Practice-Based Research and Innovation
Strategic Plan
2012-2017
Executive Summary

Practice-based research and innovation (PBRI) is the systematic approach to creating new understandings of practice with the purpose of integrating this knowledge into innovative approaches to care. Sunnybrook Health Sciences Centre is committed to engaging point-of-care health professionals in critically examining their practice based on the fundamental belief that those who have first-hand experience with the question under exploration have critical knowledge to contribute to and direct the research process.

The vision for PBRI at Sunnybrook is to contribute to excellence in clinical care through innovation, creating new knowledge, and demonstrating leadership in specialized care. This 2012-2017 PBRI Strategic Plan (“The Plan”) is the road map to fulfilling this vision by engaging health professionals at the point-of-care in research and innovation to advance practice and improve patient care. The Plan will directly contribute to the 2015-2018 Sunnybrook Health Sciences Centre Strategic Plan of providing high quality and innovative patient care through research, and it is a key component of the 2012-2017 Sunnybrook Research Institute Strategic Plan through the Evaluative Clinical Sciences platform described as “an engine of discovery, through knowledge creation gained from practice-based insights derived at the coalface of health care.”

The Plan is grounded in the view of care driving research that in turn drives care. The Plan underscores the intimate and reciprocal relationship between discovery and improvement in health outcomes for patients. Highlighting the critical role that interprofessional collaboration plays in enabling knowledge discovery and the translation of this knowledge across professions, The Plan is focused on three expressed streams of activity: 1) building research and innovation capacity in point-of-care health professionals; 2) promoting a culture of inquiry across all professions; and 3) enhancing the ability to recruit health professions researchers to engage in research activities that are recognized locally, provincially and internationally.

The plan lays out five key directions for the advancement of PBRI at Sunnybrook:

- SUPPORT ACTIVITY RELATED TO KEY AREAS OF PRACTICE-BASED RESEARCH AND INNOVATION;
- ENHANCE PRACTICE-BASED RESEARCH AND INNOVATION CAPACITY THROUGH NEW RESEARCH ROLES;
- BUILD AND LEVERAGE RESOURCES TO ADVANCE PRACTICE-BASED RESEARCH AND INNOVATION;
- STRENGTHEN RELATIONSHIPS AND PARTNERSHIPS; AND
- EMBED RESEARCH INTO PRACTICE BY CREATING A CULTURE OF INQUIRY.

Proposed actions for each of the five directions will guide Sunnybrook to become a leader in inventing the future of health care. Sunnybrook’s commitment to engaging health professionals in practice-based research and innovation enables the provision of optimal care for our patients and their families, when it matters most.
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Background

The 2012-2017 Practice-Based Research and Innovation (PBRI) Strategic Plan (“The Plan”) lays out a comprehensive 5 year road map for advancing the pursuit of academic practice and achieving the vision of contributing to excellence in clinical care through innovation, creating new knowledge, and demonstrating leadership in specialized care. **Academic practice** is the “intentional application of evidence-informed knowledge and ongoing scholarly inquiry to optimize health outcomes, patient experience, work environments and the development of health care providers, educators, researchers and leaders.”¹

At Sunnybrook, PBRI includes the cultivation of habits of inquiry in everyday practice, identification of research questions, various processes of investigation, analysis, sense-making, local interpretation, implementation of practice change, dissemination of findings and embedding evidence into daily practice.

Highlighting the critical role that interprofessional collaboration plays in enabling knowledge discovery and the translation of this knowledge across professions, The Plan is focused on three expressed streams of activity: 1) building research and innovation capacity in point-of-care health professionals; 2) promoting a culture of inquiry across all professions; and 3) enhancing the ability to recruit health professions researchers to engage in research activities that are recognized locally, provincially and internationally.

**PBRI Vision, Goal and Values**

**Our vision:** To contribute to excellence in clinical care through innovation; creating new knowledge, and demonstrating leadership in specialized care.

**Our goal:** To nurture energy, enthusiasm and a culture of inquiry for changing health care practice through the creation, translation and application of new knowledge with a focus on our five corporate strategic priorities – cancer, heart and stroke, high risk maternal and newborn health, trauma and brain

¹ 2014 – TAHSNp sub committee
Our values: To lead by discovery, innovation, teaching and learning that is grounded in excellence, collaboration, accountability, respect, and engagement.

The Plan is focused on engaging health professionals at the point-of-care in research and innovation to advance practice and improve patient care. Grounded in a view of “care driving research that in turn drives care”, The Plan underscores the intimate and reciprocal relationship between discovery and improvement in health outcomes for patients. The Plan also reflects Sunnybrook’s commitment to engaging patients in the research process and conducting research in areas that patient’s value.

Collaborative Leadership

Practice-Based Research and Innovation at Sunnybrook is co-led by the Quality, Patient Safety and Professional Practice portfolio and the Sunnybrook Research Institute (SRI). This joint leadership model ensures engagement of clinically-focused health professionals and teams in research and innovation and provides the bridge necessary to efficiently and effectively translate evidence into practice. Within SRI, PBRI is one of three areas of focus for the Evaluative Clinical Sciences platform. This platform functions as an engine of discovery, through knowledge creation gained from practice-based insights derived at the coalface of health care.
History of PBRI at Sunnybrook

For many years, health professionals at Sunnybrook have demonstrated commitment to formal scholarly inquiry to address questions emerging from clinical practice and to generating new knowledge that is directly applicable to care. In 2002, the term “Practice Based Research (PBR)” was adopted to describe this type of scholarship and was defined as “the systematic approach to creating new understandings of practice issues with the purpose of integrating this knowledge into innovative approaches to care.” In 2012, the Plan for Practice-Based Research was drafted identifying the five directions and related proposed actions to achieve the vision of PBR. In 2014, the term “innovation” was added to better reflect the true continuum of inquiry that spans evaluation, quality improvement, innovation and research that Sunnybrook health professions are engaged in across and beyond the organization. In 2015, the plan was refreshed due to local and system level change and evolution through a multi-phase internal and external consultation and feedback process.

This final version of the Practice-Based Research and Innovation Strategic Plan will guide Sunnybrook to become a leader in inventing the future of health care through the creation, translation and application of new knowledge to clinical practice across all health disciplines, ensuring that we are providing optimal care for our patients and their families, when it matters most.

Did You Know?

• Sunnybrook first adopted the term "practice-based research" in 2002.
• PBRI includes all aspects of the inquiry process, from cultivation of habits of inquiry in everyday practice to embedding knowledge into practice.
• The term "innovation" was added in 2014 to better reflect the true continuum of inquiry that spans evaluation, quality improvement, innovation and research.
Alignment with Sunnybrook’s Strategic Plan

Our vision of contributing to excellence in clinical care through innovation; creating new knowledge, and demonstrating leadership in specialized care, is clearly aligned with the strategic goals and objectives outlined in the 2015-2018 Sunnybrook Health Sciences Centre Strategic Plan within the three dimensions of quality of care, research and education, and sustainability and accountability. Health professionals will be supported to engage in practice-based research and innovation across all eight of Sunnybrook’s care programs with additional emphasis placed on initiatives or studies that support Sunnybrook’s five strategic priorities:

- Cancer;
- Heart and Stroke;
- High Risk Maternal and Newborn Health;
- Trauma; and
- Brain.

Dimension #1 - Quality of Care

- **Hospital goal:** Work with system partners and government to build an integrated delivery system in support of our communities and our Academic Health Sciences Centre definition
- **How the PBRI plan contributes:** Highlights both specific internal (Foundation, Clinical Programs) and external (academia, other health organizations) partnerships and collaborations as critical to advancing research and innovation that is focused on advancing practice and improving care.

Dimension #2 - Research and Education

- **Hospital goal:** Change health care practice through the creation, translation and application of new knowledge with a focus on our Strategic Priorities
- **How the PBRI plan contributes:** Supports health professionals across all programs to engage in practice-based research and innovation with additional emphasis on initiatives or studies that support Sunnybrook’s five strategic priorities.

Dimension #3 - Sustainability and Accountability

- **Hospital goal:** Create a culture of engagement, respect and inclusiveness that attracts and inspires talent to achieve excellence.
- **How the PBRI plan contributes:** Provides learning and professional development opportunities for health professionals in the area of research and innovation that fosters engagement, recruitment and retention and supports an inclusive research environment that values practice-oriented inquiry.
PBRI Strategic Plan Directions

Five key directions have been identified to advance PBRI at Sunnybrook:

- SUPPORT ACTIVITY RELATED TO KEY AREAS OF PRACTICE-BASED RESEARCH AND INNOVATION;
- ENHANCE PRACTICE-BASED RESEARCH AND INNOVATION CAPACITY THROUGH NEW RESEARCH ROLES;
- BUILD AND LEVERAGE RESOURCES TO ADVANCE PRACTICE-BASED RESEARCH AND INNOVATION;
- STRENGTHEN RELATIONSHIPS AND PARTNERSHIPS; AND
- EMBED RESEARCH INTO PRACTICE BY CREATING A CULTURE OF INQUIRY.

Proposed actions for each of the five directions provide the guidance needed to meet our objectives.

Direction #1: Support activity related to key areas of practice-based research and innovation

**Proposed Actions**

Support practice-based research and innovation activity that is focused on:

- Improving clinical outcomes, quality of care and patient safety.
- Conducting research and innovation that is patient-oriented and is focused in areas that patients and families value.
- Enhancing interprofessional collaboration and approaches to care.
- Designing and testing innovative models of care.

**Improving clinical outcomes, quality of care and patient safety**

Sunnybrook is committed to focusing on practice-based research and innovation that improves clinical outcomes, quality of care and patient safety. Specific areas of foci are outlined in our Quality Improvement Plan and in our Best Practices. Sunnybrook’s Quality Improvement Plan identifies key quality and patient safety initiatives including but not limited to decreasing the length of stay for stroke patients, improving the setting for patients receiving palliative care in the last stages of life and their families, and reducing...
surgical site infections. Further, through Sunnybrook’s focus on Best Practice implementation, organizational leaders and interprofessional teams are working to define, implement and disseminate best practices across the organization including but not limited to Person-Centred Care, pain assessment and management, and quality dying. An infrastructure has been developed to identify, enable and engage unit level champions, understanding these are the individuals who will effect change that enhances patient outcomes. Focusing PBRI activities in these pre-determined areas of foci will not only serve to complement existing work but will also foster continued uptake and sustainability of best practice.

This direction of PBRI also builds on existing work and expertise within the Centre for Quality Improvement and Patient Safety (C-QuIPS), a collaboration between Sunnybrook Health Sciences Centre, the Hospital for Sick Children and the University of Toronto.

**Patient-oriented research in areas that patients, families and carers value**

Identifying patient-oriented research as a key area of focus for practice-based research and innovation ensures that we are targeting our efforts in areas that are most important to patients, families and carers and are most responsive to their needs. As this is a fairly new area of focus for the health system, and a significant evolution of the philosophy of Person-Centred Care, research on the best ways to engage patients and families in care, education and research is needed.

Through the adoption of the Canadian Institutes for Health Research (CIHR) Supporting Patient-Oriented Research (SPOR) Visual Value Model for Patient Engagement and Patient Engagement Framework we have the national guidance needed for patients, researchers, health care providers and decision-makers to actively collaborate towards the goal of building a sustainable, accessible and equitable health care system. This collaborative framework ensures that research and innovation is focused on priorities that are important to patients and produces information that is truly taken up and used to improve health care practice, therapies and policies.

**Enhancing interprofessional collaboration and approaches to care**

Interprofessional collaboration is a major enabler of excellent patient care, and hence, enhancing interprofessional collaboration is a key priority for Sunnybrook. In addition, interprofessional education is a prominent focus for our major academic partner, the University of Toronto. Sunnybrook is well-positioned to lead research and innovation focused on the nature, processes, facilitators, barriers, and outcomes of interprofessional collaboration and the educational processes that support its development. Corporately identified
interprofessional competencies guide research and innovation that develops and tests strategies that improve a culture of effective interprofessional collaboration. Such research and innovation has the potential to create a culture of engagement, respect and inclusiveness that will attract top performers and inspire health professionals to achieve excellence.

**Designing and testing innovative models of care**

Research focused on new and innovative roles and models of care that allow health professionals to work to their full scope of practice and ensure patients get the right care from the right health professional at the right time is a new area of practice-based inquiry for Sunnybrook. Focusing on research and innovation that designs and tests new roles and models of care according to accepted frameworks relevant to the health system, such as the Participatory, Evidence-Informed, Patient-Centred Process for APN Role Development, Implementation and Evaluation (PEPPA) framework, will assist to “design and deliver a timely, accessible, effective and efficient package of health care that best meets the health needs of a specific patient population.”

**Direction #2: Enhance practice-based research and innovation capacity through new research roles**

**Proposed Actions**

Establish the following new research roles:

- Three (3) endowed health professions Research Chair positions.
- Two (2) joint health professions research roles.

**Endowed Research Chair positions**

Endowed Research Chair positions for health professionals are essential to advancing practice-based inquiry and improving patient care. These positions provide the support and infrastructure needed for health professionals to develop and sustain new, innovative and productive programs of research that are focused on advancing the practice of their profession and assist Sunnybrook to meet its accountabilities as a research hospital. These positions also provide leadership and mentorship that is needed for clinically focused health professionals to learn

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2 2009 – Cancer Care Ontario
about, engage in or lead their own practice-based research studies or innovation projects.

Aligned to corporate strategic priorities and in partnership with Sunnybrook and academia, the following Health Professions Endowed Research Chair positions will be established:

- Endowed Nursing Chair in Trauma, Emergency and Critical Care Research;
- Endowed Health Professions Research Chair in Women’s and Babies Health; and
- Endowed Health Professions Chair in Cancer Research.

**Joint research roles**

Leveraging the collaborative relationship among the thirteen Toronto Academic Health Science Network hospitals, the creation of jointly-appointed health professions research roles across two or more hospitals assists to build networks, mobilize knowledge and maximize resources and impact. The creation of these joint roles may require innovative fundraising partnerships such as the establishment of a joint fundraising campaign between organizations and/or Foundations. Aligned to corporate priorities and in partnership with the TAHSN Chief Nursing and Health Professions Executives and leaders from academia, the following joint Health Professions research positions will be explored:

- Limited-term Health Professions Professorship in Heart and Stroke and
- Endowed Health Professions Research Chair in Brain Sciences.

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**Direction #3: Build and leverage resources to advance PBRI**

**Proposed Actions**

- Collaborate with the Sunnybrook Research Institute and the Sunnybrook Foundation to develop a fundraising campaign to secure sustainable funding to support practice-based research and innovation activities and roles.
- Strengthen linkages with Program Medical Directors, Operational Directors, and Program Research Directors to financially support clinical staff to engage in practice-based inquiry and leverage access to technological and human resources.

**Securing funding sources for PBRI**

Many of the proposed actions in this Plan will require a financial investment for sustainability. The Sunnybrook Foundation is, and will continue to be, the major enabler of securing financial support for the PBRI activities and roles. In collaboration with clinical program leadership, the Sunnybrook Research Institute and the Sunnybrook Foundation, PBRI fundraising priorities have been established. These priorities include:

- Establishment of three (3) endowed health professions Research Chair positions;
- Establishment of two (2) joint health professions research roles;
• Funding for eight (8) endowed seed grants to support PBR projects across the organization; and
• Funding for four (4) endowed annual Health Professions Innovation Fellowships.

A targeted fundraising campaign, with a dedicated community champion, strategies to create and maintain a robust list of potential donors, supportive marketing material and targeted marketing events will be planned, launched and sustained to achieve the fundraising goals.

Leadership for Practice-Based Research and Innovation provides the structure necessary to successfully achieve the vision for PBRI at Sunnybrook. Base operational funding is needed to support the following PBRI roles: Senior Director, Project Manager and a shared administrative role.

**Strengthening linkages**

Sunnybrook’s Program Research Directors have an identified leadership role in advancing the care–research–care relationship and are central to successfully advancing PBRI. Their positions are aligned to both clinical programs and research platforms to facilitate achieving Sunnybrook Research Institute’s goal of “discovery to clinical impact.” Linkages will be maintained and strengthened with Program Research Directors though regular reporting by the Senior Director of Practice-Based Research and Innovation at the Research Executive Committee and through individual funding collaborations to support health professions research and innovation. Opportunities to collaborate include developing a Program-specific fund to support health professionals to lead practice-based research and innovation that is aligned with the priorities of the Program.

### Direction #4: Strengthen relationships and partnerships

**Proposed Actions**

- Strengthen academic alignment and partnerships with the University of Toronto and other academic institutions by leveraging individual academic appointments, clinical research student placements and joint sponsorship of research roles.
- Create formal partnerships with external organizations to enhance PBRI.
- Collaborate with the Sunnybrook Research Institute to develop an evaluation framework and monitoring process for PBRI.
Strengthening academic alignment and partnerships

The University of Toronto, along with other local academic institutions, including but not limited to Ryerson University and the Michener Institute, will continue to be key partners in advancing PBRI at Sunnybrook. It is essential that strong alliances are cultivated with researchers and leaders at these partner academic institutions. These strong ties will provide the mechanism for clinical staff to receive academic appointments that recognize their commitment to academic practice and will provide access to a population of graduate students who can gain clinical and research experience through placements at Sunnybrook. Many health professionals have developed relationships with university-based scholars and have collaborated on clinical research student supervision and research projects. It is important to support these relationships by facilitating the participation of Sunnybrook health professionals in university-based activities (e.g., guest lecturing, clinical teaching, functioning as preceptors for graduate students, and serving on committees) and coaching them in the skills and strategies required to make the most of their appointments. In addition, strong partnerships with our academic partners can facilitate the joint sponsorship of research roles to further advance PBRI activities.

Enhance external collaboration

Sunnybrook is well-positioned to build partnerships and collaborations with community and academic health organizations across TAHSN and demonstrate system leadership to advance PBRI. Collaborative leadership and research roles, joint fundraising and collaborative capacity-building efforts and programs will build networks, mobilize knowledge and maximize resources and impact.

Development of an evaluation framework

Evaluation and monitoring of the uptake, spread, and impact of PBRI activities is critical to demonstrating the importance and return-on-investment of this work across the organization. The Sunnybrook Research Institute has a comprehensive and balanced framework of metrics for measuring research achievements, impacts, and successes of its members. The evaluation framework used by the Institute spans all stages of the research process, from testing new discoveries to widespread adoption and commercialization. While some of the metrics will be the same as those used by the Institute, the difference in focus, scale and scope of practice-based inquiry will dictate the inclusion of new and different metrics for PBRI. In close collaboration with SRI, a robust evaluation framework and monitoring process for PBRI structures, processes and outcomes will be developed.
Direction #5: Embed research into practice by creating a culture of inquiry

**Proposed Actions**

- Create Fellowship opportunities for health professionals to lead innovative practice-based quality improvement projects.
- Provide opportunities for health professionals to utilize, engage, generate and translate new knowledge into clinical practice through seed grant funding for practice-based research projects.
- Provide a knowledge mobilization and networking venue for health professionals to present, share and disseminate their PBRI work.

**Fellowships**

Fellowship opportunities provide paid, protected time for health professionals at Sunnybrook to lead innovative practice-based quality improvement projects that are aligned with Program and hospital strategic priorities. Fellowships leverage the knowledge of direct patient care providers about practice gaps that are important to patients and families and that require immediate attention. Point-of-care leadership in addressing these gaps ensures broad stakeholder support for and sustainability of the improvement. Providing paid, protected time ensures that health professionals are adequately supported to successfully carry out a sustainable quality improvement project, and that adequate staffing is maintained for safe and high quality patient care on their home unit or department. Fellowships are short duration (for example, 2 days/week for 6 months) and are supported through dedicated mentorship and targeted education. Fellowships are well-suited for health professionals whose training programs provide little to no research or quality improvement curriculum in their entry-to-practice education.

**Seed grant funding**

While fellowships are focused on local, rapid-cycle quality improvement projects, there are other opportunities for health professionals to learn about, engage in and lead research that is informed through questions arising from clinical practice. Seed grant funding provides clinicians with support to perform high quality research focused on advancing practice and improving patient care. Although seed grants do not come with protected research time, recipients can use the funds to buy the time of a research assistant, cover the costs of transcription or print a poster. Seed grant funding, along with research mentorship and education on the research process, provides the support necessary to

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**Piloting the role of the rehabilitation consultant (Physiotherapist/Occupational Therapist) in the Emergency Department through a health professions Innovation Fellowship**

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successfully conduct practice-based research and is another means to achieve Sunnybrook’s goal of creating a culture of inquiry.

**Knowledge mobilization and translation**

Providing a venue for practice-based research studies and innovation projects to be shared, disseminated and celebrated is critical to ensuring that knowledge is mobilized both at the local and national level. Further, health professionals receive recognition and acknowledgement of their pursuit of academic practice. A Research and Innovation Expo will provide opportunities for all health professionals engaged in PBRI to build their networks and present, share, discuss and disseminate their work. This will function as the first step in the knowledge mobilization process that may lead to opportunities to present the work externally or publish findings in a relevant and scholarly journal. In addition, the event will assist in raising awareness of PBRI at Sunnybrook and foster a cohesive and supportive community of health professionals engaged in innovation and research to advance practice and improve patient care.

**Next Steps**

Sunnybrook is brilliantly positioned to become a leader in inventing the future of health care though engaging health professionals to critically examine their practice and participating in or leading research and innovation to improve it. The PBRI Strategic Plan for 2012-2017 provides the road map to make this happen. Support and allocation of resources to PBRI will ensure that the proposed actions for each of the five directions are realized. These will guide Sunnybrook to become a leader in the creation, translation and application of new knowledge to clinical practice across all health professions, ensuring that we are providing optimal care for our patients and their families, **when it matters most.**
Summary of Directions and Associated Actions

Direction #1: Support activity related to key areas of practice-based research and innovation

1. Support practice-based research and innovation activity that is focused on:
   - Improving clinical outcomes, quality of care and patient safety.
   - Conducting research and innovation that is patient-oriented and is focused in areas that patients and families value.
   - Enhancing interprofessional collaboration and approaches to care.
   - Designing and testing innovative models of care.

Direction #2: Enhance practice-based research and innovation capacity through new research roles

2. Establish the following new research roles:
   - Three (3) endowed health professions Research Chair positions.
   - Two (2) joint health professions research roles.

Direction #3: Build and leverage resources to advance PBRI

3. Collaborate with the Sunnybrook Research Institute and the Sunnybrook Foundation to develop a fundraising campaign to secure sustainable funding to support practice-based research and innovation activities and roles.
4. Strengthen linkages with Program Medical Directors, Operational Directors, and Program Research Directors to financially support clinical staff to engage in practice-based inquiry and leverage access to technological and human resources.

Direction #4: Strengthen relationships and partnerships

5. Strengthen academic alignment and partnerships with the University of Toronto and other academic institutions by leveraging individual academic appointments, clinical research student placements and joint sponsorship of research roles.
6. Create formal partnerships with external organizations to enhance PBRI.
7. Collaborate with the Sunnybrook Research Institute to develop an evaluation framework and monitoring process for PBRI.

Direction #5: Embed research into practice by creating a culture of inquiry

8. Create Fellowship opportunities for health professionals to lead innovative practice-based quality improvement projects.
9. Provide opportunities for health professionals to utilize, engage, generate and translate new knowledge into clinical practice through seed grant funding for practice-based research projects.
10. Provide a knowledge mobilization and networking venue for health professionals to present, share and disseminate their PBRI work.