

Faculty of Health Sciences Strategic Research Plan

Framing Our Future

2016-2021



Framing our future

THE FACULTY OF HEALTH SCIENCES (FHS) AT WESTERN UNIVERSITY IS HOME TO SEVERAL OF CANADA'S MOST RENOWNED RESEARCHERS IN THE BROAD FIELD OF HEALTH SCIENCES.

Our colleagues in FHS are called upon to consult nationally and internationally; we are invited to give keynote addresses at professional meetings and conferences; we publish in top-tier peer-reviewed journals; we collaborate widely, within health sciences and beyond, within Western and beyond, and within Canada and beyond; and our colleagues secure highly competitive research grants. Reflecting the diversity of the field, we have colleagues who conduct health care research at the most basic cellular level, and others who conduct research designed to influence broad system change at the level of policies and programs. Despite the challenging provincial and federal funding landscapes, we continue to achieve considerable success. Our programs of research are supported by all three Tri-Council funding agencies, namely the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Social Sciences and Humanities Research Council (SSHRC). Beyond the Tri-Councils, we have received growing support through a diverse array of external and/or international funding agencies including Heart and Stroke, Alzheimer's Society of Canada, Parkinson's Society of Canada, Ontario Mental Health Foundation, The Oticon Foundation, Physiotherapy Foundation of Canada, The Hearing Foundation of Canada, National Institutes of Health, the Public Health Agency of Canada, Ontario Ministry of Research and Innovation, Mitacs, Drummond Foundation, Ontario Neurotrauma Foundation, Ontario Lung Foundation, Ontario Ministry of Health and Long-term Care, Ontario Ministry of Children and Youth Services, South West Community Care Access Centre, International Association for the Study of Pain, Ontario Ministry of Training, Colleges and Universities, and many others.

FHS has state-of-the art laboratories and facilities, some of which have been developed with infrastructure grants from the Canadian Foundation for Innovation (CFI) and the Ontario Research Fund. Others, including the Qualitative Research Lab and the Health Promotion Lab, provide spaces to foster collaborations, transcending schools and academic disciplines, epistemologies and research practices, and afford enhanced research possibilities, especially

for the education and training of highly qualified personnel (HQP). Since 1989, we have been home to two nationally and internationally recognized Centres: the Canadian Centre for Activity and Aging, and the International Centre for Olympic Studies. A third Centre, the National Centre for Audiology was established in 2001. More recently, in May 2015 we established our fourth research centre, the Centre for Research on Health Equity and Social Inclusion, a collaboration among a wide network of community and academic partners. Together, these Centres attract leading scholars from diverse disciplines, universities, and countries, as well as numerous undergraduate and graduate students, and postdoctoral fellows.

FHS professors are highly engaged in research endeavours aimed at two interrelated objectives - the generation of new knowledge and the attainment of optimal health for individuals, families and communities, near and far, locally and globally. Our research culture is vibrant and engaged, with collaborations that are far-reaching, dynamic, and impactful from scientific, academic, clinical and policy perspectives.

FHS faculty members can, and should, be proud of their research accomplishments. At the same time, we face numerous challenges and cannot be complacent. Like all faculties and universities in Canada, our efforts to achieve even more, to bring our research to a heightened level of excellence on the global stage, requires thoughtful consideration, planning, and creativity. The purpose of this document is to provide a framework to help us achieve this goal – a strategy to advance our scholarship to the ‘next level’. It is not a ‘how to’ manual, or a series of steps we must follow. Nor is it intended to be prescriptive. Rather, this FHS Strategic Research Plan offers a broad vision and strategy that will facilitate our decision-making and priority-setting processes as we move forward in the coming years. The ideas presented here are simply that, ideas at a particular moment, in a particular context, at a particular time. Inherent in the SRP is the concept of ‘change’; ideas are not static. In this regard, our SRP is a living document, a work in progress that will continue to evolve as our needs and priorities evolve.

Defining Health

In recent years, there has been a significant shift in our understanding of the factors that determine health.

Greater attention is being paid to a range of social, economic, environmental, and health service factors, commonly referred to as the Social Determinants of Health, that interact in complex ways to positively or negatively influence health. These developments have been added, and are complementary, to the foundation provided by basic biomedical and clinical health research. A key concept in this reconceptualization of health is that we can link studies in the health and social sciences, to shed light on the ways in which health is determined by biological factors, by social factors or the interaction between the two and the pivotal role of policy and practice in designing health care services that promote health and well-being. This broadened notion of health is reflected in the four pillars within the Canadian Institutes of Health Research and is embraced in this document. By promoting wide-reaching linkages between and among researchers from different disciplinary backgrounds, who are networked with academics within and beyond FHS, with researchers in other parts of the country and internationally, as well as with policy makers, health authorities, and consumer organizations, we believe that we will produce higher levels of scholarship that is not only evidence-based but also transferable to stakeholders developing policies and intervention programs to improve the health of Canadians.

Developing the Strategic Plan

This document was developed through a process of consultation with FHS colleagues following two earlier milestone moments.

The first was Western's adoption of its strategic plan, *Achieving Excellence on the World Stage*. Several months later, in June 2014, the Faculty of Health Sciences ratified the *FHS Strategic (Academic) Plan: 2014 and Beyond*. Included in this latter document is a section titled "Advance Research and Scholarship" which offers short- and medium-term initiatives. The current document is an opportunity to deepen and to expand this discussion, to consider the state of FHS research and scholarship within the context of current and future realities, to contemplate the possibilities, and to articulate a vision about the way forward.

The consultations took place during February and March 2015. All FHS faculty members were invited to participate in one of six planned focus groups. The questions to be discussed were provided in advance. All sessions were audiotaped, with permission. The focus group questions were also posted on our website and members were invited to share thoughts, comments, and/or concerns in writing, with an option to do so anonymously. If colleagues were unable to attend any of the scheduled focus groups, they were invited to meet with the Associate Dean (Research), either individually or in groups, at a mutually agreeable time. The questions were also discussed by members of the Faculty of Health Sciences Research Advisory Committee.

What has emerged is a statement of our culture that reveals a deep-seated commitment to excellence in research and scholarship, with a high value placed on creativity, innovation, and academic rigour. Our culture is one that encourages progressive and innovative approaches in the pursuit of excellence and offers the infrastructure to support cutting edge efforts to expand knowledge in the health sciences - intellectually, socially, environmentally, and physically. By all available measures, the Faculty of Health Sciences is currently functioning at the highest research capacity in its history. However, this assertion needs to be viewed somewhat cautiously. We have researchers who hold major research grants – large team grants, cluster grants, and so forth. Yet these efforts are not as widely distributed as we would like them to be; rather, they are concentrated among a relatively small number of researchers. Thus a paramount goal is to create greater balance across the faculty whereby all members are heavily engaged in fostering the research agenda. Toward this end, supports need to be strategically put in place that will meet the needs and challenges of particular individuals and groups. This Strategic Research Plan attempts to do just that - sets the tone for even greater growth and the pursuit of excellence in research in a manner that will strengthen and enhance FHS research, and that is in full alignment with Western's Strategic Plan, *Achieving Excellence on the World Stage*.

Measuring Success

The identification of metrics by which to evaluate our research accomplishments is a complex undertaking.

It is widely agreed that peer review, used by refereed journals and funding agencies, is one of the most important measures of research excellence. Other related measures that provide additional information include: funding level, bibliometric analyses (e.g. citations, H index), external awards and prizes, invitations to present at prestigious conferences, international collaborations, partnership with community, and service on important committees and boards.

While these measures are important, and give us some basis for quantitatively assessing research success, they only tell part of the story. Missing from these metrics is an understanding of impact, or how research findings are taken up by key stakeholders, how they make a difference in the health of individuals, families, and communities, how they contribute to social change aimed at improved quality of life and the betterment of the world in which we live. For example, research impact may be evident in the development of new programs or policies and efforts to improve health; in government and public panel contributions, policy papers, exhibitions, performances, and technical reports; in the training of highly qualified personnel, strengthened relationships with partners/communities, and capacity building among researchers; or in the development of social media campaigns, bringing research findings into the public domain. Alternatively, the potential for commercialization may be an indicator of impact. These are just a few examples. Clearly, there is a multitude of ways to measure research impact. Given the highly diverse nature of research undertaken within the Faculty of Health Sciences, our approach must be one that values and embraces this diversity; that takes into account multiple mechanisms by which we measure the impact of research. Ultimately, however, our measure of research success must be one that is a reflection of both research excellence and research impact.

Areas of Research Strength

Articulating existing and emerging areas of research strength, as is often done in a strategic research plan, is a complex and challenging endeavour.

Whose research is ‘in’? Whose is ‘out’? As noted earlier, the Faculty of Health Sciences is a highly diverse faculty, with researchers examining extraordinarily diverse issues, using a vast array of research methodologies and methods. Moreover, we hold that research must be defined in the broadest and most inclusive manner. Accordingly, throughout this document, the term ‘research’ includes diverse disciplinary pursuits that lead to knowledge, understanding, and change. From this vantage, we hold in high regard all forms of scholarly inquiry, creativity, discovery and dissemination across the Faculty, and we celebrate the work of all of our scholars as an integral part of our research goal.

Based on our consultations and detailed analyses of FHS Research, it is clear that our research efforts coalesce around four broad signature areas:

- **On the Move:** *Leading Research in Mobility*
- **Social Determinants of Health:** *Leading Research Aimed at Health Equity and Social Inclusion*
- **Health Information and Technology:** *Leading Health Research in a Digitalized World*
- **Changing Health Services, Systems, and Policy:** *Leading Research in Transformative Health Care*

Each of these areas are characterized by distinct research clusters of excellence that are well-funded, that include FHS researchers engaged in large-scale collaborations across Western, that have national and international reach, and that address issues of critical importance to the field of health sciences. In some cases, the signature areas are supported and strengthened by established research centres and or Canada Research Chairs. In others, efforts toward the creation of new centres or institutes and the establishment of new Chairs are underway. Collectively, these signature areas transcend disciplinary boundaries and integrate long-standing areas of excellence with emerging areas of inquiry. They are the foundation upon which we will build and advance our national and international impact.

These themes will also serve to unite us in mobilizing the research intensity that is needed to confirm and enhance our standing as a leading health sciences research faculty. However, our commitment to these themes does not bind us to a rigid or inflexible journey. Rather, we will remain nimble, flexible, responsive, and receptive to new and emerging opportunities as they arise. We anticipate, and look forward to, the development of new initiatives that will reinforce our foundational strategies and encourage new areas of interdisciplinary inquiry. The themes presented here provide a framework for continued growth and capacity building that will continue to enhance excellence of scholarship within FHS.

Similarly, we identified a set of values that were shared by many colleagues through our conversations. These are not unique to any particular areas of scholarship, but are, in different ways and to different extents, woven throughout all of our scholarly endeavours. These are:

- Scientific integrity and rigor
- Innovation
- Collaboration
- Inter-, trans-, multi-disciplinarity
- Translational knowledge
- Intellectual vitality and curiosity
- Reflexivity
- Cultural competence
- Openness and transparency
- Social relevance and meaning

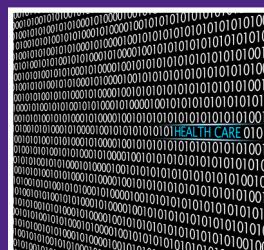
Signature research areas



On the Move



Social Determinants of Health



Health Information and Technology



Changing Health Services, Systems, and Policy

On the Move

Leading Research in Mobility

Mobility, defined as the ability to move or to be moved, represents a fundamental component of the human experience and forms a major outcome of human health. With a variety of research methods, the FHS aims to understand, improve, restore, and/or manage, mobility outcomes that affect people throughout all stages of the life span. The fact that more than 33.1% of Canadians over 65 years of age report a disability associated with decreased mobility, and that these often occur within the contexts of other chronic diseases, highlight the need for this research focus.

Major components of FHS research and education in the area of mobility reflect the diversity within the faculty more broadly with efforts directed towards the following: quantification of mobility; interventions to improve mobility; assistive technologies to enable mobility; prevention and treatment of the adverse physical and emotional sequelae associated

with limited mobility; and social structures or systems that interfere with, or support, mobility. This mission also incorporates many disciplines such as biology, anatomy, exercise physiology, biomechanics, movement neuroscience (motor, cognition, autonomic), sociology, engineering, and public health. Issues related to brain health, such as movement, cardiovascular control, and cognition, and benefits related to exercise training, represent a growing focus. Researchers in this area also work to create better understandings of how to develop innovative and effective community access and health care policies, as well as the development and



transfer of intellectual property to private sector partners. The extremes of mobility research are considered by FHS researchers, encapsulating the range from able-bodied and disabled elite athletes to hospitalized disabled patients at Parkwood Institute with age-, neurologic-, and trauma-induced injuries, to children with congenital neurological and musculoskeletal disorders. Further, professional programs in Physical Therapy, Occupational Therapy, Nursing and Kinesiology target mobility themes.

Within FHS, the Mobility research focus receives support from two Canada Research Chairs, one in Musculoskeletal Rehabilitation, and a second in Integrative Physiology of Exercise and Health. Further support comes from the James Roth Chair in Musculoskeletal Measurement and Knowledge Translation and the CIHR Chair: Gender, Work and Health - Muscle and Tone. Additionally, substantial funding has been received from all Tri-Councils, the Canadian Foundation for Innovation, and numerous other granting agencies.

Achieving “lifelong mobility” is the vision of researchers affiliated with Western’s Bone and Joint Institute, with funding from the Cluster of Research Excellence in Musculoskeletal Health, a 2015 initiative led by the Faculty of Health Sciences. This transdisciplinary team of more than 80 investigators and 60 trainees from five faculties at Western, and an extensive network of researchers, students, and postdoctoral fellows throughout Canada and internationally, serves as a model for the establishment of an area of strength. Dedicated programs offered through the Bone and Joint Institute include training and mentoring opportunities for students and ‘junior’ faculty members, and support to encourage new transdisciplinary initiatives in musculoskeletal health research.

Two research centres further exemplify, extend, and expand FHS leadership in mobility research. The Canadian Centre for Activity and Aging (CCA) was established in 1989 as a research and community centre, affiliated with the Lawson Research Institute of St. Joseph’s Health Centre, and the Faculties of Health Sciences, and of Medicine and Dentistry, at Western. As Canada’s leader in research and training for senior fitness instructors and restorative care specialists, the CCAA designs, studies and implements exercise and leadership programs for older adults. In support of sport-related mobility research, the International Centre for Olympic Studies (ICOS), established at Western in 1989, was the first of its kind in the world and remains the only such Centre in the Americas. It has as its primary mission the generation and dissemination of academic scholarship focused specifically on the socio-cultural study of the Olympic Games and the Olympic Movement. Researchers affiliated with ICOS have examined access and equity issues in relation to sport, with particular attention to Aboriginal groups in Canada and the impacts of Residential Schools; history of sport; and the social, political, and economic impacts of the Olympic & Paralympic Games, and of sport more broadly.

Social Determinants of Health

Leading Research in Health Equity and Social Inclusion



In recent years, there has been growing attention to the idea that the health of individuals, families, and communities is shaped largely by the complex interaction of social, cultural, and environmental influences. Many scholars have persuasively argued that these ‘social determinants of health’ are equally as important, if not more so, as are biomedical factors. Recognized as a component of one of four pillars by the Canadian Institutes of Health Research, the social determinants of health refer to the conditions in which people are born, grow up, live, work and age. These conditions influence a person’s opportunity

to be healthy, their risk of illness, and life expectancy. Social inequities in health – the unfair and avoidable differences in health status across groups in society – are those that result from the uneven distribution of social determinants. Various charters and conventions have articulated the social determinants somewhat differently, but typically all include: Aboriginal status, education, early life, employment and working conditions, food security, gender, health care services, housing, income and its distribution, social safety net, social exclusion, unemployment and employment security (Raphael, 2009, p. 7). The social determinants of health and health inequities are amenable to change through policy and governance interventions.

Research undertaken within the Faculty of Health Sciences reflects a deep and prolonged commitment to understanding more fully how the social determinants of health interact to influence health, to the elimination of social, political, and economic inequities. This research has been supported by operating grants and larger team and network grants from the SSHRC and CIHR, as well as Status of Women Canada, the Public Health Agency of Canada, Citizenship & Immigration Canada, Ministry of Health and Long-Term Care, and others. Particularly noteworthy, the establishment of a research chair in Rural Women's Health and the awarding of two SSHRC Community-University Research Alliance (CURA) grants – a first in the history of SSHRC- have further enabled FHS researchers to establish extensive collaborations that have led to national and international recognition of FHS as a world leader in the field.

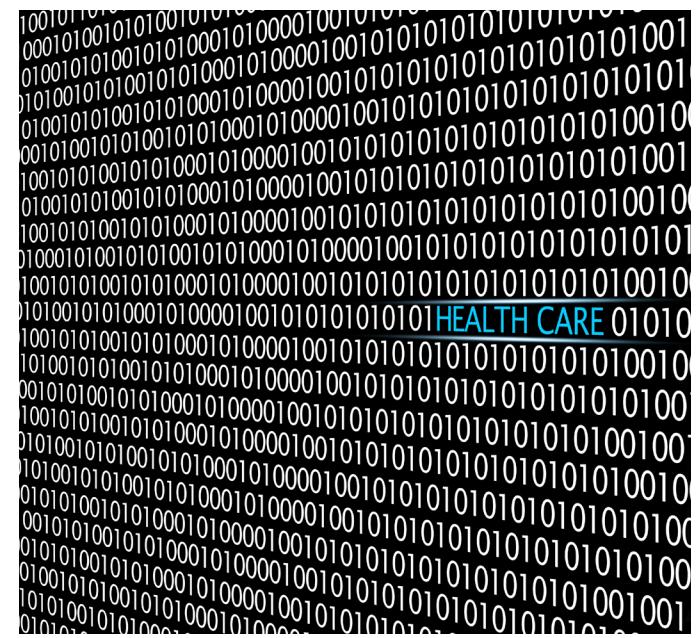
Areas of investigation include mental health, homelessness, health equity, rurality, gender-based violence and interpersonal trauma, structural violence, the impacts of residential schools on Aboriginal peoples in Canada, poverty, precarious employment. Research related to ability/disability, including challenges associated with hearing and communication, fit well with this domain. Our colleagues have examined sensitive topics and worked with groups that have historically been described as vulnerable or marginalized, including newcomers to Canada, sex workers, LGBTT communities, Indigenous groups, and seniors. Colleagues have also examined how our health system can be optimally responsive to marginalized groups and their needs. Research aimed at an understanding of how social justice issues are linked to health, are well-aligned with the scope of this strategic thematic priority. The methodologies that have informed the scholarship in this area are diverse, and include both qualitative and quantitative approaches, including Indigenous ways of knowing. Researchers have collaborated widely across disciplines within and beyond Western, with community stakeholders, government partners, and individuals of 'lived experience'. Much of this work has contributed to the development of programs and policies, and social change more broadly.

As a reflection of the depth and breadth of scholarship related to the social determinants of health and equity, which includes researchers from several FHS schools, the Centre for Research on Health Equity and Social Inclusion (CRHESI) was established in May 2015. A partnership that is led by FHS and a broad network of community organizations, the Centre serves as an innovative model of interaction and collaboration among researchers from diverse disciplinary backgrounds who are networked with academics in other parts of the country and internationally, alongside community partners, policy makers, health authorities, and individuals of lived experience. By promoting and fostering such wide-reaching linkages, CRHESI members produce scholarship that is not only evidence-based but also transferable to stakeholders developing policies and intervention programs that will improve the health of Canadians and ultimately contribute to the elimination of health inequities. A central priority is to engage in developing, implementing, and evaluating cutting-edge solutions to eliminate health inequities through collaborative research, innovative education, and trusted community partnerships.

Health Information and Technology

Leading Health Research in a Digitalized World

An improved Canadian healthcare system requires the development of creative and effective ways to contend with the increased burden associated with an aging population, the high prevalence of chronic disease, a strained healthcare work force, competing economic priorities, and evolving health information and technology. These challenges create opportunities to reimagine how we can provide Canadians with the right care, at the right time, in the right place. Within the next 20 years, it is anticipated that one quarter of Canadians will be over 65 years old. The pressure to develop more effective health care options will be enormous.

A graphic consisting of a grid of binary digits (0s and 1s) arranged in a roughly triangular shape. The text "HEALTH CARE" is highlighted in blue within the grid.

Toward that end, researchers within the Faculty of Health Sciences have been at the forefront of innovative research initiatives related to information that are transforming how health care is delivered and taken up in our community. There is a strong focus on the application of knowledge generated from the research in the Faculty. This encompasses understanding how effective interventions are being implemented in health settings, for example, or supporting the use of research and information in clinical and organizational decision-making for optimal outcomes. Many faculty members work closely and regularly with health policymakers to ensure

that research findings are considered in the policy cycle. Some faculty are examining the social context of health information in organizations, or in consumer/caregiver settings. Other FHS researchers embed an integrated knowledge translation process, where they conduct research in partnership with knowledge users, into their research designs through the use of innovative data visualization techniques, e.g., body mapping or social network analysis, and other strategies. The graduate program in Health Information Sciences, jointly offered by the Faculty of Health Sciences and the Faculty of Information and Media Studies further supports research in this domain.

The term, eHealth, describes the use of information and communication technologies (ICT) for health and is recognized as one of the most rapidly growing areas in health today. With funding from CIHR, NSERC, and the private sector, FHS researchers are examining innovative uses of various eHealth technologies and the implications of introducing ICT within diverse health care settings. Investigators are examining the impact of ICT use on health professional education, health care practices, and health organizations; exploring technology enabled models of health care (public health, home care and community health). There are a range

of 'smart' technologies, including the development of 'apps' and wearable technologies that have been used with individuals who are facing a multitude of health challenges, including the homeless and those with mental health concerns. These efforts include diverse populations across the life span, from our very youngest citizens to our most senior citizens. The Internet, the electronic health care record (EHR), the personal healthcare record (PHR), telehealth, robotic applications, virtual worlds and nanotechnology have and will continue to influence healthcare practice, practitioner roles and consumer-provider relationships. The availability of health information and health promotion interventions through the Internet, various 'apps', and other forms of health technology have dramatically transformed healthcare practices. These are evident with FHS researchers engaged in clinical simulation, driving simulation, the development and evaluation of assistive devices for speech, hearing, and mobility, and technologies for accessing health care among those who are homeless and facing mental health challenges and for older Canadians who want to remain in their homes and to 'age in place'. The graduate program in Health Information Sciences, jointly offered by the Faculty of Health Sciences and the Faculty of Information and Media Studies further supports research in this domain.

This area of scholarship is enhanced by researchers affiliated with the internationally recognized National Centre for Audiology (NCA). The NCA was founded through an Institutional Canada Foundation for Innovation (CFI) grant (July, 1999), supplemented with Ontario Innovation Trust (OIT) funding (March, 2000) and significant donations from the private sector, with the vision of becoming a national centre of excellence and leadership in research in Audiology and hearing science. The NCA received a second round of CFI funding in 2006 and a third in 2012, with individual researchers also receiving CFI support for laboratory development. Researchers at the NCA have also demonstrated considerable success with Tri-Council funding, primarily through NSERC and CIHR grants including a Canada Research Chair in Childhood Hearing, as well as Ontario Research Fund team operating support.

More recently, the research capacity of the NCA was enhanced by the approval of a Western Research Chair in Cognitive Neuroscience and two Canada Research Chairs in Brain Plasticity and Development and in Auditory Neuroscience/Binaural Hearing. The Research Centre facilitates research excellence and innovation by bringing together the necessary human and laboratory resources to form collaborative groups with existing excellent researchers forming the core. The NCA has long-lasting relationships with industry partners across the globe in both technology transfer (e.g., the award-winning DSL™ hearing aid prescription software) and collaborative research. Researchers and students at the Translational Research Unit (TRU) conduct arm's length product evaluations of device efficacy and effectiveness. The research conducted at the NCA addresses directly the impact of novel technologies on our ability to optimize hearing health care from assessment through to intervention and outcome assessment. In addition to the contribution to the hearing science research excellence, the NCA and its Audiology program have established themselves as world leaders in the fields of hearing science, early intervention, rehabilitation, and biomedical engineering applications in hearing healthcare.

Changing Health Services, Systems, and Policy

Leading Research in Transformative Health Care



Researchers within the Faculty of Health Sciences are playing a leading role in research that directly impacts the rapidly changing health care environment. Efforts within this realm are intended to foster excellence and innovation in health services and policy research and to catalyze the application of research findings to policies, practice and programs that provide real-world benefit and enhance the provision of high-quality care for Canadians.

The scope of these efforts within FHS is broad and includes health services research that explores the interplay of social and economic contexts, health technologies, early and effective interventions,

and personal factors that impact health systems and policy. Our research findings and advancements in health services research need to be taken up by both established and emerging health professionals, and for this reason there is a strong emphasis on education. Evaluation of the most effective strategies and models by which we prepare students to assume leadership roles in all areas of health care; the role of interprofessional education, collaboration, and practice, curriculum development; and the effectiveness and relevance of alternative teaching/learning strategies are areas of active focus for many award-winning FHS scholars.

The environments in which we work are the focus of study for many FHS colleagues. Workplace empowerment, and its converse, workplace civility and bullying, have been the foci of research of research supported by grants from CIHR and SSHRC. Further support to this field has been leveraged through the prestigious Arthur Labatt Family Nursing Research Chair in Health Human Resource Optimization.

A critical component of system change is understanding how we can influence the development of policy. Particular attention is paid to health human resources policy, planning and management. Policy-related research focuses on strengthening healthcare access and services for Canadians, in particular those who are most vulnerable, the reduction of health disparities. Our research spans local, provincial, and national issues. Collectively, the efforts undertaken have helped to position FHS as a global leader in optimizing the health and health outcomes through the provision of evidence-informed health care.

Goals and Strategies

THE FACULTY OF HEALTH SCIENCES IS COMMITTED TO PRESERVING AND EXPANDING THE BREADTH OF SCHOLARSHIP THAT DISTINGUISHES OUR VIBRANT RESEARCH COMMUNITY WITHIN THE CANADIAN UNIVERSITY LANDSCAPE.

In recognizing this commitment, we have identified four interrelated and overlapping goals that set the stage to advance our national and international reputation of research excellence. Collectively, these goals contribute to the larger effort to encourage, promote, and sustain excellence in all aspects of research and comprise a path for ‘framing our future’.

Goal 1

Increase research grant success through the provision of financial and non-financial support

A priority objective within the Faculty of Health Sciences is to solidify and to increase/raise its growing reputation for world-class research. Achievement of this goal requires a range of supports, financial and otherwise. Strategies toward this end include:

- A.** Create an FHS Research Mentoring program to support colleagues as they are developing their programs of research, to include expansion of individual grant facilitation and strengthened internal peer review processes.
- B.** Establish an internal FHS Research Support Fund aimed primarily at three cohorts:
 - Pre-tenure and probationary colleagues
 - Mid-career colleagues who are striving to ‘re-vitalize’ their programs of research (e.g., researchers whose research programs have suffered because they have assumed administrative roles for several years, or researchers who have held grants in the past but have had more difficulty obtaining grants in the increasingly competitive funding climate)
 - Well-established researchers who have held external funding and are making the transition from operating grants to major collaborative grants
- C.** Maintain internal funding initiatives that have demonstrated success, and develop new ones to fill perceived gaps and extend our reach
 - A stipulation for all internal funding opportunities is that they lead to publications, presentations, and future applications for external funding
 - Maintain the FHS Tri-Council Initiative (valued at \$1,000) and the FHS Tri-Council Development Grant (valued at \$3,000).
 - A requirement for obtaining funds under these initiatives is that the proposal must be submitted with sufficient time for peer-review. These initiatives are excellent, the data lend support to the importance of peer review in grant success, and should be continued.
- D.** Provide focused assistance to researchers who are developing larger-scale initiatives, or for specific funding opportunities as they arise
 - Develop an ‘emerging cluster’ grant to foster collaboration within and beyond FHS
 - An expected outcome would be submission of an application for external peer-reviewed funding within 2 years
- E.** Provide bridge funding to assist faculty to secure external funding
- F.** Continue to distribute seed grants through the Faculty Research Development Fund
 - Under this initiative, with funds provided from Research Western, we award development, collaborative/planning, and travel grants to support researchers who are typically in the early stages of their academic careers and/or have limited access to other funding sources

- G.** Evaluate the effectiveness of all internal funding initiatives according to metrics of research excellence and impact, continuing those that work, discontinuing those that don't
- H.** Maintain the Faculty Research Advisory Committee to advise the Associate Dean (Research) regarding internal funding opportunities and other research-related issues
- I.** Enhance communication to ensure that members are apprised of all funding opportunities, to ensure that research successes are acknowledged and celebrated, and to create greater awareness of research activities across FHS
 - Create a quarterly FHS Research Newsletter that is sent electronically and posted on our website
 - Use social media to strategically communicate FHS 'research happenings'
 - Continue to publish the annual FHS Research Scholarship Report
 - Hold an annual reception to acknowledge and celebrate recipients of external funds that enhance research/scholarship
- J.** Continue to build and strengthen the partnerships between the Faculty of Health Sciences and Western Libraries. Work with librarians on grant related and other projects that highlight areas of mutual strength and benefit, such as the performance of systemic reviews, research support, and teaching.
- K.** Partner with Western Libraries to improve compliance with the Tri-Agency Open Access Mandate. Using faculty and mediated deposit into Scholarship @ Western, achieve a high level of deposit of post print manuscripts in our institutional repository.
- L.** Increase the number of external research awards to FHS faculty
 - Liaise with Research Western to identify Research Awards opportunities and nominate members, providing support and assistance as appropriate
- M.** Promote faculty membership in national academies and review boards
- N.** Maintain the current FHS Research Office complement
 - Continue the FHS Research Officer position as a full-time permanent position
 - Establish the FHS Research Coordinator position as a full-time permanent position

Goal 2

Knowledge to Action

Research is most valued by society when it changes how we think, act, and feel about ourselves, others and our environment, be it at the international, national, provincial, or local level. The Faculty of Health Sciences acknowledges the need to communicate achievements and to demonstrate that our actions may achieve benefit to society. A critical aspect of research excellence and impact is the sharing of knowledge with key stakeholders, including community and industry partners, government and non-government organizations, programmers and policy-makers. The significance of knowledge translation -and the insistence that research knowledge be moved from its creators and discoverers to usage by those who need it - has been recognized and highlighted by all of the Tri-Council agencies. According to CIHR, knowledge translation is defined as 'a dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system.' We embrace this mandate and have identified several key strategic activities to enhance the likelihood that the generation of knowledge will contribute to meaningful action and change:

- A.** Promote opportunities for dialogue and knowledge exchange between researchers and knowledge users
 - Examples are the Symposia jointly held with Thames Valley Children's Centre and Parkwood Institute
- B.** Build capacity of researchers and knowledge users to engage in knowledge translation
- C.** Advance research capacity through partnerships and collaborations with relevant communities, industries, and government agencies
- D.** Develop a strategy to promote and support community-based research
- E.** Work with Research Western and World Discoveries to develop an integrated industry engagement strategy for FHS
- F.** Expand knowledge and appreciation of the importance of FHS research
- G.** Fully utilize the potential of Scholarship @ Western to increase impact, discoverability, and preservation of our faculty's scholarly output. Work with the library to understand and maximize the impact of our scholarship.
- H.** Engage alumni and the business community in entrepreneurial activities
- I.** Develop and maintain an inventory of Knowledge Translation and Exchange activities
- J.** Work with the FHS Communications Officer to ensure a robust, multi-faceted communications strategy that reaches across the faculty, Western, and the broader community

Goal 3

Provide the necessary space, infrastructure, and administration to support leading-edge research

- A. Monitor, maintain, and expand FHS shared spaces as needed, feasible, and appropriate
- B. Support the creation of new structures to advance research that is aligned with our strategic priorities
 - Identify and support infrastructure funding opportunities including Canadian Foundation for Innovation and Ontario Research Fund grants
- C. Increase the number of Postdoctoral Fellowships situated within FHS
 - Investigate the creation of additional fellowships to support leading researchers and newer researchers
 - Mentor FHS researchers about the ways PDFs can support research
 - Encourage inclusion of PDF opportunities in all grant applications
- D. Minimize administrative burdens on researchers and work to strengthen our capacity to compete for research funding
 - Provide supports to minimize administrative and bureaucratic barriers
 - Work with the Office of Research Ethics to improve processes that will lead to more timely approvals of ethics submissions
 - Collaborate with the Southwest Academic Health Network (SWAHN) regarding greater harmony across Western's Office of Research Ethics, other IRBS, and clinical settings
- E. Expand opportunities for interdisciplinary dialogue across FHS and beyond
 - Continue the Faculty of Health Sciences Research Conversations monthly series
 - Provide support for strategic 'think tank' meetings as requested by FHS researchers
 - Continue to host the expanded FHS Research Day

Goal 4

Build enduring interdisciplinary partnerships and collaborations, within FHS, and with community, government, and industry partners

The Faculty of Health Sciences promotes research capacity through development and support of partnerships and collaborations. By working together both within and across disciplines we are able to tackle complex issues, problems and scholarly challenges. We have made great strides in collaborative research activities and we are committed to furthering a research culture of collaboration within FHS. For example, our existing research Centres create sites of scholarly excellence, strengthen our identity and reputation, promote community engagement, facilitate partnerships within and outside the Faculty and the University, and enable leveraging of funding opportunities. Moreover, our research Centres enhance graduate and undergraduate student training through mentoring interactions as well as the provision of unique educational pursuits that bolster academic experiences and scholarship of our students and faculty. Beyond our Centres, we have ongoing partnerships with Lawson Health Research Institute, with hospitals and health care communities, locally and globally, and we envision many opportunities for us, as individuals and groups of FHS researchers, to engage in partnerships and collaborations. We will work to create an environment that enhances, encourages, rewards and celebrates these opportunities.

To enhance our capacity to build enduring partnerships and collaborations we will:

- A. Provide leadership and support to the Western Cluster of Research Excellence in Musculoskeletal Health
- B. Provide on-going support (space, logistics) for our existing Research Centres and Research Groups
- C. Continue to develop linkages with the Institute for Clinical Evaluative Sciences (ICES), including promotion of the ICES Faculty Scholar program
- D. Explore strategically the benefits of transitioning of research Centres to Institute status at Western
- E. Maintain active and strong representation with the South West Academic Health Network (SWAHN) and other relevant networks
- F. Provide financial and administrative support for large collaborative research efforts
 - Promote the Faculty Research Development Fund – Collaborative Planning grant category (from Goal 1)
 - Promote the planned 'emerging cluster' grant (from Goal 1)
 - Promote Western's Interdisciplinary Development Initiative (IDI) and other interdisciplinary opportunities
 - Provide support to strengthen FHS applications

- G.** Continue to promote collaborative activities with organizations and institutions outside of FHS
 - Liaise with Western's Office of Research Development to identify areas of interest for Faculty research opportunities
 - Build upon existing relationships with Western Libraries, and grow new relationships to identify opportunities for collaboration.
- H.** Strategically identify and provide adjunct faculty research appointments to researchers external to FHS
- I.** Establish a community presence for the Centre for Research on Health Equity and Social Inclusion by locating facilities in downtown London
- J.** Create mechanisms to recognize actions that foster a collaborative environment
 - Award collaborations in annual performance evaluations and Promotion and Tenure files
 - Acknowledge collaborative research efforts for acknowledgement and rewards

Benchmarks of Success

TRADITIONAL INDICATORS OF RESEARCH SUCCESS WILL BE USED TO EVALUATE OUR PERFORMANCE.

However, it is important that these indices be considered alongside other measures of knowledge transfer and impact including government and public panel contributions, policy papers, technical reports, and media impact.

- A.** Percentage of FHS researchers who hold external grants (tri-council and other) increased
 - To 75% in 3 years; to 100% in 5 years
 - Increase in annual research revenue
- B.** New collaborations and partnerships across the university, across Canada, and internationally
- C.** Increased publications and evidence of impact
- D.** Total number of scientific awards and honours increased
- E.** Total number of Canada Research Chairs increased
- F.** Evidence of a highly engaged research culture
 - Broad participation of FHS members in FHS research-related activities
 - Presence on national and international advisory and scientific review panels
 - Dissemination and translation of findings in traditional academic media (Peer-reviewed publications), as well as through non-academic venues

Concluding Comments

THE FACULTY OF HEALTH SCIENCES IS COMPRISED OF AN OUTSTANDING COHORT OF RESEARCHERS FROM DIVERSE DISCIPLINES, ENGAGED IN DIVERSE STRATEGIES IN THE QUEST FOR KNOWLEDGE GENERATION.

We are committed to ensuring that our research is used to bring about improved health within our community, our country, and our world. A central goal is to enhance our competitiveness and to position the Faculty of Health Sciences as one of the top research-intensive health science faculties in Canada. We acknowledge the challenges inherent in such a lofty goal, but firmly believe that it is achievable. Toward this end, we will make strategic investments in personnel, infrastructure support, and in core research facilities. In this document, we have articulated four key signature areas. These will be supported, but we must also be sufficiently flexible to allow new strategic directions to emerge. We believe that there is an appetite within the Faculty of Health Sciences to become a more powerful player in Canadian and international research, and look forward to our work together to achieve our shared goals.

While the currently articulated signature areas provide focus and foundation for future investments, financial and otherwise, we embrace the notion of change, and believe that new areas of strength will emerge. As previously stated, our Strategic Research Plan is a living document that will shift and evolve as these new areas become evident. Toward that end, we are firmly committed to the creation of an environment that is open and receptive to new and emerging areas of scholarship.



Western Health Sciences

