Research and Knowledge Translation Newsletter

northern health
the northern way of caring

THE 2021 NORTHERN BC RESEARCH AND QUALITY CONFERENCE: CELEBRATING THE NORTH

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The 2021 Northern BC Research and Quality Conference, sponsored by the BC SUPPORT Unit Northern Centre, took place December 7-9th, 2021. This event highlighted research and quality initiatives? in the North, showcased the strong research partnerships between the University of Northern British Columbia (UNBC) and Northern Health (NH), and celebrated the importance of patient partners in research and quality improvement. The theme of the conference was Learning from Adversity: Pathways to Success, and sub-themes: included innovations, equity, cultural safety, health and wellness, and sustainable systems.

This bi-annual event brings together researchers, patient partners, students, physicians and healthcare providers to celebrate and share health and health services research, evaluation, evidence-based practice and quality improvement initiatives in the North. As the 2020 conference was cancelled due to the COVID-19 pandemic, this year marked the first time since 2018 that the research community was able to come together in this capacity to celebrate Northern BC research and innovation.

There is important research and quality improvement work being conducted in the North by many different organizations, groups, and individuals that was presented at this conference. One of the unique partnerships that exists is between UNBC and NH. This research relationship was developed to facilitate collaboration and the establishment of mutually beneficial research partnerships between the two organizations, with the ultimate goal to improve the health and well-being of people in the north.

The UNBC and NH Memorandum of Understanding (MOU) is the basis for many research collaborations, including the BC Support for People and Patient-Orientated Research and Trials (SUPPORT) Unit Northern Centre (https://www2.unbc.ca/health-research-institute/bc-support-unit-northern-centre), which sponsored the conference. The BC SUPPORT Unit is one of 10 SUPPORT Units in Canada created as part of Canada's strategy for Patient-Orientated Research, led by the Canadian Institutes of Health Research (CIHR). The units were created to support, streamline and increase Patient-Orientated Research (POR) throughout Canada. POR is about engaging patients, their caregivers, and families as partners in the research process. The Northern Centre is one of four regional centres of the BC SUPPORT Unit (https://www.bcahsn.ca/our-units/bc-support-unit) and is the go-to resource for POR in the North. The Northern Centre is a true partnership between UNBC and NH, as the centre is jointly led by and has employees primarily associated with both institutions (BC SUPPORT Unit Northern Centre). The Northern Centre has worked to support the culture of POR in the North, and the 2021 conference included presentations of excellent POR research and quality improvement projects.

The 2021 conference premiered its first fully virtual event and included oral presentations and posters sharing research, quality improvement, evaluation, and implementation of evidence in a Northern and rural context. In total, there were over 150 attendees, 90 oral presenters, 40 poster presenters and 11 Exhibitor Booths.

The first day of the 3-day conference included pre-conference skill building workshops. Topics included data, evidence to action, cultural safety, quality improvement, and working with older adults. On day two, Dr. Mary Ellen Turpel-Lafond, Senior Associate Counsel, Woodward and Company, opened the conference with a keynote speech based on the report, In Plain Sight: Addressing Indigenous-specific Racism and Discrimination in B.C. Health Care (https://engage.gov.bc.ca/app/uploads/sites/613/2020/11/In-Plain-Sight-Summary-Report.pdf). The engaging and timely presentation on the 2020 report that revealed the levels of racism existent in the BC Health Care System also included discussion of the reports impact and the reverberating effects within the health care system as well as BC society. The key note ended with a question and answer period and a discussion of calls to actions including those specific to the Northern context.

Concurrent sessions and poster viewing made up the rest of day two. The final day of the conference included concurrent sessions, and ending with an excellent plenary panel discussing Learning Health Systems and Health Data Platform in the North. This plenary panel was lead by Dr. Danielle Lavallee, Scientific Director for the Michael Smith Health Research BC, and Shirley Wong, Executive Project Manager, Strategic Data Initiatives at the Ministry of Health. Danielle Lavellee and Shirley Wong were joined by a panel of guest speakers to engage in an informative and interactive discussion of Learning Health Systems and the Data Platform in the North. This including Dr. Theresa Healy, Vice President, Public Health Association of BC (PHABC) and Adjunct Professor UNBC, John Grogan, Patient Partner, Dr. Julia Bickford, Regional Director, Research Evaluation and Analytics, NH and Vash Ebbadi-Cook, Regional Director, Quality & Innovation, NH.

This conference was certified Patients Included™, as the conference met all 5 of the Patients Included clauses (Patients Included Charter Archive). Patient partners contributed to the planning of the event via the Person and Family Engagement Committee that included 4 patient partners who provided input and ideas at every step of the planning process. As well, 7 patient partners co-presented with their academic or health authority colleagues, and patient partners attended the conference as attendees.

The first ever virtual conference gave people from all across the north the ability to attend safely. Registration was also offered for free, and to encourage engagement virtually, organizers included networking opportunities and fun gamification tasks and prizes.

Attendees shared how much they enjoyed having the ability to attend virtually, one attendee commented;

> “In our northern/ remote context virtual offerings are absolutely necessary to ensuring that we have equitable participation and opportunity to attend conferences. Not everyone has the means or ability (including time off work for clinical staff) to travel to Prince George for attendance, virtual can help us reach a wider audience of interest and meet our goals of sharing research, QI, and evaluation broadly.”

Both planning committee members and attendees indicated their preference for future conferences to turn to a hybrid model of offering in-person and virtual components.

To conclude, the 2021 Northern BC Research and Quality conference was a success. Thank you to everyone who participated, and we hope to see you again in 2023!

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YOU'VE BEEN DOING QI WRONG!

What I learned at the Institute for Healthcare Improvement Forum

By: Simon Zukowski, MA
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Northern Health

I recently had the good fortune to attend the IHI Forum in Orlando, Florida (virtually, of course). As someone who supports a team of quality improvement (QI) coaches, this was a big deal. The IHI (Institute for Healthcare Improvement) is the global leader in healthcare QI and the Forum is their flagship event. Recently, the IHI has been rethinking its approach to QI and this new understanding was on showcase at the conference.

WHAT IS QI?

Quality improvement is a framework used to systematically improve processes and systems. It involves specifying a problem and a goal for improvement, using a variety of tools, techniques and data to understand the root causes, developing and testing hypotheses about potential solutions (typically on a small scale) and modifying and re-testing the hypotheses as needed in an iterative cycle until the desired results are (hopefully) obtained. The Model for Improvement, shown in Figure 1, is the most popular QI framework in healthcare today and it has been in use at Northern Health (NH) for over a decade.

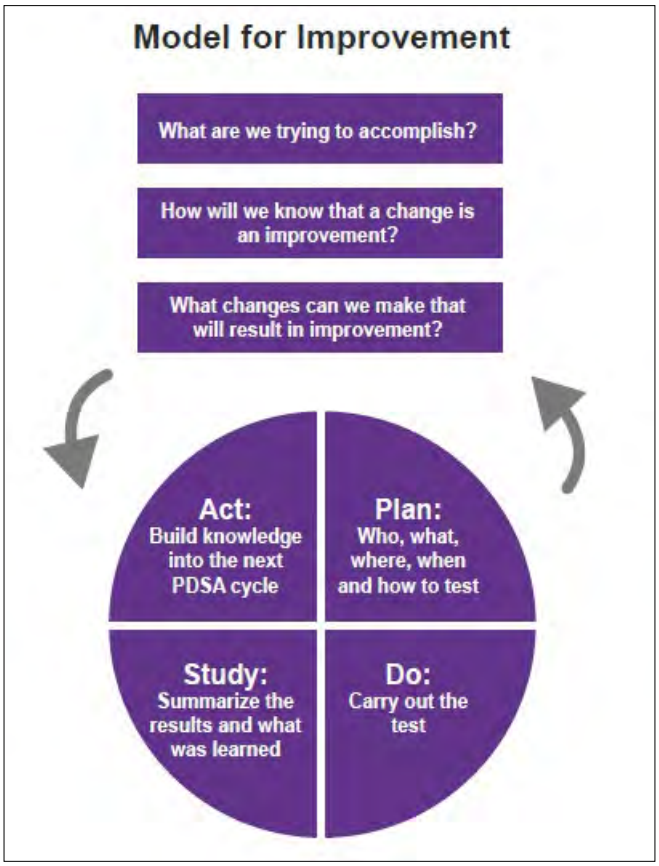

Figure 1: *Model for Improvement (Northern Health Authority)*

A BRIEF HISTORY OF QI

The roots of quality improvement run deep into our history, as the urge to improve seems to be in our species' very DNA (Juran, 1995). The modern quality improvement approach, however, originated in 1950s Japan, where two Americans—W. Edwards Deming, a statistician and Joseph Juran, a management consultant—found an enthusiastic audience in managers and executives eager to rebuild their industries from the ravages of World War II. The Japanese adopted—and modified—Deming and Juran's ideas1 with such verve, that by the 1970s Japan—which had just two decades earlier been known for shoddy quality—

1 Many of which, such as the "Deming Cycle" (aka Plan-Do-Study-Act or PDSA cycle and the theory of statistical variation were actually pioneered by Walter Shewhart whom both men knew and, in Deming's case, closely collaborated with.

became the world quality leader. Under the resulting competitive pressure, American businesses began to adapt quality approaches in the 1980s and by the 1990s QI had spread from its stronghold in manufacturing into the service sector, including healthcare.

The adoption of QI in healthcare received a massive boost with the publication of To Err is Human (Institute of Medicine, 2000) and Crossing the Quality Chasm (Institute of Medicine, 2001) in the early 2000s. The first report highlighted the staggering human cost of medical errors—which it estimated at 44,000-98,000 lives lost annually in the U.S. alone. The second report made a case for a system transformation that would embed quality as the central property of the healthcare system. The desired level of healthcare quality, the report argued "cannot be achieved by further stressing current systems of care. The current care systems cannot do the job. Trying harder will not work. Changing systems of care will" (Institute of Medicine, 2001, p. 4).

Over the last two decades, the use of QI in healthcare has practically exploded. One would be hard-pressed today to find a healthcare organization that does not profess to practice quality improvement in some manner. However, for all this activity and excitement, many people's expectations of a system transformation have been disappointed. Studies have shown only weak support for the effectiveness of QI in improving quality (Hill, Stephani, Sapple, & Clegg, 2020) and the quality chasm highlighted by the Institute of Medicine's reports seems as wide as ever (Braithwaite, 2018). What went wrong?

ENTER QUALITY MANAGEMENT

QI scholars and practitioners are increasingly concluding that there is more to improving quality than doing QI projects (which has been the mainstream approach to healthcare QI over the past two decades) (Shah, 2020). The flip side of this historical over-emphasis on QI projects has been an under-emphasis on designing services to produce quality in the first place (referred to as the process of **Quality Planning**) and maintaining that quality during operations (referred to as the process of **Quality Control**). Together, these three processes of Quality Planning (QP), Quality Control (QC) and Quality Improvement (QI) make up the **Quality Management** approach to the pursuit of organizational excellence/quality.[2] **Quality Assurance**, so prominent in the past, takes a backseat – serving only to reassure teams that standards of excellence are in place, rather than being the main mechanism for upholding quality.

How do QP, QC and QI interact? The below diagram

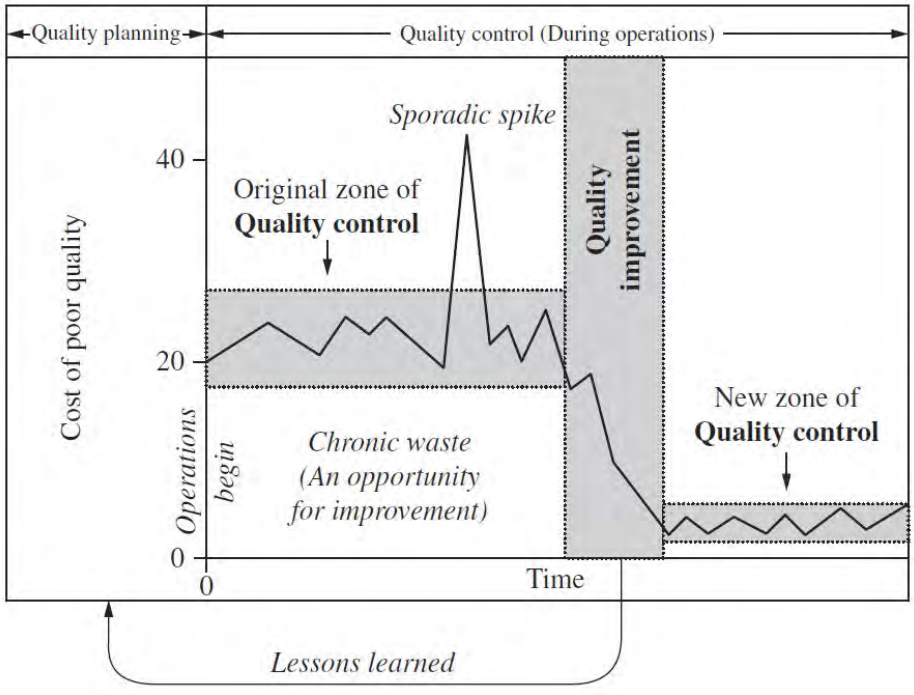

Figure 2: *A stylized depiction of the quality management approach. (Juran & De Feo, 2010)*

2 Ironically, quality management was the original QI approach promulgated by the giants of quality improvement—W. Edwards Deming and Joseph Juran—who believed that quality improvement efforts must be part and parcel of an organization's overall approach to management.

shows a hypothetical service, which has been developed through the QP process, but which nevertheless contains a significant level of waste (because services are never designed perfectly, no matter how well the QP phase is conducted). The service's level of performance is shown as being maintained within the bounds of normal variability through QC, until a sporadic spike of poor performance occurs. QC allows operational staff to detect the spike and quickly eliminate it. Finally, the organization decides that this service's level of performance is no longer satisfactory. A QI effort is launched and it succeeds in radically improving performance. QC then maintains performance at the new level (Juran & De Feo, 2010).

BACK TO THE IHI FORUM: PURSUING SYSTEM WIDE QUALITY

At the IHI Forum I observed quality management making a comeback. References to quality management were sprinkled throughout a number of presentations and one session in particular addressed the subject head on (Shah & Barker, 2021). In it, the presenters outlined the stages that healthcare organizations might typically go through as they transition to a quality management approach.

Stage 1: quality is driven from the top down and the organization uses quality assurance (not to be confused with QC)[3] to detect deviations from minimum standards and to bring performance back into compliance.

Stage 2: the dominant approach to quality is still largely the same as in Stage 1, but now includes undertaking a few large QI initiatives.

Stage 3: the organization adopts QP in order to embed quality in all of its planning efforts. At this stage there is often a proliferation of QI projects but only limited attempts at QC.

Stage 4: QP and QC become the dominant features of the system. A limited number of focused QI projects occur annually. The reliance on quality assurance diminishes, as overall quality improves. Every unit in the organization encourages frontline staff to improve continuously.

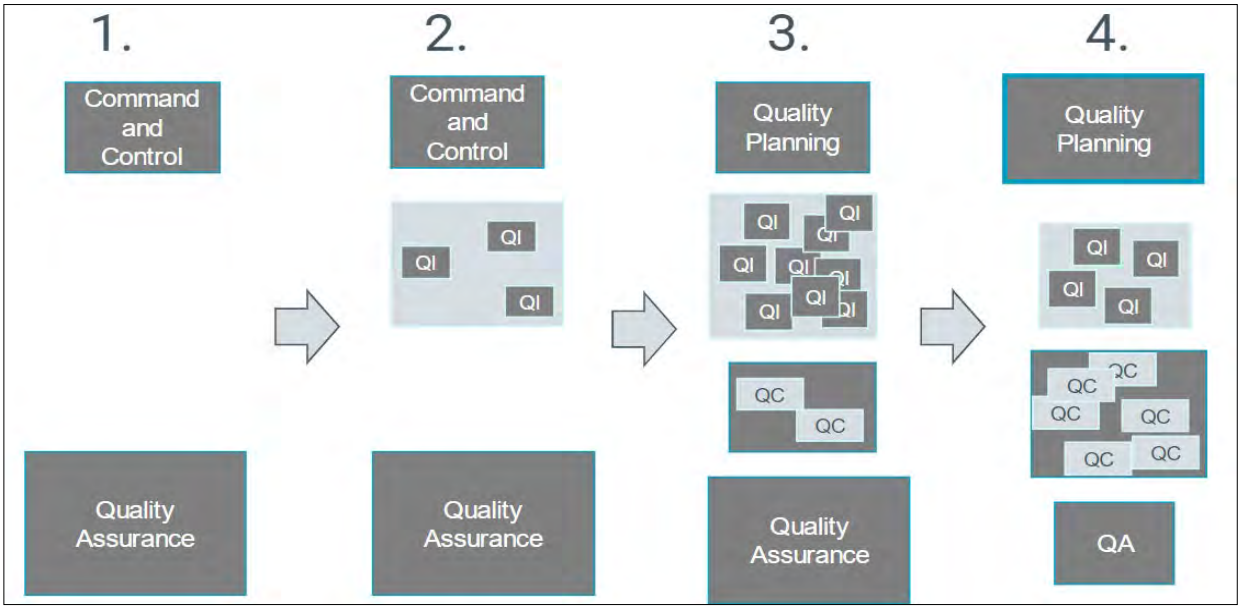

Figure 3: *Stages of organizational adoption of a quality management approach. (Shah & Barker, 2021)*

3 Shah (2021) describes quality assurance as "occasionally checking that we are meeting a particular standard or threshold.

WHAT IS HAPPENING AT NORTHERN HEALTH?

As an organization, NH has invested significantly in QI since 2010, and since 2017 has moved towards adopting a QM approach. Learning about the implementation of this approach has been gathered from sites within BC and across the country. Terrace was an initial site for implementation focus in 2018 and several elements of QM have since been a focus for implementation across the North West Health Service Delivery Area (HSDA). In the North East, visual management approaches (prominent in QC) have been trialed in the past, and in the Northern Interior, the Diagnostic Imaging department at UHNBC and Jubilee Lodge have been identified as areas to support implementation more recently. Online training in QM is also available to all NH leaders, staff and physicians.

This is exciting news! We may have some ways to go in our pursuit of quality and NH's mission to "provide exceptional health services to Northerners" (Northern Health Authority, 2020) but it is great to know that we are on the right track.

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RESHAPING THE RESEARCH LANDSCAPE IN NORTHERN BC

By: Esther Alonso Prieto, PhD
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NH Research Review Committee

In many ways, the research carried out in universities, and hospitals touches the lives of almost everyone on the planet. From the pill that alleviates a headache to cancer treatments and open-heart surgeries, today, there is not a single aspect of health care that is not influenced by scientific research.

The process through which an idea translates into a feasible scientific project whose outcomes improve clinical practice involves several highly specialized and complex stages (see Figure 1).

A critical stage refers to the review and approval of the study by the institution where it will be conducted. This stage represents the first official point of contact between investigators and research institutions and includes various levels of review such as ethics, data privacy and operational. Together, these reviews ensure that the rights and wellbeing of those who may participate in the study, for example, patients, communities, and staff members are protected, that applicable guidelines and regulations are observed, and that institutional resources required for the study can be utilized without affecting clinical care. If the study successfully passes the required reviews, an official body such as the institution's Research Ethics Board issues the final authorization letter. This letter indicates that the study upholds robust scientific, ethical, and legal standards and aligns with organizational health priorities. It also represents the organization's commitment to providing the resources requested by the investigators to complete the research. For this important stage to be concluded in a timely and rigorous manner, an efficient and reliable infrastructure needs to be put in place.

During the past few months, the Northern Health Research team has undertaken four significant initiatives to strengthen such infrastructure.

The first initiative encompassed the creation of the Research Engagement Team (RET)[1]. The RET is composed of experienced research facilitators dedicated to helping investigators navigate the review-and-approval stage. The involvement of the RET significantly increases the efficiency of the process, which in turn shortens the time it takes for investigators to receive the final authorization letter.

The second initiative aims to revamp the Research Ethics Review Committee (RERC). This Committee independently assesses the integrity and ethical rigour of all research studies conducted at NH. Undoubtedly, the number and expertise of its members are crucial determinants of its effectiveness. That is why four new members had been added to the Committee, expanding its expertise and capacity. Additionally, the monthly committee meetings, which had come to a halt during the COVID pandemic, have been resumed. During those meetings, new studies are reviewed, and education opportunities are provided. In between meetings, the Committee continues to review minimal risk studies.

Another critical factor that improves the effectiveness of the ethics review process and ensures that the research produces knowledge that is

1 The RET can be reached at Research@northernhealth.ca

socially relevant and beneficial is to include community members and patient-partners. Because of where they live or their personal experiences, these individuals are uniquely positioned to highlight the communities' and patients' values and interests. Currently, the RERC is engaging with the community and the Patient Voices Network to identify individuals who may be interested in joining the RERC.

The third initiative currently undertaken to strengthen the research administration infrastructure at NH aims to close the gap between ethics and privacy reviews and data access. Privacy review is concerned with the proper handling of data for scientific purposes. Usually, institutions establish two levels of privacy review for research studies. First, through the oversight of the ethics committee, which will decide whether the study includes adequate provisions to protect participants' autonomy and maintain the privacy and confidentiality of their data. Second, through the oversight of privacy experts who enforce policies, information practices, security mechanisms and legal agreements before the information is released. The outcome of these reviews informs data's accessibility.

Separating these three processes - ethics, privacy and data access - can negatively impact studies timeline. To overcome this challenge, a privacy expert participates now in the early stages of the ethics review process to address privacy requirements. Simultaneously, the Information and Data ID Hub coordinator supports the RET and facilitates conversations with the investigator about data curation and availability.

The fourth initiative aims to uniform the operational review process. During the operational review process, the impact of the study is assessed based on two main aspects: the potential contributions the study may make to the institution, the community or society and the organizational resources the study requires. This process is vital because it ensures that the study aligns with the organizational priorities and is supported during its implementation. Unfortunately, the operational review process may involve several stakeholders who are dispersed across diverse geographical areas. To overcome this challenge, a dialogue has been open with NH leaders to redesign the decision-making hierarchy reducing the number of decision-makers and, therefore, the time required to arrive at a decision.

Standing on the shoulders of many dedicated individuals who have laid the path before us, NH Research team strives to bring research excellence to the North. This endeavour is challenging, and many other initiatives continue to be undertaken while the ones described here continue to be implemented, evaluated, and refined. This endeavour is also rewarding: building together healthier northern communities.

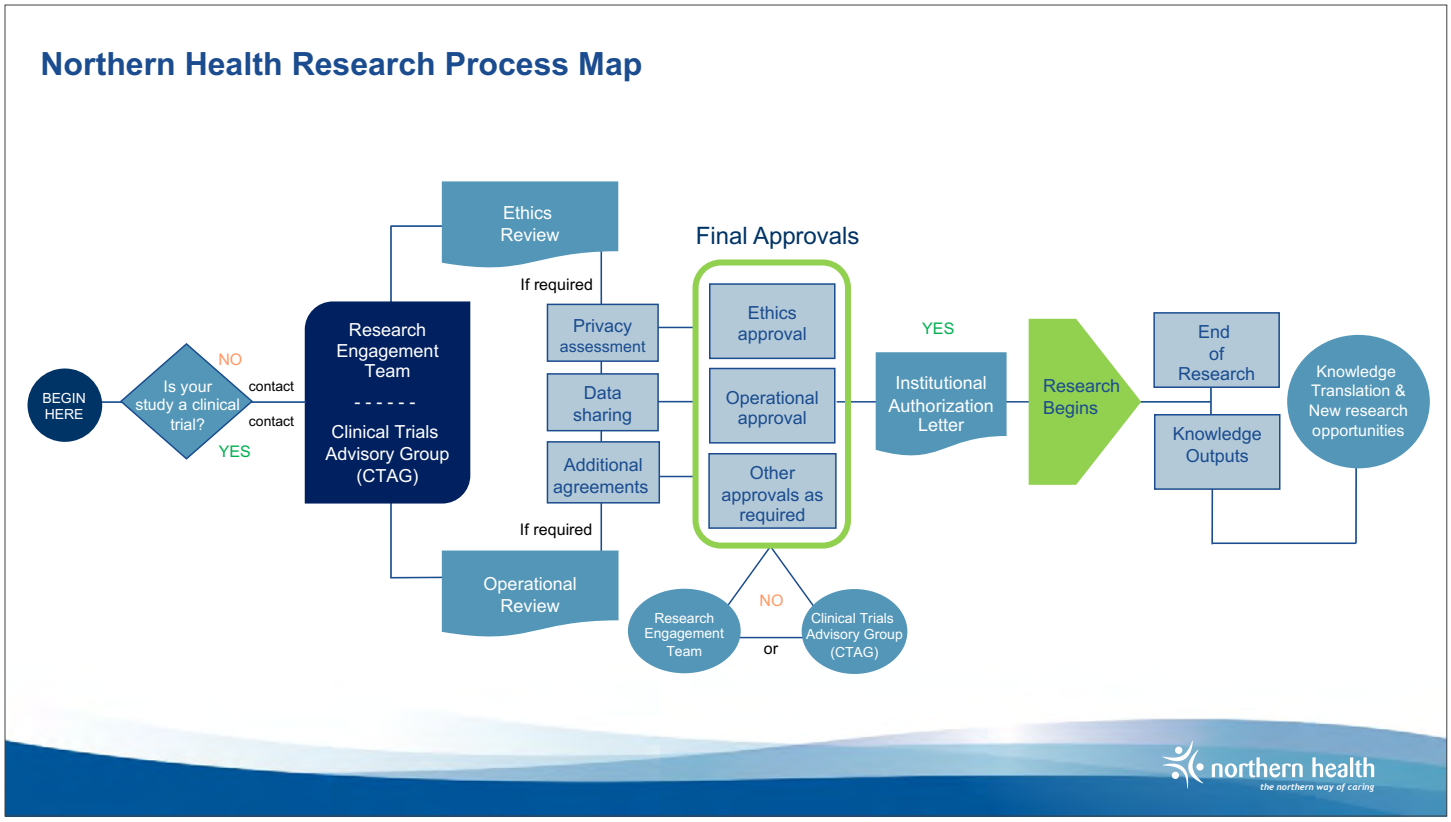
FIGURE 1: NH RESEARCH PROCESS MAP

The process can be triggered in two ways:

1. The investigator contacts the Research Engagement Team (RET) to receive guidance on how to navigate the review-and-approval process.
2. The investigator submits an ethics application, the RET is notified and contacts the investigator to provide guidance as needed.

The review process involves ethics, privacy and operational review, and initial conversations with the Information and Data (ID) Hub coordinator (if applicable).

Once all approvals have been received, the Institutional Authorization Letter is issued, and the study can commence. Notably, the diagram highlights the knowledge translation stage, which ensures that research outcomes are translated into practice, and, therefore, northern communities might benefit from advances in healthcare.



The Research Engagement Team – RET can be contacted at: research@northernhealth.ca

UPCOMING EVENTS

1. BC Patient Safety & Quality – Patient Engagement Learning Series is Back!

We're bringing our Patient Engagement Learning Series back with four new events! This webinar series will provide an easy, one-stop shop to develop skills for authentic patient engagement and bring together health care and patient partners to strengthen their work.

The series will include:

Diversity, Equity and Inclusion in Patient Engagement | April 13

Measuring the Success and Impact of Patient Engagement - Evaluation and Closing the Loop | May 11

Learn more and Register here:

Patient Engagement Learning Series - Patient Voices Network (patientvoicesbc.ca)

2. Registration and Call for Contributions for the Canadian Knowledge Mobilization Forum 2022 is now open!

The Canadian Knowledge Mobilization Forum (CKF) is a biennial event that provides opportunities for professional development, learning and networking for those interested in knowledge mobilization, translation, and exchange. It brings together a community dedicated to sharing learnings, best practices, tools, and resources.

The theme for 2022 is: ***"Responding to New Realities: Learning from the past and present to inform the future"***

Details here: https://www.eventbrite.ca/e/canadian-knowledge-mobilization-forum-2022-tickets-269027296887?aff=Whova