1%) were awards and 5 (2.1%) provided funding for clinical trials. Research grants are likely to go to established scholars (i.e. professors in post-secondary institutions), while awards are likely to be intended for graduate students – the next generation of academic researchers in the field.

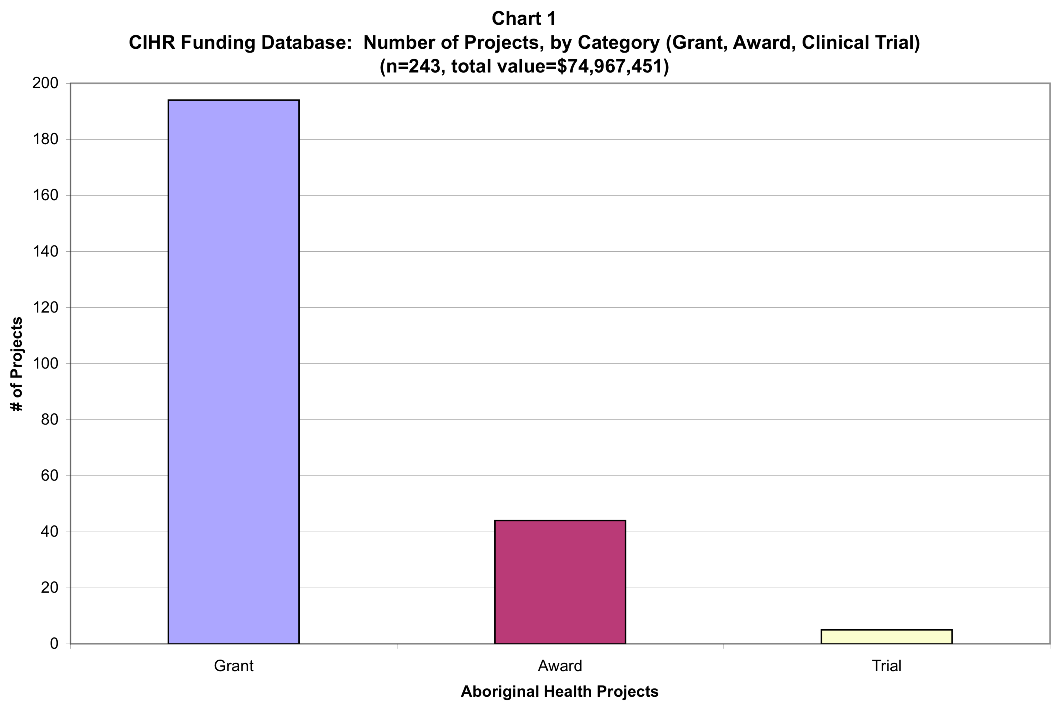
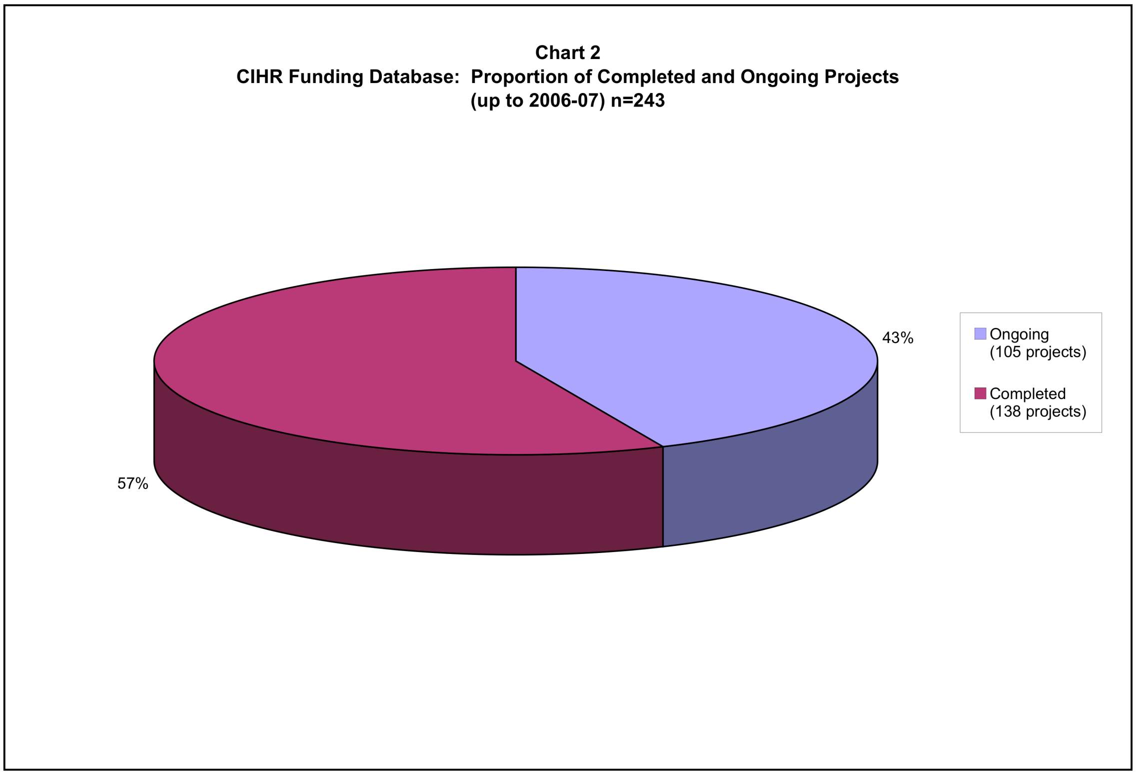


Chart 2, *CIHR Funding Database: Proportion of Completed and Ongoing Projects*, demonstrates how much of recent CIHR-funded research into Aboriginal health has been completed. Of the total of 243 entries in the database, 138 (57%) have been completed, while another 105 (43%) remain ongoing.



This data indicates that while a significant proportion of research touching upon Aboriginal health has been completed, a great deal of work remains in the research "pipeline" – we can expect significant research and publications in the field in the near and medium term.

While the information above shows a continued strong interest in research relevant to the health of Indigenous peoples in Canada, a more specific breakdown of the research, by area and by discrete topic, provides more insight into both the strengths and gaps in the field as a whole. Chart 3, *CIHR Funding Database: Areas of Research, by Number of Projects and Monetary Value*, details the seven key areas in which research has recently been undertaken. These include the following:

- Chronic Diseases
- Infectious/Communicable Diseases
- Mental Health and Addictions
- Social/Societal Determinants
- Environment, Toxicology, and Food Security (Including Knowledge and Preservation of Traditional Foods)
- Health Care Access and/or Service
- Health Research Infrastructure

Additionally, this chart shows the proportion of projects devoted to the three most common specific subjects: Diabetes, HIV/AIDS and Hepatitis C, and Diet/Nutrition/Obesity. Overall, 25 entries (10.3%) relate toDiabetes, HIV/AIDS and Hepatitis C receive 9.5% of research attention (23 projects), while 15 projects (6.2%) are devoted Diet/Nutrition/Obesity. Taken together, just over one-quarter (26.0%) of the total number of research projects is devoted to these three subject areas alone.

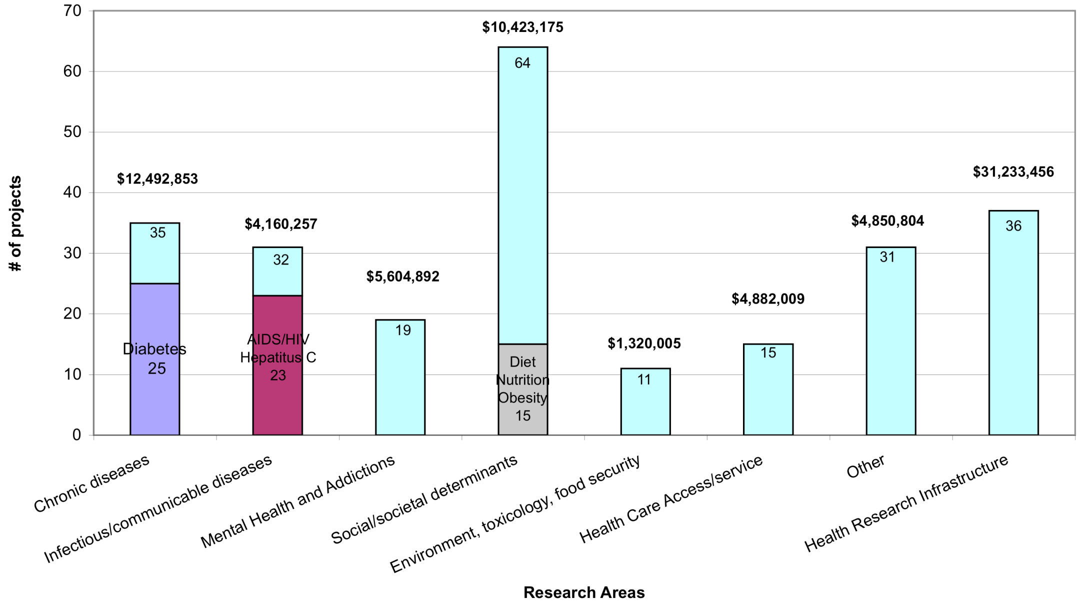


Chart 3
CIHR Funding Database: Areas of Research, by Number of Projects and Monetary Value
(n=243, total value= $74,967,451)

The largest number of funded projects take in social/societal determinants of health: 64 projects (26.3%) address these concerns, with nearly one-quarter of these (23.4%) looking specifically at Diet/Nutrition/Obesity. Health Research Infrastructure (36 projects, or 14.8%), Chronic Diseases (35 projects, or 14.4%), and Infectious/Communicable Diseases (31 projects, or 13.2%) also receive intensive attention from the funding agency. It is important to note, however, that both Chronic Disease and Infectious/Communicable Disease projects are dominated by study of a very few topics: over two-thirds (71.4%) of Chronic Disease projects deal specifically with diabetes, while a similar proportion (71.8%) of projects dealing with Infectious/Communicable Disease address HIV/AIDS and hepatitis C. Relatively less funding attention has been directed to the remaining categories. Mental Health and Addictions projects comprise only 7.8% (19) of the overall number of funded research projects,[5] while Health Care Access/Service (6.2%, or 15 projects) and Environment/Toxicology/Food Security (4.5%, or 11 projects) are even less commonly funded. Other types of studies comprise 12.8% (31) of the total.

Including an analysis of level of funding complicates this landscape somewhat. Although Health Research Infrastructure projects make up just 14.8% of the total projects, these projects receive, on average, a large amount of funding: this category of projects represents 41.7% of total expenditures ($31,233,456). The most commonly addressed area, Social/Societal Determinants of health (26.3% of the total number of projects), receives, relatively lower levels of funding. Taken together, all of the projects in this category receive $10,423,175 in funding, or 13.9% of total funding. Research into Infectious Disease (13.2% of total projects), Environment/Toxicology/Food Security (4.5% of total projects), and other studies (12.8% of total projects) are also funded at a relatively lower rate: Infectious diseases receive 5.5% of the total funding ($4,160,257), while Environment/Toxicology/Food Security receive 1.8% ($1,320,005) and other studies receive 6.5% ($4,850,804). Chronic Disease projects (14.4% of the total number)

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[5] This piece of data has some limitations: CIHR is only one of the federal agencies funding research on Mental Health and Addictions. Research on these topics might also be completed under the auspices of the Social Sciences and Humanities Research Council of Canada (SSHRC), which also funds research in disciplines pertinent to the area.

average a larger amount of funding per project (16.7% of the total expenditures on Aboriginal health projects, or $12,492,853). Health Care Access/Service (6.2% of total projects) and Mental Health and Addictions (7.8% of total projects) receive a level of funding that is in proportion with the number of projects funded: the former comprises 6.5% ($4,882,009) of total expenditures and the latter 7.5% ($5,604,892).

In summary, Health Research Infrastructure and Chronic Diseases receive the highest average level of funding per project, while Social/Societal Determinants of health represent the largest number of funded research projects. All of the other categories of research receive either a proportional or lower level of average per project funding. This data indicates that investments in future research (i.e. Health Research Infrastructure) have been a priority, as has large-scale funding for Chronic Disease research. Further, because such a large proportion of Chronic Disease research addresses itself specifically to diabetes (71.4%), the relatively high per project average funding indicates the extent to which research on diabetes is a clear priority.

A closer analysis of the composition of each of these research areas reveals further information about current and recent research being undertaken under the auspices of CIHR. Table 30 represents a more focused breakdown of each of the areas of research by specific topic. As discussed above, Diabetes, HIV/AIDS and Hepatitis C, and Diet/Nutrition/Obesity make up the largest proportion of research projects funded by CIHR.

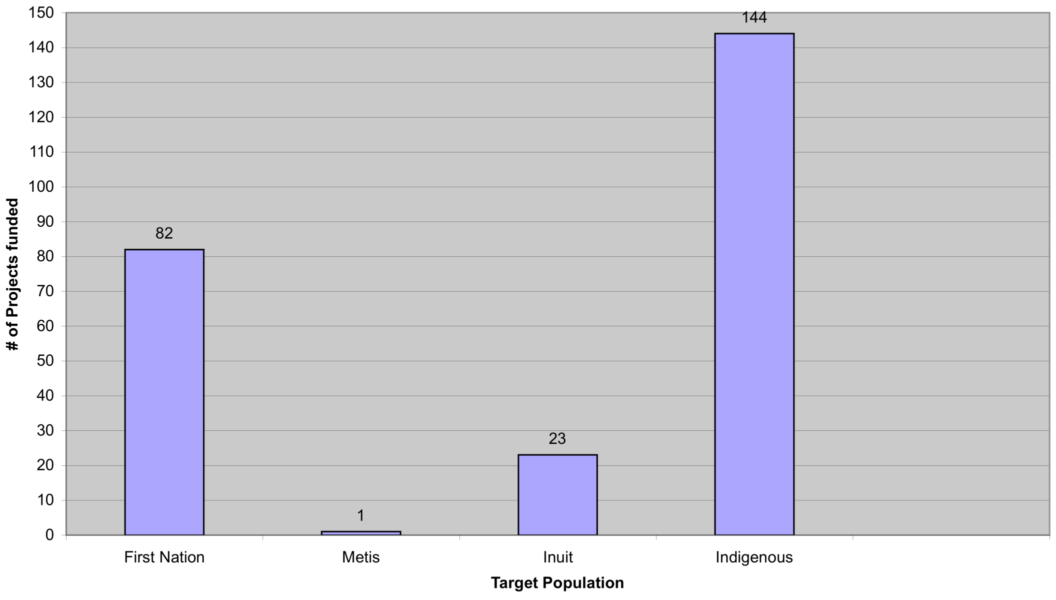
Table 30
CIHR Funding Database: Areas of Research, by Specific Topic

Chronic Diseases: asthma (1); cancers (1); other (8); *diabetes (25)**	**35**
Infectious/communicable Diseases: tuberculosis (5); *AIDS/HIV/Hepatitis C (23)*;* STDs (4)	**32**
Mental Health and Addictions: general (7); drugs and alcohol (substance abuse) (2); tobacco use/reduction (4); suicide (6)	**19**

Social/societal Determinants: social/environmental health (10); health disparities (3); culture (4); Indigenous knowledge (5); health and healing (1); homelessness (2); displacement (1); housing (3); women's health - (gen) (3); women's health - (maternity care/birth) (8); women's health - (body issues) (1); violence and abuse (4); trauma (2); adolescent health risks (2); *diet/nutrition/obesity* (15)*	**64**
Environment, toxicology, food security (incl. traditional foods)	**11**
Health care Access/Service	**15**
Other: specific health conditions - ie anemia (2), oral health (3); bone health (3); multiple sclerosis (1); arthritis (2); epilepsy (1); intestinal parasite infection (1); injury prevention (3); genetics (8); aging (3); sexual health (4)	**31**
Health Research Infrastructure: ACADRE (8); knowledge translation (3); training programs (6); other (incl. health surveys) (19)	**36**
TOTAL NUMBER OF PROJECTS:	243
**These conditions represent large components of the category.*	

The target population data on CIHR funding for Aboriginal health is greatly limited by currently available information in the CIHR database. Chart 4 details the information available, which should be read with caution.[6]

Chart 4
CIHR Funding Database: Target Populations (n=243)*
*** there is some overlap in categorization, therefore the actual total is 250**



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[6] Refer to the Methodology section of this document for further details on Chart 4.

As Chart 4 indicates, most CIHR-funded studies (59.3%) do not specify a particular Indigenous population, but one-third of studies (33.7%) target First Nations specifically. Research pertinent to Inuit peoples comprises 9.5% of studies, while work addressing itself specifically to the Métis population makes up just 0.4% of the total projects.

V

CONCLUSION: KEY THEMES AND FUTURE DIRECTIONS

IN CHARTING ITS FUTURE, THE NCCAH has a number of key issues to take into consideration. This concluding section of *Landscapes of Indigenous Health* articulates the lessons learned from this scan of organizations, key informant interviews, and literature and research. A number of key themes emerge from this scan, as do a number of possible directions to be pursued in the future, both of which will allow the NCCAH to fill existing gaps while simultaneously capitalizing on existing strengths.

THE HEALTH CARE CONTINUUM

Health research, policy, programming, human resources, and service delivery emerge as strong themes throughout the environmental scan. In the peer-reviewed literature, these issues were, overall, broached more often than any other: 32.0% of the literature touches upon these topics. Similarly, the grey literature gives substantial consideration to such matters; six of the top 30 subtopics discussed in the grey literature fall within this larger category. The level of funding recently and currently being provided to research infrastructure under the auspices of CIHR tells a similar story: 14.8% of the projects, (representing 41.7% of total expenditures) fall within this rubric. Perhaps, then, not surprisingly, key informants also provided opinions on these matters. The overall interest in the continuum of health care is clearly a function of the discursive boundaries of the environmental scan, but also signifies something more: the overall interest in these matters points to the self-reflexive nature of the field of Aboriginal health at this historical moment. Researchers, Aboriginal organizations, Aboriginal communities, governments, and other stakeholders in the field clearly place crucial priority on considerations of the "how" and "what" of Aboriginal public health. It is, however, the key informants who provide the most explicit connection between a general concern with health care and more specific questions of premises and practices: community and culture are crucial, they argue.

COMMUNITY, CULTURE, AND PUBLIC HEALTH

All aspects of this environmental scan point up the importance of community and culture to Aboriginal public health in Canada. For Aboriginal, governmental, and professional organizations, concepts of community and culture are foundational. The peer-reviewed literature undeniably bespeaks a recognition within the scholarly disciplines of both the need for and the importance of community and culture in conducting health research. In this body of literature, considerations of Indigenous communities, knowledges, and cultures (including community involvement in research and the use of culturally appropriate strategies) is, across all main subject areas, the most commonly recited issue: approximately one-quarter (23.6%) of articles make note of the importance of these topics. Similarly, the grey literature shows a concern with related matters: community wellness, community development, and Indigenous knowledge all emerge strongly in the literature (13.6%, 8.7%, and 5.8%, respectively). Key informants point to similar concerns, emphasizing the intellectual – and, indeed, tangible at the community level – poverty of "Pan-Aboriginal" approaches while expressing simultaneously the need for improvements in this area and recognition of the growing body of knowledge and resources that can be brought to bear.

INDIGENOUS KNOWLEDGE TRANSLATION: CURRENT PRACTICES, BEST PRACTICES

Given that neither "Pan-Aboriginal" nor non-Aboriginal approaches can be deemed culturally appropriate for the diverse populations of Aboriginal peoples in Canada, the

NCCAH's challenge in performing knowledge translation work involves the navigation of complex terrain. The NCCAH should be attentive to the concerns raised in the grey literature, which shows an interest in specific populations delineated by age, gender, community, geography, and economics. The grey literature emphasis on community wellness might thus serve as a multivalent watchword, signifying not just the importance of healthy communities but a need for attentiveness to the constitution of those communities.

FUTURE DIRECTIONS 1: KNOWLEDGE TRANSLATION AND THE EXPERIENCES OF ABORIGINAL COMMUNITIES

While questions of knowledge translation, culture, community, and Indigenous knowledge clearly emerge as topics of some import in this scan, not enough is known about the experiences of communities. The NCCAH might, therefore, plan to clarify these experiences, finding out what kinds of materials communities receive after participating in health research, and what kinds of materials they would like to receive – from the scholarly research community as well as from Aboriginal, governmental, and professional organizations. Such an endeavour would increase the NCCAH's own knowledge of what, at the community level, Aboriginal people throughout Canada view as important – this type of study could also function to chart the landscape of Indigenous knowledge in the field of public health, delineating community-based views on the commonalities and differences between populations. This would be a key step for the NCCAH in working towards an overall strategy for undertaking effective Indigenous knowledge translation activities.

For example, although over one in ten (12.6%) of the peer-reviewed literature pertaining to Aboriginal health in Canada deals specifically with diabetes, and although current funding of research through CIHR indicates clearly that diabetes remains a priority, how much of this research makes its way back into communities? What form do such materials take? Do these materials aid the community in seeing tangible differences in health? If there is a disconnection between community and research, how do communities understand the substance of this disconnection, and what do they envision as a meaningful solution for such disconnection? Reckoning with the landscape of Indigenous knowledges in Canada means taking into account both commonality and difference: a study – perhaps in the form of a survey collecting qualitative and quantitative data – of Aboriginal communities' experiences with knowledge translation would provide crucial insight into the balance that must be struck by the NCCAH between local/community knowledge and the shared health experiences of Aboriginal populations in Canada.

FUTURE DIRECTIONS 2: EXISTING RESEARCH ON INDIGENOUS KNOWLEDGE AND INDIGENOUS KNOWLEDGE TRANSLATION

As discussed above, there is a growing body of research that addresses itself to questions of Indigenous knowledge and to the practices of Indigenous knowledge translation in Canada (see, for example, Smylie *et al*, 2003 and Chandler & Lalonde, 2004). Much might be gained, however, from an interdisciplinary and international review of these topics. While some work on these issues has been completed in the field of health, it is assured that related literature – both grey and peer-reviewed – falls under the rubric of other disciplines (see, for example, Lavis *et al*, 2003). Indeed, it might be useful to include in such a review consideration of both international Indigenous knowledge translation practices, but also the literature on knowledge translation and marginalized populations generally. Although the diverse contexts for these suggested bodies of literature will require considered attention, shared international histories of colonization and social exclusion are likely to yield important insights for the future of the NCCAH's work.

FUTURE DIRECTIONS 3: GAPS AND CONSENSUS IN THE OVERALL PRIORITIES FOR SPECIFIC HEALTH TOPICS

This environmental scan has identified both consensus and gaps in the priorities for specific health topics in Aboriginal public health in Canada. Taken together, the priorities expressed by national Aboriginal organizations, in the literature and research, and by key informants, show both gaps and consensus on specific health topics. The national Aboriginal organizations have delineated the following health areas as key priorities for their communities:

- Chronic disease, specifically diabetes, cancer, and nutrition
- Infectious disease, specifically HIV/AIDS and hepatitis C
- Injury and violence, specifically accident and injury prevention, abuse (including domestic and elder abuse), and sex offending
- Maternal and early childhood health, especially early childhood development and FAS/FAE
- Mental health, including resilience and suicide prevention
- Reproductive health, including teen pregnancy
- Residential schools legacy
- Tobacco

The peer-reviewed literature shows both convergence and divergence from the priorities of the national Aboriginal organizations. The major subject areas in this body of literature are as follows:

- Social determinants of health, especially Indigenous communities, cultures, and knowledges (29.0%)
- Chronic disease (25.4%)
- Infectious disease (15.6%)
- Mental health, including suicide (12.2%)
- Maternal and early childhood health (11.4%)
- Environment and toxicology (10.0%)
- Addictions, including tobacco (8.8%)

- Injury and violence (4.5%)
- Genetics (3.9%)

Research recently and currently funded by CIHR shows similar priorities to the peer-reviewed literature: emphases on chronic disease; infectious/communicable disease; social/societal determinants of health; and environment, toxicology, and food security (including knowledge and preservation of traditional foods) are all demonstrated in the research.

The grey literature reveals yet another set of priorities, this time centering on the social determinants of health (including housing, poverty, and residential schools legacy); the importance of community, age, gender, and geography; and considerations of data (including statistics, health surveillance, and demographics). Whereas both the national Aboriginal organizations and the peer-reviewed literature suggest chronic and infectious disease as clear priorities, neither of these areas make such a substantial appearance in the grey literature. Mental health and HIV/AIDS, however, do emerge in this body of literature.

There is, to be sure, a great deal of concurrence on priorities throughout all sections under examination in this document; for example, chronic and infectious disease (e.g., diabetes and HIV/AIDS) emerge as clear themes in a variety of instances. What the priorities of Aboriginal organizations can tell us about gaps, however, is illuminating. While nearly all of the remaining priorities of these organizations make some appearance in the literature and research, they do so in much smaller numbers than do chronic and infectious disease: mental health, injury and violence, and addictions are addressed in only a limited fashion in the extant literature. There is also a clearly articulated gap between the type of research being undertaken in the area of maternal and early childhood health and the stated priorities of Aboriginal organizations. Whereas the national Aboriginal organizations almost uniformly place early childhood development and Fetal Alcohol Syndrome/Fetal Alcohol Effects (FAS/ FAE) on their list of health priorities, these issues receive sparse attention in the literature and research.

An examination of the grey literature reveals other gaps. Data, statistics, and surveillance appear strongly in the grey literature (and, indeed, in key informant interviews), and less often in the peer-reviewed literature. The social determinants of health, meanwhile, do appear as a theme in the peer-reviewed literature, but only in the guise of quite general considerations of community involvement and cultural appropriateness. Concern with community and culture in the peer-reviewed literature suggests an understanding on the part of researchers that social determinants exist, but in no way indicates that the social determinants of health themselves have come under specific scrutiny by researchers. The grey literature, however, demonstrates a concern for a number of more specific subtopics that broach the social determinants of health:

- Education systems and schools (5.8% and 5.4%, respectively)
- Governance, government, and law and legislation (5.4%, 7.0%, and 6.2%, respectively)
- Housing (7.0%)
- Legacy of residential schools (5.8%)

These issues make little appearance in the peer-reviewed health literature, but are clearly a priority for those who publish grey literature (i.e. those organizations responsible to communities and for the continuum of health care).

Key informants, too, raise the importance of the social determinants of health, amongst a number of other priorities:

- Addictions (including harm reduction)
- Chronic care management
- Family violence
- Mental health
- Poverty
- Social determinants of health (general)

- Tobacco

The peer-reviewed literature somewhat overlaps with the concerns raised by key informants, organizations that produce grey literature, and the national Aboriginal organizations, but it does so imperfectly. Certainly, the landscape of literature and research indicates that not all of the priorities of Aboriginal organizations and key informants are being implemented at the level of health research.

In charting future directions on specific health topics, the NCCAH should consider both consensus in the literature and gaps: the Centre will need to assess the most appropriate way to situate its work, whether it should address gaps in the existing literature and/or knowledge translation of health topics that have been shown in this scan to be of clear priority. What emerges clearly, however, is the extent to which mental health (including suicide), maternal and early childhood health (especially early childhood development and FAS/FAE), injury and violence, addictions (including tobacco and harm reduction), and the social determinants of health are key priorities for Aboriginal organizations and key informants, while there remains a relatively low level of research addressing these priorities.

FUTURE DIRECTIONS 4: SOCIAL DETERMINANTS OF HEALTH

As discussed above, the social determinants of health receive some attention in both the grey literature and in key informant interviews. While much of the peer-reviewed literature discusses the resources and needs involved in the construction of a culturally appropriate health continuum, and thus implicates issues of social inclusion and exclusion, very little scholarly work appears to take up more specific social determinants of health. However, the NCCAH could consider the appropriateness of performing an interdisciplinary review of the social determinants of health as they pertain to Aboriginal peoples: because peer-reviewed literature almost exclusively arises from university contexts, the academics involved in completing research are often bound by the disciplinary constraints of universities. Although there has been a recent trend toward interdisciplinarity within post-secondary research universities, the boundaries between disciplines still have some force in motivating the research programs of scholars – this is not, it should be noted, a condemnation of scholars themselves, who are expected to publish in particular journals within their disciplines, but rather an observation on the conditions structuring the realities of academic research. The consequence of this situation, then, is that some literature touching upon the social determinants of Aboriginal health (e.g., housing, poverty, or racism) is likely to be found in disciplinary journals not traditionally indexed by health-related databases. For example, scholarship on poverty is more likely to be published in sociology or political science indexes, rather than those dealing with health and medicine. An interdisciplinary review of the social determinants of health for Aboriginal people in Canada could, therefore, help to correct a substantial knowledge gap.

FUTURE DIRECTIONS 5: OPPORTUNITIES FOR COLLABORATION

The NCCAH has a number of possible options for meaningful partners in collaboration: groups with strong connections to communities, organizations responsible for health research, policy, programming, and delivery, and organizations devoted to advocacy, research, and services specific to the needs of the diverse Aboriginal populations in Canada. Engaging with these potential collaborators will be invaluable, since doing so will function to address a broad range of issues discussed in this document: partnering in knowledge transfer activities, addressing specific topics in the field of Aboriginal health, and attending to the organizational development of the NCCAH itself. Certainly the NCCAH is positioned to take advantage of existing knowledge and to participate in the creation of new knowledge with Aboriginal peoples and communities in Canada.

AFTERWORD

LANDSCAPES OF INDIGENOUS HEALTH BEGAN by invoking the passing of an important milestone in the history of public health: the 60-year anniversary of the World Health Organization's *Constitution* and its landmark redefinition of health as the presence of potential rather than the absence of disease. It seems fitting, therefore, to conclude by staging another brief historical return. The year 2006 marked ten years since the publication of the *Royal Commission on Aboriginal Peoples*, a document that stressed both strength and inequity, and named the holistic healing and health of Aboriginal communities and individuals as one of its cornerstones. In the address given on the occasion of the launch of the *RCAP*, co-chair of the Commission Georges Erasmus began with the following words:

> Aboriginal reality in Canada has become a vicious circle of cause and effect. If that vicious circle is to become a healing circle, the roots of injustice must be addressed. Instead of problem feeding problem, solution must feed solution. (Erasmus & Dussault, 1996)

The key themes and future directions of *Landscapes of Indigenous Health* demonstrate the continued urgency of pursuing these goals: Indigenous communities, cultures, and knowledges are crucial to Erasmus's image of transformation from vicious circle to healing circle. But, so too are what Erasmus calls "the roots of injustice." Increased and more precise attention to the social determinants of health, those fields of inquiry that possess such an intimate connection to histories of systemic inequity, is one way in which the NCCAH might continue the work envisioned by Erasmus – the work of giving sustenance to solutions.

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APPENDIX A

KEY INFORMANT INTERVIEW FORM

Definition of Public Health

Public health has been described as the science and art of promoting health, preventing disease, prolonging life and improving quality of life through the organized efforts of society. It combines sciences, skills, and beliefs directed to the maintenance and improvement of the health of all people through collective action. The programs, services, and institutions involved tend to emphasize two things: the prevention of disease, and the health needs of the population as a whole. (Source – *Public Health Goals for Canada – A federal, provincial, territorial commitment to Canadians – Background for a discussion*)

1) What are some of the key issues we need to consider when applying this definition to an Aboriginal context (e.g. what is your understanding of public health in an Aboriginal context)?

2) What are your expectations for knowledge synthesis, translation and exchange on Aboriginal public health issues?

Existing information resources that can be built upon

3) What public health services and programs is your agency involved in?

4) What issues, if any, limit your involvement in public health initiatives?

5) Of the Aboriginal public health research that you are aware of:

    a) Which ones in your view are well based?

    b) Which ones support the building of capacity amongst communities and decision-makers?

6) How do you use research findings in developing policy and practice?

7) Can you describe any processes or formats that are effective in supporting the use of research findings in the development of policy and practice?

Gap areas in research, policy and practice

8) How would you describe the state of the current base of knowledge for public health programs and services affecting aboriginal people? (non-existent, minimal, adequate, above average, exceptional)

9) What gaps exist with respect to research, policy, and practice?

10) What are the areas of greatest need for Aboriginal public health research?

Role of the centre

11) What reaction/advice do you have about the initial vision of the NCCAH:

> "The vision of the National Collaborating Centre on Aboriginal Health (NCCAH) is to ensure the current and future health and well-being of Aboriginal peoples across Canada."

12) What reaction/advice do you have about the overall mission of the NCCAH:

> "…to increase Aboriginal capacity for action on their determinants of health. This will be accomplished by: 1) being a resource and presenting ideas and information to support and inform future public interventions and 2) producing suggested practices and policies through knowledge synthesis, knowledge translation and knowledge exchange where there are positive and productive relationships between research and potential actions."

13) The following preliminary list of 'priorities' is based on the June 2005 consultation and an initial environmental scan. What advise would you offer NCCAH on these priorities?

- Children's Health
- Suicide
- Injury prevention
- Wellness and Resiliency

- Aboriginal practices (including traditional healing/medicines)
- Tobacco
- Women
- Social Determinants

14) While the projected activities for the remainder of this year are developmental in nature (e.g. planning, communications, evaluation, etc) NCCAH seeks your advice on the following anticipated activities:

    - Pilot implementation of ‘knowledge synthesis, translation, and exchange’ projects.

    - Development of a network for knowledge translation to support the increased the use of research findings.

    - Coordination with the other national collaborating centres.

15) How could NCCAH contribute to the development of policy for Aboriginal public health issues?

16) How could NCCAH contribute to the development of Aboriginal public health practice(s)?

Design and operation of the centre

17) The NCCAH will have a national and international advisory committee of policy makers, practitioners, and researchers in various disciplines. Who would be best suited to advise the NCCAH?

18) How can the NCCAH best work with Epidemiologists?

19) The Public Health Agency of Canada will be looking to the NCCAH and other NCCs for input on the development of a national public health strategy. What advice would you give to NCCAH as it prepares to contribute to that initiative (on the process, on the strategy)?

Key stakeholders the centre should engage

20) The NCCAH will also be developing a consultation strategy to ensure that it receives input into its activities on an ongoing basis. What should we include in our consultation strategy?

21) Are there any other organizations or individuals that we should contact for input?

22) Are you interested in collaborating with the NCCAH?
If so, do you have any initial areas we could look at for remainder of this fiscal year or next year to:

a) help meet your expectations for knowledge translation, sharing and exchange?

b) identify and/or address knowledge gaps?

23) Are there any multi-party collaborations we might explore?

Potential challenges and solutions

24) What challenges might NCCAH face?

a) Can you suggest any potential solutions to address those challenges?

25) What are the challenges to translating research on Aboriginal public health issues?

a) Can you suggest any potential solutions to address those challenges?

26) What are the challenges to developing policy on Aboriginal public health issues?

a) Can you suggest any potential solutions to address those challenges?

27) What are the challenges to developing Aboriginal public health practice(s)

a) Can you suggest any potential solutions to address those challenges?

28) Do you have any other advice to offer to NCCAH about how it could support knowledge synthesis, translation and exchange?

APPENDIX B

NATIONAL ORGANIZATIONS WORKING IN FIRST NATIONS, INUIT, AND MÉTIS PUBLIC HEALTH IN CANADA

ABORIGINAL ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
Assembly of First Nations (AFN) Trebla Building, 473 Albert St, Ottawa ON K1R 5B4 Tel: 613-241-6789 Toll-Free: 1-866-869-6789 Fax: 613-241-5808 Website: www.afn.ca	***Health & Social Secretariat** mandate*: "to protect, maintain, promote, support, and advocate for our inherent, treaty and constitutional rights, (w)holistic health, and the well-being of our nations."[i] "This will be achieved through policy analysis, communications, and, most importantly, lobbying on behalf of, representing, supporting, and defending First Nations' communities and individuals to ensure properly funded services and programs are delivered at the same level enjoyed by all Canadians."[ii]	▪ **Lobbying** ▪ **Policy analysis**	▪ **Participation in Blueprint for Aboriginal Health** ▪ **Draft of Public Health Network Framework for First Nations**
Aboriginal Healing Foundation (AHF) 75 Albert Street, Suite 801 Ottawa, ON K1P 5E7 Tel: 613-237-4441 Toll-Free: 888-725-8886 Website: www.ahf.ca	*Vision:* for those affected by Abuse experienced in Residential schools: to address the effects of unresolved trauma, break the cycle of abuse, and enhance their capacity to sustain their well-being, and future generations. *Mission:* "to encourage and support Aboriginal people in building and reinforcing sustainable healing processes that address the legacy of Physical Abuse and Sexual Abuse in the Residential School system, including intergenerational impacts."[iii]	▪ **Facilitation** ▪ **Providing resources: "strategic investments," i.e., funding** ▪ **Promoting awareness**	
Congress of Aboriginal Peoples (CAP) 867 St. Laurent Blvd. Ottawa, ON K1k 3B1 Tel: 613-747-6022 Fax: 613-747-8834 Email: info@abo-peoples.org Website: www.abo-peoples.org	CAP "is a nationally incorporated umbrella organization that represents the interests, nationally, of its provincial and territorial affiliate organizations across Canada…"[iv] Represents off-reserve (urban, rural, and remote areas throughout Canada) Indian and Métis regardless of status under the Indian Act[v]	▪ **Representation** ▪ **Advocacy**	▪ **Participation in Blueprint for Aboriginal Health**

ABORIGINAL ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
Inuit Tapiriit Kanatami (ITK) Tel: 613-238-8181 Toll-Free: 1-866-262-8181 Email: info@itk.ca Website: www.itk.ca	***Health Department*:** "to represent the national Inuit health interests, including identification of priorities; to support national co-ordination on matters relating to Inuit health programs and policies; to monitor, provide direction, and ensure national policy and program decisions…are responsive to the health priorities of the Inuit, in a manner that recognizes the need to protect and promote Inuit culture, language, health, education, justice…"[vi]	▪ **Representation** ▪ **Promote/facilitate coordination and cooperation with other relevant organizations**	▪ **Participation in Blueprint for Aboriginal Health**
Métis National Council (MNC) 350 Sparks St., Suite 201 Ottawa, ON K1R 7S8 Tel: 613-232-3216 Fax: 613-232-4262 Toll-Free: 800-928-6330 Website: www.metisnation.ca	"Overall, the MNC's central goal is to secure a healthy space for the Metis Nation's on-going existence within the Canadian federation."[vii]		▪ **Participation in Blueprint for Aboriginal Health**
National Aboriginal Health Organization (NAHO) 220 Laurier Ave W., Suite 1200 Ottawa, ON K1P 5Z9 Tel: 613-237-9462 Toll-Free: 877-602-4445 Fax: 613-237-1810 Email: naho@naho.ca Website: www.naho.ca	*Vision:* NAHO, "an Aboriginal designed and controlled body, will influence and advance the health and well-being of Aboriginal Peoples through carrying out knowledge-based strategies."[viii] To improve and promote health through knowledge-based activities; promote understanding of health issues affecting Aboriginal Peoples; facilitate and promote research and develop research partnerships; foster participation of Aboriginal Peoples in delivery of health care; affirm and protect Aboriginal traditional healing practices.[ix]	▪ **Consultation** ▪ **Policy** ▪ **Capacity-building** ▪ **Research** ▪ **Knowledge-based activities** ▪ **Public education** ▪ **Advocacy**	

ABORIGINAL ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
Native Women's Association of Canada (NWAC) Six Nations of the Grand River P.O. Box 331, Ohsweken, ON N0A 1M0 Tel: 519-445-0990 Fax: 519-445-0909 Website: www.nwac-hq.org	*Vision:* "We have a vision of Aboriginal communities where all individuals have an opportunity to develop their talents in order to achieve their full potential. We see communities where all people can lead healthy lifestyles by maintaining balance in their spiritual, emotional, mental and physical health."[x] *Mission:* "To help empower women by being involved in developing and changing legislation which affects them, and by involving them in the development and delivery of programs promoting equal opportunity for Aboriginal women."[xi]	▪ **Advocacy** ▪ **Service delivery** ▪ **Education**	▪ **Participation in Blueprint for Aboriginal Health**
Pauktuutit – Inuit Women of Canada 56 Sparks St., Suite 400 Ottawa, ON K1P 5A9 Tel: 613-238-3977 Toll-Free: 1-800-667-0749 Fax: 613-238-1787 Email: info@pauktuutit.ca Website: www.pauktuutit.ca	*Vision:* "to be a dynamic, visible, influential and prosperous organization, independently representing Inuit women and providing leadership, voice and excellence for the betterment of Inuit women, their families and communities."xii *Mission:* "Pauktuutit leads and supports Canadian Inuit women in policy development and community projects…for the social, cultural, political and economic betterment of the women, their families and communities."xiii Pauktuutit's mandate is extensive, but the following excerpt relates directly to health: "to work for the betterment of individual, family and community health conditions through advocacy and program action."xiv		

GOVERNMENT ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
First Nations & Inuit Health Branch (Health Canada) (FNIHB, HC) Website: www.hc-sc.gc.ca	*Mission & Vision (general to HC):* Health Canada is the federal department responsible for helping the people of Canada maintain and improve their health; HC is committed to improving the lives of all of Canada's people and to making this country's population among the healthiest in the world as measured by longevity, lifestyle and effective use of the public health care system.[xv] *Mandate (specific to the First Nations and Inuit Health Branch):* to ensure the availability of, or access to, health services for First Nations and Inuit communities; to assist First Nations and Inuit communities address health barriers, disease threats, and attain health levels comparable to other Canadians living in similar locations; and build strong partnerships with First Nations and Inuit to improve the health system.[xvi]	▪ **funding** ▪ **Service delivery**	▪ **Canadian reference group to the World Health Organization (WHO) *Social Determinants of Health Commission***
Institute of Aboriginal Peoples' Health (Canadian Institutes of Health Research) (IAPH, CIHR) 160 Elgin Street, 9th Floor Address Locator 4809A Ottawa, ON K1A 0W9 Gen. Inquiries: 613-941-2672 Toll-Free: 1-888-603-4178 Fax: 613-954-1800 Email: info@cihr-irsc.gc.ca Website: www.cihr-irsc.gc.ca/e/8668.html	*Vision:* "CIHR-IAPH will strive to improve the health of First Nations, Inuit and Metis people by supporting innovative research programs based on scientific excellence and aboriginal community collaboration."[xvii] *Mission:* "CIHR-IAPH will play a lead role in building research capacity in the First Nations, Inuit, and Metis communities, and will support partnerships and alliances between aboriginal communities and non-aboriginal health research organizations/institutes at the local, regional, national and international levels."[xviii]	▪ **Funding** ▪ **Supporting research** ▪ **Collaborative research** ▪ **Building research capacity** ▪ **Knowledge translation**	▪ **International Collaboration Agreement (Canada/New Zealand/Australia; Canada/USA)** ▪ **Safewater policy**

GOVERNMENT ORGANIZATIONS	**MISSION/VISION/MANDATE/OBJECTIVES**	**SCOPE/ROLE**	**RELEVANT/CURRENT PRIORITIES/STRATEGIES**
Aboriginal Capacity and Developmental Research Environments (Institute of Aboriginal Peoples' Health) (ACADRE, IAPH) **Alberta ACADRE Network, Edmonton** Tel: 1-780-492-1827 **Anisnawbe Kekenddazone, Ottawa** Tel: 1-613-241-2081 **Atlantic Aboriginal Health Research Program, Halifax** Tel: 1-866-867-9616 **British Columbia ACADRE, Vancouver** Tel: 1-866-880-5464 **Centre for Aboriginal Health Research, Winnipeg** Tel: 1-204-789-3250 **Indigenous Health Research Development Program, U of Toronto, McMaster** Tel: Toronto 1-416-978-0298 Ohsweken 1-519-445-0023 ext. 236 **Indigenous Peoples' Health Research Centre, Regina** Tel: 306-337-2461 **Nasivvik Centre for Inuit Health and Changing Environments, Quebec City** Tel: 1-418-650-5115 ext 5248	*Mission:* To pursue scientific knowledge based on international standards of research excellence; to provide the appropriate environment for scientists…to pursue research opportunities in partnership with aboriginal communities to provide opportunities for aboriginal communities and organizations to identify important health research objectives in collaboration with aboriginal health researchers; to facilitate the rapid uptake of research results; to provide an appropriate environment and resources to encourage aboriginal and non-aboriginal students to pursue careers in aboriginal health research[xix] ***1. Alberta ACADRE Network, Edmonton –*** *Research Themes (R/T):* traditional knowledge and ethics; northern community and environmental health; community access to health services. ***2. Anisnawbe Kekendazone, Ottawa –*** *R/T:* perinatal health; youth at risk & resilience; knowledge translation ***3. Atlantic Aboriginal Health Research Program, Halifax –*** *R/T:* prevention research; mental health & addictions; health determinants. ***4. British Columbia ACADRE, Vancouver –*** *R/T:* developing ethical health assessments; ensuring responsible aboriginal health research; holistic wellness in mental health & addictions; community motivated research themes. ***5. Centre for Aboriginal Health Research, Winnipeg –*** *R/T:* population health; health services; child health & development; ethical issues in aboriginal health research; physical/mental health issues; dentistry. ***6. Indigenous Health Research Development Program, U of Toronto, McMaster –*** *R/T:* prevention and control of chronic diseases; mental health of women & children; culture, health & healing. ***7. Indigenous Peoples' Health Research Centre, Regina*** *- R/T:* chronic diseases; nutrition and lifestyle; indigenous/traditional healing methods; health delivery and control; environmental health. ***8. Nasivvik Centre for Inuit Health and Changing Environments, Quebec City –*** *R/T:* environmental change & influences on Inuit health; environmental public health surveillance & monitoring; Inuit scientific knowledge in environmental health research.		

GOVERNMENT ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
Indian and Northern Affairs Canada (INAC) Website: www.ainc-inac.gc.ca	"In Indian and Inuit Affairs, the department's primary role is to support First Nations and Inuit in developing healthy, sustainable communities and in achieving their economic and social aspirations."[xx] "In Northern Affairs, INAC is the principal federal department responsible for meeting the federal government's constitutional, political and legal responsibilities in the North. With legislative and policy authority over most of the North's natural resources, INAC is the custodian and resource manager for an area occupying 40 percent of Canada's land mass."[xxi]	▪ **Funding** ▪ **Program and service delivery** ▪ **Social policy and programs (ie. education, child and family services, social assistance, community-based health, non-insured health benefits)**	
National Collaborating Centre for Aboriginal Health (NCCAH) University of Northern BC 3333 University Way Prince George, BC V2N 4Z9 Tel: 250-960-5986 Website: www.unbc.ca/nccah	*Mission:* "to increase Aboriginal capacity for action on their determinants of health."[xxii] "to build bridges between Aboriginal people's approaches to public health and existing research centres, repositories of public health related information and service delivery agencies. The NCCAH will also collaborate with the other National Collaborating Centres (NCCs) on joint projects and initiatives."[xxiii]	▪ **Collaboration** ▪ **Research** ▪ **Knowledge translation**	
Public Health Agency of Canada (PHAC) Website: www.phac-aspc.gc.ca	*Mission:* "To promote and protect the health of Canadians through leadership, partnership, innovation and action in public health."[xxiv] *Vision:* "Healthy Canadians and communities in a healthier world."[xxv] *Mandate:* "Focussed on more effective efforts to prevent chronic diseases like cancer and heart disease, prevent injuries and respond to public health emergencies and infectious disease outbreaks, [PHAC] works closely with provinces and territories to keep Canadians healthy and help reduce pressures on the health care system."[xxvi]	▪ **Program delivery** ▪ **Research and knowledge development** ▪ **Policy analysis and development** ▪ **Community capacity-building** ▪ **Public and professional education**	▪ **National Collaborating Centres**

PROFESSIONAL ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
Aboriginal Nurses Association of Canada (ANAC) 56 Sparks St., Suite 502 Ottawa, ON K1P5A9 Tel: 613-724-4677 Toll-Free: 1-866-724-3049 Fax: 613-724-4718 Website: www.anac.on.ca	*Vision:* "[ANAC] will be widely recognized as a vital resource in advancing the health of Aboriginal communities, through its work with and on behalf of Aboriginal nurses."[xxvii] *Mission:* "to improve the health of Aboriginal people, by supporting Aboriginal nurses and by promoting the development and practice of Aboriginal Health Nursing."[xxviii] "In advancing this mission, the Association will engage in activities related to recruitment and retention, member support, consultation, research and education."[xxix]	▪ **Advocacy** ▪ **Consultation** ▪ **Research** ▪ **Recruitment** ▪ **Education**	
Canadian Aboriginal AIDS Network (CAAN) 602-251 Bank St. Ottawa, ON K2P 1X3 Tel: 613-567-1817 Toll-Free: 1-888-285-2226 Fax: 613-567-4652 Email: info@caan.ca Website: www.caan.ca	*Mandate and Mission:* "…(CAAN) is a not-for-profit coalition of individuals and organizations which provides leadership, support and advocacy for Aboriginal people living with and affected by HIV/AIDS, regardless of where they reside."[xxx] *Goals & Objectives:* To provide info on HIV; to offer leaders, advocates, and individuals in the AIDS movement a chance to share their issues on a national level; to facilitate the creation/development of regional Aboriginal AIDS service agencies; to design aboriginal-specific material for education and awareness at a national level; to advocate on behalf of Aboriginal people living with HIV/AIDS; to build partnerships with Aboriginal and Non-Aboriginal agencies which address the issues of Aboriginal people across jurisdictions.[xxxi]	▪ **Education** ▪ **Advocacy** ▪ **Support** ▪ **Research**	
National Aboriginal Diabetes Association (NADA) 174 Hargrave St. Winnipeg, MB R3C 3N2 Tel: 204-27-1220 Toll-Free: 1-877-232-6232 Fax: 204-927-1222 Email: diabetes@nada.ca Website: www.nada.ca	*Vision:* "To address Diabetes amongst Aboriginal Peoples by creating networks, and opportunities for individuals and communities within their beliefs, traditions, and values."[xxxii] *Mission:* NADA's Mission is to be the driving force in addressing diabetes and Aboriginal people as a priority health issue by working together with people, Aboriginal communities and organizations in a culturally respectful manner in promoting healthy lifestyles among Aboriginal people today and for future generations."[xxxiii]		

PROFESSIONAL ORGANIZATIONS	MISSION/VISION/MANDATE/OBJECTIVES	SCOPE/ROLE	RELEVANT/CURRENT PRIORITIES/STRATEGIES
National Association of Friendship Centres (NAFC) 275 MacLaren St. Ottawa, ON K2P 0L9 Tel: 613-563-4844 Fax: 613-594-3428 or 563-1819 Email: nafcgen@nafc.ca Website: www.nafc-abooriginal.com	*Mission:* "Our mission is to improve the quality of life for Aboriginal peoples in an urban environment by supporting self-determined activities which encourage equal access to, and participation in, Canadian society; and which respect and strengthen the increasing emphasis on Aboriginal cultural distinctiveness."[xxxiv] *Mandate:* "The primary objectives are: to act as a central unifying body for the Friendship Centre Movement: to promote and advocate the concerns of Aboriginal Peoples: and, to represent the needs of local Friendship Centres across the country to the federal government and to the public in general."[xxxv]	▪ **Program and service delivery**	
National Network for Aboriginal Mental Health Research (NAMHR) c/o Culture and Mental Health Research Unit; Sir Mortimer B. Davis – Jewish General Hospital 4333 chemin de la Cote Ste. Catherine, Montreal, QC H3T 1E4 Tel: 514-340-8222 ext. 2192/5246 Fax: 514-340-7503 Website: www.mcgill.ca/namhr	*Mission:* "the aim of the NAMHR is to develop research and training to address the mental health needs of Aboriginal people in Canada, in both urban and rural settings."[xxxvi] *Mission Objectives include:* to conduct research in partnership with Aboriginal organizations/communities, and coordinate research collaborations among academics across Canada; train new researchers to develop capacity for mental health research in Aboriginal communities; disseminate research methods and findings to Aboriginal groups and communities, health practitioners and planners.[xxxvii]	▪ **Develop research capacity**	
National Indian and Inuit Community Health Representative Organization (NIICHRO) P.O. Box 1019 #One Roy Montour Lane Kahnewake, QC J0L 1B0 Tel: 450-632-0892 Fax: 450-632-2111 Email: niichro@niichro.com Website: www.niichro.com	*Mission:* upgrade the quality of health care of Indian and Inuit people to the standard enjoyed by the rest of Canada; provide a forum for CHRs to communicate and exchange info with each other on various community health initiatives and on the improvement of the CHR program at national levels; create and promote awareness and understanding of the CHR program in Canada; provide a mechanism and a means for advising First Nations and Inuit communities, Medical Services Branch and others on all matters pertaining to CHRS.[xxxviii]	▪ **Information exchange** ▪ **Advisory role**	

ENDNOTES

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[i] www.afn.ca/article.asp?id=103
[ii] Ibid.
[iii] www.ahf.ca/e_Values.aspx
[iv] www.abo-peoples.org/background/background.html
[v] www.abo-peoples.org
[vi] www.itk.ca/health/index.php
[vii] www.metisnation.ca/mnc/index.html
[viii] www.naho.ca/english/about_naho.php
[ix] www.naho.ca/english/about_naho.php
[x] www.nwac-hq.org/about.htm
[xi] Ibid.
xii www.pauktuutit.ca/about_e.asp
xiii www.pauktuutit.ca
xiv Ibid.
[xv] www.hc-sc.gc.ca/ahc-asc/activit/about-apropos/index_e.html#mission
[xvi] www.hc-sc.gc.ca/ahc.asc/branch-dirgen/fnihb-dgspni/mandat_e.html
[xvii] www.cihr-irsc.gc.ca/e/27062.html
[xviii] Ibid.
[xix] www.cihr-irsc.gc.ca/e/27071.html
[xx] www.ainc-inac.gc.ca/ai/mrr_e.html
[xxi] Ibid.
[xxii] www.umbc.ca/nccah/
[xxiii] Ibid.
[xxiv] www.phac-aspc.gc.ca/about_apropos/index.html
[xxv] Ibid.
[xxvi] Ibid.
[xxvii] www.anac.on.ca/vision.html
[xxviii] www.anac.on.ca/mission.html
[xxix] Ibid.
[xxx] www.caan.ca/English/org_policies.htm
[xxxi] Ibid.
[xxxii] www.nada.ca/aboutus/index.php
[xxxiii] Ibid.
[xxxiv] www.nafc-aboriginal.com/about.htm
[xxxv] Ibid.
[xxxvi] www.mcgill.ca/namhr/
[xxxvii] www.mcgill.ca/namhr/about/mission/
[xxxviii] www.niichro.com/OurHistory.html