Research Department

Impact Report

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Corporate Director, Research

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Research Department

Impact Report

Executive Summary

IH has had roles in education, training and research since its inception in 2001 which have evolved over time. In alignment with IH goals, the Senior Leadership Team approved a Research Strategy in 2014 aimed at furthering research capacity to facilitate evidence-informed policy, practice, and implementation of evidence to improve health care. The research strategy authored by Dr. Yvonne Lefebvre, Scientific Director of Research, cited three foci for research development: prevention of chronic disease, access to health from rural/remote regions, and e-health. The strategy, along with funding grants from the Michael Smith Foundation for Health Research (MSFHR) from 2012 to 2017, and the British Columbia Strategy for Patient Orientated Research (BC SPOR) from 2016 to 2021, allowed IH to establish a strong Research Department. Staff has been recruited for their diversity and excellence in research knowledge, and navigation skills specific to health systems, community and rural settings.

The strategic directions for IH, the research foci, and BC SPOR have influenced the research department capacity building activities. Cultivating partnerships with academic institutions, First Nations communities, and patients as partners in urban and rural locations throughout the interior region has been a priority. The creation of the University of British Columbia, Okanagan (UBCO) campus in 2005, provided an opportunity for IH to partner with this academic institution to develop synergistic research, education and training opportunities. Interior Region is now recognized as a leader in health research development and implementation science opportunities.

In alignment with IH and research foci priorities, and the BC SPOR mission to support patient orientated research, an evaluation of the impact of research at IH has been conducted. This report represents the first phase of an evaluation of research department activities and capacity building within IH. The results of the evaluation indicate that there has been significant engagement of IH stakeholders and as a result, has achieved research capacity building results in five domains which include: increasing research infrastructure, providing leadership, facilitating linkages and partnerships, practice support, and promoting research friendly cultures.

Increasing research infrastructure – Through innovative operational approaches that have leveraged external to IH funding opportunities, the infrastructure for research has increased significantly from 3 staff in 2012 to 24 leaders, staff and clinical research members and an additional 12 team members that have dedicated research duties though partnership agreements. The infrastructure has been supported by recruiting Research Department members with strengths in both academia and health systems. As a result of the recruitment and partnership development, funds to conduct research have also increased through the grant writing and publication expertise of the team.

Leadership – Formal leadership of research is underscored by highly credible Scientific and Associate Scientific Directors that increase the profile of the Research Department locally and provincially. The Corporate Director combines academic and operational management responsibilities with being an embedded scholar, an adjunct professor (UBCO), and a post-doctoral

fellow. Each of the department team members have academic expertise and contribute to the organization as leaders and by their own continual advancement of scholarly skills and levels of academia. The team members have a high level of academic achievement with: Post-Doctoral Fellows (3), PhD (1), PhD candidate (1), Masters (3) and Masters in progress (2). The research team span a wide range of research expertise in methodology (qualitative, quantitative, mixed-methods) and content (nursing, ethics, policy, quality, evaluation, gerontology, health informatics, community development, rural and remote, Indigenous, allied health, and clinical research).

Linkages and partnerships – Research relationships have increased dramatically in the past year across IH, in the province, and nationally as the department staff are members on a variety of local, provincial and national collaborative and networks. As a result of participation at these multiple levels, the profile of the work has been raised provincially as supported by the high volume of consultations and high quality and dollar amounts of grant proposals.

Practice support – Practice support has increased significantly within IH as more staff is reaching out to ask for assistance to use research for exploring IH related problems and developing innovative solutions. Of particular interest is the notable increase in how IH stakeholders have used Research Department expertise to assist them in using research methodologies – without necessarily conducting research - to think differently about how to find solutions. The practice of using research in this way increases critical thinking and optimizes the opportunities to increase the prevalence of evidence informed practice in IH.

Research friendly culture – The findings suggest that a research friendly culture is emerging. The Clinical Research Department, which has not even reached a year milestone since becoming a department, has quickly expanded with the hiring of the manager in June 2017 to now having 10 Clinical Research Coordinators hired in Kelowna, Penticton and Kamloops. This fast-paced expansion is attributed to a rising demand from physicians who want to conduct clinical research in IH. The insurgence of clinical research infrastructure has been used successfully at Kelowna General Hospital (KGH) as a physician recruitment strategy. This demand has resulted in dedicated new research spaces at KGH and Royal Inland Hospital in Kamloops which will catalyze research friendly cultures. In addition to the increased presence of clinical research, there has been an increased volume of students and staff who has received mentorship, attended training or workshops, or had support with projects. This is promising in terms of increasing the scale and spread of evidence into practice and the role that research has to play in such endeavors.

Looking ahead – Based on the increased activities of the Research Department and the goals of IH, the Research Strategy is in the process of being refreshed. This process will allow our department to collect more information about how we can improve our services and the overall impact of research in IH. A new strategy is set to be released in June 2018. In addition to the strategy refresh, some key activities have been set for the 2018/19 year which include: 1) attaining approved Canadian Institute Health Research (CIHR) funding status to allow research grant funding to be held by IH; 2) planning discussions to build an IH/UBCO/Thompson Rivers University Academic Health Science Centre; 3) and completion of policy infrastructure for research finance, data management and research integrity policies to ensure the sustainability of high quality research in IH.

During a second stage of the evaluation data will be collected from March to May 2018 and used to inform the 2018 IH Research Strategy refresh. In the second stage, a broader lens will be used to survey key stakeholders views on how research has built capacity across IH and what further actions are required in order to extend the impacts of research overall.

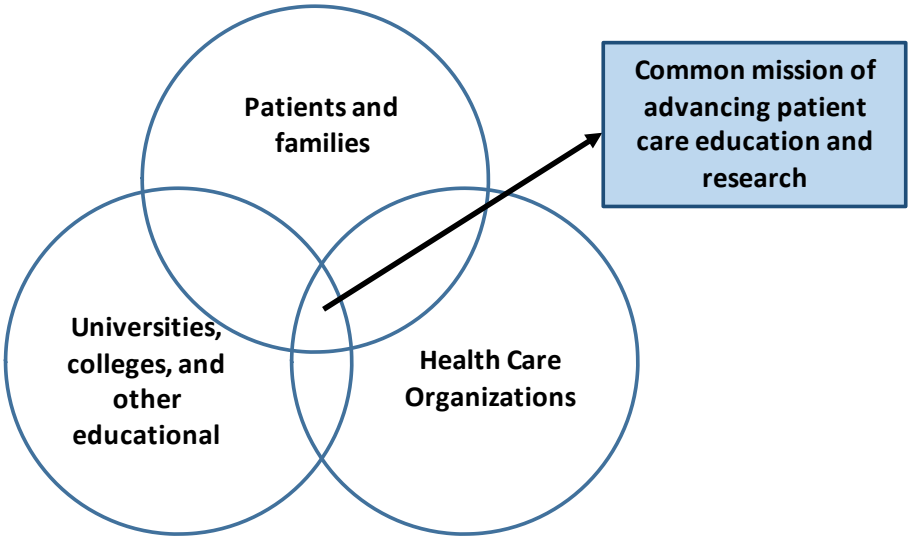
Contents

Introduction

1. Purpose of Building Research Capacity in Health Systems

By bringing together stakeholders from both healthcare and academic settings - and including patients and their families as key stakeholders - a common vision for advancing patient care, education and research will be more meaningful and effective (Advancing Patient Care Model [1] Figure 1.0).

Figure 1.0 Advancing Patient Care Model



2. Interior Health Region

The interior region is located at the most southern and eastern borders of British Columbia. There are over 215,000 square kilometers in this region with an estimated population of 750,000 (Interior Health, 2016). The region includes 59 municipalities, 109 designated places, 54 First Nations communities and 7 regional hospital districts.

The Interior Health Authority (IH) was created in 2001 and currently employs over 19,000 staff, has 1,500 physicians, and over 4,800 volunteers. There are a total of 24 health centers, 16 community hospitals, 4 regional hospitals, 2 tertiary hospitals, 6,584 residential care and assisted living beds, and 1,391 hospital beds. The vision of IH is to set new standards of excellence in the delivery of health services in British Columbia with goals to improve health and wellness, deliver high quality

[1] Adapted from: Three Missions, One Future… Optimizing the Performance of Canada's Academic Health Sciences Centers. A Report from the National Task Force on the Future of Canada's Academic Health Sciences Centers. (May 2010).

care, ensure sustainable health care by improving innovation, productivity and efficiency, and cultivate an engaged workforce and healthy workplace.

3. Interior Health Research Department

IH has had roles in education, training and research since its inception in 2001; these roles have evolved over time. The Senior Leadership Team approved a Research Strategy in 2014[2] aimed at enhancing research capacity to facilitate evidence-informed policy and practice, and the implementation of evidence to improve health care. Since the approval of this strategy, and with funding grants from the Michael Smith Foundation for Health Research (MSFHR) and the British Columbia Strategy for Patient Orientated Research (BC SPOR), IH has established a strong foundation for research by employing staff with excellent research knowledge and navigation skills specific to health systems, community and rural settings.

In alignment with the overarching mission and goals of IH and BC SPOR, the IH Research Department has focused efforts on capacity building through the training of stakeholders so that they can lead research; thus increasing the scale and spread of innovations, and improvement in quality overall.

Accomplishing capacity building in terms of mobilizing evidence into practice in a health system is a complex task fraught with multiple barriers such as workplace culture, time, and access to evidence[3]. It requires time to build relationships among the organizational constituents in order to properly understand the contextual factors that resist or catalyze evidence-based practice. It also requires that health organizations have leaders with facilitation roles, ties to researchers and opinion leaders, technical infrastructure, and training in order to mobilize evidence in these complex systems and situations[4]. As such, the IH Research Department has used the health authority strategic priorities as a guide post, and applied the capacity building funds from MSFHR and BC SPOR, to construct leadership in research at a local level. This allowed for the cultivation of partnerships that inform context and then offer the experience of doing and using research to support evidence mobilization, scale and spread. Department staff view IH and its partners as a community and have aligned our services accordingly.

A multifaceted approach has been utilized in order to be nimble in reaching multiple IH stakeholders (clinicians, staff, leaders, patients, communities, Aboriginal partners). The logic of this strategy posits a community development process that builds confidence, competencies, connections, and ultimately capacity among IH stakeholders to use research methods and outputs. By developing broad-based stakeholder participation, stakeholders and their associated networks took on local ownership, which in turn lead to improved utilization of existing resources and increased commitment to draw from research innovation and improve quality over time. The rationale envisioned a systemic change process, moving beyond entrenched ways of working at an individual or unit level to inform decisions, extend intra-organizational networks and influence overarching policies.

4. Research Leadership

The leadership for research at IH comes from a diversified team with each member having a specific role depending on their particular expertise. Research leaders are positioned geographically at locations across IH in Kelowna, Kamloops, Penticton, and Nelson.

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[2] Lefebvre, Y. Research at Interior Health: Past Present and Future. (2014).

[3] Holmes, B. J., et al. Mobilising knowledge in complex health systems: a call to action. Evidence & Policy: A Journal of Research, Debate and Practice 13.3 (2017): 539-560.

[4] Ellen, M. E., et al. Barriers, facilitators and views about next steps to implementing supports for evidence-informed decision-making in health systems: a qualitative study. Implementation Science 9.1 (2014): 179.

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Directors

Dr. Yvonne Lefebvre, Scientific Director of Research – Provides strategic leadership of research priorities at a local and provincial level.

Dr. Devin Harris, Associate Scientific Director of Research – Provides leadership for physician engagement in research.

Dr. Deanne Taylor, Corporate Director, Research – Provides leadership for the development and operational oversight of the Research Department in alignment with the mandate of the research portfolio. Leads and facilitates a range of research and knowledge translation activities.

Regional Practice Leads: Research & Knowledge Translation

Leslie Bryant, Indigenous Engagement – Leads and facilitates a range of research and knowledge translation activities, enabling culturally sensitive and appropriate IH region Aboriginal and Metis engagement in research, and the use of evidence in practice and decision-making.

Dr. Karin Maiwald, Patient Engagement – Leads and facilitates a range of research and knowledge translation activities, enabling patient engagement in research, and the use of evidence in practice and decision-making.

Betty Brown, Rural and Remote Community Engagement – Leads and facilitates research and applied health research capacity activities (research projects as well as knowledge translation and exchange activities) to engage in collaborative research partnerships between communities, academia and IH.

Holly Buhler, Data Infrastructure – Leads and facilitates a range of research and knowledge translation activities related to informatics and data management for research, including analysis, projections, and forecasts using descriptive and statistical methodologies and software tools.

Katrina Plamondon, Knowledge Translation – Leads and facilitates a whole-systems approach to how we use and do research within health contexts, including identifying and exploring research problems and how evidence can be applied or transferred to distinct settings.

Wendy Petillion, Research Compliance and Quality – Leads and facilitates a range of research and knowledge translation activities related to research compliance, quality, policy and standard operating procedures.

Andrea Burrows, Research Systems Transformation – Leads and facilitates evidence-based teaching and learning to support research engaged cultures and the use of applied research knowledge methodologies.

Research Department Team

Dr. Caili Wu, Researcher – Provides research support for Interior Health Tertiary Mental Health and Substance Use Services.

Dr. Nelly Oelke, Interior Centre co-Lead and UBCO Researcher – Acts as an expert resource for moving knowledge into action within the health system using implementation science methodology.

Dr. Sana Shahram, Health Research Policy Fellow – Leads and facilitates a range of research and knowledge translation activities related to health equity and policy issues.

Kim Peake, Research Navigation Coordinator – Supports the development, coordination, and evaluation of education programs, services, and learning products and the department's communication initiatives.

Coleen Adderley, Manager Clinical Research Department – This department provides oversite for Clinical Research Units (CRU) at various sites across IH. Each CRU supports physician investigators to efficiently and effectively run clinical trial research studies in accordance with required regulations (i.e., Health Canada, Good Clinical Practices, Tri-Council Policy Statement, Freedom of Information and Protection of Privacy Act, and the US Food and Drug Administration).

Evaluation of Research Capacity Building at IH

1. Approach

This evaluation used a quantitative approach including survey and descriptive data collected for the calendar year 2017. Data previous to 2017 were not collected to the level of detail cited in this report because the department was in a rapid state of expansion and the focus was on recruitment and growth from 2014 to 2016 (i.e., BC SPOR). This evaluation, although providing some notes on areas of expansion from previous years, is a baseline evaluation of IH Research Department activities. It is worth repeating that the overall goals of research at IH are: to improve health and wellness; deliver high quality care; ensure sustainable health care by improving innovation, productivity, and efficiency; and cultivate an engaged workforce and healthy workplace.

2. Community-based Evaluation

a. Overview: A community based evaluation method that has been used successfully in health science research over the past two decades was employed to evaluate the impact of IH Research Department capacity building activities[5][6]. This type of evaluation leans on community empowerment principles to assess how a program or initiative increases a community's capacity in a particular area of focus. We used community-based principles to guide the work of the department and a community-based evaluation lens to determine the effectiveness of the research activities.

b. Conceptual framework: The focus was to accurately conceptualize and measure research capacity from the perspective of empowerment as a form of engagement. Engaging communities for capacity building involves empowering people to feel confident to use new skills as they learn and apply them. The aim of this approach is to increase potential scale and spread of innovations through engagement in research. The community-based approach moves from philosophical descriptions into concrete operations of empowering capacity building. To define the concrete operations that provide

[5] Fetterman, D., et al. Collaborative, participatory, and empowerment evaluation: Building a strong conceptual foundation for stakeholder involvement approaches to evaluation (A response to Cousins, Whitmore, and Shulha, 2013). (2014): 144-148.

[6] Fetterman, D. M., Kafterian S. J., and Wandersman, A. Empowerment evaluation: Knowledge and tools for self-assessment and accountability. (1996).

evidence that capacity building has occurred, we must define the content which include values, processes and outcomes[7]. Such approaches have viewed empowering capacity building in both a general or situation-specific competency. In this evaluation, we firstly viewed capacity building as supporting the acquisition of knowledge, skills, perceived competencies and expectancies for individual and group accomplishments in the specific area of their work. Secondly, we took a multilevel approach at which capacity changes occurred at the individual level in which personal capacity increases; at the intra-organizational level in which a collective capacity building of its members occurred, and at the extra-organizational level, in which relevant health systems were successful in influencing change.

c. Method: The survey and descriptive data were collected and categorized using the values, processes and outcomes relevant to research capacity building from a community perspective, and assessed by considering the following domains: promoting research friendly cultures; increasing research infrastructure; providing leadership; facilitating linkages and partnerships; and practice support [8] (Appendix A). Data to inform the domains and resultant inputs, outputs and outcomes were collected through an IH Research Department survey populated by each team member who reviewed: calendar meetings; letters of support written as requested by stakeholders; workshop/training/sessional lectures; attendee statistics; and other descriptive contextual data (i.e., funding sources, meeting agendas and minutes, etc,) and analogues. The information gathered from these sources contained details about the types of requests, who was making the request and why, the types of services offered, and how the services were applied.

Findings

This section outlines the findings from the data collection which are categorized into three broad elements: Inputs, outputs and outcomes.

1. Inputs

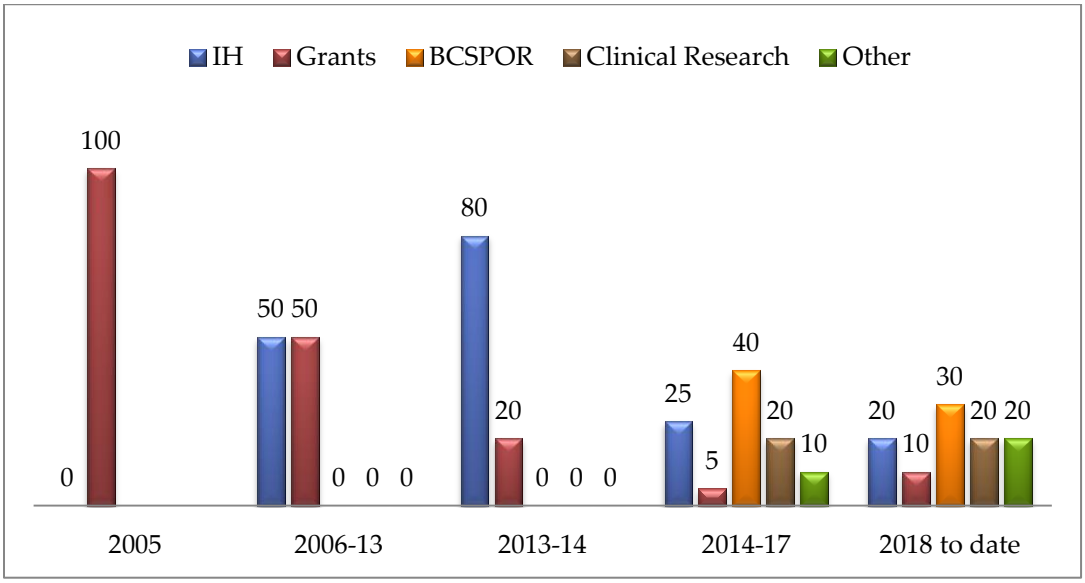
Inputs are defined as those items or activities which cultivate research capacity by adding to the existing infrastructure.

a. Funding: The funding context has changed dramatically since inception of the IH Research Department in 2005. From 2005-2008 research at IH was completely supported by a research facilitation grant from MSFHR. Over the years, the funding picture has shifted. Through some innovative operational tactics, the Research Department been able to attract and leverage external to IH revenue sources from: BC SPOR, Tri-Council funding grant, industry sponsored clinical research, and other sources (i.e., Foundation grants, rebates) that account for the expansion in human resources and to support non-wage activities such as Indigenous, patient and rural community engagement. Figure 2.0 illustrates how contributions from various funding sources have changed over time to support both infrastructure (wage) and organizational opportunities to engage in research (travel, workshops, community events, etc.).

[7] Fetterman, D. M., Kafterian S. J., and Wandersman, A. Empowerment evaluation: Knowledge and tools for self-assessment and accountability. (1996).

[8] Maiwald, K. Interior Health Research Capacity Domains. (2016).

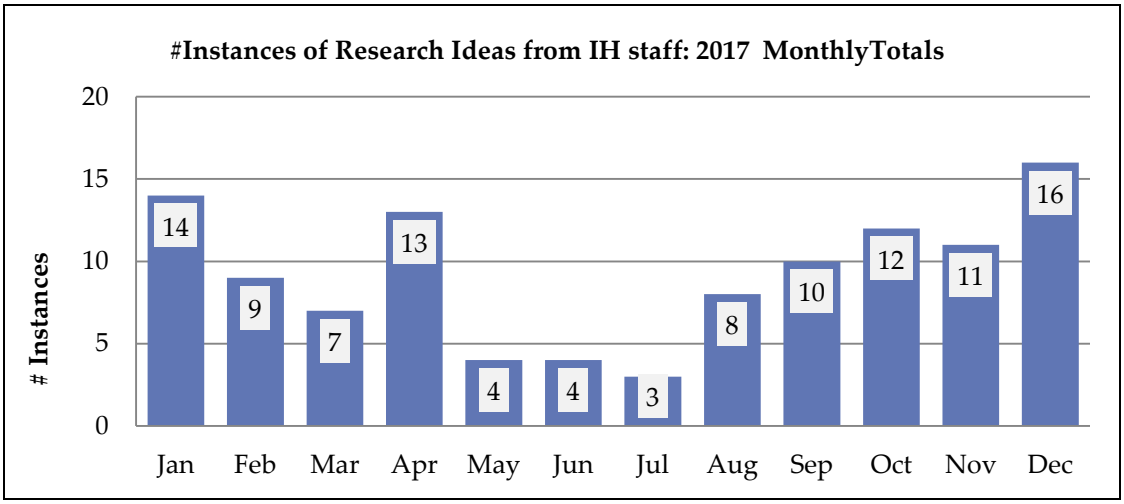
Figure 2.0 Research Department Funding Sources as a Percentage of Total Funding



In addition to the ways research in IH has been able to attract other sources of funding to support research infrastructure, there has also been support for research partners applying for research grant funds. A portion of these funds are directed to support both wage and non-wage activities in IH. The majority of funds from these grants support the advancement of research knowledge targeted at IH priorities, meaning funding is processed through the academic institution versus IH financial service accounts. A proportion of the funding from successful grants is re-directed to IH to help offset operational impacts to IH. Since 2015, IH has provided grant application support for a combined total of research valued at $32,943,766. These grants consist of a combination of Tri-Council awards. Collaborating researchers come from Canadian academic institutions from coast to coast (Mount St. Vincent University in Halifax to the University of Victoria). In addition to supporting partner grant competitions, IH brought in new funding for clinical trial research over the past year and established a Clinical Research Department in June 2017. To date, the Clinical Research Department has hired 10 highly qualified casual clinical research coordinators and collected revenue of $ 46,858 with additional revenue of $55,469 to be collected in Quarter 4 of 2017/18 fiscal. The total funding amount for the 2015/16 and 2016/17 was zero as no Clinical Research Department existed and as such, no overhead was being charged. The intent of the Clinical Research Department is to generate sufficient revenue to cover operating costs.

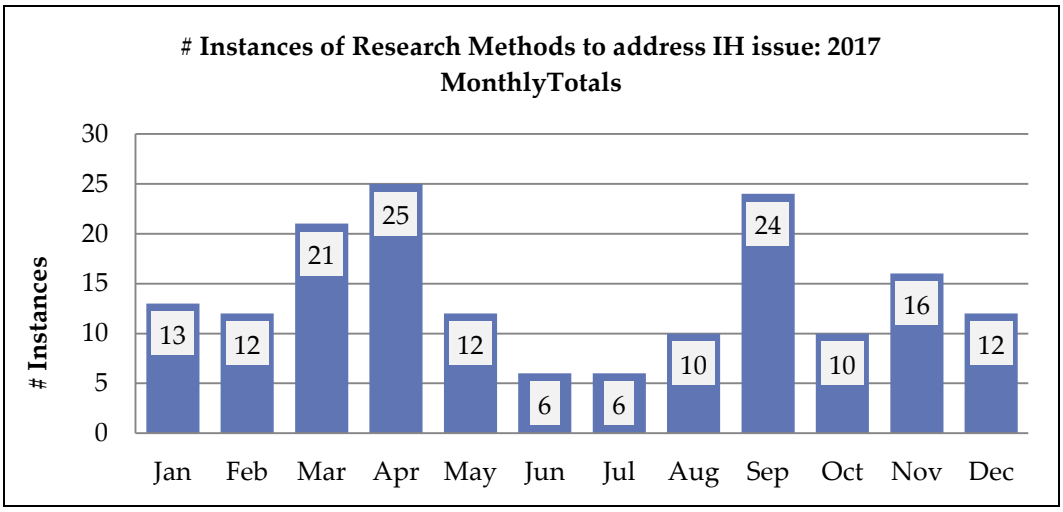
b. Learners: Supporting IH stakeholder learning and evidence-based practice. The number of Research Department consultations completed with IH stakeholders has increased annually. These consultations involved responding to 111 requests from IH stakeholders for assistance in developing a research idea to address their particular health system interest or problem (Figure 3.0).

Figure 3.0 Consultations for Research Ideas from IH Stakeholders



In addition to research idea consultations, 167 requests for assistance in using research methodologies were received over the course of the year as well (Figure 4.0).

Figure 4.0 Consultations for Research Methodologies



c. Engagement: Engagement of patient, Indigenous, and rural stakeholders, formerly often not included in research, has been an emerging priority for the IH Research Department. It has been a complex task to ensure that patients are engaged in a way in which their voice is central, rather than tokenistic and peripheral to the research process. Patients are invited and encouraged to participate on research teams and to provide insight and feedback into research prioritization.

Three populations which have received special consideration including: Indigenous communities – 155 requests (Figure 5.0), the overall Patient community - 80 requests (Figure 6.0), and individuals from Rural Communities – 96 requests (Figure 7.0).

Figure 5.0 Consultations for Engagement with Indigenous Communities

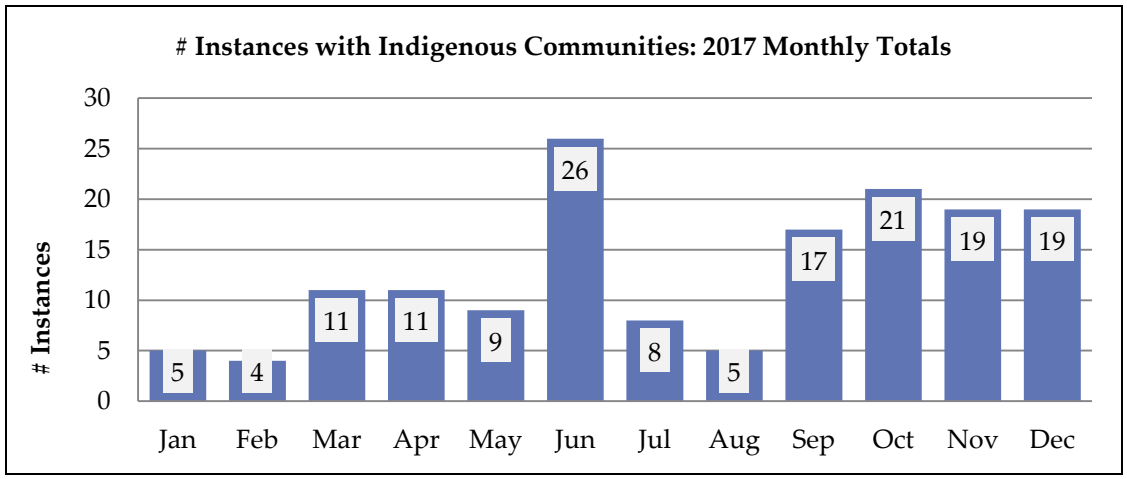


Figure 6.0 Consultations with Patient Community

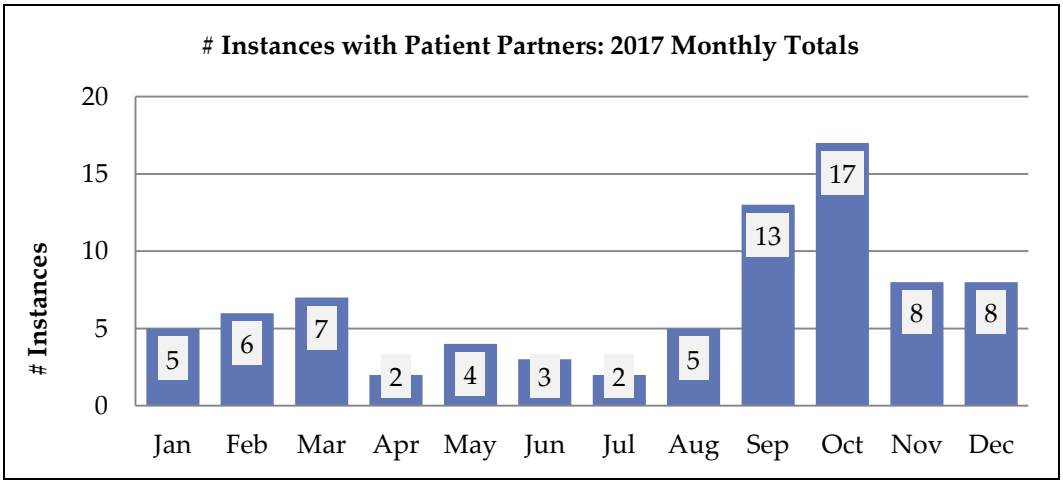
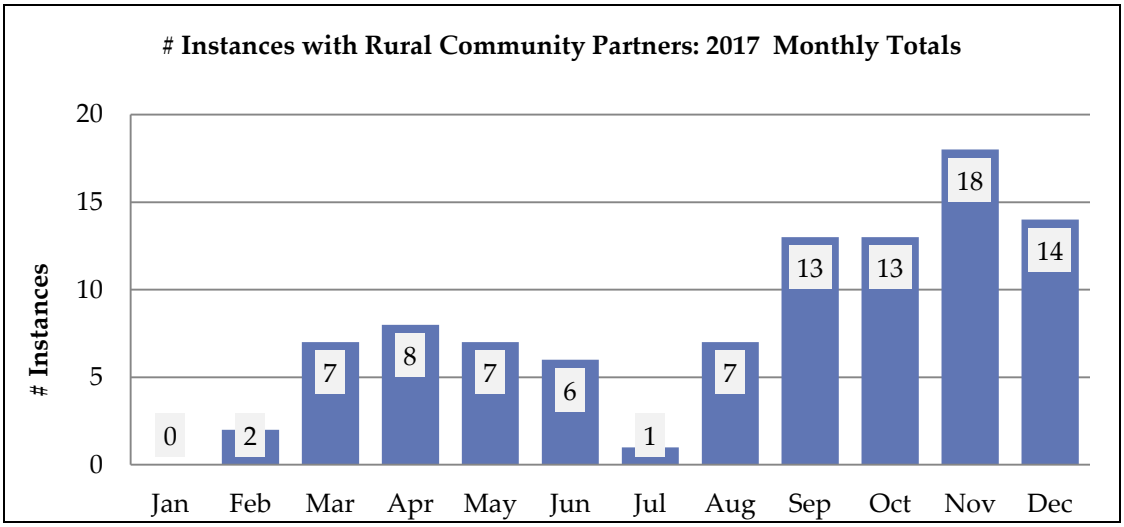
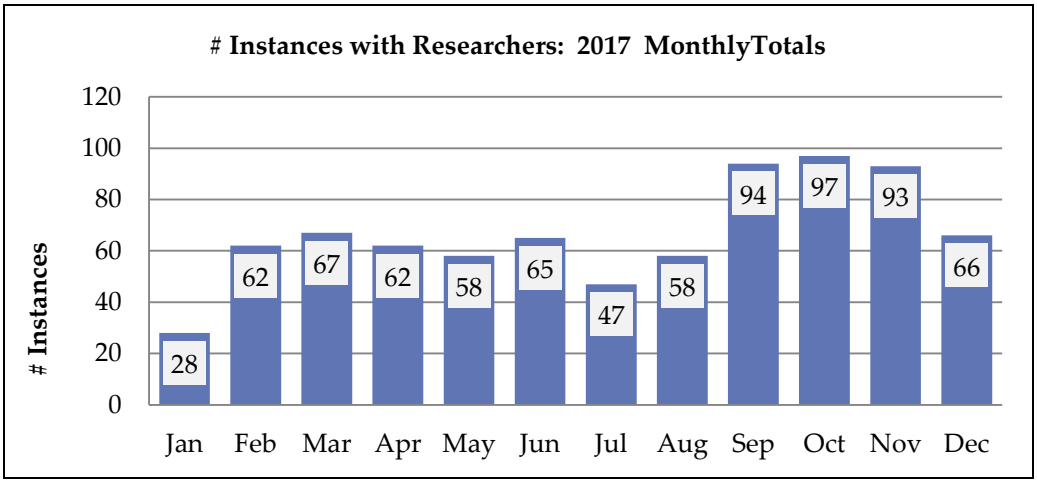


Figure 7.0 Consultations with Rural Community Partners



d. Academic Partnerships: Support for external researchers wanting to conduct research in IH has continued with a noticeable increase in the complexity of study designs, methodologies and study foci (clinical to qualitative and illness to health systems). The total number of 797 requests is displayed in Figure 8.0.

Figure 8.0 Consultations with External Researchers

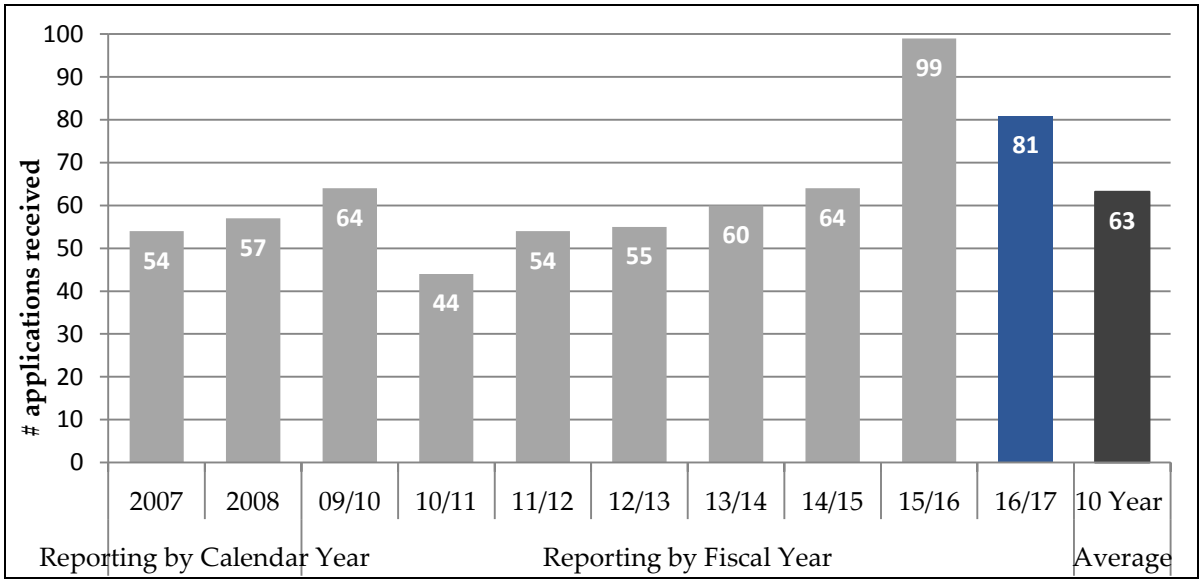


2. Outputs

Outputs are defined as products that are created as a result of research capacity.

a. Research: The number of research applications received for research ethics review has increased over the past two years as seen in Figure 9.0 from the 2016/17 IH Research Ethics Board (IH REB) Annual Report[9] which describes the number of research applications received annually.

Figure 9.0 Research Applications Received by the IH REB



b. Publications: The Research Department team supports academic writing of IH stakeholders through consultations but also submit manuscripts for peer review publication as part of their own scholarly practice. In the year 2017, a total of 12 peer reviewed manuscripts were published by members of the research department team. We have yet to develop a tracking mechanism to capture IH publications but aim to collect this data in 2018/19.

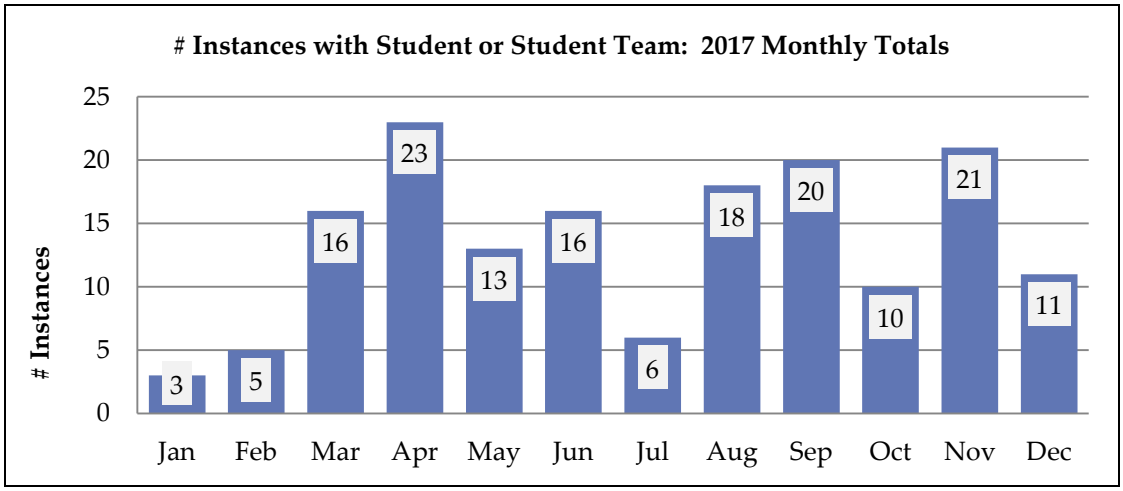
c. Workshops: Offering educational opportunities by leveraging the expertise of Research Department staff is a foundational service provided by the department. In 2017, 52 workshops and training sessions were offered with a total of 4306 attendees, including both IH and external participants.

d. Collaborations: Collaborations provide the opportunity for IH stakeholders to learn from others through the lens of applied research. In 2017, the Research Department team facilitated 78 collaborative events that involved a mix of IH stakeholders, academic partners, Aboriginal partners and rural communities. Prior to this collaboration, the Research Department had not formally engaged about research priorities with our Interior First Nations communities.

e. Embedded Scholar Program: The Embedded Scholar program supports Masters, PhD and post-doctoral students to gain valuable experience in learning and conducting research in the health system. Figure 10.0 demonstrates 162 instances of student support offered by the Research Department in 2017. The Embedded Scholar program started in June 2017 as a capacity building initiative.

[9] Petillion, W., & Herbert, D. Interior Health Research Ethics Board Annual Report 2016/17. (2017).

Figure 10.0 Support Students and Student Teams



f. TEC4Home Research Collaborativ TEC4Home Heart Failure is a four year project funded by CIHR, Michael Smith Foundation of Health Research (MSFHR), the BC Ministry of Health's Strategic Investment Fund (SIF), and Telus Health. In early 2018, TEC4Home Heart Failure will launch Phase 2 – a randomized controlled trial that will test the impact and outcomes of using home health monitoring (HHM) to support patients transitioning from the hospital to home after an emergency department (ED) visit. The trial will engage up to 24 recruitment sites (i.e., hospitals with emergency departments) from across the province and enroll 900 patients over 18 months. Site selection is currently underway with ongoing discussions in Vancouver Coastal Health, Interior Health, Fraser Health, and Northern Health.

g. KGH Cardiac Sciences Research Committee: This committee that consists of clinicians, administration and the IH Clinical Research Department has been integral to the emergence of a cardiac sciences research program at IH. The work from this group has also contributed to gaining dedicated research space at KGH and as a physician recruitment strategy.

3. Outcomes

Outcomes are defined as instances in which evidence obtained through research has been used to develop policy and implement new interventions.

a. Impacts on Decision Making

i. Operational Approval to Conduct Research Policy – This policy was developed to ensure the operational impacts of research were identified prior to research being conducted in IH. The approval process requires researchers identify resources impacted during the course of their study (e.g., staff time, physical space). In addition to operational impacts, researchers are required to identify if, and how, their research aligns with IH strategic priorities. Through this process, an increase in decision-maker engagement has occurred which has nurtured a more friendly research culture.

ii. Substance Misuse Innovation and Research Committee – In 2017, a series of three studies concerning the opioid crisis were developed upon the invitation of Dr. Silvina Mema, Medical Health Officer and with the support of Dr.

Trevor Corneil, Vice President, Population Health and Chief Medical Health Officer. These studies were partnership projects that involved Research Department co-leadership. Through this collaboration, and concurrent with other IH strategic planning and evaluation activities, a Substance Misuse Innovation and Research Committee has formed. The members include IH staff from Mental Health and Substance Use, Public Health, Communications and the Research Department, along with public citizens and harm reduction agency representatives.

iii. Aboriginal Engagement for Community-Driven Health Research – Four key areas of focus have guided the engagement initiative as part of BC SPOR and the IH Memorandums of Understanding with First Nations. The four foci include: 1) relationship building for self-directed research and knowledge translation, community-based and Nation led; 2) support cultural safety; 3) support land-based activities for health, healing and wellness; 4) Explore Colonial/Aboriginal intersections for person-centered care.

iv. Aboriginal Integration in Health Policy – As part of Dr. Sana Shahram's post-doctoral fellowship, the Research Department is collaborating on the development of a health equity strategy that will inform policy across IH; work on an Aboriginal Health Equity policy framework is the starting point.

v. Patient Voice Included in Priority Setting - The BC SPOR Interior Regional Centre has an eight-member patient engagement in research (PEiR) committee, co-chaired by a patient partner. Key PEiR activities include: the co-development of a patient engagement work plan and terms of reference for the PEiR Committee; development of a framework to integrate patients in the work of the Interior Regional Centre and promote patient engagement in research in IH; and provide feedback on the Application for Operational Approval to Conduct Research within Interior Health process.

vi. Rural/Remote Voice Included in Priority setting - The Regional Alliance for Rural Health has formed to increase and advance knowledge to improve rural health and wellbeing, though collaborative community-engaged action research on the social determinants of health. The Regional Alliance aims to facilitate sustainable student and academic partnerships and community engaged research to co-create solutions to community identified challenges. The Regional Alliance consists of a gathering of academics from post-secondary institutions, health service providers and rural community representatives from the Interior Region of south central BC and has been developed and led by Betty Brown, IH Research Department.

b. Impacts on Processes

i. Data Management – The addition of research data expertise and infrastructure, and collaboration with Information Management Information Technology (IMIT) has enabled a more efficient process for accessing IH data for research. As a result, the time from data request to data acquisition has been reduced from 10 months to an average of two weeks.

ii. Risk Management for Research – Risk management processes to support clinical trial agreements have been developed to ensure indemnities are reviewed and approved by the Health Care Protection Program. This process mitigates risks for conducting clinical trials by way of a thorough review and negotiation of clinical trial contracts. Clinical Research Standard Operating Procedures (SOPs) – Twenty-one SOPs have been developed based on national standards to ensure the IH Clinical Research Department is compliant with Health Canada regulations.

Implications and Discussion of the Findings

The IH Research Department has embraced the challenge of capacity building by using a community empowerment model aimed at increasing confidence, competence, capacity and connections within IH. The challenge of impact evaluations, especially where research in health systems is concerned, is to connect the activities of capacity building to changes in the health system. The findings of this evaluation point to an emerging capacity for research to influence evidence-based practice through the lens of a community-based empowerment evaluation framework that applies to research capacity building domains[10]. This evaluative approach guides the examination of how our department leadership has achieved inputs, outputs and outcomes specific to: increasing research infrastructure, providing leadership, facilitating linkages and partnerships, practice support, and promoting research friendly cultures. The findings offer evidence that each of these domains has been addressed in the capacity building activities of the department.

1. Increasing Research Infrastructure

The infrastructure for research has increased significantly from 3 staff in 2012 to 24 leaders, staff and clinical research members and an additional 12 team members that have dedicated research duties though partnership agreements. The infrastructure has been supported by recruiting Research Department members with strengths in both academia and health systems. As a result of the recruitment and partnership development, funds to conduct research have also increased through the grant writing and publication expertise of the team.

2. Leadership

Formal leadership of research is underscored by highly credible Scientific and Associate Scientific Directors that increase the profile of the Research Department locally and provincially. The Corporate Director combines academic and operational management responsibilities with being an embedded scholar, an adjunct professor (UBCO), and a post-doctoral fellow. Each of the department team members have academic expertise and contribute to the organization as leaders and by their own continual advancement of scholarly skills and levels of academia. The team members have a high level of academic achievement with: Post-Doctoral Fellows (3), PhD (1), PhD candidate (1), Masters (3) and Masters in progress (2). The research team span a wide range of research expertise in methodology (qualitative, quantitative, mixed-methods) and content (nursing, ethics, policy, quality, evaluation, gerontology, health informatics, community development, rural and remote, Indigenous, allied health, and clinical research).

3. Linkages and Partnerships

Research relationships have increased dramatically in the past year across IH, in the province, and nationally as the department staff are members on a variety of local, provincial and national collaborative and networks. As a result of participation at these multiple levels, the profile of the work has been raised provincially as supported by the high volume of consultations and high quality and dollar amounts of grant proposals.

[10] Maiwald, K. Interior Health Research Capacity Domains. (2016).

4. Practice Support

Practice support has increased significantly within IH as more staff are reaching out to ask for assistance to use research for exploring IH related problems and developing innovative solutions. Of particular interest is the notable increase in how IH stakeholders have used Research Department expertise to assist them in using research methodologies – without necessarily conducting research - to think differently about how to find solutions. The practice of using research in this way increases critical thinking and optimizes the opportunities to increase the prevalence of evidence informed practice in IH.

5. Research Friendly Culture

The findings suggest that a research friendly culture is emerging. The Clinical Research Department, which has not even reached a year milestone since becoming a department, has quickly expanded with the hiring of the manager in June 2017 to now having 10 Clinical Research Coordinators hired in Kelowna, Penticton and Kamloops. This fast-paced expansion is attributed to a rising demand from physicians who want to conduct clinical research in IH. The insurgence of clinical research infrastructure has been used successfully at Kelowna General Hospital (KGH) as a physician recruitment strategy. This demand has resulted in dedicated new research spaces at KGH and Royal Inland Hospital in Kamloops which will catalyze research friendly cultures. In addition to the increased presence of clinical research, there has been an increased volume of students and staff who has received mentorship, attended training or workshops, or had support with projects. This is promising in terms of increasing the scale and spread of evidence into practice and the role that research has to play in such endeavors.

6. Looking Ahead

Based on the increased activities of the Research Department and the goals of IH, the Research Strategy is in the process of being refreshed. This process will allow our department to collect more information about how we can improve our services and the overall impact of research in IH. A new strategy is set to be released in June 2018. In addition to the strategy refresh, some key activities have been set for the 2018/19 year which include: 1) attaining approved Canadian Institute Health Research (CIHR) funding status to allow research grant funding to be held by IH; 2) planning discussions to build an IH/UBCO/Thompson Rivers University Academic Health Science Centre; 3) and completion of policy infrastructure for research finance, data management and research integrity policies to ensure the sustainability of high quality research in IH.

Conclusions

In alignment with the overarching goals of IH and BC SPOR, the IH Research Department has focused efforts on capacity building, including the ability to lead research, using a multifaceted approach in order to be nimble in reaching multiple IH stakeholder (clinicians, staff, leaders, patients, communities, Aboriginal partners) priorities and goals. We have approached our work using a community development process with the aim of building confidence, competencies, connections and capacity across IH to use research to examine health setting problems and their solutions. By encouraging broad engagement, a sense of ownership is instilled through the process, leading to increased evidence informed practices over time. The evidence to date points to the critical role the IH Research Department has in impacting the systemic conditions that enhance the overall effectiveness of innovations and quality.

Appendix A

Research Capacity Domains