

TRANSFORMATIVE NETWORKS: How ACADRE/NEAHR Support for Graduate Students Has Impacted Aboriginal Health Research in Canada

Report of the Study: Evaluating the Impact of a National Support Network for Students, Interns and Post-Doctoral Researchers in Aboriginal Health

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Cover Photo Credits (clockwise from left): Nasivvik at NGGS 2012 left to right: Kristeen McTavish, Rebecca Mearns, Sara Statham, Emily Hastings, Lea Laflamme, Shirin Nuesslein; Agata Durkalec, Nasivvik, at ArcticNet Annual Scientific Meeting 2012; Sara Statham, Nasivvik, in Iqualuit, Nunavut; Jeannette Sinclair, AB NEAHR, near Fiddler River, Alberta.

1.0 EXECUTIVE SUMMARY

This report details the findings of a national study undertaken by the Aboriginal Health Research Network Secretariat (AHRNetS) to evaluate the 10-year impact of the national network of ACADRE/ NEAHR Centre on students, interns and post-doctoral fellows in Canadian universities. The findings of this report are based on data from individual award holders affiliated with the ACADRE/NEAHR Centres, as well as 81 surveys and 14 in-depth interviews completed with past awardees.

There are four Parts to this report. Part I demonstrates the program's effectiveness in research capacity, skill-building and positive career trajectory in the field of Canadian Aboriginal health research. In Parts II and III, the mechanisms by which these positive results have been achieved are detailed, with special emphasis placed on the NEAHR model, which encompasses mentoring, learning, engagement and sense of belonging. Of significance, alongside the metrics detailing increased capacity among awardees, a considerable moral and ethical shift in the way Aboriginal research has been undertaken (from research on to research with Aboriginal peoples) has simultaneously occurred and the survey responses reflect that cultural shift. Part IV outlines the advantages of the NEAHR model for graduate award support and how this facilitates awardees' commitment to community-based research. Awardees emphasized that they are motivated to engage in community-based research because they care about seeing a reduction in Aboriginal health disparities, and because they are invested personally in doing research that is responsive to local priorities.

Overall the study found that the ACADRE/NEAHR Centres have had a substantial impact on research capacity building, research career development, and national level networking. It is important to note however, that observations about the program's success as a whole are not intended to obscure the important geographically defined, community and culture specific programming which have facilitated success at respective individual NEAHRs (Appendix B).

Despite the significant impact of the ACADRE/NEAHR program overall and its role in increased funding for more responsive and relevant Aboriginal health research, the persistence of significant health and social disparities between Aboriginal peoples and the general Canadian public suggests that there is still a great deal of work to do. Based on the solid base of evidence and promising practices as captured in this Report, the network of NEAHRs are hopeful that we can continue to prepare a new generation of researchers with aptitude to conduct Aboriginal health research that responds to current health and social priorities.

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3.0 BACKGROUND AND RATIONALE

About the Program – ACADRE/NEAHR

The ACADRE - Aboriginal Capacity and Developmental Environments program, and its successor, the NEAHR - Network Environments for Aboriginal Health Research program have been the signature programmatic initiative of the CIHR-Institute of Aboriginal Peoples' Health (CIHR-IAPH) for over a decade. Accordingly, the NEAHRs played a significant role in the recent CIHR Expert International Review which cited the need to continue this program, an identified vehicle for the transformative impact of the CIHR-IAPH in Aboriginal health research (CIHR-IAPH, 2011). As articulated by CIHR-IAPH, the primary objective of the NEAHR centres is to "develop a supportive and advanced research environment in Aboriginal health research across Canada" (CIHR-IAPH, 2011, p.5). This is achieved through three primary objectives: 1) supporting and recruiting students, new and existing researchers in Aboriginal health research; 2) engaging and improving relationships with communities in Aboriginal health research; and 3) promoting uptake of knowledge for the improved health of Aboriginal peoples.

The role of the CIHR-IAPH is to "lead a national advanced research agenda in the area of Aboriginal health and promote innovative research that will serve to improve the health of Aboriginal people in Canada" (CIHR-IAPH, 2011). A significant priority for CIHR-IAPH has been building capacity to support research with direct relevance and inclusion of Aboriginal peoples.

The ACADRE/NEAHR centres have established networks of students, communities, researchers and other stakeholders in Aboriginal health within their respective regions or areas of expertise (Appendix A). The regional focus is a key strength of the program, and through long-term, stable relationship-building with Aboriginal communities provides an opportunity to develop partnerships requisite for health research based on trust, respect, mutual benefit and respect for Aboriginal communities' self-determining aspirations.

ACADRE/NEAHRs are Part of a National Network

The Aboriginal Health Research Networks Secretariat (AHRNetS) is the national coordinating body of the nine NEAHRs. The governing Board of AHRNetS is comprised of researchers affiliated with the NEAHRs which identify key network priorities, and collaborative NEAHR research and knowledge translation activities at the national level. This study was identified as a collaborative NEAHR research activity that would address the gap in knowledge about the impact of the national network on ACADRE/NEAHR awardees at the national level, and in particular, assess impact on their career trajectory to key university and policy positions in Aboriginal health research. This study is supplementary to NEAHR initiated evaluations (Indigenous Health Research Development Program [IHRDP], 2009) and does not address NEAHR specific programmatic elements or foci.

Human Resource Development Investments: ACADRE/NEAHR Awards

To support students engaging in Aboriginal health research, the ACADRE/NEAHRs have allocated up to 40% of their budgets to meritorious students, post-doctoral fellows and New Investigators. Over ten years this has been a significant investment. In an independent CIHR program review it was observed that these investments are leading to increased numbers of students focussed on studies in Aboriginal health. Over time, this has



Karen Hall, AAHRP

enhanced the growth trajectory of the CIHR investment via grants in Aboriginal health research (CIHR-IAPH, 2011).

In an AHRNetS compilation of NEAHR Award selection processes in 2011, eight of nine Centres reported they use a formal, structured application process that includes a competitive review involving Aboriginal health researchers, and in some instances, a parallel review process undertaken by Aboriginal community members thereby incorporating reviews for expertise and relevance. The independent program review of CIHR-IAPH noted that the NEAHR program focusses on "highly accomplished students" that demonstrate high potential for productivity and innovation in the field of Aboriginal health research (CIHR-IAPH, 2011, p.6).

To support the necessary background information on sample size for this study, AHRNetS undertook a review of the students supported from 2002 to 2012. NEAHRs were requested to provide information about awards provided in the ACADRE/ NEAHR programs. AHRNetS then consolidated and verified the

information.1

From 2002-2012 the ACADRE/NEAHR program has provided 845 funding awards to 664 individual students. The number of awards includes the full range of awards for Aboriginal health trainees, including undergraduate stipends, a program component that was largely phased out in the transition from the ACADRE to NEAHR programs. The ACADRE/NEAHR program supported a number of students through their academic trajectories, thus many of the funded students were repeat awardees at various levels of education. This multi-level support over a decade explains the difference between the 664 individuals and approximately 845 funding awards disbursed to undergraduate (n=276), Master's (n=268), Doctoral (n=252), and Postdoctoral (n=27) level, and 22 'other/unspecified' awards for research training opportunities such as research assistantships or internships.

Due to differences in the student demographic information collected by each ACADRE/NEAHR centre there are limitations to the descriptive data available for the 664 funded students in relation to gender, and Aboriginal status. The data indicates approximately 80% (76%-85%) of the ACADRE/NEAHR funded students were female. Of the nine NEAHR centres, five² collected information about the funded students' Aboriginal status. Of the 401 students funded through the five NEAHRs that collected information about Aboriginal status, 76.3% (n=306) identified as Aboriginal.

That the majority of students self-identify as Aboriginal from the NEAHRs that collected this data, lends support to the observation by Dr. Jeff Henderson in the 2011 International Review of the Canadian Institutes of Health Research Expert Review Team Report that the CIHR-IAPH has made progress in achieving its mandate as shown by the "markedly growing cadre of researchers of First Nations, Inuit and Métis descent"

¹ Data on award holders was verified with individual NEAHR centres based on their own administrative records, and/or publicly available information.

² Atlantic Aboriginal Health Research Program; Indigenous Health Research Development Program; Indigenous Peoples' Health Research Centre; Kloshe-Tillicum (BC NEAHR); and Alberta NEAHR.

(CIHR-IAPH, 2011, p. 5). An emergent theme from the second phase of this study not specifically solicited but emerged independently in the interviews, is the need to address systemic barriers to conducting Aboriginal health research grounded within Indigenous methodology, community and culture. As post-secondary institutions seek to increase the number of Aboriginal students and faculty, it will be important to continue efforts to effectively bridge the disconnection between the Western academic and Indigenous worldviews.

Increased Numbers of Students in the Research Pipeline: Gains and Gaps

Clearly the overall objective to increase the numbers and quality of students in the research pipeline has been successful, but the question before us now is: has requisite capacity been reached? Further research is required on faculty recruitment and retention rates to address this question. Specifically, support for the critical transition to faculty positions is a key area requiring further work. In short, a clear identification of the threshold for optimal capacity has not been identified for Aboriginal community or the academy; however the complexity and persistence of Aboriginal peoples' health and social inequality indicate that it has not yet been met.

The persistence of substantial health and social inequalities between Canada's Aboriginal and non-Aboriginal peoples continues to demonstrate the great need for increased capacity in Aboriginal health research, policy and service-delivery (Gracey & King, 2009; Reading & Nowgesic. 2002; Young, 2003). In fact, health disparities are increasing between Aboriginal individuals / communities and the general population. Life expectancy is markedly lower in several Aboriginal groups in Canada than it is for the non-Aboriginal population (Gracey & King, 2009). Viable and sustainable solutions to reducing health disparities require policies that improve socioeconomic equity, but increasing capacity in Aboriginal health and related professions is also an important way forward. This necessitates continued capacity-building in Aboriginal health research, and also justifies the need for evaluative research that asks the growing cohort of future Aboriginal health researchers how we can best support their needs at the national level.

Recent evaluations of individual NEAHR centres indicate the program has been successful in increasing the pool of Aboriginal students and researchers engaging in Aboriginal health research (IHRDP, 2009). In 2010, an AHRNetS Task Group was formed to identify through research, the experiences, lessons learned, best practices and the true nature of the impact of these efforts and investments at the national network level. This report describes the results of this study which was guided by the following objectives:

- To assess the impact of ACADRE/NEAHR awards on careers in Aboriginal health research among past awardees;
- To measure the program's overall impact in creating opportunities for awardees to become Aboriginal health researchers and professionals in Aboriginal health trained in research;
- To examine the impact of mentorship and networking opportunities available to awardees through the network; and
- To identify areas for improvement to enhance success among awardees.

4.0 THE STUDY'S METHODS

The study's target population was open to any person who received an award of financial support from an ACADRE or NEAHR centre. Awardees include students at the undergraduate (e.g. interns) and graduate (Masters, Doctorate) levels, and post-doctoral researchers and new investigators with past or current affiliation with the program. An invitation to participate was sent from AHRNetS to NEAHR centres, which was distributed to their current and past award holders including past ACADRE award holders. In total, 664 individuals were considered eligible participants according to our recruitment criteria³.

The research occurred between March and June 2012, and it was undertaken using a two-phase, mixed methods approach. Phase 1 of the study included a confidential on-line survey (n=97), which was conducted during March-April 2012 using Opinio. At the end of the survey, participants were asked if they would like to be contacted to participate in a follow-up telephone interview to further explore topics related to the survey. From the 81⁴ awardees that completed the survey, 14 respondents were selected randomly, and interviewed during Phase Two of this study which occurred during May and June 2012.

This study was reviewed and approved by the Dalhousie University Social Sciences and Humanities Research Ethics Board. All data analysis was performed with the aid of Atlas ti software. The following sub-sections supply more detailed information about the participants in the survey and interviews.



CIHR-IAPH 2011
Scientific Director's
Award Winners Jessica
Pace, IHRDP (left) and
Sarah Oosman, IPHRC
(right) with Malcolm
King, Scientific Director
(centre)

A limitation of this study is that survey respondents self-selected to participate, and there may have been some past award holders that contact information for was out-of-date. Though the pool is 664 it is not likely it reached all those individuals directly. To address this, AHRNetS posted the invitation to its website and encouraged others to send it via individual and organizational networks to ensure as broad distribution as possible.

⁴ While 97 past awardees participated in our online survey, we have completed responses for 81. In most cases where this data is presented below, we use adjusted relative frequencies.

5.0 PART I: DETAILING THE SUCCESS OF OUR AWARDEES

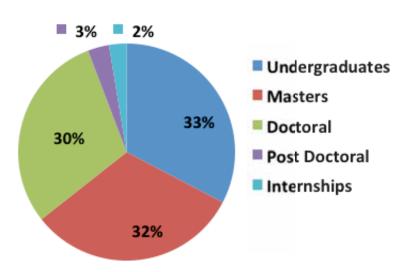
About the Respondents

Since its inception, the nine ACADRE/ NEAHR Centres have provided a total of 845 awards to 664 individuals: these numbers are based upon information received from NEAHRs and are current to February 2012. As outlined in the Background and Rationale section, given the declining emphasis on providing undergraduate awards in the NEAHR program, and over time some of those students continued their education to a higher level, it was expected that there would be greater number of survey respondents at graduate and post-graduate levels than in the program overall from 2002-2012 which can be seen in comparison of the distribution of awards in **Figure 2** and **Figure 4** below. In **Figure 1** which relies upon data from 5 of the 9 centres that collected this information from award holders, 76 per cent of the award holders are Aboriginal (self-identified) and in the survey respondents those who self-identified as Aboriginal comprised 48 per cent which can be seen in **Figure 3**.

Figure 1 Aboriginal Status of ACADRE/NEAHR Students 2002-2012 (5/9 NEAHRs reported)

Non-Aboriginal 24% Aboriginal 76%

Figure 2 ACADRE/NEAHR Award Distribution 2002-2012



The following two figures chart information that was provided by the survey respondents pertaining to their self-identification of Aboriginal status, and highest or current (at time of the survey) level of education. Based on the results of our on-line survey with 81 past awardees, the greatest share of funding was represented by those at the PhD (40%) and Master's (32%) levels, followed by those who undertook internships (13%), post-doctoral fellowships or new investigators (9%), and finally, undergraduate students (6%).

Figure 3 Aboriginal Status of Survey Respondents

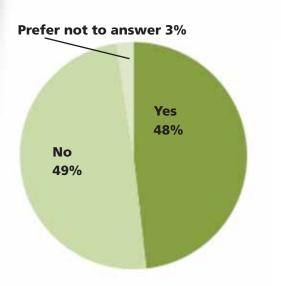
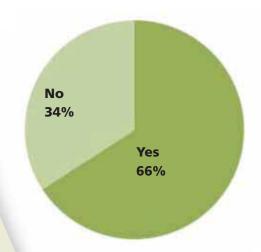


Figure 4 ACADRE/NEAHR Award
Distribution of Survey Respondents



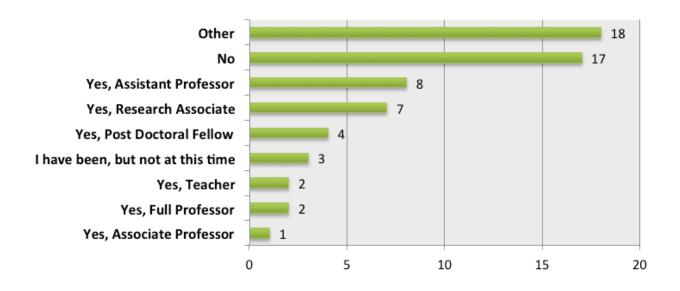
Where Are They Now? Careers in Aboriginal Health

Figure 5 Survey Respondents Currently Employed in Aboriginal Health



An important measure of success of the ACADRE/NEAHR program relates to the career trajectories of our awardees. Figure 5 shows from the online survey, that 66 per cent are currently working in the field of Aboriginal health (n=85).

Figure 6 Survey Respondents Current Academic Position



In Figure 6 respondents who were working in a formal academic position at the time of the survey were as follows (n=62): 8 assistant professors, 7 research associates, 4 postdoctoral fellows, 2 Full professors, and 1 associate professor. Many others are employed as research assistants, lab coordinators, research administrators and other common research positions.

It has been observed that awardees of the ACADRE/ NEAHR programs are highly competitive trainees. In this survey, this has been demonstrated both by their high level of application for, and success, in achieving grants in Tri-Council competitions, as well as other prestigious provincial and regional funding opportunities, including those available at their home universities. **Figure 7** shows that 81 per cent of online survey respondents indicated they had applied for other sources of funding (n=67), and in **Figure 8**, 74 per cent indicate they were successful on applications for sources of funding beyond the ACADRE/NEAHR program (n=89).

Figure 7 Survey Respondents Applied for Other Funding

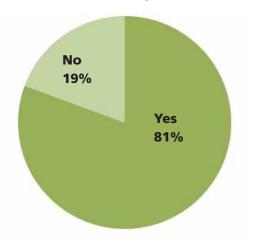
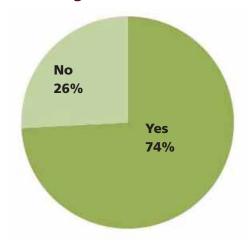


Figure 8 Survey Respondents Received Other Funding for Research/Studies



In addition to competitiveness of individual awardees as evidenced by application and success in other funding, we were interested to learn about awardees perceptions about the competitiveness of the ACADRE / NEAHR awards themselves, including their perspectives on the application process. Compared with other funding sources that awardees had applied to, interviewees described the NEAHR award to be a highly competitive, prestigious funding source. They defined the application process to be academically rigorous, requiring an extensive amount of time to prepare, and with high demands for demonstrating community engagement in the research. Awardees spoke about the high level of achievement required to receive an ACADRE/NEAHR award. As one awardee puts it:

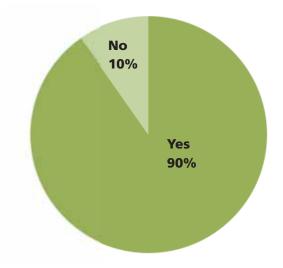
"As a non-Aboriginal scholar receiving these awards, it means a lot to me that the Aboriginal reviewers look at my work and think she's doing a good job and we should fund her accordingly. I think that's probably a more powerful statement to me than if I were to receive the SSHRC post-doc. Which I got but, you know, I probably wear those NEAHR awards with a stronger sense of pride. That it's like okay, you know, not only do the communities think I'm doing good work but so does this area of the academy. And you know, I think it's prestigious to get a post-doc from SSHRC or CIHR but I think it's equally prestigious."

6.0 PART II: THE MECHANISMS BY WHICH WE HAVE ACHIEVED SUCCESS

Among our online survey respondents, 90 percent of awardees indicated that their ACADRE/NEAHR award had a positive impact on their academic experiences.

The specific value of the award was articulated by respondents across six key dimensions, including: 1) lessened financial worry and increased retention; 2) deepened interest and passion in Aboriginal health research; 3) development of peer support networks; 4) access to additional developmental opportunities; 5) exposure to Indigenous methodologies; and 6) exposure to Indigenous concepts of health.

Figure 9 Perceived Positive Impact of ACADRE/ NEAHR Award on Academic Experience



Lessened Financial Worry and Increased Retention

A common theme that resonated among both survey respondents and interviewees was the lessened financial worry they experienced as a result of their award, thereby enabling them with the time needed to concentrate all efforts on completing their studies and research. Several respondents noted that without the NEAHR award they would not have been able to do their research on time:

"Yes, I am on track to finish the PhD portion of my program on time (within the four years) because I have had support since beginning in 2010 and I have not had to work more than 5 to 10 hours per week outside of my program. This has made all of the difference in the world! I can actually enjoy the learning process and be productive beyond basic requirements."

One respondent noted that the award enabled them not only to visit more often with the First Nation community they were conducting their research, but also to spend more time during those visits, thereby enabling the awardee to spend the time necessary to build a stronger research relationship.

Deepened Interest and Passion in Aboriginal Health Research

In addition to financial support facilitating opportunities for promising students that would not otherwise have been available; the ACADRE/NEAHRs provided a rich learning environment and access to leading researchers in the field of Aboriginal health through engagement with their ACADRE/NEAHR, and national networks. Respondents noted that through exposure to new research methods, ideas, and discussions, the ACADRE/NEAHR network fostered and enhanced their interest and passion in Aboriginal health issues. This deepened interest and passion defined and shaped their career choices, and to continue on their educational journeys through additional degrees or other research opportunities:

"I applied for NEAHR funding because it allowed me to complete coursework and undertake thesis research activities towards the completion of my Masters degree. As well, I saw this as an opportunity to be a part of a larger movement of Indigenous self-determination in research, including building capacity, but also advancing the Indigenous research agenda and methodologies."

The Development of Valuable Peer Support Networks

The development of valuable peer support networks was noted as a key component of the NEAHR network experience among awardees, both within NEAHR centres and across them. This included networking opportunities beyond their home institution, with peers and other researchers in their region as well as on the national scale:

"It allowed me to engage in very relevant discussions regarding Aboriginal health - allowed me to observe things outside of the scope of my research in ways that I may not have otherwise. The support network and mentorship was very valuable."

Many awardees indicated that this has allowed them to stay connected and involved with the Aboriginal health community beyond the period of the award, which is important for career development, research opportunities, and advancing their education, particularly among awardees that are at universities wherein Aboriginal health is not a large focus:

"When I began my graduate degree, I was the only student in my department working within the field of Aboriginal health. Attending the National Gathering of Graduate Students in Aboriginal Health allowed me the opportunity to meet other students in my field, and solidified the fact that I was not alone in my field and that others also believed my work was important. I have since kept in contact with colleagues and shared information and advice."

Access to Additional Developmental Opportunities

Another value of the ACADRE/NEAHR award related to other experiences and opportunities the award made possible for the recipients. As noted in the quotation above, the opportunity to present, and participate in the Annual National Gathering of Graduate Students in Aboriginal Health Research (NGGS) is an exciting and important networking opportunity for all currently funded ACADRE/ NEAHR awardees.

A number of other specific examples of the opportunities awardees were able to access as a direct result of the award, included: 1) the provision of research experience that contributed to attaining current positions or internship acceptances; 2) allowing the awardee to leverage more funding from other granting agencies (via development grants, for example); and 3) to enrich funding for research programs. Related to the second point, one awardee spoke about how she was able to hold both a scholarship and a research grant:

"[I] got the[PhD] scholarship as well as a research grant that I was able to hold as the principal investigator, which I think is sort of one of those more unusual things that... you don't see outside the NEAHRS."

Another respondent described how as a result of the program, they were able to participate in a youth capacity building project over the summer in the community where they were already doing their own research: an opportunity that would not have been possible without ample time spent getting to know the community, and vice versa the community getting to know and build trust with the student.

Exposure to Indigenous Methodologies

A significant and unique component of the NEAHRs is that they provide various opportunities to be exposed to, and use Indigenous methods in health research. For many of the early-career awardees, this can be a new and formative experience, one that will shape the ways they undertake health research in their subsequent research programs. This exposure occurs in part because the research conducted through these awards is done by working closely with Indigenous communities, individuals and organizations. But this exposure also occurs because awardees have opportunities to interact with NEAHR Principal Investigators, co-investigators and, in some cases, Board members or community researchers – for many of whom, Indigenous methodologies are a central part of their research programs. In addition to the research experience, NEAHR-hosted Summer Institutes and the NGGS are designed, in large part around this theme, providing presentations, workshops and real-world examples of this research in action.

"I... have had opportunities to attend NEAHR conferences across Canada, have had excellent mentors at my NEAHR, most importantly have been able to network with other Indigenous peoples with similar interests and methods and ideas, which has been very empowering for me as an Indigenous person."

Introduction to Indigenous Concepts of Health

In much the same way that exposure to Indigenous methodologies was a new and formative experience for many of the early-career awardees, exposure to Indigenous concepts of health, including notions such as holism, cyclical thinking and culture-specific Indigenous knowledge systems presented innovative, and culturally relevant ways of understanding health and well-being, especially for non-Aboriginal trainees.

"I think the best aspect of the award for me was having the opportunity to work with my supervisor who is absolutely fantastic. She introduced me to so many new ways of thinking and understanding research that I had never even considered before. And she's a pretty remarkable academic herself with like incredible goals. And I'm sure she'll have a huge impact on Aboriginal health. So working with her was probably the best part of my research."

While some self-identified Aboriginal awardees express that this exposure has come through their own lived experiences as an Aboriginal person, many also state that they have new or wider exposure to Aboriginal peoples' experiences of health through their research topic and program.

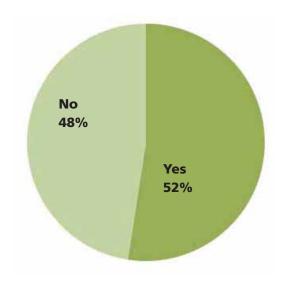
7.0 PART III ASPECTS OF THE NEAHR MODEL

As noted in the beginning of this section, the awardees' perceptions of the high value of the awards revolved around three systematic components of the NEAHR programming: 1) Mentoring, 2) Networking, and 3) the Annual National Gathering of Graduate Students in Aboriginal Health Research.

Mentorship was one of the key positive characteristics noted by awardees as a result of their sense of belonging to the wider NEAHR network. Respondents spoke about mentorship as key to success of emerging researchers:

"It's been my observation that individuals who are protégés, if you will, of established academics, professionals, researchers, they attain a degree of success because someone sees potential in them and is supportive of that individual throughout their university career, you know, in terms of facilitating opportunities for employment in research, whether those are teaching assistants or research assistants. You know, just bringing you into the existing network, introducing you to people, sharing your work in different places."

Figure 10 Networking across NEAHR Centres



Awardees indicated that their award was of high value because it enabled them to be part of a larger network of Canadian Aboriginal health scholars. Awardees enjoyed opportunities for networking within their individual NEAHR Centres, and more than half (52%) of awardees networked with researchers and students in other NEAHR Centres (n=82).

"I met with a range of other students and post-docs that I continue to collaborate with now and made good connections with other researchers who I collaborate with currently. I received strong mentorship advice from several other mentors met through the network. This strongly affected my career success and my success in receiving a faculty position."

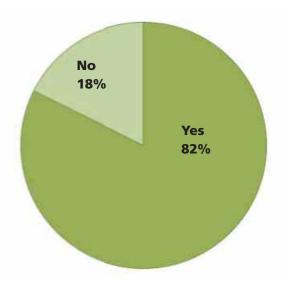
Awardees indicated that these connections were vitally important to their academic success. These networking opportunities helped awardees to develop their research, and for some, connections beyond their own ACADRE/NEAHR provided mentorship advice that assisted them with admission to graduate programs or enabled their career advancement.

Other positive characteristics of the network included increased awareness of other funding opportunities, and the development of community connections:

"I have been fortunate to meet, speak with, and learn from many of the ACADRE/NEAHR researchers and mentors... One would be hard pressed to find the intellectual, emotional and social support that is provided anywhere else other than in one's own community and family."

Figure 11 Survey Respondents Became Part of Network as result of ACADRE/NEAHR Award

More than 80% of respondents indicated that, as a result of their NEAHR or ACADRE award, they had been able to make contact with other colleagues or become part of a network of people in the field of Aboriginal health research. This includes contact with students conducting similar research as well as Aboriginal people outside the academy with similar interests.



Awardees were able to make connections with healthcare professionals, faculty affiliated with their and other NEAHR centres, non-academic Aboriginal health researchers, First Nations communities, governments, other organizations interested in Aboriginal health, and mentors:

"To a large degree I have become acquainted with a number of healthcare professionals in the community site that I am working with. These individuals have become critically important in my research."

Annual National Gathering of Graduate Students in Aboriginal Health Research

Every year for the past 12 years, the CIHR-IAPH has supported, participated in, and funded directly or via the ACADRE/NEAHR program, the Annual National Gathering of Graduate Students in Aboriginal Health Research. This much-anticipated event brings together NEAHR Award holders from across the country to network and create linkages with other students and researchers that they carry forward their entire career. This event also provides significant opportunities to develop skills and knowledge in critical topics in indigenous health, and research career development. In addition, it is often held in conjunction with NEAHR Summer Institutes that offer opportunities for students to engage intensively in a specific topic in Aboriginal health through diverse perspectives from key researchers and policy-makers in the topic area. Each summer, the National Gathering of Graduate Students (NGGS) is hosted by a different NEAHR Centre across Canada. All funded NEAHR awardees are encouraged to attend and receive financial support from their home NEAHR centre to do so.

Among survey respondents, 75% indicated they were aware of the NGGS, and almost 60% indicated they had attended at least one NGGS. Among those who had attended at least one NGGS, an overwhelming 98% found the gatherings to be valuable and informative. Awardees described their attendance at the National Gathering of Graduate Students as a positive and supportive experience:

"OMG, these national gatherings have been the most rewarding for me as I have been able to network with other Indigenous scholars with similar interests and have made many friendships, most importantly we share and now support each other's work."



Graduate students networking at NGGS 2012, hosted by NAMHR Specifically, attendance at the NGGS enabled awardees to find a sense of belonging within a wider community of individuals involved in Aboriginal health research, including people with similar interests, shared experiences, and as noted earlier in this section, with a strong emphasis on Indigenous methodologies:

"To be able to be with other Indigenous graduate students, while being a student, was incredibly rewarding. To be able to talk about incorporating Indigenous practices as a part of our research without having to explain or refrain from sharing was so important."

Attendance at the NGGS was also very important to awardees because of the validation they received with respect to their research philosophies, ideologies and approaches, many of which revolved around Indigenous knowledge or community based research. This imparted many with a renewed perspective about the importance of their focus on the field of Aboriginal health. This was particularly important among awardees whose academic institution did not have a wide spectrum of Aboriginal health researchers:

"It [NGGS] was one of the most formative experiences during my Master's and PhD. It allowed me to connect with other Aboriginal health researchers. There was no similar cohort of researchers at my academic institution."

By hearing other researchers talk about their experiences, methods and results, awardees experienced increased confidence and a strong sense of competence in terms of their abilities and motivations as Aboriginal health scholars in training:

"You know, you get to hear all these stories that we're talking about right now. That other people are living it and you're not some freak out there. I always found [the NGGS to be] a great space to be who you are and to be that entire person, and to express your emotions and your intellectual side as well, along with your spiritual side and everything that makes you who you are. That space was created when I attended those national gatherings. It was something else."



IPHRC workshop on embodied research and dynamics at NGGS 2011

8.0 PART IV: ADVANTAGES OF THE NEAHR MODEL

The current iteration of the NEAHR evolved from ACADRE and is anticipated to evolve again soon, with the potential for moving away from a regional or NEAHR expertise based approach to a centralized competition process for disbursement of trainee awards in Aboriginal health. This section describes the awardees' perspectives on the advantages and disadvantages of a centralized competition. The majority of the respondents emphasised the importance of maintaining some kind of a regional review process as employed by the majority of the NEAHRs, even within a centralized competition if that is the direction that the program moves toward.

Perceived Disadvantages of a Centralized Competition

Awardees outlined three key disadvantages to a centralized award competition; 1) loss of community or regional level understanding of health research needs; 2) weakening of regional NEAHR centres and awardees' relationships to the Centres; and 3) complexity of centralized competition and application process issues. Each of these finding is articulated in greater detail below.

The Current Regionalized or Specialized Focus of the NEAHRs is Important

Awardees expressed deep concern that a centralized review process would lose the benefits of local knowledge and perspectives, specifically, the local knowledge that presently goes into candidate selection and matching of candidates to research needs and mentors:

"I think having each centre maintain its own autonomy in its review allows for the reviewers to make decisions based on the agreed upon direction and research priorities of each centre...[this is] especially important if the center has a board that is governed by relevant community leaders that are deciding on priorities."



AK NEAHR research team member Jon Salsberg with Lisa Bourque-Bearskin at NGGS 2011, hosted by IPHRC Awardees also challenged the abilities of a centralized competition to adequately understand and respond to community level needs and regional/local expertise. Awardees viewed centralization to be in direct conflict to community-based participatory research and Aboriginal research, which many of the awardees described prescribing to:

"I believe the current process has many advantages over a national (or centralized) competition, including as examples, knowledge of: local/regional research needs/gaps; candidate reputation; complement of Aboriginal researchers across disciplines; etc."

The current structure of the NEAHRs facilitates and encourages strong participation of local communities in many of the regional and national activities. For example, the NEAHRs invite community members to participate as members of their Advisory Boards. In many deliberations about how NEAHR research monies are spent, for example on candidate selection and evaluating the strength of proposed research, there is considerable regional consultation – thus strengthening the abilities of the NEAHRs to respond to regionally important health issues, and in ways that adhere to the ethical principles of local people. Real concern was expressed that the shift to a centralised process would be disempowering to local communities, thereby leading to a weakening of regional structures.

Strong Relationships Between NEAHR Centres/Teams and Awardees

Many of the awardees described close personal relationships associated with the NEAHR Centre where they had applied to, or received funding from. The regionally based nature of the competition has fostered close connections, trusting relationships, and considerable one-on-one guidance from staff and other local NEAHR contacts. Awardees described these close ties as very important to the success of their applications as considerable time was invested in developing applications that demonstrated high academic standards, strength of Aboriginal capacity development, and strong appeal for local research needs:

"The advantages within [the current] model far outweigh any disadvantages. The amount of stress that Aboriginal students attending graduate education are undergoing may be many times that of Non-Aboriginal students. Many are single parents, working to make ends meet, and looking after nieces, nephews, parents and siblings. Further, many of these students are already working and doing the kind of work they will do upon graduation with their home communities. Without knowledge of a student's particular home and life situation - something that few of us would ever put in an application - students well deserving of an award may be overlooked as these applications may not be considered as 'robust' to reviewers who are unfamiliar or unaware of the challenges common to Aboriginal students."

Potential Impacts with a Centralized Award Competition/Application Process

Awardees expressed anxiety that the high level of competition perceived to surround a national level competition would deter some students from applying. Awardees are aware that a national level competition would mean longer wait times to hear results of application, the likelihood that fewer scholarships would be

available, and increased strain on those who need to review all proposals. There was also concern that the national competition would mean an unequal geographic distribution of awards, for example, that regions with more students would receive more awards thereby failing to reflect the regional diversity of Aboriginal populations across Canada:

"I think it is important that French people from Quebec still have access to funding from the Nasivvik Centre and I am afraid maybe if it is centralized it will be harder for French-speaking people to get the funding. I also think that the regional distribution ensure that students from across the country are working on Aboriginal health issues from all regions of the country. I would be worried that the focus might shift to Western provinces since the Aboriginal population is very [high] over there so there would be more applicants. However, the Mi'kmaq population in Nova Scotia might be small but it still deserves a lot of attention. If it does get centralized there must be [a] mechanism in place to ensure all regions benefits from the funding."

Perceived Advantages of a Centralized Competition

Despite the emphasis outlining the perceived disadvantages of a policy shift away from regionalized trainee awards disbursement to a centralized competition, there were also several potential advantages recognized by awardees of a centralized competition, including: 1) a streamlined application process; and 2) improved accountability.

Streamlining the Application Process

Awardees suggested the national level competition might be advantageous over the current regional review because it will provide a standardized process of application review and disbursement of funds. This process was articulated by awardees as being (potentially) a more objective process as well as one that is more simplified, and may result in a greater pool of applicants:

"As a student in one province doing research in another, I wasn't sure which NEAHR to apply to.

Another student (also at my university) working in the same community has held an award at a NEAHR in that province. I wonder if a national competition might simplify the application process for cross-jurisdictional students?"

Improving Accountability

Those awardees who perceived a national level competition would improve efficiency and accountability of the awards process suggested this was possible by reducing duplication, connecting students with appropriate researchers, and improving communication. By taking the competition to the national level, awardees claimed that there would be less chance for conflict of interest, more opportunities to share NEAHR foci or expertise across regions, and a broader panel of expertise to draw from during application reviews.

9.0 CONCLUSIONS: SUCCESS, DEVELOPMENT AND STILL ROOM FOR MORE

The findings of this national study to evaluate the 10-year impact of the network of ACADRE/ NEAHR Centres on students, interns and post-doctoral fellows in Canadian universities clearly indicate that the network has been successful in generating significant Aboriginal health research capacity building especially at the graduate level. Within the survey respondents, many of the NEAHR awardees have gone on to secure research positions at universities either as associates or faculty members, and many have also gone on to careers with Aboriginal communities and organizations. It is anticipated that this new generation of researchers engaged in Aboriginal health will lead to the continued development of positive health research processes and outcomes resulting in reduced health disparities.

While gains are being slowly made, the health of Canada's Aboriginal peoples is grossly disproportionate to the health of non-Aboriginal Canadians. The network of NEAHRS, the IAPH, and CIHR as a whole, in partnership with health service providers and policy-makers, still have a great deal of work to do in terms of preparing a new generation of researchers with not only aptitude in health research outcomes but also aptitude in doing Aboriginal health research that has potential to reduce the burden of ill health of Aboriginal peoples. After a 10-year financial commitment from CIHR and a high degree of regard regionally, nationally and internationally for this innovative program, the future of the network of NEAHR Centres and the successful components of this program is not known. This report details the successes of the program by way of skill and capacity building, including the development of a cadre of Aboriginal health scholars who did not exist in Canadian universities only a decade ago. Without continued support for these scholars, existing and future trainees in the field of Aboriginal health, the ability for them to support and mentor future generations in a caring, supportive and systematic way, as demonstrated by the NEAHR network, will be jeopardized.

In keeping with this study which gives voice to the next generation of Aboriginal health researchers, the last word is given here to a NEAHR awardee, who articulates the strong personal value of the NEAHR and its overall value for the Aboriginal health community:

"I definitely think, like I said, the cultural component is so necessary. Because I'm so afraid that we're going to get into...we're going to stop 'walking the talk.' Like up to this point, I feel like we've done a pretty good job of actually...sticking to the issues, listening to communities, and actually doing things from a grassroots perspective. I have this fear that we can go too far the other way where we try to still legitimize what we're doing by the guidelines of CIHR and all these other places but then we're going to lose sight of that. And I feel like if the NEAHR centres aren't doing that then I don't know who else would, especially in light of all the cuts just recently happening with the closing of NAHO and all these other these other places. There isn't anywhere else in the country that has the ability to still be that network for everybody. In a cultural way, not just in saying that that's what you have to do but actually doing it. So I know that a lot of students, myself included... I mean it's so discouraging when you see other types of funders and various groups say, oh, yeah, this is how we do it. But when you actually look at their process, it's not how they do it. They tell you that's what you have to do, but they don't give you the time to do it. They don't actually talk to the community involved in their work. But the NEAHR centres at least actually do that. And so I definitely want to see that part continue."

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Alberta NEAHR hosted Cree naming ceremony for the White Buffalo held in Kananaskis, Alberta.

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APPENDIX A ABORIGINAL HEALTH RESEARCH NETWORK INVESTIGATORS 2012



APPENDIX B ABOUT THE NEAHR PROGRAM AND AHRNETS

Aboriginal Health Research Networks Secretariat

The AHRNet Secretariat is the coordinating body for the nine Network Environments for Aboriginal Health Research (NEAHR) centres located across Canada. Our goal is to bring Aboriginal health researchers together to enhance communication and coordination; and to promote the improvement of Aboriginal health through networking, collaboration and research.

The purpose of the NEAHR initiative is to sustain, strengthen and evolve a collaborative CIHR Network Environment for Aboriginal Health Research across Canada between researchers and communities. These Centres and AHRNetS are funded by the Canadian Institutes of Health Research (CIHR) and the Institute of Aboriginal Peoples Health (IAPH). The Institute of Aboriginal Peoples' Health (IAPH) was established in June 2000, along with the twelve other Canadian Institutes of Health Research (CIHR). Its role is to lead a national advanced research agenda in the area of Aboriginal health and promote innovative research that will serve to improve the health of Aboriginal people in Canada.

The NEAHR Program

The NEAHR program was established to build on the successes of the Aboriginal Capacity and Developmental Research Environment Centres. ACADREs were developed to focus solely on exploring critical Aboriginal health issues and to be the basis of a network of centres across Canada responsible for developing capacity of Aboriginal health researchers and for focused research efforts on determinants of health in Aboriginal communities. The NEAHR program will benefit Canada's Aboriginal people by helping to increase the impact of Aboriginal health research, and apply the research findings effectively to improve the health of First Nations, Inuit and Métis peoples' health in Canada.

The NEAHR Centres engage in activities that facilitate regional, national and international training, research and knowledge translation, which address critical Aboriginal health issues. These activities include but are not limited to:

- Facilitating and supporting research partnerships between community and research personnel.
- Enhance and develop the research environment between Universities and First Nations, Métis and Inuit communities and organizations.
- Providing appropriate resources and supports to students who wish to pursue careers in Aboriginal health research.
- Train more than 200 graduate students who are working a broad range of health issues, including mental health and addiction, food security, nutrition, diabetes, northern health issues, tobacco control, Aboriginal youth suicide.

- Strengthening capacity in Aboriginal health research by providing appropriate resources and supports.
- Supporting Indigenous ways of knowing, and community involvement in the pursuit of excellence in Aboriginal health research.
- Facilitating rapid update of research results through appropriate communication and dissemination strategies and supporting the development of collaborative

The AHRNet Secretariat undertakes the following activities on behalf of the NEAHRs:

- Coordination and communication between NEAHR centres, Aboriginal Health research networks, including students and researchers, National Aboriginal health organizations and international Indigenous health research networks.
- Coordination of events such as meetings of Principal Investigators and Coordinators/Directors; the annual gathering of graduate students involved in Aboriginal health research.
- Support and coordination of initiatives undertaken by some or all of the AHRNetS members, including NEAHR Centres, such as previous work on the CIHR ethics guidelines.
- Accumulation and dissemination of information about research and other activities pertaining to Aboriginal health, which requires well-developed communication and knowledge
- Undertake liaison activities with relevant parties, such as CIHR/IAPH, related research programs and organizations, and international Indigenous health networks.

For more information and to link to the national network of NEAHR centre's resources available online please visit the AHRNetS website and follow the links: http://ahrnets.ca/.

NEAHR CENTRES



Atlantic Aboriginal Health Research Program

The Atlantic Aboriginal Health Research Program will play a lead role in Atlantic Canada to increase aboriginal health research capacity by facilitating research that is meaningful to Aboriginal people in Atlantic Canada through the forging of research partnerships between community and university personnel. The program fosters community-generated indigenous research in three broad areas: social determinants of health; intervention research; and, health services.



Network for Aboriginal Mental Health Research

NAMHR developed in December 2001 as a partnership between Aboriginal communities and academic researchers. It is a network of researchers from across Canada with extensive experience in Aboriginal health and related areas. The priority of the Network is to develop research capacity. To that end, the emphasis is on networking and training for existing researchers and conducting a series of pilot projects that provide a basis to seek funding for larger scale projects from other sources including regular CIHR competitions, federal and provincial programs and Aboriginal organizations.



Nasivvik Centre for Inuit Health and Changing Environments

The Nasivvik Centre for Inuit Health and Changing Environments is a multidisciplinary research and training centre funded by the Canadian Institutes of Health Research-Institute of Aboriginal Peoples' Health. The Nasivvik Centre is focused on building capacity in Inuit health research through trainee support and strategic funding initiatives in key environmental health areas of importance to Inuit communities. The Nasivvik Centre provides training and education opportunities, and is conducting multi-disciplinary research on environmental change and influences on Inuit health; environmental public health surveillance and monitoring; and Inuit scientific knowledge in environmental health research.

Anisnabe Kekendazone NEAHR

The Anisnabe Kekendazone (original knowledge) NEAHR (AK-NEAHR, formerly ACADRE) supports training of Aboriginal health researchers through fellowships and seed grants at masters, doctoral and post-doctoral levels. The fund also helps Aboriginal health researchers take part in national and international health research that is relevant to the well-being of Aboriginal communities and attuned to their worldview. The AK-NEAHR focuses on Aboriginal health issues of national relevance, emphasizing primary prevention (building individual and community well-being and reducing the risk of health threats), evaluation of interventions, and translation of research findings for use by communities, policy makers and health services. The centre also features research linking modern science and indigenous knowledge in fields ranging from traditional medicine to community-based resilience to sexual violence and HIV/AIDS.



Indigenous Health Research Development Program (IHRDP)

IHRDP is committed to a student-centered approach to community-based health research in Ontario. IHRDP will assist with building a career structure for students in Aboriginal health research and will focus its resources on community-driven research projects that will identify health-related issues in First Nations communities. Research themes guiding IHRDP include: prevention and control of chronic diseases; mental health of women and children; and culture, health and healing.



Manitoba NEAHR, Manitoba First Nations - Centre for Aboriginal Health Research (MFN-CAHR)

The Manitoba Network Environment for Aboriginal Health Research (NEAHR) Program seeks to expand the pool of Aboriginal health researchers and contribute to the development of a sustainable and collaborative research environment for First Nations, Inuit and Métis communities in Manitoba. Primary research themes addressed by this NEAHR include: population health; health services; child health and development; and ethical issues in Aboriginal health research.





Indigenous Peoples' Health Research Centre (IPRHC)

IPHRC is a partnership between the University of Regina, First Nations University of Canada and the University of Saskatchewan, with broad support from various health boards and Aboriginal health organizations. Funding provided to IPHRC is primarily focused on building capacity in health research among Aboriginal people, communities and institutions through trainee support, and promoting research into areas of Aboriginal health. Our focus includes: Indigenous identity, place and connectivity, and cultural/linguistic continuity, as they relate to health; Mental health and addictions; Complex interactions of factors; Chronic disease. The principles that inform our research are community-based and interdisciplinary. Policy, knowledge translation and social determinants of health transcend all four focus areas and are a required aspect of all of our research.



Alberta Network, Edmonton

Alberta NEAHR's role as a network will be to facilitate, to bring people together – trainees with communities and academics – and create opportunities for research and knowledge sharing. The major themes for the new ACADRE-NEAHR grant application will include: Knowledge transfer and exchange; access to Health research for Indigenous Peoples – taking control of our own healthy future through research, capacity building and knowledge translation; and research that addresses access to culturally appropriate health care and services, urban and rural; Indigenous approaches to chronic conditions and care; healthy living/ resilience; environmental issues/connection to the land; traditional practice/healing; cultural awareness and cultural competency in health service delivery and in health research; social determinants of health – application to research and knowledge translation.



Kloshe Tillicum Healthy PeoplelHealthy Relations, British Columbia and Yukon Territory, Network Environments for Aboriginal Health Research

Kloshe Tillicum is one of 9 Aboriginal health research centres in Canada. The intention is to build aboriginal capacity in health research by linking the academics, students and communities that were conducting aboriginal research. By developing such a network, these researchers could share their findings, collaborate on projects and encourage new health research from aboriginal students and communities themselves. The four key themes are (1)Indigenous Knowledge including traditional medicine, (2)complex interactions – determining the health of populations, (3)infectious disease and (4)Aboriginal research ethics.