



**UNIVERSITY OF CALGARY**  
O'Brien Institute for Public Health

**UNIVERSITY OF CALGARY | O'Brien Institute for Public Health**

# **PROGRESS REPORT**

## **2015**

Prepared for:

**O'Brien Institute for Public Health**  
**International Scientific Advisory Group**

March 9, 2015

Dear Reader:

Activities within the O'Brien Institute for Public Health have been guided by regular assessment of progress toward the [interconnecting goals, targets, and objectives](#) laid out in our [March 2013 Business Plan](#). In September 2013, we hosted the first visit of our International Scientific Advisory Group, and received invaluable feedback regarding how we might achieve our dual goals of scientific excellence and societal impact.

To inform the March 2015 visit of the International Scientific Advisory Group, this Progress Report outlines Institute advances over the intervening period, and responds to feedback from the previous review. A companion document, Research Impact Assessment 2015, reports more quantitatively on the Institute's performance. In response to the emphasis placed on pursuing impact on society, several notable successes in that realm are highlighted throughout both documents, as sidebars in this Progress Report, and as Stories of Impact in the Research Impact Assessment. Both documents are intended to provide useful updates to stakeholders of the O'Brien Institute for Public Health, including the International Scientific Advisory Group.

Thank you for your interest in the O'Brien Institute for Public Health.

William Ghali  
Lynn McIntyre  
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Scientific Director  
Associate Scientific Director  
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# O'Brien Institute for Public Health – March 2015 Progress Report

## INTRODUCTION

A critical element of the governance structure for the O'Brien Institute for Public Health is its International Scientific Advisory Group, which was first hosted in Calgary on September 30 - October 1, 2013. As outlined in its Terms of Reference (see Appendix 1), the group of internationally respected public health research leaders is invited once every two years to provide the Institute with feedback on its achievements and to inform future planning. [Materials from the 2013 visit](#) are available for review, including the resultant [Report](#).

Between visits of the International Scientific Advisory Group, the Institute leadership has been active in gleaning additional feedback from other notable advisors, external to the Group. For example, Dr Harvey Fineberg (President, Institute of Medicine of the National Academies) spoke at the Cumming School of Medicine in March, 2014, as the winner of the 2013 Friesen International Prize. The Institute was pleased to accept the School of Medicine's offer to take the lead role in hosting Dr Fineberg, and was in turn able to present to him on the Institute and invite his advice. Similarly, members of the Institute's Strategic Advisory Board, senior government officials, and counterparts in other relevant Canadian and international organizations have provided valuable input regarding the Institute's trajectory. This additional feedback has largely validated the key recommendations of the International Scientific Advisory Group report, listed below:

1. Faculty of Medicine and the University of Calgary commit more funds to core operating budget.
2. A formal partnership agreement be negotiated with AHS with funding contribution, perhaps focused initially on one or two concrete demonstration projects that set out to specifically influence relevant health system performance.
3. Develop an explicit strategy to enhance societal impact. Consider such things as formal relationship with AHS, targeted areas for improvement and position on advocacy activities.
4. Enhance resources and expertise in knowledge translation.
5. Examine closely the potential for moving into amalgamation of various sources of community data in addition to health and health system data – e.g., justice, education, socioeconomic. IPH should take a leadership role in public policy influence to achieve dual goals of having research informed policy and to enhance the profile of public health as a robust societal influence.
6. Work with leaders of key programs within IPH (W21C, WHO collaborative, PHIRC) to align their program activities and plans with ISAG strategic recommendations related to societal impact, knowledge translation, partnership with AHS, and more explicitly defined outcomes related to the IPH mission to improve health and health care
7. Consider partnerships with similar and complementary organizations beyond Alberta

The remainder of the Progress Report outlines Institute advances during the intervening 17 months, with reference to these seven recommendations.

# ALIGNING THE O'BRIEN INSTITUTE ORGANIZATION FOR SUCCESS

In September 2014, the Institute was named the O'Brien Institute for Public Health, in honour of a significant [donation from David and Gail O'Brien](#). The O'Briens have long been supporters of health research and training at the University of Calgary, and Gail is a founding member of the Institute's Strategic Advisory Board. Their contribution is transformational to the Institute for many reasons:

- it confirms that the Institute's vision and mission are important to the community, and that our messaging is being understood beyond academia;
- it acts as a bellwether to stimulate the second phase of philanthropic fund development;
- it secures a place among the Cumming School of Medicine's six other Institutes; and of course
- it provides long-term operating funds that allow us to advance to the next level in our pursuit of scientific excellence and societal impact.

Several other important organizational adaptations to the Institute have been made since, and in response to, the previous ISAG review as outlined below.

## REFINEMENT OF PRIORITIES

A common recommendation from ISAG and other advisors has been to identify priorities among the Institute's broad remit that respond to issues of societal importance. For example, ISAG advised "Reframing priorities using targets that reflect community needs." Through an

Develop new approaches to care for the aging population with an increasing burden of chronic disease. For example:

- Medical care in the home
- Use of eHealth tools for better care
- Patient-centred care, focused on enhancing the patient/family care experience.

assessment of the Institute's existing strengths, in the context of the needs identified by our stakeholder groups and advisors, the priority topics summarized in the sidebars have been identified. This refinement of priorities has been key to satisfying our Strategic Advisory Board, and to advancing the Institute's fund development plan. These topics are organized within the Institute's three themes, which provide the framework for our ongoing fund development activities (see Appendix 2).

Basing these priorities on the strengths and interests

of the Institute's key programs, and allocating the Institute's financial and human resources accordingly, encourages the Institute-wide alignment of activities identified in ISAG Recommendation #6.

Improve health and prevent disease in the general population. For example:

- New vaccination programs to prevent various diseases
- Food policies to prevent chronic conditions such as obesity, diabetes, hypertension
- The design of healthy cities to prevent the same chronic conditions.

Develop and apply novel smart analytic and big data tools for health. For example:

- Improving methods for harnessing and analyzing large health data sets to study patterns of disease
- Developing health information dashboards for health system planning, health providers and patients
- Supporting the O'Brien Institute World Health Organization Collaborating Centre in Health Information.

## EFFECTIVE COMMITTEES

The first ISAG visit represents a turning point for the **Institute's Executive Committee**, with recommendations confirming that it was time to create shared leadership opportunities for emerging leaders (allowing senior leaders to focus on external strategy, relationships, and leadership development). The Institute's role-based existing Executive Committee was therefore dissolved, and members were invited to volunteer for task-based positions with a revised [Terms of Reference](#). Two role-based positions remain: one for the Department Head of Community Health Sciences, the Institute's most closely linked academic department; and one for a management-level representative of Alberta Health Services. The portfolios now led by Committee members comprise:

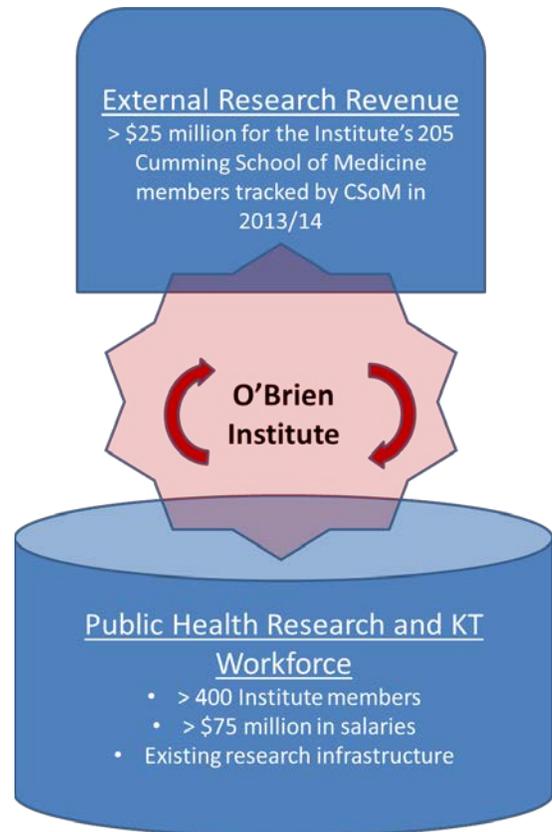
- Awards and Recognition
- Internal Peer Review
- Knowledge Translation
- Mentorship
- Performance Metrics
- Seminars and Events
- Strategic Communications
- Strategic Partnerships

Portfolio leads are assisted by Institute staff in advancing their mandates, and convene every other month to get feedback on intervening activities. As described later in this document, the work being undertaken within these portfolios addresses key ISAG Recommendations, and will advance us toward the Institute's scientific and societal goals.

Evolution of the **O'Brien Institute's [Strategic Advisory Board](#)** has also occurred as the organizational structures of stakeholder organizations change, and as additional community leaders express dedication to the Institute's vision. In alignment with ISAG Recommendation #2, the Scientific Director of the Institute has cultivated strong working relationships with senior leaders in both Alberta Health Services and Alberta Health. The commitment of these leaders to the Institute's mission has been demonstrated not only through their roles on the SAB, but through their efforts to create separate funding agreements to support Institute activities. This deliberately "arm's length" support is deemed more strategic by both the University and the two agencies, allowing certain freedoms that could be jeopardized by a more overarching partnership agreement.

## SUSTAINABLE BUDGET

The O'Brien Institute was created to act as a catalyst for an existing multimillion dollar research enterprise in Calgary. Thus, although the Institute's operating budget (discussed below) appears small in relation to comparator organizations, it is leveraging a much larger financial commitment by its stakeholders, and contributing to an intake of considerable external funding. The figure depicts the ratcheting mechanism of the Institute, using data from 2013/14: the approximately \$300,000 operating budget was instrumental in assisting its membership (an estimated \$75 million in manpower) to compete successfully for external research funds (over \$25 million for the half of the membership tracked within the Cumming School of Medicine). The model purports that investments in the Institute will increase the ratcheting activity, and thereby significantly impact the overall value of the public health research enterprise in Calgary.



The **Institute's funding situation** was secured and greatly enhanced by the 2014 naming donation, which was made as a combination of a \$4 million endowment and \$8 million in spend-down funding. The understanding is that this spend-down will be used over 10 – 15 years. It is estimated that the endowment will yield approximately \$160,000 interest annually.

Naming donation



	2013/14		Post-naming		Future
Enterprise Funds	~\$250,000		~\$500,000		~\$750,000
Investing in People*			↑↑		↑↑↑
Catalyst Funds	~50,000		↑		↑↑
Specialized Infrastructure*			↑		↑↑
<b>TOTAL</b>	~\$300,000		~\$1 million		~\$2M



Ongoing fund development

The Cumming School of Medicine continues to allocate \$50,000 annually to its Institutes, once they have attained financial sustainability through a naming donation. Additional O'Brien Institute funding agreements are being negotiated with Alberta Health and Alberta Health Services, for research and knowledge translation activities of interest to those agencies, such that

available funding is expected to exceed \$1 million annually in the near future, approximately three-fold higher than was previously available. The O'Brien's notable contribution is being used to inspire additional philanthropic activity in the community, through an ongoing fund development campaign targeted at an eventual total of \$26 million. This targeted total investment would support annual expenditures of approximately \$2 million.

In alignment with the fund development plan, the **Institute's expenditures** are grouped within four categories. Prior to the naming donation, the Enterprise Funds covered the operating expenses of a small core team, and a nominal allocation of Catalyst Funds encouraged some research capacity building activities. In the half year since naming, initial steps have been taken to grow the Enterprise in alignment with key recommendations (see *Dynamic Core Team*, below) and to fund the people and programs that will further the vision of the Institute. To facilitate the allocation of funds in an effective, accountable, and transparent manner, a request template (Appendix 3) has been used to inform the joint decision-making of the Institute's three Directors. Thus far, approximately \$360,000 has been allocated to 17 projects, including contributions to start-up packages for new faculty, salary support for research support staff, and sponsorship of meritorious trainee activities. Early learnings are guiding refinements to the process, and an associated reporting requirement for the awardees is in development.

In response to ISAG Recommendation #1, we can confirm that both the Cumming School of Medicine and the University of Calgary continue to offer substantial support to the Institute through competitive opportunities for its members. For example, six O'Brien Institute members have secured funding for research fellows, through the University's first "Eyes High" postdoctoral program. The [Cumming School of Medicine, renamed in 2014](#) in honour of a significant donation (focusing on brain and mental health, and infections, inflammation and chronic disease) has just announced its own post-doctoral scholar support program, which will leverage the Eyes High program and be accessed by the Institute to fund up to three additional PDFs annually. The School has also significantly enhanced its Bridge Funding program, providing 30% of the project budget (up to \$50,000) to any CIHR Open Operating Grants Program application that has been favourably reviewed at the agency (within the top 30% of its peer review committee) but missed the funding cut-off. In the March 2014 OOGP competition, for example, three O'Brien Institute members had grants approved by CIHR, while another six received a total of just under \$250,000 from the School's Bridge Funding program. The School's designation of one of its most senior Directors of Development to lead the O'Brien Institute's fund development activities is another significant commitment to the financial sustainability of the Institute.

### The Conference Board of Canada

Over 80 members from across Canada came to the O'Brien Institute's W21C Program from November 18-22, 2014, to attend two nationwide symposiums focused on patient self-care and chronic disease management. These symposia provided a unique venue for W21C to highlight research in this core theme area (led by Dr. Peter Sargious, W21C faculty lead for the Chronic Disease Management research portfolio) to a diverse audience, representing various sectors and health care organizations across Canada -- from physician leaders to technology innovators and pharmaceutical companies. This is an ongoing collaboration.

## DYNAMIC CORE TEAM

At the time of the first ISAG review, the Institute was supported by a core team of approximately 4.2 FTE, which included a large voluntary component (the two Scientific Directors) and an un-budgeted gift-in-kind from the Department of Community Health Sciences (the Project Coordinator). The financial sustainability offered by the naming donation has improved this situation considerably, through the hiring of a full-time Project Coordinator, and a full-time Strategic Communications Manager. Future planned hires include an additional Communications/Events Assistant, a Liaison to facilitate shared activities with Alberta Health Services, and two part-time Research Associates to support the growing research and administrative needs of the two currently under-supported theme areas (Population Health and Methods/Tools).

	2013/14	Post-naming	Future
Scientific Directors	2 x 0.5 FTE		
Administrative Director	1 FTE		
Communications Manager (OIPH & W21C)	0.5 FTE		
Project Coordinator	0.7 FTE	1.0 FTE	
Communications/Events Assistant	1.0 FTE		<b>2.0 FTE</b>
Strategic Communications Manager		1.0 FTE	
OIPH / AHS Liaison			<b>0.5 FTE?</b>
Theme-specific Research Associates			<b>2 x 0.5 FTE?</b>
<b>TOTAL</b>	4.2 FTE	5.5 FTE	<b>8.0 FTE</b>

As outlined later in this document, the significant enhancement to the Institute team's communications and knowledge translation expertise and capacity is designed to address ISAG Recommendations #3 and #4. Supporting the two voluntary Scientific Directors in their mounting workloads is more challenging. As mentioned above, efforts are being made to encourage emerging leaders among the membership, and relevant recommendations may arise from the Cumming School of Medicine's Review of Institute Leadership, scheduled for June 2015 in Dr Ghali's case. Dr McIntyre's impending retirement further complicates the situation.

### W21C/AHS Collaboration for Ambulance Evaluation

The W21C partnered with Alberta Health Services (AHS) to conduct a human factors evaluation of Emergency Medical Services' equipment and ambulance design. Over 100 EMS staff in all five zones across the province engaged in the research--from focus groups and online surveys, to scenario testing in the back of a moving ambulance using a Medical Education Technologies Inc. (METI) human patient simulator (e.g., iStan or METIMan). Through the application of human factors design principles and simulation, an efficient, safe and standardized configuration of ambulances (and the equipment on the ambulances) was developed for the province. This included the safety of both the patients and the providers (EMS personnel), and considered both cognitive and ergonomic factors. Data analysis is now complete, and both researchers and EMS teams continue to present results to a variety of external stakeholders, including EMS fleets and ambulance manufacturers. Results have also been shared at EMS expos/conferences and the human factors ergonomic conference. Researchers are currently finalizing publications and providing purchasing and design recommendations to AHS/EMS.

## OPTIMIZING SCIENTIFIC OUTPUT

All research organizations must address the tension between **focusing on priorities and enabling creative freedom**. For example, although the identification and cultivation of the Institute's priorities encompasses a large proportion of members, many research projects and programs within the O'Brien Institute's broad remit do not fit squarely within its stated priorities or themes. Some research activities also would not be situated in the optimal quadrant of the "Existing Strength vs Societal Importance" grid (see point #4 in Appendix 3). As an inclusive entity, the Institute supports the goals of these less-prioritized, investigator-driven programs (in a proportional manner), cognizant that evolving societal needs and scientific serendipity may sometimes shift priorities and a program's situation within the priorities. To address the priority vs. enabling dynamic, the Institute offers support adapted to different levels and groupings within the research enterprise, as outlined under the headings below.

University research institutes must also address the challenge of **balancing academic and societal goals**, being responsive to stakeholders with differing priorities and different measures of success. Fortunately for O'Brien Institute members, the balance is coming easier: the University of Calgary is more attentive than ever to its societal role, and relevant agencies increasingly include the feasibility of measureable societal impact as a funding criterion. The O'Brien Institute's goal of societal impact aligns tightly with the priorities of its community stakeholders, and progress toward that goal is discussed below in Section 4. To responsibly inform societal impact, academic excellence is a prerequisite, and this Section therefore describes progress toward Optimizing Scientific Output.

### THREE THEMES

The **Enhanced Health Systems Performance** theme continues to thrive within the Institute structure. The [W21C program](#) serves as a focal point for innovation in health quality and safety, and has been included in the University's \$1 million biomedical engineering strategy. The Interdisciplinary Chronic Disease Collaboration ([ICDC](#)) was presented in the [previous ISAG visit](#), and its influence within the Institute is increasing, with the recent recruitment of the third team lead from the University of Alberta. Numerous other programs contribute to this theme, including osteoarthritis healthcare system planning, interdisciplinary research into emergency room overcrowding and patient flow, and an internationally leading cardiovascular health outcomes research program ([APPROACH](#)) in partnership with the Libin Cardiovascular Institute.

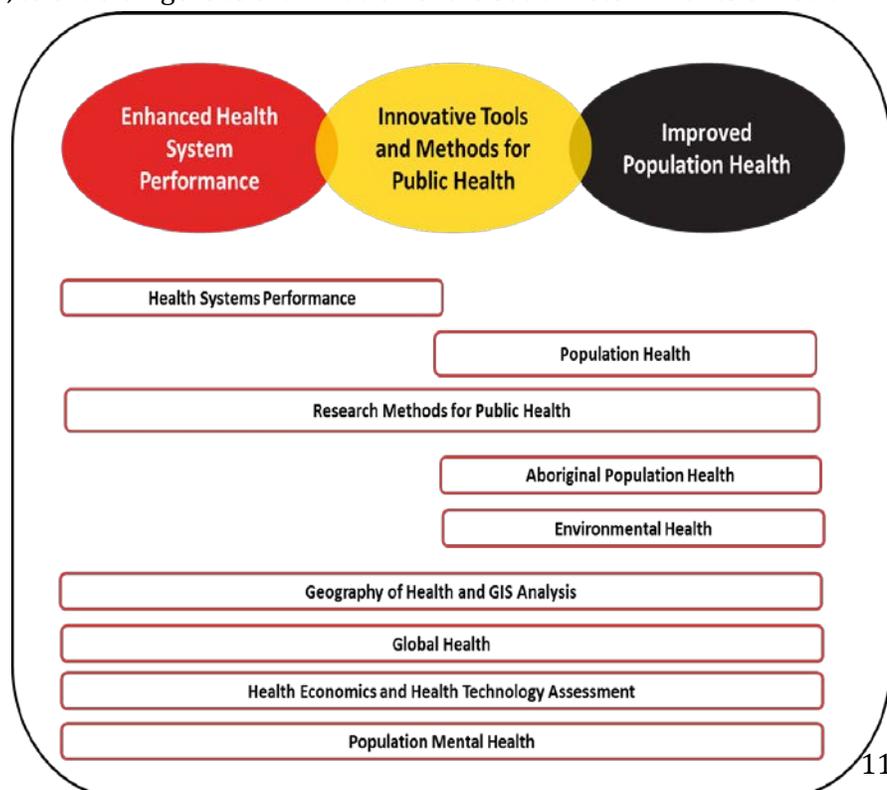
The **Improved Population Health** theme benefits from the work of some notable, experienced, individual members (leading research in food insecurity, physical activity and cancer risk, and sports injury prevention, for example) and many emerging leaders (conducting work in physical activity and the built environment; and the animal/human interface with health, for example). A highly competitive and externally-funded [Applied Public Health Chair](#) was awarded to an O'Brien Institute member in 2014. In a recent CIHR Open Operating Grants competition, three of the nine projects awarded nation-wide by the Public, Community &

Population Health committee were to O'Brien Institute members, who ranked 1<sup>st</sup>, 5<sup>th</sup>, and 6<sup>th</sup>. Assessment of initial developments within the [Population Health and Inequities Research Centre](#), with consideration to an evolving environmental context, has suggested a revised and broadened vision for this Centre, to more fully integrate the individual strengths of Institute members.

World-class strength has been built in the area of **Innovative Tools and Methods for Public Health** by a group of leading researchers in the Institute who are inspiring interest and dedication from every level of collaborator – from trainees, research associates, and health systems data analysts, through international scientific experts. This local strength is evident in the Calgary-based leadership of the International Methodology Consortium for Coded Health Information (IMECCHI – see [www.imecchi.org](http://www.imecchi.org)) and the related new University of Calgary WHO Collaborating Centre in disease classifications and data methodologies (Pan American Health Organization/World Health Organization Collaborating Center for Classification, Terminology and Standards, based in the O'Brien Institute). Members of the Collaborating Centre are contributing to the WHO's current development of the 11<sup>th</sup> revision of the International Classification of Diseases. Researchers in this area are exploring a number of other methodology topics, including “big data” tools for enhanced surveillance, and advanced statistical methodologies. Ongoing efforts to integrate and most efficiently utilize important local, regional, national, and international health data are spearheaded in the O'Brien Institute by the leader of its Research Methods research group, who has also been designated as the lead of a [provincial platform dedicated to Methods Support and Development](#). The data holdings of the unified Alberta Health Services and the Canadian health system are relatively integrated, in relation to other jurisdictions, and this advantage is being exploited to the extent possible by the Institute. Continuing efforts in this area will increasingly allow the integration of data beyond the health sector, to enable rigorous examination of the social determinants of health in Institute work, in alignment with ISAG Recommendation #5.

## SUPPORTED GROUPINGS

As part of encouraging grass-roots capacity building within the broad scope of public health research, the O'Brien Institute provides various groupings with small amounts of financial, space, and human resources. For example, ten **Research Groups** were created



early in the Institute's history, based on assessments of the local capacity and topic importance of self-identified groups. This cadre of groups has evolved organically over the past few years, with some of the original groups now encompassed by the Institute's theme areas (Health Services Performance; Population Health and Inequities; Tools and Methods for Public Health). Another cadre, including groups that focus on Aboriginal Health, Global Health, and Environmental Health are flourishing as they develop important external partnerships and research platforms, in alignment with the Institute priority themes. Other groups (those focusing on Population Mental Health, Health Economics, and Health Geography are navigating through developmental issues, including overlapping mandates and evolving leadership. For a relatively small investment, the Institute is cultivating growth in these important public health topics, and encouraging leadership in a wider grouping of its membership.

Other groupings have grown out of successful program grants or government contracts to members. These include a [Health Technology Assessment Unit](#), the [Patient and Community Engagement Research](#) program, the [Advance Care Planning program](#). The Cumming School of Medicine also recently updated its [Office of Health and Medical Education Scholarship](#) which, due to a significant overlap of mission and membership, now benefits from inclusion within the O'Brien Institute.

## RESEARCHER SUPPORT PROGRAMS

As mentioned above, alignment of individual efforts with the O'Brien Institute's themes and priorities is encouraged (through allocation of the Institute's financial and human resources) but not required. All members can benefit from Institute activities aimed at building academic excellence, and in turn enrich the Institute as a whole.

The [Internal Peer Review program](#) remains a key benefit of O'Brien Institute membership. Inclusion of the IPR portfolio in the new Executive Committee is an indication of this importance, and the IPR portfolio lead joins the two Scientific Directors as review leads for the Institute. The basic IPR program was designed to support applicants applying to the Open Operating Grants Program (OOGP) of the Canadian Institutes of Health Research (CIHR), which represents the gold standard for health researchers in this country. The Institute-managed matching of applicants with appropriate peer reviewers within the Institute is also offered for other CIHR funding programs, and for other funding agencies, and it has been successfully augmented or adapted for specific situations. Because OOGP applications are rarely successful before at least one revision/resubmission (a known peculiarity of CIHR's population health and health services committees), one important augmentation of the IPR program involves the Institute's review leads providing supplemental coaching for the revisions. At least one of the review leads is also usually involved in small bespoke committees created to help members secure salary and Chair awards, and in the multidisciplinary panels convened to emulate agency processes for large, specialty competitions.

The Institute's three review leads are ideally situated to offer advice to the membership – through activities in the IPR program, as well as through recurring [grantsmanship seminars](#) –

thanks to their significant experience with CIHR and other agencies, as review committee members, chairs, and advisors. This experience has been leveraged to what may be an advantage of the O'Brien Institute in adapting to the **changes currently under way in CIHR programming**. Operating funding for shorter-term projects will still be available from CIHR (through the Project Scheme to be launched in Spring 2016), but the new Foundation Scheme will offer longer-term (five or seven year) programmatic funding for competitive applicants. Many researchers in the country have bemoaned the changes at CIHR and the uncertainties inherent during the transition period. The Institute's review leads have had the important role of gathering intelligence to: i) alleviate the fear of change among members; ii) determine which members were appropriate to apply to the new Foundation Scheme opportunity; iii) encourage these members to apply; and iv) help them plan their programs and craft their submissions to respond strategically.

The first 'pilot' of the Foundation Scheme was launched in 2014, and 18 O'Brien Institute members were deemed eligible and appropriate to apply to Stage 1. As an **augmentation of the regular IPR program**, early 'chalk talks' with the review leads guided refinements of the applicants' research plans. Ensuing review of written drafts by both the review leads and assigned reviewers helped the applicants strategize for the unfamiliar Stage 1 submission (which was weighted toward the excellence of the applicant, rather than the program *per se*). Of 1366 applicants nationwide, 34% were invited to submit a Stage 2 application. The University of Calgary and Cumming School of Medicine success rates were slightly higher than the national average, while 50% (or 9) of the O'Brien applications were successful. Strategy sessions with review leads were once again arranged for the O'Brien members advancing to Stage 2, to orient them to the difference requirements of the Stage 2 application (which focuses on the program's importance, innovation, and feasibility).

**Results of this first Foundation Scheme Competition** are eagerly awaited (July), both because of the importance to the individual researchers and programs involved, but also as demonstration of the review leads' ability to interpret the opportunity and predict indicators of success. The review leads' impression was that their experience and advice often enabled significant refinement of applicants' plans, to yield what should be more robust research with more potential impact. Similar intensification of the IPR program for the many other funding opportunities available to members would have serious human resource implications. However, positive feedback from the Foundation Scheme applicants and the good outcome at Stage 1 suggest that such efforts could substantially augment the Institute's pursuit of academic excellence.

Additional support to members includes a [Mentorship program](#) that has been in transition recently. A portfolio lead on the new Executive Committee will help assess outcomes of the program's first years, which involved the pairing of volunteered mentors and mentees on a time-limited task, such as tenure application. Anecdotal reports suggest the existing pairings have been much appreciated by participants, and a "re-launch" of the program will be undertaken once suggested enhancements have been achieved.

**Knowledge Translation** is another skill for which the Institute supports its members, as they adapt their academic work to optimally impact the community. A portfolio lead within the new Executive is leading efforts to identify member needs, and ensure relevant support is offered by the Institute. As a first step, the portfolio lead participated in a province-wide KT needs assessment led by Alberta Innovates – Health Solutions to encourage the participation of O’Brien Institute members, and to recover the responses of O’Brien members from the provincial survey. Ensuing activities will align with the intelligence arising from the survey, and are expected to include a workshop in the near future.

## PARTNERSHIPS FOR RESEARCH EXCELLENCE

As confirmed by ISAG Recommendation #7, effective partnerships are critical to achieving the multidisciplinary and cross-sectoral requirements of excellent public health research. The O’Brien Institute endeavors to foster beneficial internal and external partnerships at all levels -- from interactions among individual researchers through organization-level affiliations.

An exciting partnership was launched in 2014 with [RTI International](#), a research-based corporation “dedicated to improving the human condition by turning knowledge into practice”. It evolved from Research Triangle Park in North Carolina and now supports thousands of staff, in 18 regional and international offices, conducting hundreds of research projects around the world, with contract and grant revenue of almost \$0.8 billion in 2013. A connection was made between RTI’s President and CEO (Dr Wayne Holden) and the O’Brien Institute’s Associate Scientific Director, through their roles in the American Public Health Association. Dr Holden was hosted by the Institute in June 2014, during which time he contributed to a members’ forum dedicated to “Pursuing Impact”, and shared insights on managing an effective and impactful research enterprise with University and Institute leadership.

As part of this first interaction, areas of mutual interest and potential collaborations were identified, the most evident being in the area of “big health data”. A visit from leaders of RTI’s Centre for the Advancement of Health IT in October 2014 further developed that interaction: specific projects of mutual interest and researcher exchanges were identified. Potential collaborations in the areas of gender and global health are also being pursued.

## Hacking Health Calgary

The O’Brien Institute for Public Health’s W21C Program partnered with Startup Calgary and Innovate Calgary to host Hacking Health in Calgary from June 13-15, 2014. This fast-paced competitive event was designed to improve health care by bringing technology creators and health care professionals together to collaborate on realistic, human-centric solutions to front-line problems. This event strengthened partnerships with Innovate Calgary, Startup Calgary, and Alberta Health Services. Hacking Health also created opportunities for relationship building and sponsorships with Business Development Bank of Canada (BDC), Alberta Innovates - Technology Futures, UXGuys, Brightsquid, BioAlberta, the University of Alberta, DIRT, and iNovia Capital, just to name a few. Three of the six winners from this competition have moved on to work on actual prototypes and commercialization opportunities.

### News Mentions

[Hacking Health Conference wraps up in Calgary](#)

[Techies and health pros unite for Calgary’s first Hacking Health event](#)

The ongoing partnership of the Methods Group researchers with colleagues in the [International Methodology Consortium for Coded Health Information](#) (IMECCHI) has yielded, as mentioned earlier, an official Institute-level partnership with the Pan American Health Organization/World Health Organization. The Institute was designated a **PAHO/WHO Collaborating Centre for Classification, Terminology and Standards** in November 2014, and announcement of this notable achievement will occur later in 2015. The designation does not come with funding, but rather confirms the privileged interactions that the Methods Group researchers enjoy with their international colleagues in the WHO collaboration.

The O'Brien Institute remains the major force behind **Campus Alberta Health Outcomes and Public Health**, a provincial consortium of university and Alberta Health Services stakeholders in population health and health services research. Campus Alberta encourages collaborations among its stakeholder groups, through the competitive funding of pan-provincial meetings on relevant research topics, and by organizing annual information and networking events. The Campus Alberta organizing group is also leading the launch of [Alberta's SPOR SUPPORT Units](#), which will offer platform infrastructure to enable patient-oriented research, through a matched federal / provincial funding award. Both through Campus Alberta, and directly in its own right, the O'Brien Institute also maintains close ties with the [Strategic Clinical Networks of Alberta Health Services](#) through shared membership, including SCN representation on Institute working groups. The O'Brien Institute is thereby optimally linked in with the organizations that manage both the infrastructure and human resources key to the conduct of public health research in Alberta.

Through provision of a supportive environment and multiple networking opportunities, the Institute also encourages **individual-level collaborations** of its members, within and external to the Institute. For example, several senior members serve on advisory boards and peer review committees for national and international research funding agencies and scientific bodies. Numerous members also work as part of national or international scientific teams dedicated to specific research topics. Part of the Institute's future planning to increase the international profile of its research excellence will be an enhanced support of these individual-level collaborations, to stimulate members' grants, projects, and publications with international partners. Following the WHO example, such individual-level successes can be cultivated into more overarching, Institute-level partnerships that can benefit a wider portion of the membership.

It is apparent that the O'Brien Institute is progressing well in terms of optimizing scientific output, competing well at local, regional, and national levels. The following Section outlines efforts to leverage that scientific output to create health benefits in the community.

## OPTIMIZING SOCIETAL IMPACT

The first International Scientific Advisory Group report confirmed advice from the Strategic Advisory Board, and others, that the O'Brien Institute should focus on identifying the societal impact of members' research, and optimize future activities to enhance such impact. ISAG Recommendation #3 is to develop an explicit strategy to enhance societal impact. ISAG Recommendation #4, to enhance resources and expertise in knowledge translation, is closely related, given that KT is a required activity toward effective interactions with community

### International Women's Forum Tours

Approximately 100 members of the International Women's Forum (including Bonnie DuPont, Chair of the University of Calgary's Board of Governors) toured the O'Brien Institute's W21C Program on June 20, 2014, for research presentations and technology demonstrations. Through this unique opportunity, W21C faculty, researchers, and students interacted with leaders from across Canada representing a variety of sectors and backgrounds, including entrepreneurs, corporate executives, artists, humanitarians, leading professionals and political leaders.

### News Mentions

[Medical innovation impresses group of dynamic women leaders](#)

stakeholders. This section outlines the Institute's efforts to intensify its human resources, research expertise, and critical partnerships in the area of societal impact, and provides some early indications of success in uptake of research by the public, and impact on society.

As described in Section 2 above, funding-neutral advances were made shortly after the previous ISAG visit, through reorganization of the Executive Committee, and inclusion of several portfolios that directly or indirectly contribute to the societal impact goal. Emerging leaders with expertise and dedication to KT, Strategic Communications, and Strategic Partnerships are working with the O'Brien Institute directors, and undertaking relevant activities, including the KT needs assessment mentioned above. This early action laid the groundwork for the **allocation of financial resources to drive the impact goal**, once the sustainable operating funding was made possible through the naming donation. For example, the leader of the Strategic Communications portfolio was involved in the hiring of a dynamic, full-time Strategic Communications Manager, and works with the new hire on the development of the Institute's Communications Plan. The Manager is overseeing the further growth of the communications and events team, and will shortly hire a second full-time assistant to meet growing demand. All job profiles and planned activities are designed to further the societal impact goal, and advances in this direction are anticipated to accelerate with the inclusion of these human resources.

It should be noted that the Institute's early successes in informing health stakeholders were already appreciated and leading toward **funding commitments from important community partners**, even before the naming donation was secured. An agreement with

Alberta's Ministry of Health has now been executed, to financially support the Institute as it continues to create informational and networking events that further our common goal of improving health and health care for Albertans. Discussions are also ongoing with Alberta Health Services, to develop an agreement that could fund a liaison role and/or research and KT activities of mutual importance. Such commitments during a time of increasing financial restraint in Alberta are an indication of the Institute's stature within the province.

**Expertise in impacting policy** is an area targeted for enhancement within the Institute. Deans of Social Work, Nursing, and Law, and colleagues in the School of Public Policy were highly supportive of a suggestion in 2014 from the O'Brien Institute that a Chair in Policy, Equity and Well-Being be created to build capacity in this area. Although the funding opportunity that was originally targeted for this proposal is no longer available, the suggestion and the consensus response have convinced the Department of Community Health Sciences to pursue such expertise in an imminent recruitment. Shared activities with the School of Public Policy are also being discussed.

## PARTNERSHIPS FOR SOCIETAL IMPACT

The above-mentioned partnerships for research excellence are arguably just as important for societal impact, creating or widening the pipeline through which academic excellence within the Institute influences the community. For example, the Institute's ambitious Methods and Tools work could not succeed without the clout of the WHO to arrive at international agreement on nomenclatures and definitions. Additional partnerships cultivated by the Institute focus even more on the community end, rather than the academic end, of the pipeline.

A partnership with the University's Faculty of Environmental Design and the City of Calgary has been forged related to the **planning and design of healthy cities**, within the framework of [make Calgary](#). Our first joint event ([makeCalgary: Resilient](#)) was held just in advance of the first ISAG meeting, and was much lauded by the academic, municipal, and public audience. Collaborative projects and an ensuing event ([makeCalgary: Healthy](#)) have maintained a close relationship, with current activities dedicated to makeCalgary: Equitable. These projects and events are strengthening the links between academics, the public, and governmental decision makers and contributing to the hotly debated topic of urban development in this rapidly growing city.

An important relationship has developed within the theme of Enhanced Health Systems Performance, to further the Institute's commitment to **patient-centered care**. Research funding agencies and health service providers have aligned their resources to encourage increased consideration of the patient voice throughout the pipeline that connects knowledge generation to policy. As mentioned above, the O'Brien

### Flames Health Training Camp

Concerned about Calgarians' overall state of health, Calgary Flames president and CEO Ken King proposed educating and motivating young and old to adopt a healthy lifestyle. Working towards that aim, the O'Brien Institute for Public Health, the Calgary Flames Foundation and community health experts envisioned, planned and hosted the first ever Flames Health Training Camp. The event, held in January 2015, grew to encompass health, nutrition and fitness experts from the University of Calgary's Faculty of Kinesiology, and the Libin Cardiovascular Institute of Alberta, as well as Mount Royal University and SAIT Polytechnic, and is the first of an annual initiative. The camp hosted approximately 500 adults and children, and revolved around fitness tests, health assessments, disease screening and free consultations designed to educate and motivate participants to make healthy life choices. The Institute's contribution to the camp's stated goal of making Calgary the healthiest city in Canada, is in keeping with its aim of working with the community, and cross-faculty and cross-organization experts, in order to achieve quantifiable societal impact.

Institute is well connected within the province's SUPPORT research infrastructure platforms, as part of the CIHR-led Strategy for Patient Oriented Research, and supports a program that immerses patients in health research. Most recently, the Institute has partnered with a group of dedicated citizen activists (Citizens Impacting Healthcare in Alberta) to revitalize an important discussion between citizens and government decision makers.

As mentioned above concerning the partnerships for research excellence countless significant **individual -level collaborations** are also extremely important to the specific societal impacts of members' research, and encouraged by the Institute. For example, links in to the Canadian Public Health Association, the Alberta Public Health Association, and the Health Quality Council of Alberta are facilitated by the leadership activities of O'Brien members within these important groups. Other partnerships include numerous disease-related charitable organizations, all relevant health system decision making bodies, and interest groups at local, national, and international levels. A few selected examples include Safe Kids Canada, the Canadian Hypertension Education Program, the Alberta First Nations Information Governance Centre, the Mental Health Commission of Canada, and the International Society of Advance Care Planning and End of Life Care.

## RECENT CONTRIBUTIONS TO PUBLIC DEBATE AND SOCIETAL IMPACT

Augmented financial and human resources and important partnerships are elements now combining to allow the O'Brien Institute to contribute more actively to important societal debates. For example, the Institute supported a [symposium on influenza immunization in the healthcare workplace](#) and followed this with an [opinion piece](#) in the national news outlet, The Globe and Mail. As an indication of uptake by the public, the Globe and Mail communication received 101 email shares, 84 Facebook shares, 16 tweets, 16 comments, 1 LinkedIn post, and 1 Google+ post.

The Institute's Scientific Director was invited as a 'truth teller' to deliver a [TEDx presentation](#), and used the opportunity to discuss why our health care system always seems to be in crisis. The Youtube video has had 936 views.

The most impactful activity to date, based on responses from the community, has been the [IMAGINE Project](#) launched early in 2015, in partnership with the above-mentioned group, Citizens Impacting Healthcare in Alberta. There have been 11,447 project page views of the IMAGINE Project website, and the event trended third on Twitter nationally on January 22. The project hashtag (#2015imagineproject) produced 1,108 individual tweets from 685 individual accounts. "**Stories of Impact**" on this topic and several others are included in the companion Research Impact Assessment.

The Institute's efforts at public outreach through social media channels have yielded promising metrics: 230% growth in the Twitter account in the last six months (from 181 to 423 followers); 148 Facebook followers in three months, with a reach of 11,478; and 2,731 views of the Google+ account since its October 31 launch.

## NEXT STEPS FOR THE O'BRIEN INSTITUTE FOR PUBLIC HEALTH

Thanks to the advice of valuable stakeholders including its International Scientific Advisory Group and its Strategic Advisory Board, the Institute has been progressing rapidly toward the goals outlined in the original Business Plan. Traditional academic metrics suggest a high ranking locally and regionally, and notable advances are being made in consolidating areas of societal impact with our stakeholder groups. Building upon these successes, the Institute will maintain its ambitious trajectory, with increased consideration toward:

- consolidating clusters of emerging research excellence into more cohesive powerhouses;
- gaining international visibility and recognition as a leading public health research organization; and
- identifying specific and important health issues and challenges of mutual interest, to address in partnership with our stakeholder.

# APPENDIX 1. TERMS OF REFERENCE FOR O'BRIEN INSTITUTE INTERNATIONAL SCIENTIFIC ADVISORY GROUP



## International Scientific Advisory Group Terms of Reference

### Purpose

The purpose of the International Scientific Advisory Group is to help define, assess, and provide strategic advice that will enhance the research and academic excellence of the O'Brien Institute for Public Health. The Group is advisory to the O'Brien Institute leadership and its Executive Committee.

### Roles and Responsibilities

The International Scientific Advisory Group shall:

- Contribute to the definition of appropriate measures of success for ongoing assessment and reporting purposes
- Advise the O'Brien Institute on setting and achieving research and academic goals and priorities
- Assess the progress of the O'Brien Institute toward meeting its research and academic goals
- Undertake external reviews of the O'Brien Institute's population health and health services research endeavours through periodic structured visits

### Group composition

Group membership shall be comprised of:

- An internationally respected leader in health services research
- An internationally respected leader in population health research
- An internationally respected researcher with applied public health experience
- An internationally respected scientific leader with innovation/commercialization expertise
- A representative from the Cumming School of Medicine's Office (ex officio and Chair)

Membership renewal or turnover will occur after two review cycles (approximately every four years). The O'Brien Institute's Administrative Director will serve as the secretariat for the Group.

### Review Process

- Two-day Group visit to occur approximately once every two years, after provision of advance documentation
- Structure of visit:
  - Day 1 – presentation to Group by O'Brien Institute leadership; meetings of Group with O'Brien Institute stakeholders
  - Day 2 – facilitated Group deliberation, preparation of written report with professional writing assistance provided
- Written or teleconference communications conducted as required in intervening years between visits

## APPENDIX 2. FUND DEVELOPMENT TOOLS SUPPORTING O'BRIEN INSTITUTE'S THREE THEMES



### Program in Health Systems Performance and Innovation

In its present state, our health care system is not sustainable with more than \$0.50 of every tax dollar currently directed towards health care. In addition, Canadians are aging. And over 60% of us have a chronic disease needing care. The O'Brien Institute's goal is to achieve transformational change in our health care system by studying and improving health care systems.

Research will focus on the study of health care systems in search of ways to make them better. Of particular focus is developing new approaches to care for the aging population with an increasing burden of chronic disease. For example:

- Medical care in the home
- Use of eHealth tools for better care
- Patient-centred care, focused on enhancing the patient/family care experience

We are seeking a community investment of \$5 million – your partnership will enable innovation in the organization, management and cost effectiveness of our health care system, in order to enhance the quality of life of all Canadians.

### Funding Opportunity

#### Areas for Support

- 1) Professional Scientists – highly skilled individuals to drive the research success of the Program in Health Systems Performance and Innovation. This group will include both senior and junior faculty and students.
- 2) Partnership and Policy Development – a pool of funding resources to support the cost of partnership development with government and public health agencies, and the costs of developing and propagating new policy.
- 3) Symposia, Events and Communications – strategic initiatives to disseminate knowledge and encourage collaboration.

An investment of \$5 million will allow operation of the Program in Health Systems Performance and Innovation for a period of ten years. The budget below illustrates costs over the first five years.

	Year 1	Year 2	Year 3	Year 4	Year 5	Total at Year 10
<b>Salary Funding - Professional Scientists</b>						
Program Lead	150,000	154,000	158,000	162,000	166,000	1,680,000
Early Career Scientist	100,000	103,000	106,000	109,000	112,000	1,137,000
Post-Doctoral Fellows (n=2)	110,000	112,000	114,000	116,000	118,000	1,190,000
<b>Partnership &amp; Policy Development</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Symposia, Events &amp; Communications</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Residual *</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Total</b>						5,507,000

\*a residual amount of approx \$50,000 will be directed into the above categories depending upon availability of funds. Rank salary amounts, interest returns within the fund, and other factors will influence the size of this residual amount, that will be estimated to be approx \$50K in any given year. will be estimated to be approx \$50K in any given year.

## APPENDIX 2. FUND DEVELOPMENT TOOLS SUPPORTING O'BRIEN INSTITUTE'S THREE THEMES (PART II)



### Program in Health and Wellness and Disease Prevention

The O'Brien Institute's Leading Edge Program in Population Health and Inequities focuses on the health of the entire population, taking into account the environmental, social, and economic factors that determine our health potential. Reducing gaps in health through improved health equity, especially for vulnerable children and youth, leads to a healthier population and benefit to all members of that population.

Research will focus on new ways to improve health and prevent disease in the general population. For example:

- New vaccination programs to prevent various diseases
- Food policies to prevent chronic conditions such as obesity, diabetes, hypertension
- The design of healthy cities to prevent the same chronic conditions

We are seeking a community investment of \$5 million – your partnership will foster research, policy development and public discussion that will help people in our community and across Canada. These new solutions will inform public policy for producing better health for all Canadians.

### Funding Opportunity

#### Areas for Support

- 1) Professional Scientists – highly skilled individuals to drive the research success of the Program in Population Health and Inequities. This group will include both senior and junior faculty and students.
- 2) Partnership and Policy Development – a pool of funding resources to support the cost of partnership development with government and public health agencies, and the costs of developing and propagating new policy.
- 3) Symposia, Events and Communications – strategic initiatives to disseminate knowledge and encourage collaboration.

An investment of \$5 million will allow operation of the Program in Population Health and Inequities for a period of ten years. The budget below illustrates costs over the first five years.

	Year 1	Year 2	Year 3	Year 4	Year 5	Total at Year 10
<b>Salary Funding - Professional Scientists</b>						
Program Lead	150,000	154,000	158,000	162,000	166,000	1,680,000
Early Career Scientist	100,000	103,000	106,000	109,000	112,000	1,137,000
Post-Doctoral Fellows (n=2)	110,000	112,000	114,000	116,000	118,000	1,190,000
<b>Partnership &amp; Policy Development</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Symposia, Events &amp; Communications</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Residual *</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Total</b>						5,507,000

\*a residual amount of approx \$50,000 will be directed into the above categories depending upon availability of funds. Rank salary amounts, interest returns within the fund, and other factors will influence the size of this residual amount, that will be estimated to be approx \$50K in any given year.

## APPENDIX 2. FUND DEVELOPMENT TOOLS SUPPORTING O'BRIEN INSTITUTE'S THREE THEMES (PART III)



### Program in Health Informatics

The O'Brien Institute's Leading Edge Program in Health Informatics focuses on the development and application of new data and information methods to improve both the health of our population and our health care system.

Researchers will study the development and application of novel smart analytic and big data tools for health. For example:

- Improving methods for harnessing and analyzing large health data sets to study patterns of disease
- Developing health information dashboards for health system planning, health providers and patients
- Supporting the O'Brien Institute World Health Organization Collaborating Centre in Health Information

We are seeking a community investment of \$5 million – your partnership will enable the interpretation of data critical to understanding our population's health. With this foundational information we will be better able to measure the impact of our efforts and create better health and better health care.

### Funding Opportunity

#### Areas for Support

- 1) Professional Scientists – highly skilled individuals to drive the research success of the Program in Health Informatics. This group will include both senior and junior faculty and students.
- 2) Partnership and Policy Development – a pool of funding resources to support the cost of partnership development with government and public health agencies, and the costs of developing and propagating new policy.
- 3) Symposia, Events and Communications – strategic initiatives to disseminate knowledge and encourage collaboration.

An investment of \$5 million will allow operation of the Program in Health Informatics for a period of ten years. The budget below illustrates costs over the first five years.

	Year 1	Year 2	Year 3	Year 4	Year 5	Total at Year 10
<b>Salary Funding - Professional Scientists</b>						
Program Lead	150,000	154,000	158,000	162,000	166,000	1,680,000
Early Career Scientist	100,000	103,000	106,000	109,000	112,000	1,137,000
Post-Doctoral Fellows (n=2)	110,000	112,000	114,000	116,000	118,000	1,190,000
<b>Partnership &amp; Policy Development</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Symposia, Events &amp; Communications</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Residual *</b>	50,000	50,000	50,000	50,000	50,000	500,000
<b>Total</b>						5,507,000

\*a residual amount of approx \$50,000 will be directed into the above categories depending upon availability of funds. Rank salary amounts, interest returns within the fund, and other factors will influence the size of this residual amount, that will be estimated to be approx \$50K in any given year.

# APPENDIX 3. O'BRIEN CATALYST FUNDING REQUEST TEMPLATE



## O'Brien Institute for Public Health Catalyst Funds – template for requests

1. **The O'Brien Institute's Catalyst Funds are allocated to help launch new projects or researchers, and to bridge existing projects when sustainable funding is pending.** Briefly describe (bullet points are acceptable throughout) the project, researcher or other opportunity for which Catalyst Funds are being requested:

2. **The O'Brien Institute's vision is "Better health and health care", and its Theme Areas are Enhanced Health Systems Performance, Improved Population Health, and Innovative Tools & Methods for Public Health** (see <https://obrieniph.ucalgary.ca/about-institute>). Briefly explain how the project or researcher will contribute to the vision and themes:

3. **Catalyst Funds are designed to stimulate more extensive, longer-term, externally funded research-related activities.** Outline what external funding opportunities will be pursued (for how much, and when) to continue the Catalyst-supported work:

4. **The O'Brien Institute aims to support research that builds on existing local strength and is societally important. (In some instances, Catalyst Funds may be used to anticipate a shift to increased societal importance, or impel an increase in local strength.)** Briefly justify the estimated position of the project or researcher within this grid:

